

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	A	Colour --
Number	1	
Letter	--	
Category	Unknown	
Taxonomical identification	--	Dimensions 33–42 µm (Cook, 2009); 22–42 µm in diameter (Cook, 2011)
TAXONOMY		
Kingdom	--	
Phylum	--	Shape Globose
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface With 1.5–4 µm long and closely spaced protuberances
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Cook 2009

Other articles Cook 2011

INTERPRETATION

In Cook 2009 and 2011, most represented during saline conditions and/or swamp development

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	A	Colour	--
Number	2		
Letter	--		
Category	Algae?		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	Algae?	Shape	Pyramid
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	Type 501 (<i>Zopfiella lunqvistii</i>)



NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY


First published in Cook 2009

Other articles Cook 2011

INTERPRETATION

In Cook 2009 and 2011, it is associated with variable lake levels

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	A	Colour	Dark brown
Number	3		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	Fungi	Shape	The axis of the spore is curved with the outline convex on one side and the other almost straight
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Triseptate, aporate
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Cook 2009

Other articles Cook 2011

INTERPRETATION

In Cook 2009 and 2011, it is present when lake levels are low

NPP DATABASE

IDENTIFICATION

Acronym A

Number 4

Letter --

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

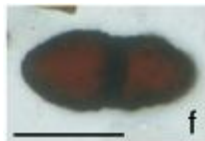
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Very dark brown

Dimensions 14–16×32–34 µm

Shape --

Wall/surface 1–1.5 µm long very fine hairs on the surface

Apertures Monoseptate ascospore

Other Inaperaturate

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Representation was not sufficient to make correlations with other taxa

BIBLIOGRAPHY

First published in Cook 2009

Other articles Cook 2011

NPP DATABASE

IDENTIFICATION

Acronym A

Number 5

Letter --

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Mid-light brown

Dimensions 16.5–19×41–44 µm

Shape The axis of the spore is curved with the outline convex on one side and the other almost straight

Wall/surface It has perforations at the apices

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Cook 2009

Other articles Cook 2011

NPP DATABASE

IDENTIFICATION

Acronym A

Number 6

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

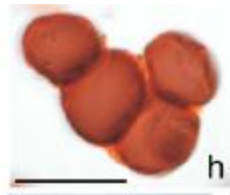
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions Range in size from 12.5–20.8 μm

Shape Cluster of globose cells

Wall/surface --

Apertures Inaperaturate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Its representation is not sufficiently large to allow correlations with other taxa to be made

BIBLIOGRAPHY

First published in Cook 2009

Other articles Cook 2011

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	A	Colour	Dark brown
Number	7		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	26–28 µm in total length
TAXONOMY			
Kingdom	Fungi	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Inaperaturate
		Other	--
		Similar to	--



NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Representation was not sufficient to make correlations with other taxa

BIBLIOGRAPHY

First published in Cook 2009

Other articles Cook 2011

NPP DATABASE

IDENTIFICATION

Acronym A

Number 8

Letter --

Category Plantae (wood)

**Taxonomical
identification** --

TAXONOMY

Kingdom Plantae

Phylum --

Class --

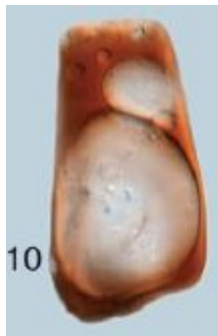
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Between 30 and 70 μm in length

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Micro-sized piece of wood with fungal growth

BIBLIOGRAPHY

First published in Cook 2009

Other articles Cook 2011

NPP DATABASE

IDENTIFICATION

Acronym A

Number 9

Letter --

Category Algae?

**Taxonomical
identification**

TAXONOMY

Kingdom Algae

Phylum --

Class --

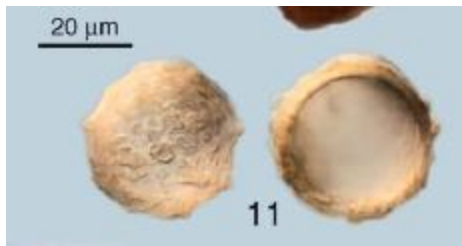
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 26–47 μm in diameter

Shape Globose; one end tapered

Wall/surface Thick walled

Apertures With pores at both ends

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found during saline lake conditions and/or swamp development.
Correlation with Types 209 and A10 ?

BIBLIOGRAPHY

First published in Cook 2009

Other articles Cook 2011

NPP DATABASE

IDENTIFICATION

Acronym A

Number 10

Letter --

Category Animalia (invertebrata)

**Taxonomical
identification** --

TAXONOMY

Kingdom Animalia

Phylum --

Class --

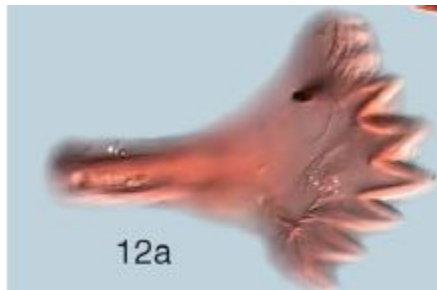
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to It is similar in appearance to Type 509, identified as the armament of the pupal tergite of the chironomid *Glyptotendipes* gr. *pallens* (van Geel et al., 1986)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found during saline lake conditions and/or swamp development

BIBLIOGRAPHY

First published in Cook 2009

Other articles Cook 2011

NPP DATABASE

IDENTIFICATION

Acronym A

Number 11

Letter --

Category Algae

Taxonomical --
identification

TAXONOMY

Kingdom Algae

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It is perhaps part of an invertebrate (Bas van Geel, pers. comm.)
(Cook 2009)

BIBLIOGRAPHY

First published in Cook 2009

Other articles Cook 2011

NPP DATABASE

IDENTIFICATION

Acronym A

Number 12

Letter --

Category Animalia (invertebrata)

**Taxonomical
identification** --

TAXONOMY

Kingdom Animalia

Phylum --

Class --

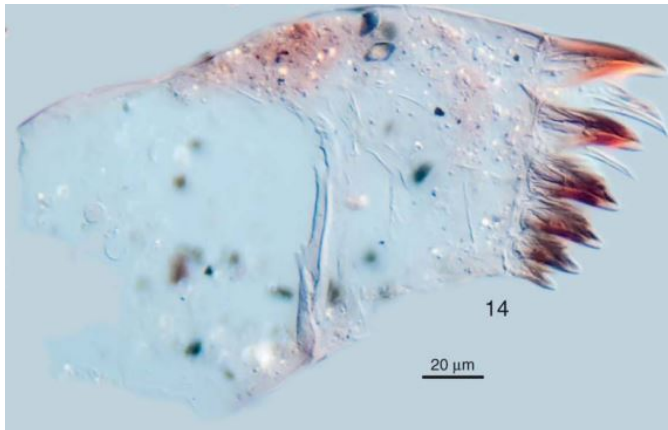
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Cook 2011

Other articles --

INTERPRETATION

It is perhaps a mandible/labia of an invertebrate. Its representation was not sufficient to show on the diagrams but largely coincided with remains of aquatic invertebrates.

NPP DATABASE

IDENTIFICATION

Acronym BRN

Number 1

Letter --

Category Algae?

**Taxonomical
identification** --

TAXONOMY

Kingdom Algae?

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 20 μm diameter

Shape Globose

Wall/surface With c. 1.5 μm long processes

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


--

BIBLIOGRAPHY

First published in Feeser 2009

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	BRN	Colour --
Number	2	
Letter	--	
Category	Fungi	
Taxonomical identification	--	Dimensions c. 18 x 37 µm
TAXONOMY		
Kingdom	Fungi	Shape Spindle-shaped
Phylum	--	
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


--

BIBLIOGRAPHY

First published in Feeser 2009

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	BRN	Colour	--
Number	3		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	Fungi	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
	Apertures		Truncated pore-like endings at one or both ends
	Other	--	
	Similar to	--	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It may derive from a dematiaceous hyphomycete (includes plant parasitic, saprophytic and soil fungi)

BIBLIOGRAPHY

First published in Feeser 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym BRN

Number 4

Letter --

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c. 29 x13 μ m

Shape With truncated base

Wall/surface --

Apertures An apical pore (c. 1.5 μ m)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The spore was probably originally two-celled (possibly a *Delitschia* species†)

BIBLIOGRAPHY

First published in Feeser 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym BRN

Number 5

Letter --

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c. 23x16 μm

Shape --

Wall/surface --

Apertures 2-3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This type probably derives from a dematiaceous hyphomycete

BIBLIOGRAPHY

First published in Feeser 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym BRN

Number 6

Letter --

Category Fungi

**Taxonomical
identification** *cf. Podospora*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

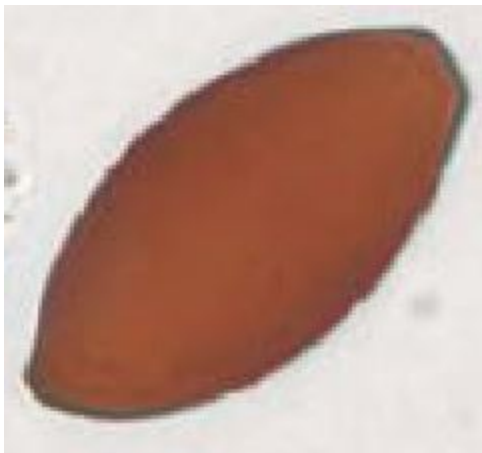
Order Sordariales

Family Lasiosphaeriaceae

Gender *Podospora*

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c. 23 x 45 µm

Shape Elliptical, non-septate with truncated base

Wall/surface --

Apertures --

Other A bent tip with a small pore

Similar to It resembles spores of *Podospora* (cf. Lundqvist 1972)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Feeser 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym BRN

Number 7

Letter --

Category Fungi

Taxonomical identification *cf. Shizothecium conicum*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

Order --

Family --

Gender *Schizothecium* ?

Species *conicum*?

Image



DESCRIPTION

Colour --

Dimensions c. 16 x 25 µm

Shape Elliptical

Wall/surface --

Apertures Non-septate

Other Protruding apical pore

Similar to It resembles spores of *S. conicum*, a common coprophilous species†

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Feeser 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym BRN

Number 8

Letter --

Category Fungi

Taxonomical identification *cf. Hypocorpa stercoraria*

TAXONOMY

Kingdom Fungi

Phylum --

Class --

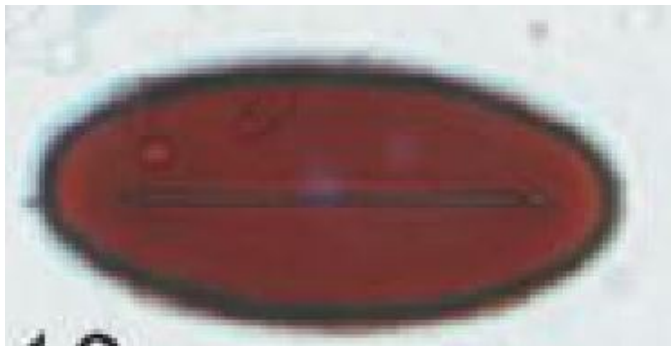
Order --

Family --

Gender *cf. Hypocorpa?*

Species *stercoraria?*

Image



DESCRIPTION

Colour Dark brown

Dimensions c. 45 x 2 µm

Shape Ellipsoidal with longitudinal slit

Wall/surface --

Apertures --

Other --

Similar to It resembles *H. stercoraria*, a Xylariales fungus that produces perithecia in stromata embedded in dung†

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Feeser 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym BRN

Number 9

Letter --

Category Fungi

Taxonomical identification *cf. Podospora/Cercophora*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Lasiosphaeriaceae

Gender *cf. Podospora/Cercophora?*

Species

Image



DESCRIPTION

Colour Brown

Dimensions c. 12 x 20 µm

Shape Ellipsoidal, truncated at one end

Wall/surface --

Apertures A slightly subapical pore opposite

Other --

Similar to It resembles spores of *Podospora* and *Cercophora* (cf. Lundqvist 1972)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Feeser 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 1

Letter --

Category Plantae (tracheids (or fragments) of vascular

**Taxonomical
identification** --

TAXONOMY

Kingdom Planta

Phylum --

Class --

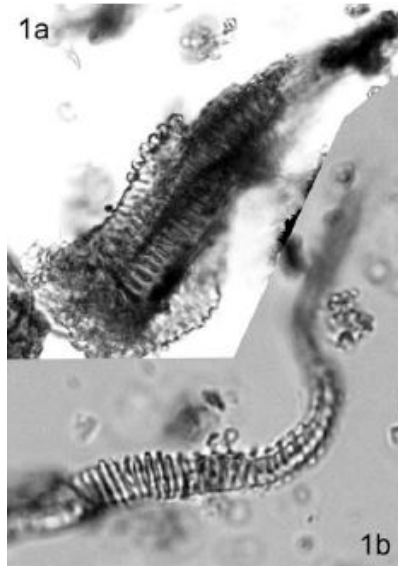
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to brown

Dimensions 10–70 μm long, 4–8 μm diameter

Shape Elongated rectangular

Wall/surface --

Apertures --

Other Includes two tracheid types: a) consisting of continuous rings (abundantly found in Cyperaceae peat, pers. comm. Michaelis 2005), b) with pits, often with a wider part (20 μm), possibly from ferns (Grosse-Brauckmann, 1972)

Similar to

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

Separation between the subtypes only possible in well-preserved material. Frequent in surface samples. Scarce in dead wood samples, scarce to numerous in litter and moss samples from hummocks, and numerous to abundant in water samples. In fossil samples also frequent, mostly scarce to recurrent, but abundant in Alder wood peat (Barthelmes et al., 2006-this volume). Very resistant to decomposition. Indicates presence of cormophytes, but no distinct vegetation type

Other articles Prager 2012; Barthelmes 2009; Barthelmes 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 2

Letter --

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

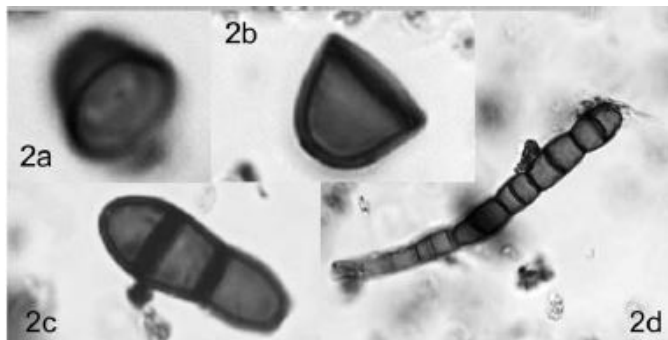
Order Mytilinidiales

Family Mytilinidiaceae

Gender *Taenioella*

Species *Taenioella alta*

Image



DESCRIPTION

Colour Light brown

Dimensions 4–8×6–9 µm

Shape Single cells or chains (>10 cells), cells frustrum-shaped or hemispherical

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

Other articles Barthelmes 2012

INTERPRETATION

In surface samples scarce to recurrent in selected litter samples. In fossil samples abundant in highly decomposed Alder wood peat (Barthelmes et al., 2006-this volume). Very resistant to decomposition. Probably indicative of Alder carr.). *Taeniolella* species are known as plant-associated fungi (Ellis, 1971, 1976) but also live as soil fungi in the rhizosphere (Watanabe, 1992; Prager et al., 2006)

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 3

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Diaporthales

Family Melanconidaceae

Gender *Melanconis*

Species

Image



DESCRIPTION

Colour Bright yellowish brown

Dimensions 10–12×6–7 µm

Shape Compact 'eight-shaped' or constricted elliptic or elliptic with upper part 90° contorted to the lower

Wall/surface Wall thinner, psilate

Apertures --

Other --

Similar to Resembles conidia of the Melanconium state of *Melanconis alni* (Tul and C. Tul) (cf. Ellis and Ellis, 1997)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012; Barthelmes 2009; 2012

INTERPRETATION

Some NPPs similar to EMA-3 have one end tapering into a protruding pore. These specimen were not included in EMA-3. Frequent in surface samples. Mostly recurrent to numerous with higher percentages in samples from wetter habitats. In fossil samples present in less decomposed peat of wet Alder carr (Barthelmes et al., 2006-this volume), therefore probably indicative of wet Alder carr. Distribution in surface and fossil samples similar to EMA-4. As both types are also similar in form, they probably are ecologically and taxonomically related. *Melanconis alni* is a fungus common on living and dead twigs and leaves of *Alnus glutinosa* (Sieber et al., 1991; Ellis and Ellis, 1997). EMA-3 recently indicates presence of alder and occurred in core HBG predominantly in alder carrs. Can be of extralocal origin. Indicates alder (also root wood?)

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 4

Letter --

Category Fungi (immature conidium)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

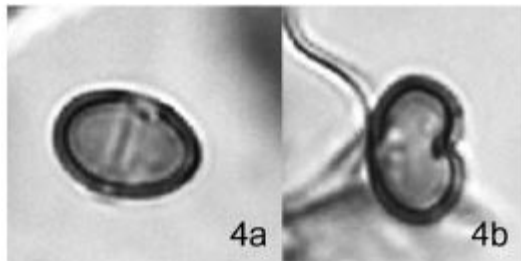
Order Diaporthales

Family Melanconidaceae

Gender *Melanconis*?

Species --

Image



DESCRIPTION

Colour Bright yellowish brown

Dimensions 10–11×6 µm

Shape Kidney-shaped, up to 4 µm notched on one side (may resemble a Septum)

Wall/surface Psilate

Apertures --

Other --

Similar to Resembles EMA-3

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

EMA-4 possibly an immature state of EMA-3. Frequent in surface samples. Abundance varies scarce to abundant with higher percentages in samples from wetter habitats. In fossil samples present in peat of wet Alder carr and Willow shrub (Barthelmes et al., 2006-this volume)

Other articles Prager 2012; Barthelmes, 2009; 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 5

Letter --

Category Mineral? (no phytolits)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

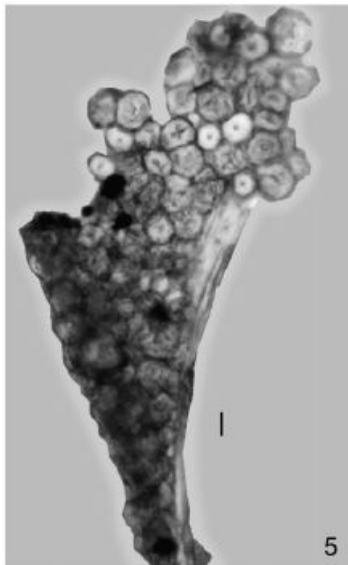
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light metallic green

Dimensions Diameter varying (10– 20 μm)

Shape Uneven lenticular, centre often starlike lacerated, may form groups

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
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BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

Common in surface samples. Scarce to recurrent, exceptionally abundant in one water sample. Continuously present in fossil pollen samples (Barthelmes et al., 2006-this volume). Very resistant to decomposition

Other articles Prager 2012; Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 6

Letter

Category Plantae? (wood?)

**Taxonomical
identification**

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown to dark brown

Dimensions Diameter: 10–18 µm

Shape Globose, circular to elliptic areas on surface (corroded?)

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

Common in surface samples. Scarce in dead wood samples, scarce to recurrent in water and litter samples, scarce to numerous in moss samples from hummocks. In fossil samples frequent in highly decomposed Alder wood peat. Mainly scarce to recurrent; numerous in some litter and hummock moss samples, occurs also in dead wood of birch

Other articles Prager 2012; Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 7

Letter --

Category Plantae? (wood?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

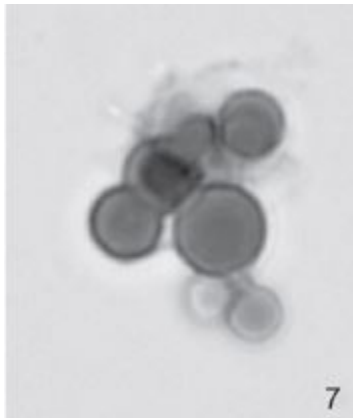
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Metallic brown

Dimensions Diameter: 3–12 μm (lenticular); 6–10 \times 5–8 μm (bean-shaped)

Shape Lenticular to bean-shaped, often in pairs or groups

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

Always abundant with low percentages in samples from wet habitats, exceptionally abundant in one dead wood sample. Frequent also in fossil samples, most abundant in highly decomposed Alder wood peat (Barthelmes et al., 2006-this volume). Very resistant to decomposition. Well dispersed. Low values can also be of extralocal origin

Other articles Prager 2012; Barthelmes 2009; 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 8

Letter

Category Plantae? (wood?)

**Taxonomical
identification**

TAXONOMY

Kingdom --

Phylum --

Class --

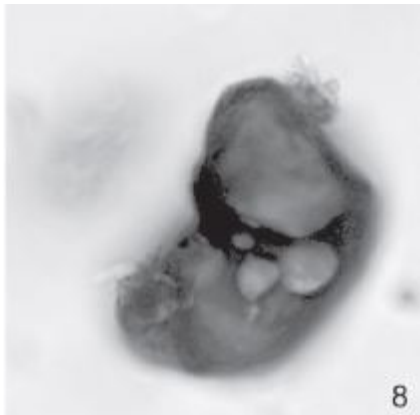
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Bright to dark brown (darker in fossil samples, lighter in surface samples)

Dimensions Globose (10–40 µm), ellipsoid or pyriform (8–23×15–40 µm)

Shape Globose to ellipsoid or pyriform. Bubbles of varying size, shape, and number in middle wall layer

Wall/surface Psilate

Apertures --

Other --

Similar to cf. EMA-6

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

Typical aspect of lignicolous fungi in cells of infected wood; bubbles result from decomposition of lignin (Schwarze et al., 2000). Frequent in surface samples. Mostly scarce to numerous, but abundant in dead wood samples. In fossil samples abundant in highly decomposed Alder wood peat (Barthelmes et al., 2006-this volume). Very resistant to decomposition. Indicative of wood

Other articles Prager 2012; Barthelmes 2009; 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 9

Letter --

Category Highly corroded hardwood periderm

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

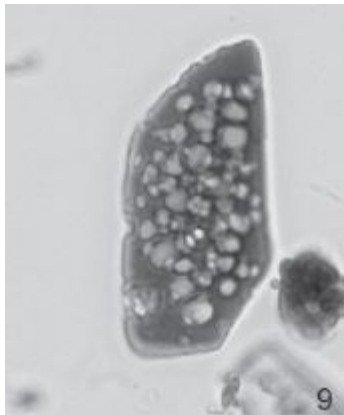
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Bright yellow to brown

Dimensions Circular (12–30 µm), elliptic-angular (20–50×12–25 µm)

Shape Uneven planar shaped, circular to elliptic-angular, numerous tiny pits

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

Frequent in surface samples. Abundance varies strongly; mostly scarce to numerous, but numerous to abundant in dead wood samples. In fossil samples abundant in highly decomposed Alder wood peat (Barthelmes et al., 2006-this volume). Very resistant to decomposition. Probably indicative of Alder carr

Other articles Prager 2012; Barthelmes 2009; 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 10

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 13–22×8–13 µm

Shape Egg-shaped, elliptic to ovoid, circular to slightly elliptic in cross section

Wall/surface Psilate or slightly scabrate/verrucate

Apertures Monoseptate, septum with pore

Other Smaller segment hyaline, crinkled, and psilate

Similar to Small spores resemble conidia of *Triadelphina uniseptata* (Berk. And Broome) P.M. Kirk, a plurivorous wood and bark fungus, that is mostly found on dead stems of *Rubus fruticosus* (Ellis and Ellis, 1997)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

Other articles --

INTERPRETATION

Occasional in surface samples. Always scarce, highest percentages in dead wood samples. In fossil samples numerous in highly decomposed Alder wood peat (Barthelmes et al., 2006-this volume). Very resistant to decomposition. Probably indicative of wood

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 11

Letter --

Category Plantae (wood)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

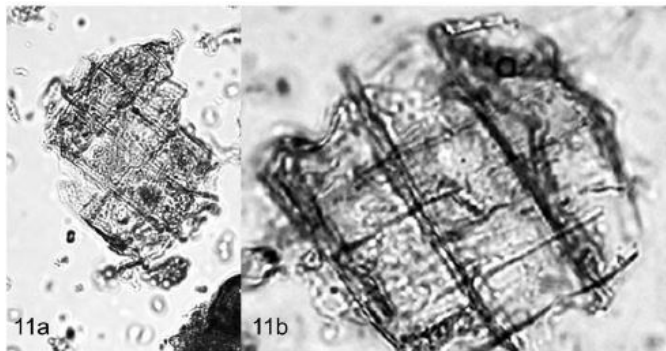
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 44–52×44–69 µm

Shape Planar quadrangular to rectangular, grid like

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Frequent in surface samples. Abundance varies markedly, mostly scarce to numerous, but numerous to abundant in dead wood samples. In fossil samples numerous in peat of wet Alder carr (Barthelmes et al., 2006-this volume). Indicative of wet Alder carr

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012; Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 12

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 21–28×5–8 µm

Shape Rectangular elongated, ends obviously detached

Wall/surface Wall (1 µm) thicker than septum, psilate

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012; Barthelmes 2009

INTERPRETATION

Cf. thalloconidium of e.g. *Sporoschisma* or *Chalara*, or hyphae (Prager et al., 2006), might indicate carr vegetation (Prager et al., subm.). Common in surface samples. Mostly scarce, absent in dead wood samples. In fossil samples present in peat of wet Alder carr and sedge fen (Barthelmes et al., 2006- this volume). Indicative of wet Alder carr

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 13

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

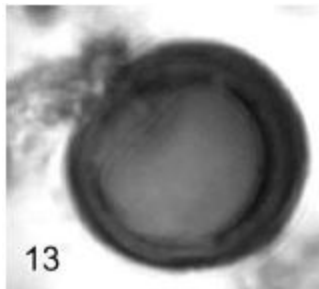
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions c.8–13 µm

Shape Psilate, thickness of wall decreases towards a small thinner area of the wall

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION

--

BIBLIOGRAPHY

First published in Prager 2006

Other articles Barthelmes 2009; 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 14

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

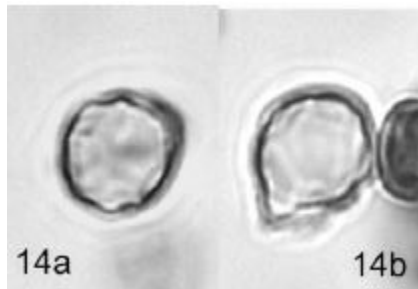
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to light yellow

Dimensions c.6×8 μm

Shape Pyriform, pore at tapering end

Wall/surface Surface faintly comb-like

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2006

Other articles Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 15

Letter --

Category Plantae (fragment of perforation plate in

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

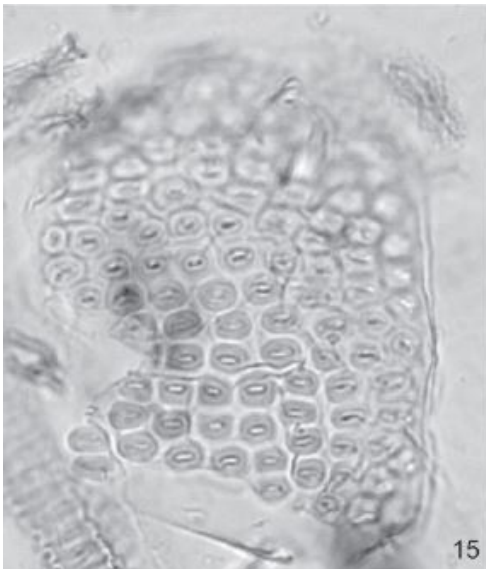
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline, with light green rings/pits (4–6 µm)

Dimensions 20–56×20–56 µm

Shape Planar with irregular outline

Wall/surface --

Apertures --

Other Found either segregated or attached to scalariform part of perforation plate

Similar to

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

Occasional in surface samples. Scarce but recurrent, mostly restricted to dead wood samples. In fossil samples frequent, scarce to recurrent, highest percentages in highly decomposed Alder wood peat (Barthelmes et al., 2006-this volume). Very resistant to decomposition. Indicative of wood

Other articles Prager 2012; Barthelmes 2009; 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 16

Letter --

Category Hardwood periderm of trees, e.g. Alnus,

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

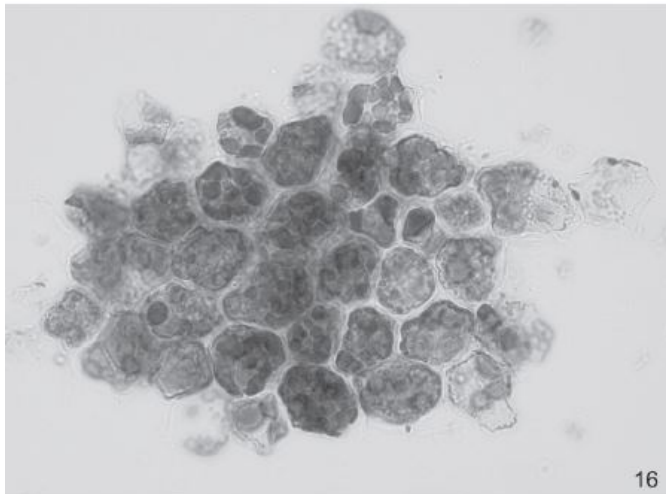
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light yellow to dark brown

Dimensions 50–100×50–100 µm

Shape One- to multi-layered, planar, shape variable depending on number of cell layers, cells triangular to hexagonal (10–30×10–20 µm)

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes, 2006

Other articles Barthelmes 2009, 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 17

Letter --

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

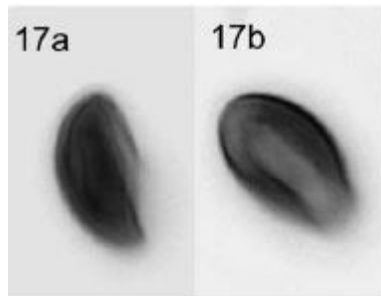
Order --

Family Sphaericaceae

Gender *cf. Xylaria*

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c.8×5 µm

Shape Bean-shaped to ellipsoid

Wall/surface Psilate, one side with longitudinal furrow

Apertures --

Other --

Similar to Similar to EMA-24, but much smaller

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

cf. Xylaria, a genus growing on dead bark and wood of deciduous trees (cf. Breitenbach and Kränzlin, 1981)

BIBLIOGRAPHY

First published in Barthelmes 2006

Other articles Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 18

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

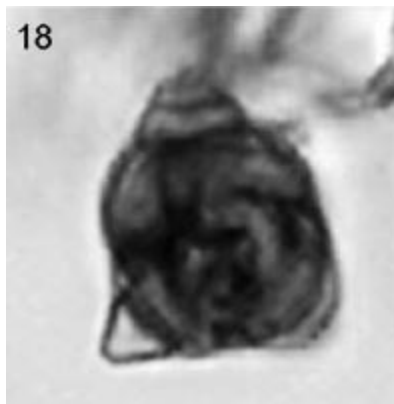
Order --

Family --

Gender *Oncopodiella*

Species *trigonella*

Image



DESCRIPTION

Colour Bright dark brown

Dimensions Central part (14–16 µm)

Shape Globose to ellipsoid, muriform with 15–20 cells, bright dark brown, 2–3 hyaline and triangular obtuse tips

Wall/surface Psilate

Apertures --

Other Remnants of conidiophore might be attached

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Spore of *Oncopodiella trigonella* (Sacc.) Rifai, a species described from Hedera and rotten wood (cf. Ellis and Ellis, 1997)

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 19

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

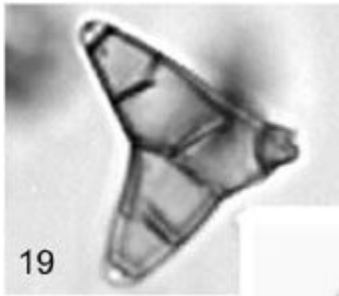
Order --

Family --

Gender *Diplocladiella*

Species *scalaroides*

Image



DESCRIPTION

Colour Hyaline to pale brown

Dimensions Diameter: 20 µm; each arm: 11 µm long

Shape Triangular, two-horned, psilate

Wall/surface Psilate

Apertures 1–2-septate

Other Tips hyaline

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Barthelmes 2006

Other articles Barthelmes 2009

INTERPRETATION

Conidia of *Diplocladiella scalaroides* Arnaud (Barthelmes et al., 2006), occurs in one recent wet alder carr with eutroph and subneutral site conditions and a topogenous water regime (Prager et al., in prep.)

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 20

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

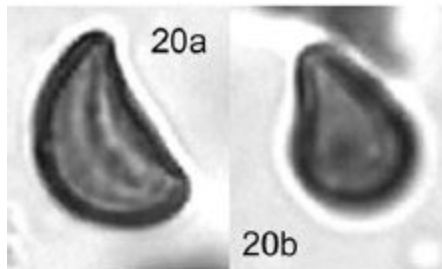
Order --

Family --

Gender *Arthrinium*

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 9–11×6–7 µm

Shape Bean-shaped with tapering ends

Wall/surface Psilate

Apertures --

Other One longitudinal hyaline stripe or rupture

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The genus *Arthriunium* includes many species on different substrata (Ellis and Ellis, 1997)

BIBLIOGRAPHY

First published in Barthelmes 2006

Other articles

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 21

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

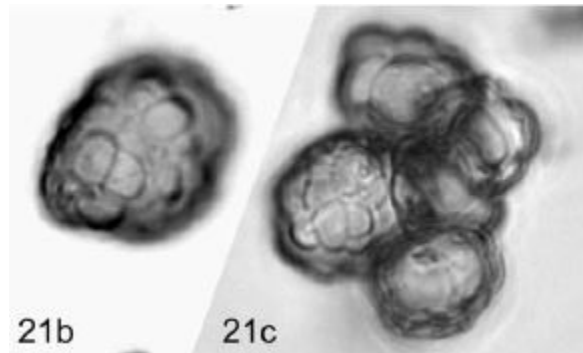
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellowish-hyaline

Dimensions Diameter: 14 μm , size of surface structures 3–5 μm

Shape Pyriform, sometimes in clumps of 3–10

Wall/surface Surface honeycomb-shaped

Apertures End with one pore (diameter: 1 μm)

Other Acuminate end

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2006

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 22

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light yellowish green

Dimensions About 14 μm ; central part, 6 μm

Shape Thin lenticular, circular \times elliptic acuminate

Wall/surface Psilate, central part scabrate

Apertures --

Other Scarce to recurrent in dead wood and litter samples. Probably indicative of wood

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Prager 2006

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 23

Letter --

Category Fungi?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

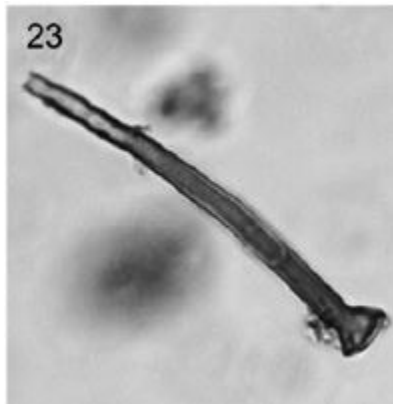
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Filiform part 72–89×3–4 µm, funnel 9– 12 µm×6 µm

Shape Filiform, one end detached, other end funnel-shaped broadened

Wall/surface --

Apertures --

Other --

Similar to Similar to, but 2 times thinner and up to 4 times shorter than TYPE 96A of van Geel (1978)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Unknown origin, possibly fungal remain (conidiophores or setae following van Geel, 1978 or fruit-body appendix of e.g. *Phyllactinia* spec. (A. Aptroot, pers. comm., 2005)), or plant remain (hair of rhizoids). Might indicate open vegetation

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012; Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 24

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycetes

Class --

Order Xylariales

Family Sphaericaceae

Gender *Hypoxylon*

Species --

Image



DESCRIPTION

Colour Greyish brown

Dimensions c.19× 6 µm. In Prager 2012 some individuals larger (18–22×6–7 µm) than proposed in Prager et al. (2006)

Shape Bean-shaped

Wall/surface Psilate

Apertures --

Other EMA- 24 has only a short (6 µm) and inconspicuous germ slit

Similar to Only slightly different morphology as EMA-64; it might be reasonable to merge these types to one morphotype. Might also include spores of fungal genus *Rosellinia* (IBB-31, Montoya et al., 2010), which however. also often grow on wood and bark (Ellis and Ellis. 1997).

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

Ascospore of cf. *Hypoxylon* (Prager et al., 2006). This genus comprises wood-decomposing and endophytic species (Tang et al., 2009; Unterseher and Schnittler, 2010). Present also in birch carr, scarce. Might indicate presence of alder (also roots?)

Other articles Prager 2012; Barthelmes, 2009; 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 25

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

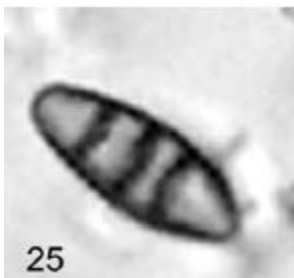
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 11–14×4.3–4.7 µm

Shape Elongated ellipsoid, slightly constricted at septa

Wall/surface Psilate

Apertures 3-septate

Other --

Similar to Resembles ascospores of Discomycetes, e.g. of *Cryptodiscus pallidus* that grows on wood and bark (cf. Ellis and Ellis, 1997, who call the species uncommon)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

In present study common in alder carr, scarce to abundant, highest values in hummock mosses and dead wood of alder. Rare in open fen. Indicates presence of alder (also roots?)

Other articles Prager 2012; Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 26

Letter --

Category Fungi (conidium of dematiaceous

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Deuteromycota

Class Hyphomycetes

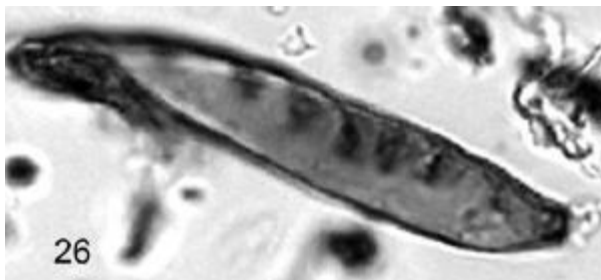
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale brown

Dimensions 53– 67 μm \times 11 μm

Shape Elongated, one end conically truncated, the other tapering

Wall/surface Psilate, surface on one side with transversal furrows, possibly continuing as an inner structure

Apertures Truncated end with large opening (diameter: 3.5 μm),

Other Highest values in samples from hummock mosses and dead wood, EMA-26 is thus either produced on or effectively caught by mosses. Possibly indicator for alder carr vegetation

Similar to EMA-26 is similar to *Pluricellaesporites* sp. (Jarzen and Elsik, 1986) but smaller and also resembles *Corynespora*, *Exosporium*, and *Drechslera* species (cf. Ellis, 1971; Ellis and Ellis, 1997). A. Aptroot (pers. comm.. 2005) questions the assignment to fungi

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 27

Letter --

Category Amoebozoa/fungi

Taxonomical identification *Myxomycetes or multicelled conidium of*

TAXONOMY

Kingdom .../Fungi

Phylum Myxomycota/Deuteromycota

Class .../Hyphomycetes

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Middle brown

Dimensions c.6–8 μm

Shape Single cells globose often in pairs or groups

Wall/surface Slightly verrucate

Apertures --

Other Prager 2012 found EMA-27B: . Single cells globose, 10–14 μm in diameter, wall about 1 μm thick, verrucate with wide but short warts, brown, forms often clusters of two or three cells

Similar to TYPE 38 (van Geel, 1972, 1978), but smaller (TYPE 38: 15–20 μm)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Clear indicator for above ground alder remains, thus for on-site presence of alder

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012; Barthelmes 2009; 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 28

Letter --

Category Fungi (basidiospores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 16–20(–23)×6–9 µm

Shape Fusiform, one side more curved than the other

Wall/surface Psilate

Apertures Both ends with pore (0.3 µm)

Other Scarce, largely restricted to water samples

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Prager 2006

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 29

Letter --

Category Fungi (spores, conidia?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

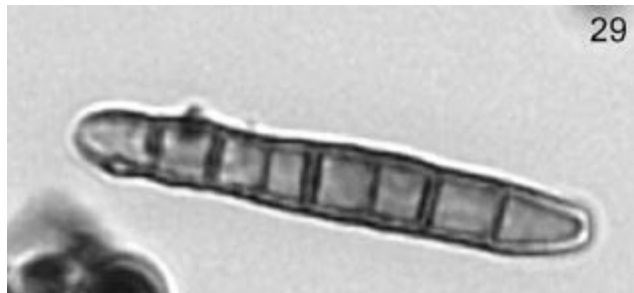
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 23–32×3 µm

Shape Straightly elongated, single cells mostly quadrangular, sometimes rectangular

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Similar distribution to EMA-30

BIBLIOGRAPHY

First published in Prager 2006

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 30

Letter --

Category Fungi (conidium of dematiaceous

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Deuteromycota

Class Hyphomycetes

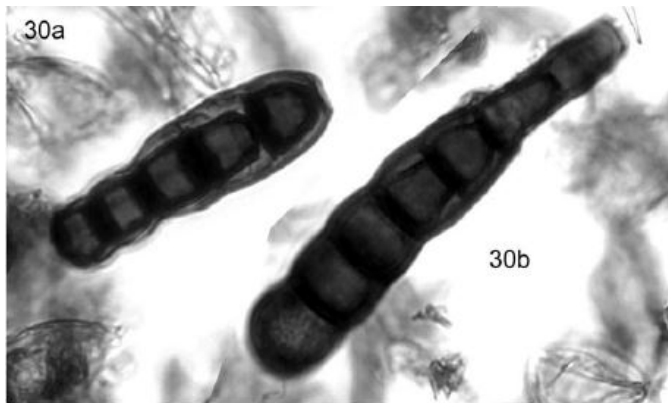
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 42–73×8–13 µm

Shape Elongated, one end rounded, the other end a truncated cone (often detached after the 5th septum)

Wall/surface Scabrate, wall might appear partially thickened over two or three cells

Apertures 4–7-septate, each septum with a pore

Other --

Similar to Quite similar to immatured conidia of *Exosporium tiliae* Link ex Schlechtend. as described and figured in Yurchenko (2001), but postulated distinct black scar missing in EMA-30, recent records only known from *Tilia cordata* (Yurchenko. 2001)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012

INTERPRETATION

M. Schnittler (pers. comm., 2005) proposes it to be a casing or cover as a remain of a hypha, in which a conidium developed. A. Aptroot (pers. comm., 2005) supports the identification as a fungal remain, but doubts, it to be a spore. Rare in surface samples and restricted to the driest site, scarce in hummock-mosses and numerous in dead wood samples. Similarly distributed but less abundant than EMA-29

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 31

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

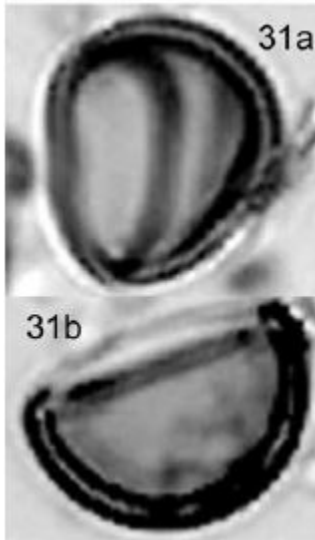
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Bright brown

Dimensions 10–17 μm

Shape Hemispherical to bowl-shaped

Wall/surface Psilate, convex wall (“outside”) constantly $\sim 1.3 \mu\text{m}$ thick, planar and concave wall (“inside”) thinner,

Apertures No pores observed

Other EMA 31A: fragment of a conidium probably of *Thielaviopsis basicola* (Berk. and Br.) Ferraris (det. A. Aptroot), growing on rotten roots, e.g. of *Daucus* (Ellis and Ellis, 1997). In present study occasional in alder carr samples, mainly scarce. numerous in alder dead wood. Rare in

Similar to

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Probably indicative of wood

BIBLIOGRAPHY

First published in Prager 2006

Other articles Barthelmes 2009; Prager 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 32

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

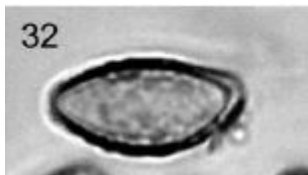
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to pale brown

Dimensions c.10×5 µm

Shape Elliptic lenticular

Wall/surface --

Apertures Pore at one end

Other --

Similar to Type 306 (van Geel et al., 1980/ 81) but smaller (TYPE 306: (11–) 13–20×7–10 µm)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012

INTERPRETATION

Mostly scarce, recurrent to abundant in alder litter and once in sedge litter. EMA-32 obviously produced by a fungus on tree (sedge?) litter in alder carrs. Clear indicator for on site presence of alder

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 33

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

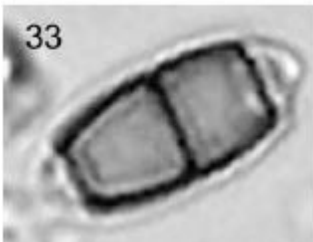
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Middle cells dark brown, long, terminal cells hyaline

Dimensions 15–18×7–8 µm, middle cells dark brown, 5–7 µm long and terminal cells 1.5 µm long

Shape Ellipsoid, truncated conical, often detached

Wall/surface Psilate

Apertures 3-septate

Other --

Similar to Similar to *Chaetosphaerella fusispora*, a species described from dead branches of *Acer pseudoplatanus* (Ellis and Ellis, 1997). Similar also to Type 121 (Pals et al., 1980), and Type 16C (van Geel, 1978), but both Type 121 (29–36×9–13 µm excl. hyaline ends) and Type 16C

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Rare in surface samples. Mostly scarce, numerous in one dead wood sample.

BIBLIOGRAPHY

First published in Prager 2006

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 34

Letter --

Category Unknown (fungi or decomposed wood?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

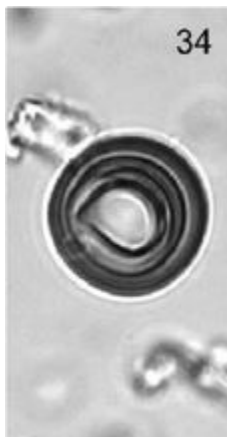
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Bright brown

Dimensions Outside 13–17 μm , inside 4.5-6.5 μm , height of “ring” 4–6 μm , wall 1–1.5 μm thick

Shape Erythrocyte-shaped (= ring-like structure outside with planar and thin-walled structure inside)

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occasional in surface samples. Mostly scarce, numerous in one dead wood sample

BIBLIOGRAPHY

First published in Prager 2006

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 35

Letter --

Category Animalia (invertebratae remain (e.g. elytra of

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

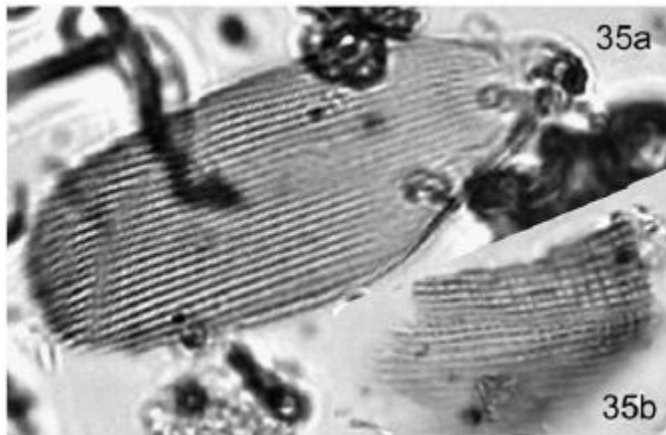
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 30–63×20–24 µm

Shape Ovoid and planar. Proximal end conical, often with remaining hyaline tissue

Wall/surface Striate, distance between striae 1 µm, striae abruptly concurring at proximal end and exceeding the distal end

Apertures --

Other In present study frequent in alder and birch carr, scarce to abundant. Highest values in dead wood and hummock mosses. On open sites occasional, scarce. Indicates presence of trees (alder, birch?) (also roots?)

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012; Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 36

Letter --

Category Fungi (conidia)

Taxonomical identification *Excipularia fusispora* (Berk. & Broome)?

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

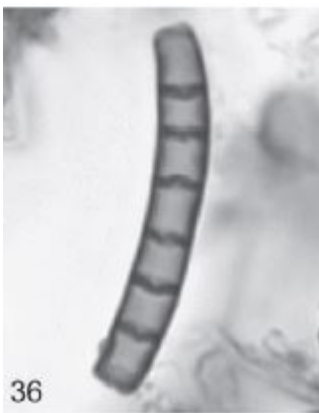
Order Incertae sedis

Family --

Gender *Excipularia*

Species *fusispora*

Image



DESCRIPTION

Colour Hyaline

Dimensions Whole spore 17–32×3–5 µm with constant diameter over the whole spore length. Single cells: 3–5 µm long

Shape Elongated and slightly curved, appearing broken on both ends, single cells quadrangular

Wall/surface Psilate

Apertures 5– 8-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012; Barthelmes 2009; 2012

INTERPRETATION

Sacc. *E. fusispora* is known from decayed wood and bark of deciduous trees (e.g. *Alnus glutinosa*, *Populus tremula* and *Salix cinerea*; Yurchenko, 2001). Recorded in peat cores (Barthelmes, 2009; Barthelmes et al., 2012–this issue). In present study in all alder carr samples, scarce to abundant; highest values in dead wood and alder litter. Outside alder carr rare, scarce. Indicator for presence of alder (also roots?). EMA-36 and EMA-38 are possibly conidia of the same species. Whether the production of either form is related to specific site conditions is unknown

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 37

Letter --

Category Fungi (conidia?)

Taxonomical identification *Fungi Imperfecti* (pers. comm., M. Scholler,

TAXONOMY

Kingdom Fungi

Phylum --

Class --

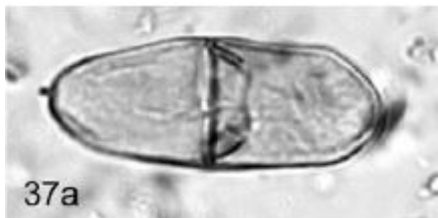
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 30–35×10–14 µm

Shape Ellipsoid, circular to slightly elliptic in cross-section, slightly constricted at septum, occasionally with short inner walls reaching from margin of septum into the cells

Wall/surface Slightly scabrate

Apertures Monoseptate, pore in septum

Other Germinating tube occasional present at side of one cell

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012

INTERPRETATION

In present study frequent in birch and alder carr, scarce to recurrent.
Rare in open sites. Indicator for presence of birch or alder carr
vegetation (also roots?)

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 38

Letter --

Category Fungi (conidia)

Taxonomical identification *Excipularia fusispora* (Berk. & Broome)

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

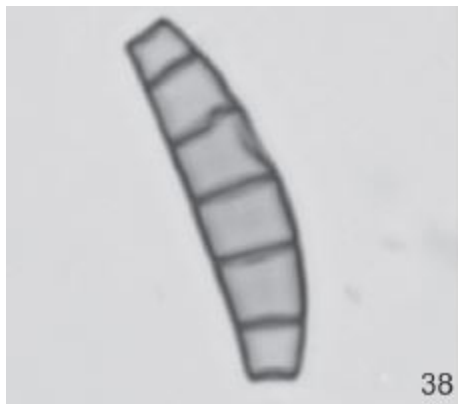
Order Incertae sedis

Family --

Gender *Excipularia*

Species *fusispora*

Image



DESCRIPTION

Colour Hyaline to pale brown

Dimensions 22–23 μm long, 5–6 μm in central part, 3–4 μm at ends

Shape Cylindrical, slightly conical towards ends, slightly curved

Wall/surface Psilate

Apertures 5-septate, 1 pore per septum

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

Sacc. *E. fusispora* is known from decayed wood and bark of deciduous trees (e.g. *Alnus glutinosa*, *Populus tremula* and *Salix cinerea*; Yurchenko, 2001). Recorded in peat cores (Barthelmes, 2009; Barthelmes et al., 2012—this issue). In present study frequent in wet and very wet alder carr, outside rare. Mostly scarce to recurrent, one exceptionally high value in dead wood of alder. Indicates presence of alder carr (also roots?)

Other articles Prager 2012; Barthelmes 2009; 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 39

Letter --

Category Fungi (ascospores?)

Taxonomical identification *Phaeosphaeria spec*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Phaeosphaeriaceae

Gender *Phaeosphaeria*

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 40–45×max. 6– 9 µm

Shape Horn-shaped, dorsally more constricted at septa than ventrally

Wall/surface Psilate. Dorsal wall thick, ventral thinner or dissolved

Apertures 5-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

Recorded in peat cores (Barthelmes, 2009; Barthelmes et al., 2012–this issue). In present study in all vegetation types (except birch carr) occasional, scarce to numerous. Most abundant in sedge and reed litter. Possibly indicates presence of sedges and grasses in forested as well as in open vegetation. Identification to species level could allow sharper indication

Other articles Prager 2012; Barthelmes 2009; 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 40

Letter --

Category Fungi (ascospore?)

Taxonomical identification cf. *Atopospora betulina* (Fries) Petrak,

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

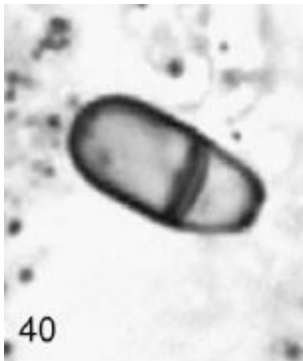
Order Pleosporales

Family Venturiaceae

Gender *Atopospora*

Species *betulina*

Image



DESCRIPTION

Colour --

Dimensions 11–14×5–7 µm, shorter cell narrower (3–5 µm)

Shape Egg-shaped, ovoid, circular to slightly elliptic in cross-section, heterocellular

Wall/surface --

Apertures Monoporate, pore sometimes protruding. monoseptate, pore in septum

Other --

Similar to Resembles ascospores of *Atopospora*, *Anisogramma*, and *Rhizodiscina lignyota* (cf. Ellis and Ellis, 1997)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012

INTERPRETATION

Frequent in surface samples. Mostly scarce to recurrent, exceptionally abundant in one dead wood sample. Probably indicative of wood. In present study common in alder carr, mostly scarce to recurrent. Exceptionally high values in dead wood of alder and birch. Outside alder carr rare, scarce. Indicates presence of trees (alder, birch?) in eutrophic carr conditions (also roots?)

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 41

Letter --

Category Fungi (ascospores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Psilate and light brown

Dimensions 22–30×6–8 µm

Shape Elongated beanshaped, circular to slightly elliptic in cross-section, constricted at septa, terminal cells conically rounded central cells trapezoid (6 µm long). terminal cells somewhat paler, pores not observed

Wall/surface --

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

Resembles spores of *Phaeosphaeria*- species (Ellis and Ellis, 1997, pers. comm., A. Aptroot 2005). Rare in surface samples. Scarce, mostly restricted to water samples

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 42

Letter

Category Fungi (basidiospores, spores?)

**Taxonomical
identification** *Fungi Imperfecti*

TAXONOMY

Kingdom --

Phylum --

Class --

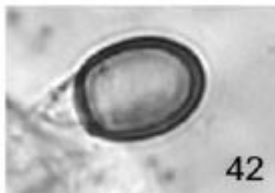
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 8– 10×5–6 µm

Shape Heterocellular: main cell egg-shaped, circular in cross-section, second cell a hyaline and conical cap (2–4.5 µm long), cap often detached, spore then appears nonseptate, but often with frayed and hyaline remnants at the former attaching place

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012

INTERPRETATION

In present study common in alder carr, scarce to abundant, highest values in dead wood and hummock mosses. Indicates presence of trees (alder, birch?) in eutrophic carr conditions (also roots?)

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 43

Letter --

Category Fungi (spores)

Taxonomical identification *Myxomycetes?*

TAXONOMY

Kingdom Protista

Phylum Myxomycota

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale brown

Dimensions 6 μm , lumina (0.7 μm), muri (0.8 μm)

Shape Globose, slightly conical area

Wall/surface Reticulate

Apertures Possibly with a pore

Other --

Similar to Resembles spores of *Lycogala*

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012

INTERPRETATION

Exceptionally high values in deadwood of alder. Occasional outside alder carr, scarce to recurrent. Indicates presence of trees (alder, birch?) in eutrophic carr conditions (also roots?)

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 44

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

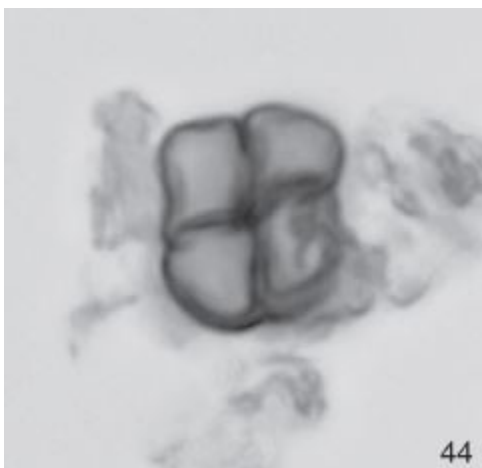
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour

Dimensions 9.5–11 μm

Shape Compact tetrad (9.5–11 μm), planar, constricted at septa, single cells (4–6 μm) somewhat varying in diameter within the same tetrad

Wall/surface --

Apertures --

Other --

Similar to Resembles conidia produced by *Spegazzinia* (Ellis, 1976). Similar to HDV-1018 (van Geel et al., 2011), also attributed to *Spegazzinia*, but HDV-1018 is almost twice as large as EMA-44

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Might indicate very wet and wet alder carr, also occurring in one wet open sedge fen of Prager et al. (in prep.)

BIBLIOGRAPHY

First published in Prager 2006

Other articles Barthelmes 2009; 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 62

Letter --

Category Plantae (wood, cf. sclerenchymatic fibres)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

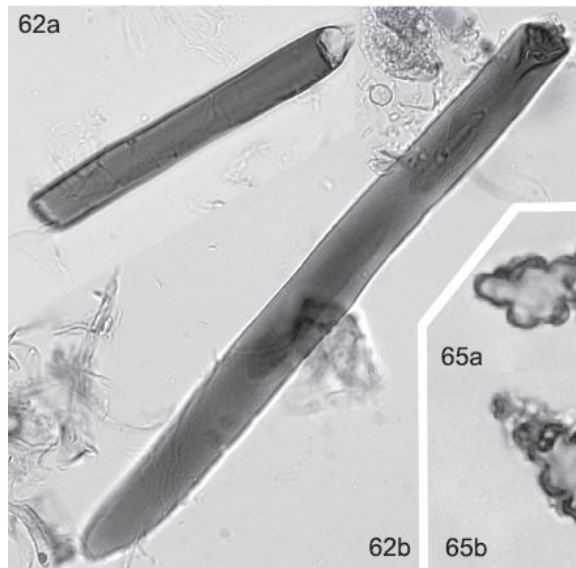
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Bright yellow to brown

Dimensions (15)30–60(210)×(4)6–12(20) μm

Shape Elongated, compressed cylinder with often one tapering end, strongly corroded specimen with irregular shape

Wall/surface Psilate, small hollows and bubbles beneath the surface probably caused by fungal decay

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurs with high values in modern birch and dry alder carr, suggested as birch indicator (Prager et al., in prep.)

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles Barthelmes 2011

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 45

Letter --

Category Plantae (tracheid fragments of vascular

Taxonomical --
identification

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 15–50 µm long

Shape Rectangular elongated to filiform, resembling a ladder

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012

INTERPRETATION

In present study occasional in alder carr and open vegetation, scarce to recurrent. Slightly more abundant in water and hollow mosses. Obviously collected and better preserved in water and hollow mosses. Indicates presence of cormophytes, but no distinct vegetation type

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 46

Letter --

Category Unknown (hair)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions 110–150 μm long, 3 μm from base abruptly widening (7 μm)

Shape Acicular, gradually tapering to a point

Wall/surface Parallel longitudinal striae along whole length except base area

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Prager 2006

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 47

Letter --

Category Fungi (ascospores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

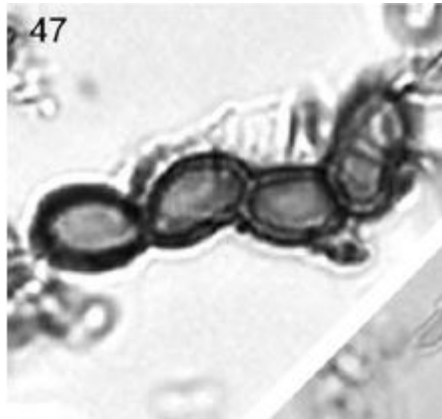
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions Cells (8×6 µm)

Shape Contorted chain of (2–)3–5(–8) loosely connected spores, possibly ascospores. Remaining ascus might be present, cells (8×6 µm) elliptic to kidney-shaped, elliptic to circular in cross-section

Wall/surface Psilate

Apertures No pores observed

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

Probably spores of an *Aureobasidium*- species (A. Aptroot, pers. comm., 2005). Rare in surface samples. Scarce to recurrent, exceptionally abundant in one dead wood sample

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 48

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to pale brown

Dimensions c.29×11 µm

Shape Ellipsoid to ovoid, wrinkling more pronounced at the broader end, other end with truncated cell

Wall/surface --

Apertures 4 (–5)-septate

Other In Prager 2012, size range extended to 27–29×9.5-11 µm, spores with pores in septa, probably mature individuals. Wrinkling sometimes restricted to the broader rounded end

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In this study occasional in alder carr, scarce to abundant. Highest values in alder dead wood. Indicates presence of alder (also roots?)

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012; Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 49

Letter --

Category Unknown (fungi, rhizoid hair or fruit-body)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

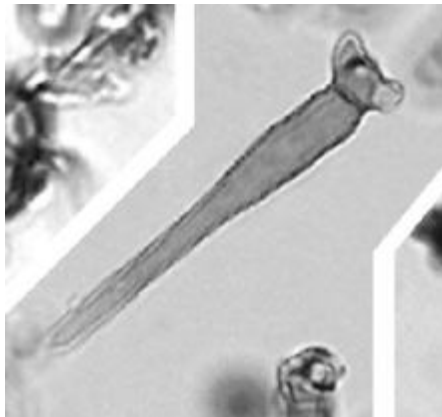
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale brown

Dimensions c.45×max. 9 µm

Shape Elongated clubbed, one end conical (3 µm at base), other end widening (max. 6 µm), here funnel-shaped top (9 µm)

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

INTERPRETATION

In present study occasional in alder carr; scarce to numerous. Highest values in alder litter. Scarce in mosses in birch carr. Clear indicator for above ground remains and thus presence of alder

Other articles Barthelmes 2009; Prager 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 50

Letter --

Category Unknown (fungal or animal tissue)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

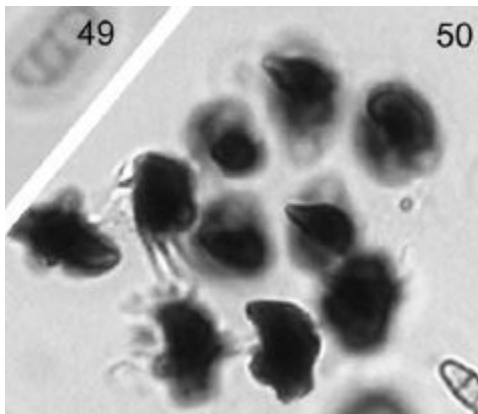
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown (lighter on top)

Dimensions 47×33 µm, spines as long as wide (5–10 µm)

Shape Epidermal tissue with regularly arranged spines, tissue hyaline, obtuse, polyhedron or star-like shape, distance between spines 3–4 µm

Wall/surface --

Apertures --

Other --

Similar to Resembles fragments of fungal fruit-body from e.g. *Sillia ferruginea* (Pers.) P. Karsten, an Ascomycete found on the wood and bark of *Corylus* (Ellis and Ellis, 1997)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006

Other articles Barthelmes 2009

INTERPRETATION

Occurs in surface samples of modern very wet and wet alder carrs and in open fen vegetation with focus on higher water levels (cf. Prager et al., subm.)

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 51

Letter --

Category Unknown (fungal or wood remnant?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

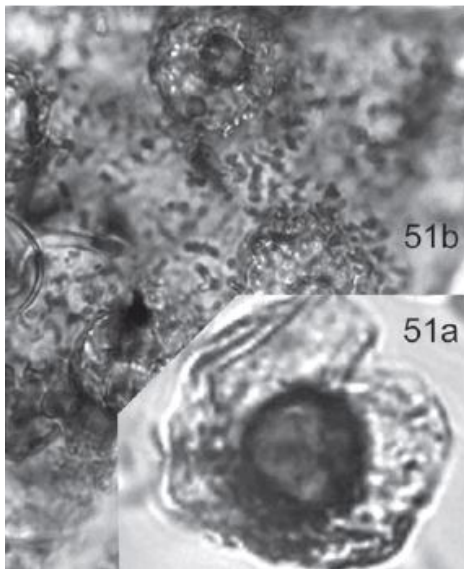
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Bright brown, margin hyaline

Dimensions --

Shape Lenticular to disk-shaped with central part and margin (15–23 μm),
central part (5–12 μm)

Wall/surface Psilate, scabrate, often broken, undulating outline

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Might indicate alder carr

BIBLIOGRAPHY

First published in Prager 2006

Other articles Barthelmes 2009; Prager 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 52

Letter --

Category Unknown (remnant of litter decaying fungi,

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

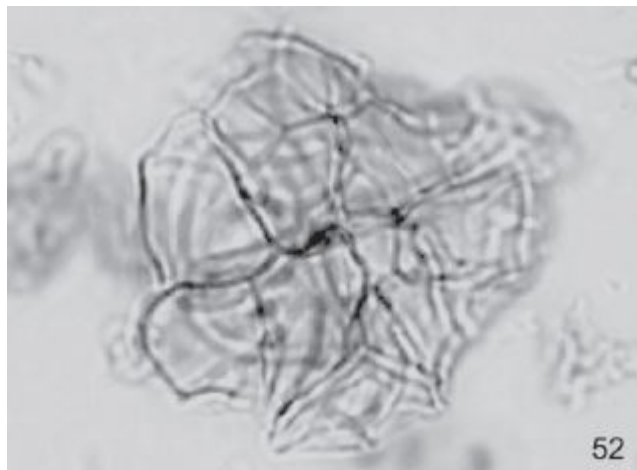
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 28–52 μm (diameter varying within the same remain); single cells triangular (8–17 μm one side) or trapeze-shaped (7–22 \times 6–15 μm)

Shape More or less lenticular (two or more cell layers in central part, one layer in margin), whole remain with irregular outline

Wall/surface Psilate

Apertures --

Other In Prager 2012, study maximum diameter given by Prager et al. (2006) extended to 60 μm . Now also individuals with net-like structure observed

Similar to

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Clear indicator for above ground remains and thus presence of alder

BIBLIOGRAPHY

First published in Prager 2006

Other articles Prager 2012, Barthelmes 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 53

Letter --

Category Animalia (abdomen or larval fragment of

Taxonomical --
identification

TAXONOMY

Kingdom --

Phylum --

Class --

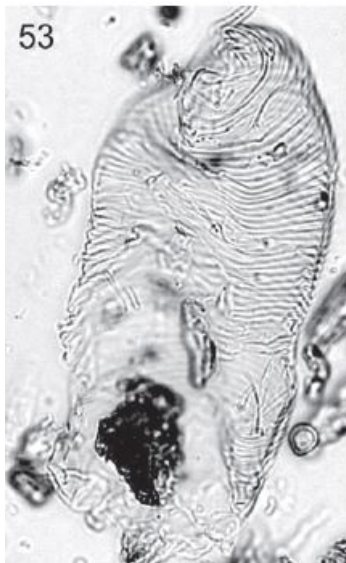
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions c.120× 50 µm

Shape Ellipsoid, elliptic in cross-section

Wall/surface Striate (parallel stripes at constant distances)

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2006;

Other articles Barthelmes 2012

INTERPRETATION

Occurs in surface samples of modern wet and very wet alder carrs (Prager et al., in prep.), rare and scarce in core ROD. Occasional in surface samples. Always scarce, highest abundance in a dead wood sample

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 54

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light yellow

Dimensions 40– 60×7–15 µm

Shape Cylindrical, often in clusters (3–5)

Wall/surface Numerous pits (diameter 1–4 µm) on surface

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2006

Other articles Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 55

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycetes

Class --

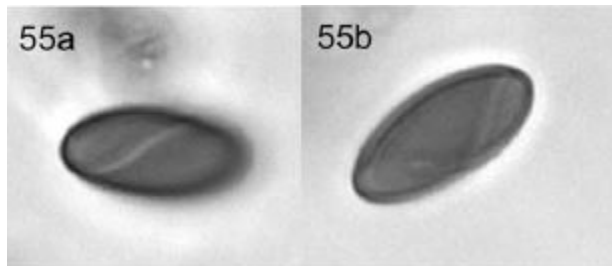
Order --

Family Xylariaceae

Gender *cf. Helicogermislita*

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions 10–12×5–6 µm

Shape Elliptic with slightly tapering ends, with one curved germ slit around the spore

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study only found in very wet sedge fen (peat and litter).
Might thus be additionally an indicator for sedge fen

BIBLIOGRAPHY

First published in Barthelmes 2006

Other articles Prager 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 56

Letter --

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

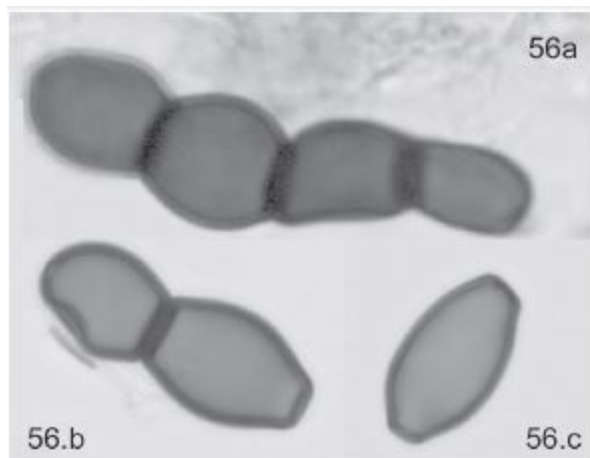
Order --

Family --

Gender *Alysidium*

Species *resinae*

Image



DESCRIPTION

Colour Brown

Dimensions Globose (diameter: 7–12 µm); truncate (10– 13×7–10 µm)

Shape Conidia often in chains of 3–4, globose to elliptic-truncate

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Barthelmes 2006

Other articles Barthelmes 2012

INTERPRETATION

Conidium of *Alysidium resinae* (Fr.) M.B. Ellis (Barthelmes et al., 2006), an anamorph of the corticioid, wood decaying basidiomycete genus *Botryobasidium* (Ellis and Ellis, 1997). In recent fen vegetation only found in birch carr and very wet alder carr (Anja Prager, pers. comm.). In core HBG predominantly occurring in highly decayed wood peat samples of zone HBG-D (points at strong decomposition and low or fluctuating water levels)

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 57

Letter --

Category Plantae (charcoal)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

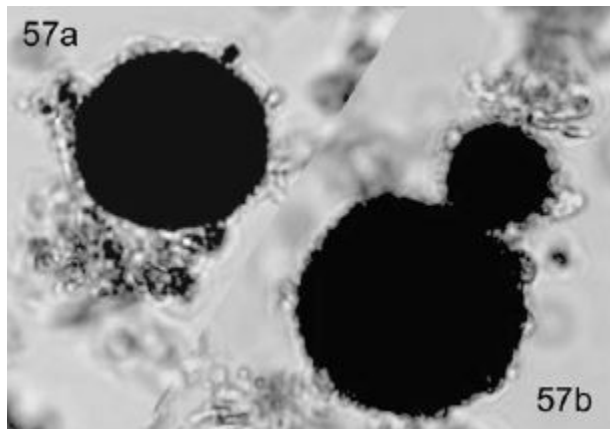
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Black

Dimensions Diameter: 4– 15 µm

Shape Cf. round charcoal, round to slightly elliptic, sometimes slightly ruptured margins

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2006

Other articles Barthelmes 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 58

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

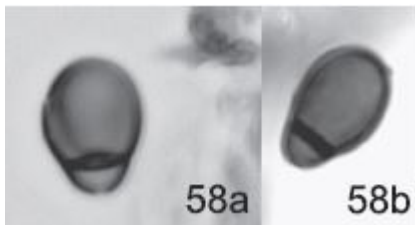
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Apical cell: brown

Proximal: light brown to hyaline one (often with aperture)

Dimensions 10-13 x 7-9 μm

Shape Ovoid, 1-septate. Apical cell larger

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 59

Letter --

Category Fungi (spores or conidiophore)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

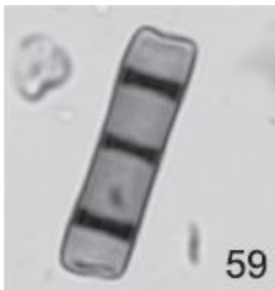
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light to middle brown

Dimensions 22–24×5–6 µm, (rarely with 2 septa and only 15–17 µm long), both central cells 6–8 µm long, end cells 5–7 µm

Shape Cylindric. Central cells lighter and torn off, often one end slightly conical

Wall/surface Psilate

Apertures 3-septate, septa with pores.

Other Might recently indicate alder carr vegetation. In core HBG high values restricted to alder carr samples. Low values can be of extralocal origin

Similar to Resembles thalloconidia from *Sporoschisma* species (det. A. Aptroot); but also the conidiophores (or their fragments) of *Arthrinium*-species (Ellis and Ellis, 1997)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2009;

Other articles Barthelmes 2012;Prager 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 60

Letter --

Category Fungi?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Middle brown

Dimensions 20-24 (incl. the appendages) x 3-4 μ m

Shape Cylindric elongated with rounded ends, curved, appendage at both ends (sometimes only at one end)

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2006

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 61

Letter --

Category Fungi (spores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

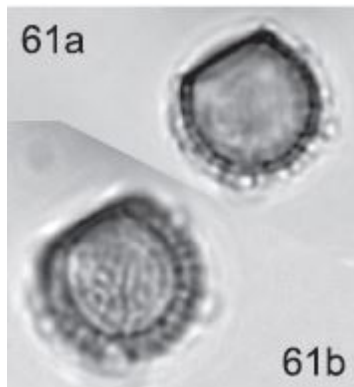
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions 6-8 μm in diameter

Shape Globose with one truncated side, there opening 4 μm in diameter

Wall/surface Surface with baculae (pilae) regularly arranged and 0.6 μm high

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 63

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

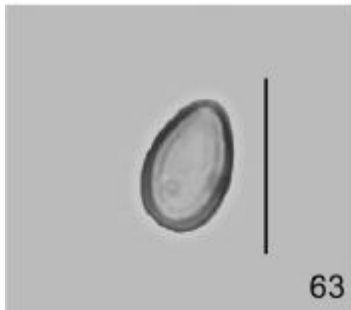
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to very pale brown

Dimensions 5–12×2–7 µm

Shape Ovoid, indistinct small round aperture (pore or hilum?) at tapered end

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

INTERPRETATION

Highest values in dead wood. Might, if occurring in high values, indicate presence of trees. However, EMA-63 is a simple spore type with few distinct features, which is produced by numerous fungal taxa; also, the size range reported here is extremely large, suggesting that elements of different origin are combined. Hence, the type should be interpreted with caution

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 64

Letter --

Category Fungi (Ascospore, probably of Sphaeriaceae)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

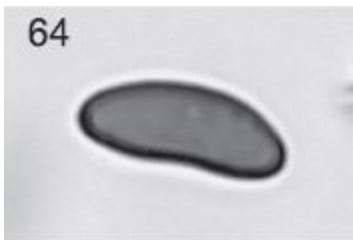
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Mid to dark brown

Dimensions 12–15×5 µm

Shape Bean-shaped (dorsally curved, ventrally almost straight), sometimes with germ slit

Wall/surface Psilate

Apertures --

Other --

Similar to Might also include spores of fungal genus *Rosellinia* (IBB-31, Montoya et al., 2010), which however, also often grow on wood and bark (Ellis and Ellis, 1997). See also Type UG-1329 of Gelorini et al. (2011) and TM-347 of Cuanv (2011)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles Barthelmes 2012

INTERPRETATION

Ascospore, probably of Sphaeriaceae, (Barthelmes, 2009), a family of mostly wood decomposing fungi (Breitenbach and Kränzlin, 1981). Only slightly different morphology as EMA-24; it might be reasonable to merge these types to one morphotype. Occurs in surface samples of very wet and wet modern alder carrs (Prager et al., subm.). Occurs recently in alder carrs with different water levels (Anja Prager, pers. comm.). In core HBG high values restricted to alder carr samples. Low values can be of extralocal origin

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 65

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

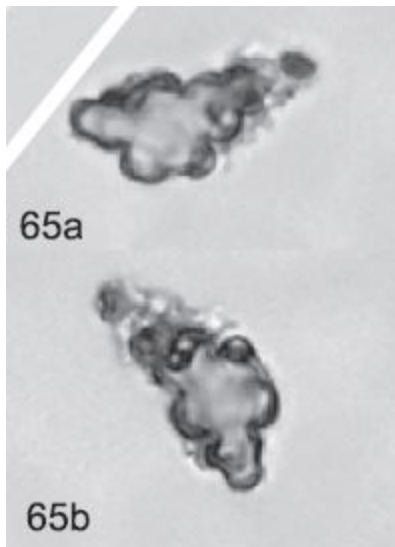
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to light yellow

Dimensions 12-18 x 6-10 μm

Shape Irregular shape (“cloud-like”), with many protuberances

Wall/surface Psilate

Apertures Protuberances sometimes with an aperture (pore or hilum)

Other Occasional in core ROD, scarce to abundant. Occurs mainly in NPP-zone C, possibly linked to Salix

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 66

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

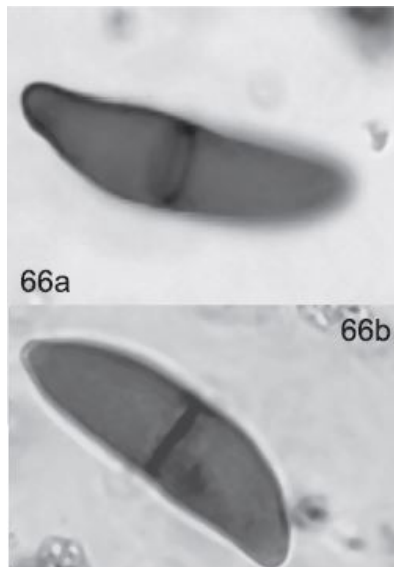
Order Pleosporales

Family Lophiostomataceae

Gender *Lophiostoma*

Species --

Image



DESCRIPTION

Colour Middle brown

Dimensions 42-47 x 5-8 μm

Shape Bean-shaped, one end constricted and slightly deviant

Wall/surface Psilate

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Possibly linked to *Salix*

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 67

Letter --

Category Animalia (invertebrata)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

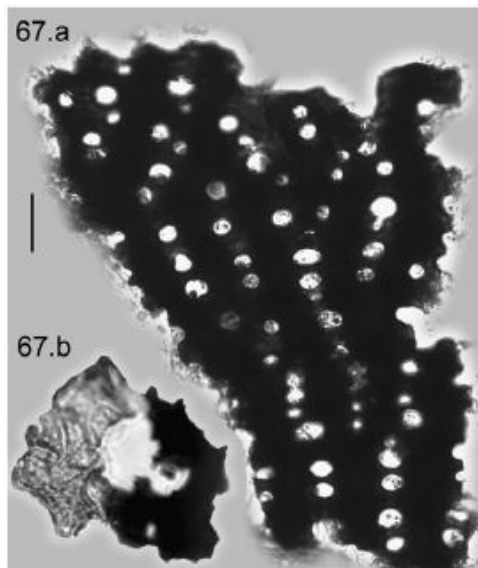
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown to black

Dimensions 10–90×10–110 µm

Shape Planar fragment with variable outline and size

Wall/surface Pitted (3.3-5.5 µm in diameter) along lines (=perforated)

Apertures --

Other Broken along perforations

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

No obvious indication

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 68

Letter --

Category Plantae (possibly fragment of spiralic tracheid,

Taxonomical identification *Cormophyta*

TAXONOMY

Kingdom Plantae

Phylum Cormophyta

Class --

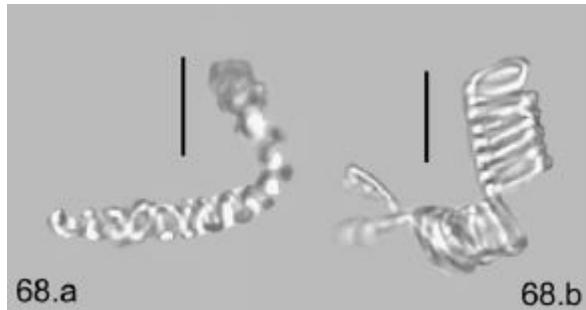
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 5–67 μm long, diameter of spiral 5–9 μm , diameter of filament 1.0-1.4 μm

Shape Spiralic and filiform

Wall/surface --

Apertures --

Other --

Similar to Similar, but twice as large fragments described as HDV-217 in van Geel et al. (1989)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

Other articles Barthelmes 2012

INTERPRETATION

Both remains (illustrated in a, and b) may well have belonged to different species; alternatively, photo 68b may actually be referable to EMA-87 (elaters of a Hepatic). In present surface samples common, scarce to recurrent. Indicates presence of cormophytes, but no distinct vegetation type

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 69

Letter --

Category Fungi (conidium of cf. *Spadicoides xylogena*)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Trichosphaeriales

Family Helminthosphaeriaceae

Gender *Spadicoides*

Species *S. xylogena*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

INTERPRETATION

Spadicoides xylogena is growing on fungi, e.g. *Athelia epiphylla*, *Hypochnicium punctulatum*, other resupinate hymenomycetes (Ellis & Ellis, 1998) and dead wood (Ellis, 1971). Rare in core ROD, recurrent to numerous

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 70

Letter --

Category Fungi (spores, conidia)

Taxonomical identification *cf. Humicola fuscoatra*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

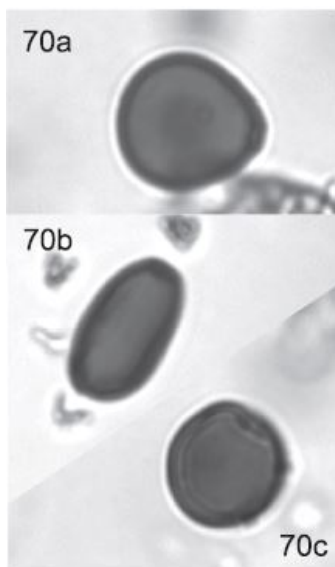
Order Sordariales

Family Chaetomiaceae

Gender *Humicola*

Species *fuscoatra*

Image



DESCRIPTION

Colour Dark brown

Dimensions 7-8 x 9-12 µm

Shape More or less globose to slightly elliptic or ovoid, squeezed in one dimension

Wall/surface Psilate

Apertures Sometimes slightly protruding pore (diameter 1.5-1.7µm) with annulus

Other --

Similar to Resembles conidia of *Humicola fuscoatra* Traaen, 1914, a cosmopolitan fungus isolated from soil, wood and plant debris (Ellis, 1971). Quite similar to Type 123 (Van Geel et al., 1980/81), but not ovoid

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 71

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

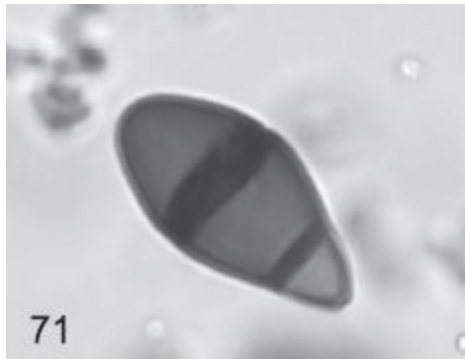
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions c.26 x 13 µm

Shape Ovoid, with apical end slightly and proximal end strongly tapered, with more apical septum thickened, proximal end cell (~6 µm long) shorter and lighter than others and with indistinct aperture (pore?)

Wall/surface Psilate

Apertures 2-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 72

Letter --

Category Animalia?

**Taxonomical
identification** --

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Branchiopoda

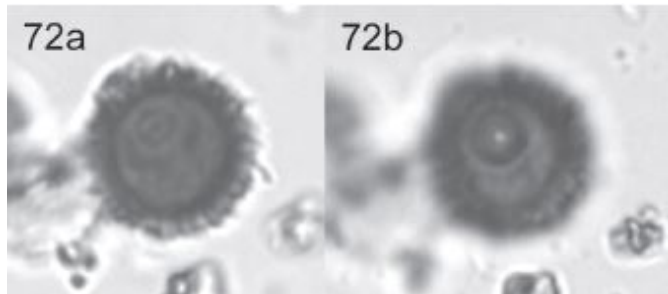
Order Diplostraca

Family Chydoridae

Gender --

Species --

Image



DESCRIPTION

Colour Middle to dark brown

Dimensions c.10-11 μm

Shape Globose

Wall/surface Echinate (echinae curved, $\sim 1.2 \mu\text{m}$)

Apertures One pore (diameter: $0.7 \mu\text{m}$) with prominent annulus of $\sim 1.4 \mu\text{m}$ thickness

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Restricted to *Sphagnum* peat

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 73

Letter --

Category Plantae (Probably postulate rootlets)

**Taxonomical
identification** *Cyperaceae*

TAXONOMY

Kingdom Plantae

Phylum --

Class Monocotyledoneae

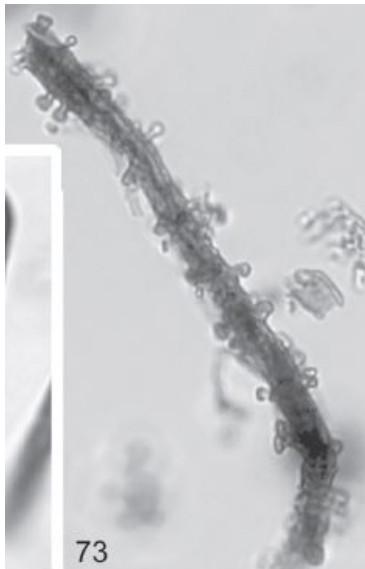
Order Poales

Family Cyperaceae

Gender --

Species --

Image



DESCRIPTION

Colour Brown, pilae: hyaline to pale brown

Dimensions 50- 80 μm x 4-6 μm

Shape Filiform elongated

Wall/surface Pilate (pilae irregularly arranged, max. height $\sim 1.9 \mu\text{m}$)

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 74

Letter --

Category Plantae

**Taxonomical
identification** --

TAXONOMY

Kingdom Plantae

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to yellowish brown

Dimensions 130-180 x 40-50 μm

Shape Cylindric elongated, sometimes slightly curved, often a hyaline tissue fragment attached

Wall/surface --

Apertures --

Other With spores inside an identification to genus or species level is possible

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 75

Letter --

Category Fungi (conidium or seta)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

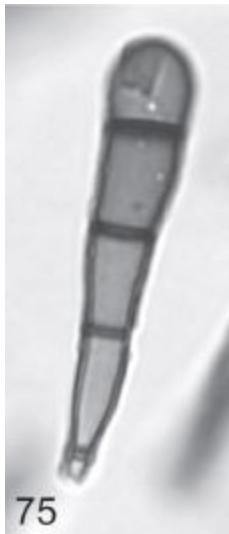
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown (lighter at acute end)

Dimensions 41 μm x 7-8 μm (max. width)

Shape Ovoid elongated, one end rounded and other end strongly tapering

Wall/surface Psilate

Apertures 4-septate (rarely 3-septate), sometimes indistinct pores in septa

Other --

Similar to Resembles setae of *Colletotrichum trichellum* (Fr.)Duke, a widespread fungus causes leaf disease (Ellis & Ellis, 1997). Quite similar to Type 10 (Van Geel, 1978), but paler cells not thinner-walled

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 76

Letter --

Category Fungi (ascospore of Sphaeriaceae)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

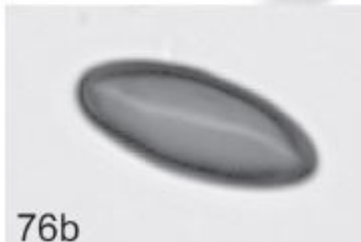
Family --

Gender --

Species --

Image

76a



DESCRIPTION

Colour Middle to light brown

Dimensions 11-12 x 5 µm

Shape Elliptic, slightly s-shaped furrow over whole length (but not curving around the whole spore, cf. EMA- 55, Barthelmes et al., 2006)

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 77

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

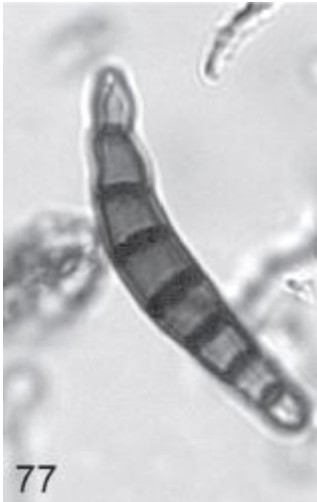
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Middle brown (ends lighter)

Dimensions 35-39 x 6-7 μm

Shape Fusiform elongated, broadest in the middle, tapering to both ends, curved,

Wall/surface Psilate

Apertures 5-7(8)-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 78

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

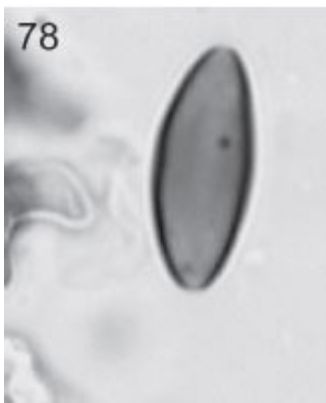
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Middle brown

Dimensions 15-20(-23) x 6-9 µm

Shape Fusiform, both ends with thickenings

Wall/surface Psilate

Apertures --

Other --

Similar to Quite similar to Type 4 (Van Geel 1978, *Anthostomella fuegiana* Speg.), but in contrast to Type 4 without straight side and without germ slit. Also the one end is less tapering to a sharp point than in TYPE 4 and the other end less truncate

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 79

Letter --

Category Fungi (Ascospore of cf.*Chaetosphaerella*)

Taxonomical
identification

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

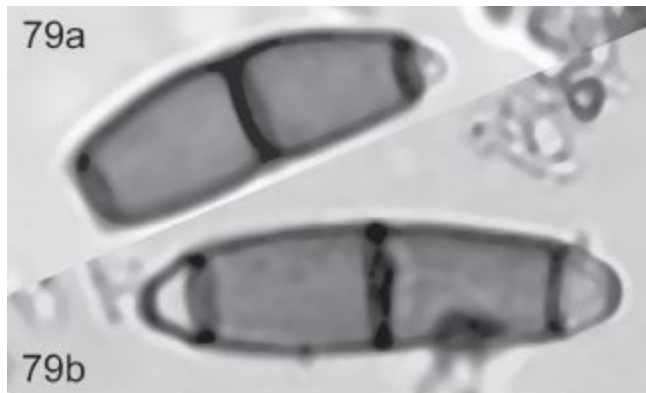
Order Trichosphaeriales

Family Helminthosphaeriaceae

Gender *Chaetosphaerella*

Species *phaeotroma*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to Quite similar to TYPE 121 (Van Geel et al., 1980/81), but clearly too small. Quite similar to EMA-33 Prager et al. (2006), but clearly too large

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Ascospore of cf. *Chaetosphaerella phaeostroma* (Durieu & Mont.)
Müller & Booth (det. A. Aptroot), a fungus commonly growing on fungi
(Ellis & Ellis, 1997)

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 80

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

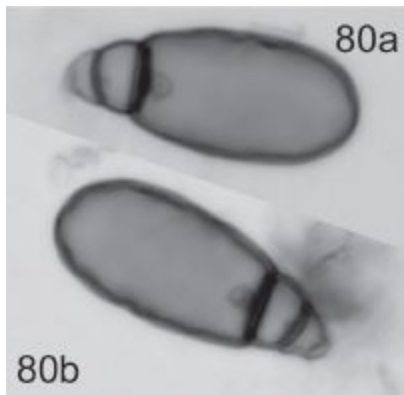
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Spore: middle brown Proximal cells: Hyaline to very pale brown

Dimensions 25-32 x 11-17 μm

Shape Ovoid, spore consists of one large apical cell (17-23 μm), and two (rarely one) small proximal cells (3-6 μm), constricted at septa.

Wall/surface Psilate, but wall seems to be slightly undulating

Apertures Mostly 2-septate (rarely monoseptate), pore in most apical septum

Other --

Similar to EMA-80 resembles spores of *Brachysporiella setosa* (Berk. & Curt.) M.B. Ellis comb. nov., a fungus occurring on decayed wood in “moist” places (Ellis, 1959)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles Barthelmes 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 81

Letter --

Category Animalia (invertebrata, probably chitinoïd)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

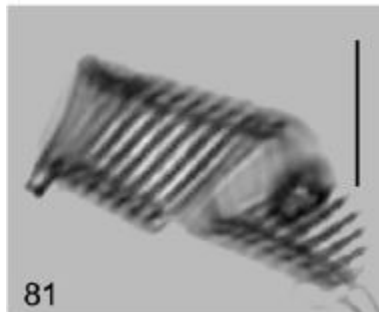
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to pale brown

Dimensions 30–40 µm long, diameter about 10 µm

Shape Spiralic coiled tape, distinctly parallel striate, striae in distance of 1 µm, one end tube-like, the other with protruding striae

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

No obvious indication

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 82

Letter --

Category Unknown (algal cyst or fungal spore?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

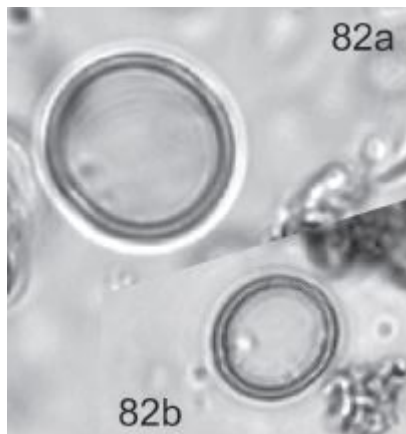
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 6-18 µm in diameter

Shape Globose

Wall/surface Psilate

Apertures --

Other --

Similar to EMA-82 resembles spores of numerous fungi (e.g. *Chroelosporium* state of *Peziza ostracoderma* Korf; ref. Ellis, 1976) and cysts of algae (e.g. *Chloromonas* or *Chlamydeomonas*). Recorded in peat core (Barthelmes. 2009).

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles Prager 2012

INTERPRETATION

In present study frequent in all vegetation types, mostly scarce to numerous. No obvious indication

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 83

Letter A

Category Fungi (conidia?)

Taxonomical identification *Monodictys paradoxa* (Corda) Hughes)

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

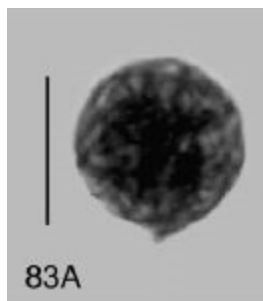
Order --

Family --

Gender *Monodictys*

Species *paradoxa*

Image



DESCRIPTION

Colour Middle to dark brown

Dimensions 13–25 µm in diameter

Shape Globose, muriform: composed of single cells of 2–3 µm in diameter, sometimes with hyaline triangular appendage (=remain of conidiophore?)

Wall/surface Psilate

Apertures --

Other --

Similar to Similar to EMA-83B

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

INTERPRETATION

Here occasionally recorded in alder carr, birch carr and open fen, scarce to highly abundant. Exceptionally high value (940%) in the one birch wood sample from birch carr, thus clearly a local signal; lacking in birch dead wood of alder carr. However, also in alder dead wood, hummockmosses, but also in bare peat and grass litter of open fen vegetation. possibly conidium of *Monodictys paradoxa* (Corda) Hughes, known from bark, trunks and thick branches of *Betula* (Ellis and Ellis, 1997) and *Sorbus aucuparia* in Belarus (Yurchenko, 2001)

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 83

Letter B

Category Fungi (also possibly conidium of *Monodictys*)

Taxonomical
identification

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order --

Family --

Gender *Monodictys*

Species *paradoxa*

Image



DESCRIPTION

Colour Brown to black

Dimensions 16–32×12.5-29 µm

Shape Elliptic to globose, spore muriform (only visibly in lighter individuals), sometimes with hyaline tri- or quadrangular appendage (=remnant of conidiophore?)

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

INTERPRETATION

Here rarely recorded in alder carr, birch carr and open fen, scarce to highly abundant. Exceptionally high value (440%) in the one birch wood sample from birch carr, thus clearly a local signal; lacking in birch dead wood of alder carr. Abundant also in alder dead wood in alder carr and bare peat in open fen vegetation. EMA-83B indicates here, if highly abundant (a few 100%), presence of birch, and possibly birch carr conditions; unclear indication in lower abundance

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 84

Letter --

Category Fungi (conidia)

Taxonomical identification *cf. Triadelfia heterospora* Shearer & Crane

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

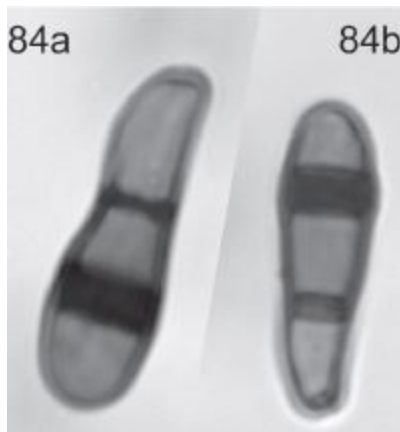
Order --

Family --

Gender *Triadelfia*

Species *heterospora*

Image



DESCRIPTION

Colour Light to pale brown

Dimensions 19-24 x 5-6 μ m

Shape Ovoid elongated, sometimes slightly curved, apical end rounded, proximal end conically tapering, apical septum thickened, proximal end with aperture

Wall/surface Psilate

Apertures 2-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Triadelphia heterospora was observed on submerged balsa wood blocks in the U.S.A. (Ellis, 1976)

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 85

Letter --

Category Fungi (spores or fragment of it)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

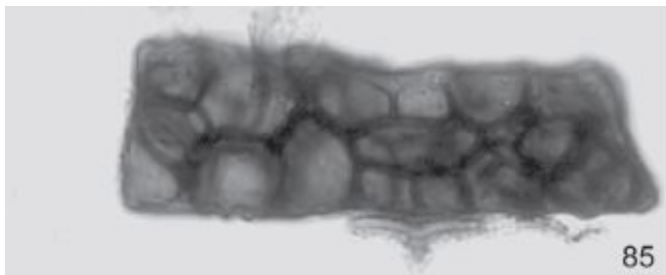
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Middle to light brown

Dimensions 33–122×7–12 µm. Single cells: 5–6×5–10 µm

Shape Cylindric elongated with rounded ends, sometimes slightly curved, muriform with transversal and longitudinal septa giving an irregular pattern, single cells angular

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles Barthelmes 2012

INTERPRETATION

Occurs recently in open fen vegetation with different water levels and somewhat drier alder carrs (Anja Prager, pers. comm.). In core HBG largely restricted to very wet conditions in alder carr and sedge fen

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 86

Letter --

Category Fungi (Bactrodesmium-like conidium)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions Max. 250 µm long, 6-8(-10) µm broad. Cubic cells: 6–8 µm long; rectangular ones: 11–15 µm long

Shape Cylindrical elongated, ends tapering, often only fragments preserved, single cells either cubic or rectangular, one end cell hyaline and truncate, the other rounded, end cells often absent

Wall/surface Psilate

Apertures 10–32 septate (sometimes with pores); rectangular cells sometimes with thin pseudoseptum,

Other --

Similar to Resembles, but is longer than HdV-125 Pals et al., 1980. Similar spores of unknown origin are presented in Chmura et al. (2006, 'multi-celled ascospore with end cells missing'), Miola et al. (2006, 'unidentified fungal spores'). and as UG-1097 in Gelorini et al.. 2011

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Until now no indicative value as no peat samples from carr were analysed

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles Prager 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 87

Letter --

Category Plantae (elaters of capsulae from a Hepatic,

**Taxonomical
identification** --

TAXONOMY

Kingdom Plantae

Phylum Marchantiophyta

Class Jungermanniopsida

Order Jungermanniales

Family Lophocoleaceae

Gender *Lophocolea*

Species *heterophylla*

Image



87

DESCRIPTION

Colour Light yellowish green

Dimensions 7–12 µm in diameter, 70–165 µm long

Shape Acicular, fragments filiform, helix-like, sometimes in bundles

Wall/surface --

Apertures --

Other No clear indicator value

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 90

Letter --

Category Fungi (conidia?)

Taxonomical identification *Arthrinium cf. puccinioides* (DC.) Kunze)

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

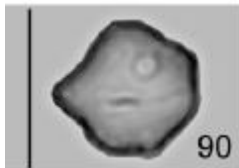
Order Incertae sedis

Family Apiosporaceae

Gender *Arthrinium*

Species *puccinioides*

Image



DESCRIPTION

Colour Brown

Dimensions 11–13 µm in diameter

Shape Polygonal, cushion-shaped

Wall/surface Psilate

Apertures One pore (hilum?)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

A. puccinioides is observed on dead leaves of e.g. *Carex acutiformis* (Ellis and Ellis, 1997). In present study occasional in open fen (sedge litter and peat), numerous to abundant. Indicates presence of sedges in open fen vegetation

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 91

Letter --

Category Fungi (ascospores?)

Taxonomical identification *Ceriophora palustris* (Berk. and Broome)

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Ascomycetes

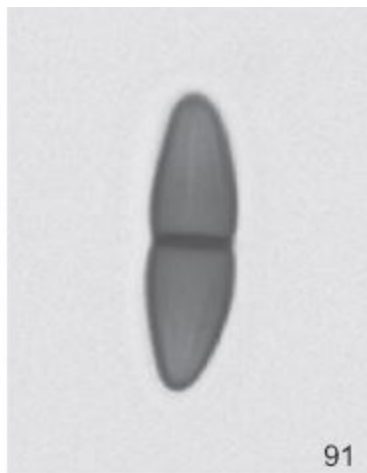
Order Xylariales

Family Amphisphaeriaceae

Gender *Ceriophora*

Species *palustris*

Image



DESCRIPTION

Colour Brown

Dimensions 18–22×7 µm

Shape Elliptic to fusiform, often slightly curved (=ventrally straight and dorsally curved), constricted at septum, slightly constricted at one end (3 µm before tip)

Wall/surface Usually striate (c. 9 indistinct longitudinal light striae), sometimes rapture along striae. Similar palerspores without striae interpreted as immature spores

Apertures Monoseptate (with pore)

Other --

Similar to EMA-91 strongly resembles HDV-122 Pals et al., 1980 and HDV-1027 van Geel et al., 2011, ascospores of *Munkovalsaria donacina* (Niessl) Aptroot, which both are however not described as striate, as well as HdV-1038 van Geel et al., 2011 ascospores of *Areconophila* sp.

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Ceriphora palustris is known from sedge leaves (Ellis and Ellis, 1997) and Iris (Dennis, 1981). Recorded also in peat core (Barthelmes et al., 2012–this issue). In present study only in very wet, open fen, scarce to recurrent. Indicates open vegetation

BIBLIOGRAPHY

First published in Prager 2012

Other articles Barthelmes 2012

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 92

Letter --

Category Unknown (fungal seta or plant hair?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark red

Dimensions At base abruptly thickened to 14 μm , 23–96 μm long

Shape Acicular

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Indicates open vegetation (*Phragmites australis*?)

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 93

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 8–10× 7–8×4–5 µm

Shape Elliptic lenticular, wall thinning at both ends, in side view (foto b) conspicuously lighter band from pole to pole

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

INTERPRETATION

Most probably a *Coniochaeta* sp. (det. A. Aptroot). The measurements and the lentiform (not discoidal) shape agree well with *C. leucoplaca* (Berk. & Rav.) Cain, known worldwide from soil, dung and various plant remains (e.g. Munk, 1957). In present study only in very wet reed fen (*Phragmites* litter and surface peat); numerous to abundant (> 1000%). Indicator for open vegetation, probably for reed fen

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 94

Letter --

Category Fungi (possibly fragment of fungal fruit-body)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

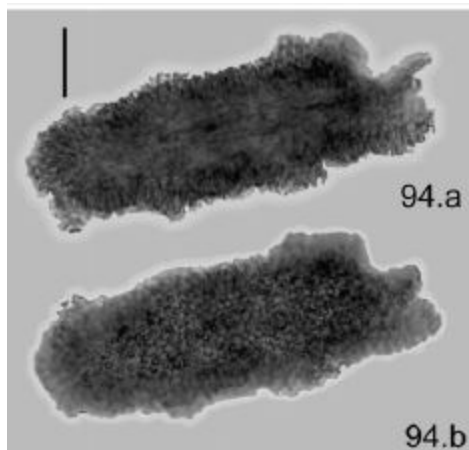
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 87-95(-120)×28-31 μm

Shape Irregular cylindrical, one end rounded, second detached

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

INTERPRETATION

Similar synnemata produced by e.g. *Doratomyces* (Domsch and Gams, 1970; Ellis and Ellis, 1998), and *Phaeoisaria clavulata* (Grove) Mason & Hughes (Ellis and Ellis, 1997). In present study only once recorded (litter in very wet reed fen), recurrent. Possibly indicates open vegetation with *Phragmites*

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 95

Letter --

Category Fungi (tissue)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

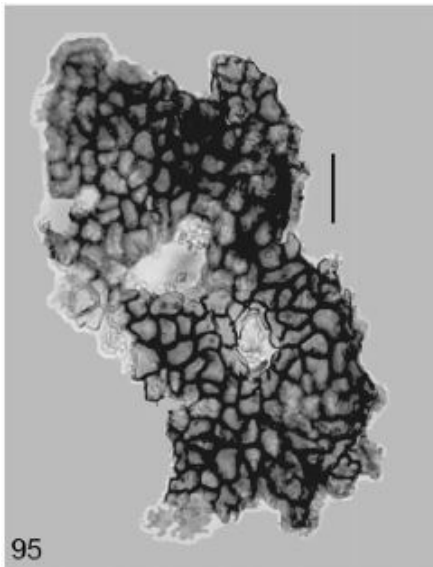
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 100–140×50–70 µm

Shape Often 1–2 elliptic hollows (8–12×12–25 µm), single cells thick-walled and irregularly shaped but always compact, sclerenchymatic

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study only once recorded (litter in very wet reed fen), recurrent. Possibly indicates open vegetation with *Phragmites*

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 96

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Spore pale brown, end cells hyaline

Dimensions 58–60×17 µm, both central cells 21–22 µm long

Shape Cylindrical with acuminate ends, slightly constricted at septa, neighbouring cells conical, 4 µm long, end cells obtuse cones

Wall/surface Psilate

Apertures 5-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study only recorded once (superficial peat in very wet Common reed fen), scarce. No indicative value

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 97

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

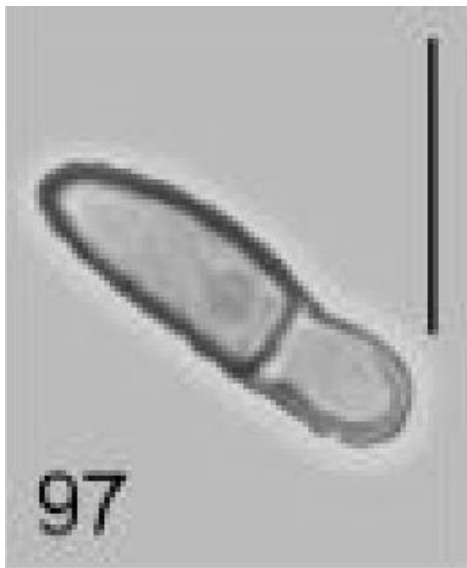
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale brown, shorter cell hyaline

Dimensions 18–19×5 µm. Shorter cell: 6-6.5 µm long . Larger cell: 12 µm long

Shape Elongated ovoid (like the sole of a shoe), shorter cell constricted near septum, rounded at the end; larger cell, slightly tapering at the end

Wall/surface Psilate

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study restricted to very wet sedge fen; scarce to recurrent, highest value in litter of *Carex riparia*. Indicator for open vegetation and sedge fen (*Carex riparia*?)

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 98

Letter --

Category Fungi (fruit body)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

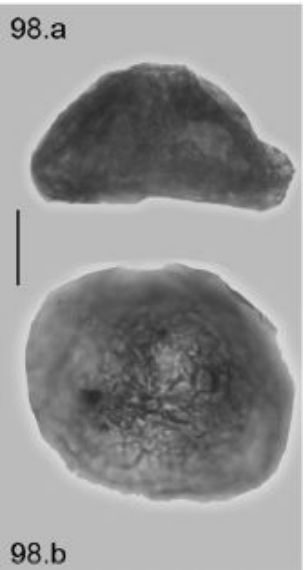
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 42–51 μm in diameter, 21–25 μm high

Shape Hemispherical to frustrum-shaped, ostiole on top 6–7 μm in diameter, irregular cell pattern

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study only in very wet sedge fen; scarce. Indicates open vegetation and sedge fen

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 99

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

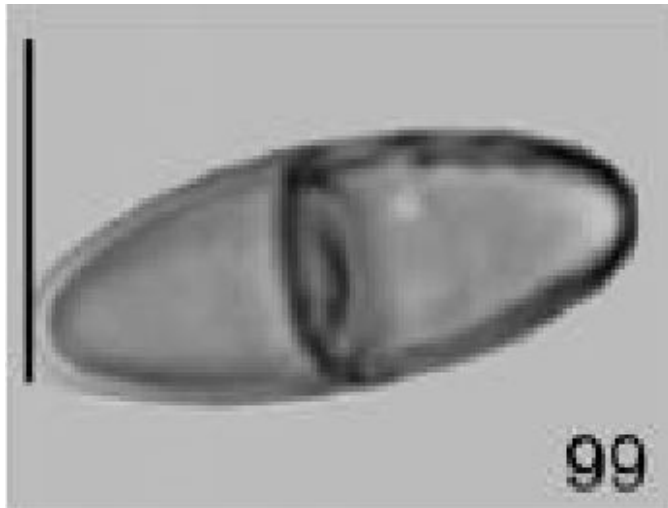
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale brown

Dimensions 19–21×7–8 µm

Shape Elliptic

Wall/surface Psilate

Apertures Monoseptate (with pore)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

INTERPRETATION

In present study only once recorded (in peat of *Carex riparia* fen), recurrent. Fungus producing EMA-99 might be a peat decomposer, which requires very wet and open conditions

Other articles

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 105

Letter --

Category Fungi (possibly immature conidium)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

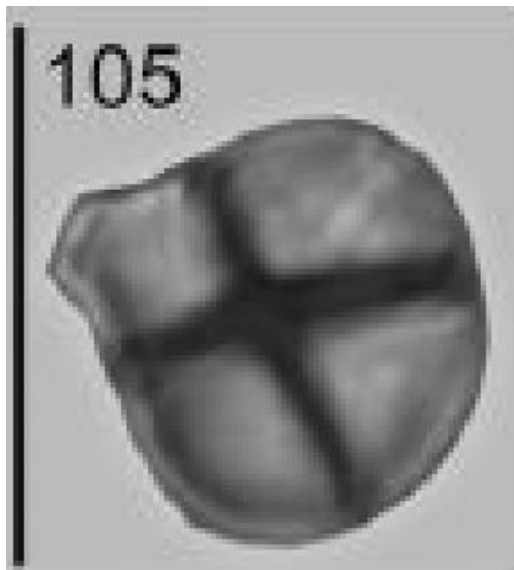
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions 13 µm in diameter

Shape Globose with large protruding aperture (hilum), 4 cells, cruciform muriform

Wall/surface Psilate

Apertures Septa with pore

Other --

Similar to Most resembles immature conidia of *Monodictys levis* (Wiltshire) Hughes (suggested by A. Aptroot), known from various rotting materials including feathers (Ellis and Ellis, 1998)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study frequent in wet sedge fen, scarce to recurrent. In carr sites rare, scarce. Indicator for open vegetation (sedge fen)

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 106

Letter --

Category Unknown (fungal or algal spores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

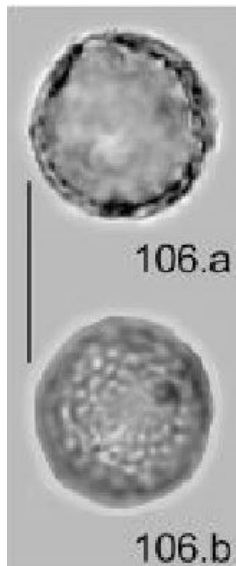
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions 17–20 μm in diameter

Shape Globose

Wall/surface Verrucate (verrucae diameter: 2–3 μm , 1 μm high)

Apertures --

Other --

Similar to Resembles ascospores of *Scutellinia trechispora* (Berk. & Br.) Lambotte; a fungus found on mosses and open soil (Ellis and Ellis, 1998)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study occasional in wet sedge fen, recurrent to abundant (in herbal litter). Outside rare, scarce. Indicates open vegetation and sedge fen

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 107

Letter --

Category Unknown (fungal or algal spore)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

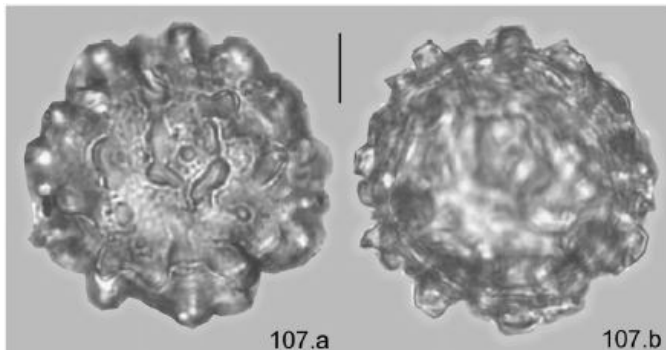
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale green to hyaline

Dimensions 42-45 μm in diameter

Shape Globose

Wall/surface Verrucate (verrucae irregularly distributed and shaped, 5–6 μm in diameter, 3–4 μm high)

Apertures --

Other --

Similar to Similar, but larger than HDV-150 van der Wiel, 1982, and HDV-225 van Geel et al. 1989

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study only in wet sedge fen, scarce to recurrent. Indicates open vegetation, might be related to *Phalaris*

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 108

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

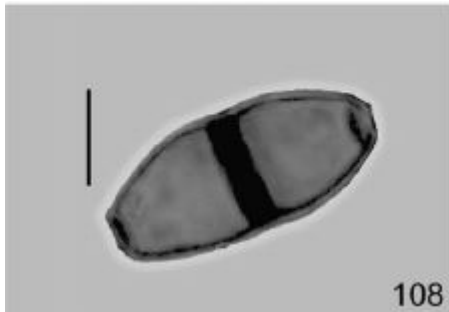
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 38–50×15–17 µm

Shape Elliptic, truncate when end cells (often!) detached, constricted at middle septum, middle septum thick

Wall/surface Psilate

Apertures 3-septate, pore in the middle septum

Other Determination difficult as many fungi produce similar 4-celled ascospores (van Geel, pers. com.)

Similar to EMA-108 resembles strongly UG-1159 Gelorini et al., 2011 (which is thicker), slightly HdV-16 C van Geel, 1978 (shorter, thinner, septum thinner), and HdV-121 Pals et al., 1980/HdV-970 Garneau, 1993 (not constricted at middle septum)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study only in wet sedge fen, scarce. Indicates open vegetation, might be related to *Phalaris*

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 109

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

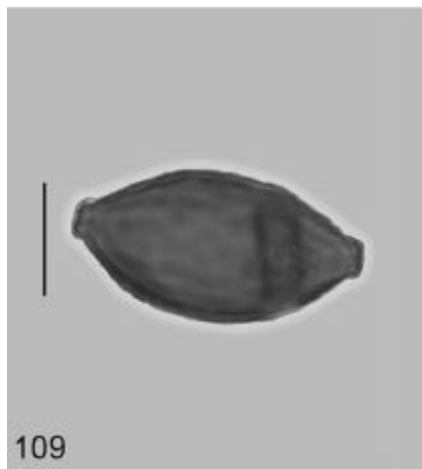
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 33–34×16–18 µm

Shape Elliptic acuminate obtuse, 2 strongly protruding pores

Wall/surface Thick, faint longitudinal furrows

Apertures --

Other --

Similar to Resembles HDV-55B van Geel, 1978 (psilate)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Probably a species of *Sphaerodes*, e.g. agreeing well with *S. episphaeria* (Phil. & Plowr.) Clem. (suggested by A. Aptroot), which occurs on other fungi (Ellis and Ellis, 1998). Might indicate open vegetation and sedge fen

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 110

Letter --

Category Unknown (fungal seta or plant hair?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark reddish brown

Dimensions Max. 138 µm long, widest (6 µm) at basis

Shape Acicular, at basis broken

Wall/surface Psilate

Apertures 1–2-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study only in wet sedge fen,scarce. Might indicate open vegetation and sedge fen

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 111

Letter

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 34×15–27 µm

Shape Irregularly elliptic lenticular, polar areas concave

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study only in wet sedge fen, values of 39.4% (*Phalaris* litter) and 2973% (Carex litter) indicate local production. Indicates open vegetation and sedge fen

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 112

Letter --

Category Fungi (conidia?)

Taxonomical identification *Endophragmia collapsa* B. Sutton

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

Order --

Family --

Gender *Endophragmia*

Species --

Image



DESCRIPTION

Colour Tapering cell, hyaline. Rounded and central cells, pale brown

Dimensions 12–15×7–8 µm

Shape Ovoid to ovoid elongated, constricted at septa, one end cell rounded, opposite end cell slightly tapering, thinner walled and mostly collapsed or at least crumpled

Wall/surface Psilate

Apertures 2–3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

INTERPRETATION

E. collapsa is observed on dead *Alnus* (Ellis, 1976). In present study occasional in alder carr; scarce to recurrent. Scarce in litter in birch carr. Indicates presence of trees (alder, birch?) (also roots?)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 113

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

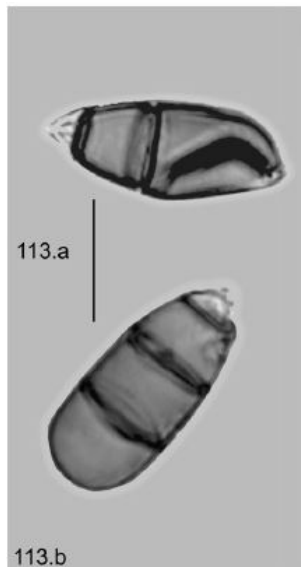
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to pale greyish brown (except one end cell)

Dimensions 26–28×10–12 µm

Shape Ovoid to ovoid elongated, 3-septate (2-septate) partition spore in unequally large cells; slightly constricted at septa, one end cell rounded, opposite end cell conical

Wall/surface Psilate

Apertures 3-septate in equally large cells, with pore at each one

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

INTERPRETATION

In present study occasional in alder carr; scarce to abundant. Highest values in dead wood of birch (in alder and in birch carr) and in mosses. Indicator for presence of trees (birch, alder?) (also roots?)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 114

Letter --

Category Fungi (possibly fruit body appendage (septa))

Taxonomical identification *Phyllactinia* sp. (det A. Aptroot).

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Leotiomycetes

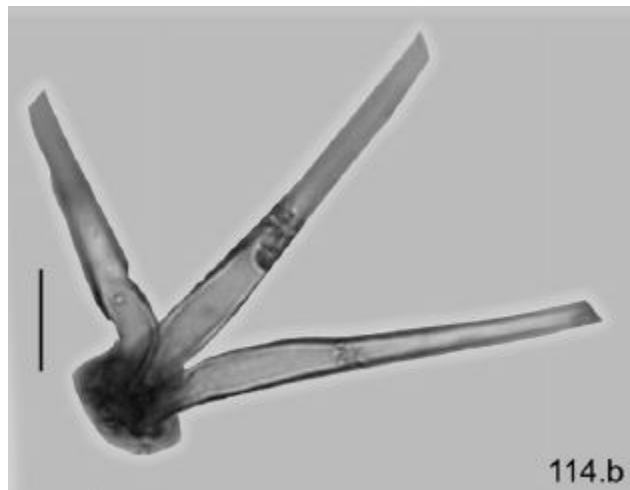
Order Erysiphales

Family Erysiphaceae

Gender *Phyllactinia*

Species --

Image



DESCRIPTION

Colour Pale brown

Dimensions Base (10×8–9 µm), whole remain 52–116×8–9 µm

Shape Acicular to elongated club-shaped, base constricted and kneeled, main part tapering from 7 to 3 µm in diameter to rounded or truncated tip

Wall/surface Psilate

Apertures --

Other Sometimes groups of EMA-114 with detached tissue remain observed (photo b)

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

P. guttata (Fries) Lévillé is known from leaves (Dennis, 1981). In present study rare in alder carr, mostly scarce. Present in birch carr (litter and mosses). Highest values in birch and sedge litter. Indicates carr vegetation

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 117

Letter --

Category Plantae (Betula wood?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions Single 'cells' 13–22 µm in diameter

Shape Lenticular, outline irregular, circular to polyangular

Wall/surface Psilate, often pitted (fungal decay?)

Apertures --

Other Sometimes EMA-117 embedded in a hyaline matrix (photo b)

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study rare, mostly scarce. One exceptionally high value (4,061%) in dead wood of birch (in birch carr) however indicates that EMA-117 is formed in/from birch wood. Indicator for birch in birch carr (also roots?) and high decomposition

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 118

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light yellow

Dimensions 9–14 μm in in diameter

Shape Globose, separate (foto .a) or in chains of up to 3 spores (foto .b)

Wall/surface Verrucate/baculate

Apertures One aperture

Other --

Similar to Resembles HDV-225 van Geel et al., 1989 (which is hyaline and larger). Resembles conidia of *Periconia byssoides* Pers. ex Mèrat, cosmopolitan found on blackened areas, on dead herbaceous stems and leaf spots. always associated with other fungi (Ellis. 1971: Ellis

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

INTERPRETATION

The observed distribution does not support this identification. In present study only in birch carr. High value in dead wood. Indicator for presence of birch in birch carr (also roots?)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 119

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

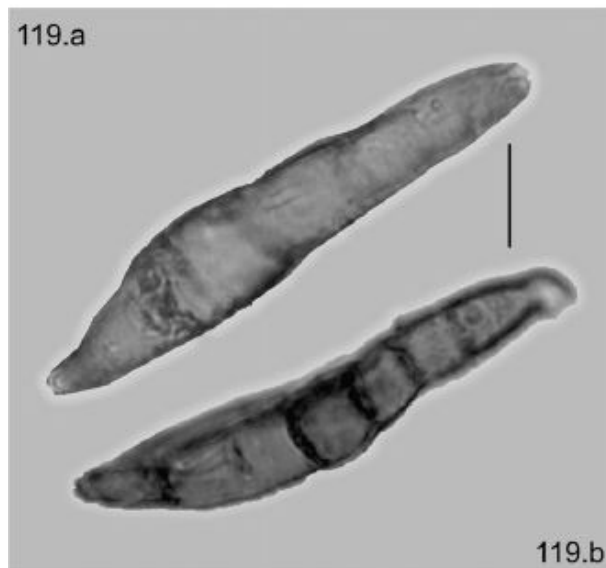
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale brown to greyish brown

Dimensions 62–71×12–14 µm

Shape Fusiform to club-shaped, slightly curved, one end tapering to a blunt tip, opposite end with a hyaline appendage with pore (hilum) or truncated, non-septate forms probably immature

Wall/surface Psilate

Apertures --

Other --

Similar to Very similar to HdV-1037 van Geel et al., 2011 (cf. *Helminthosporium* sp., but with 70–260 µm far too large), resembles also HdV-339 van Geel et al., 1980/81 (shorter, thicker, not curved)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 120

Letter --

Category Fungi (conidia?)

Taxonomical identification *Brachysporium britannicum* Hughes

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

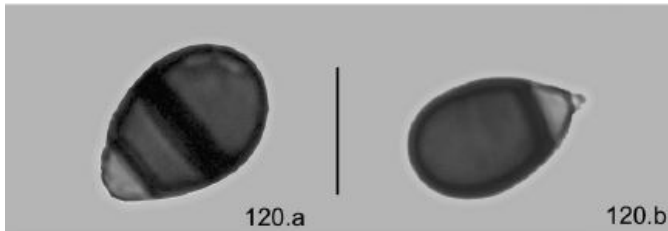
Order Trichosphaeriales

Family Trichosphaeriaceae

Gender *Brachysporium*

Species *britannicum*

Image



DESCRIPTION

Colour Brown, proximal cell: hyaline

Dimensions 17–19×10–13 µm

Shape Ovoid, proximal cell with aperture and often hyaline remnant of conidiophore

Wall/surface Psilate

Apertures 2-septate (rarely monoseptate), with pore

Other --

Similar to Similar to HdV-1036 (van Geel et al., 2011), also attributed to genus *Brachysporium* (but with 22–28 µm to long)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

B. britannicum is observed on wood and bark of *Betula* and other deciduous trees (Ellis, 1971; Ellis and Ellis, 1997). In present study only in birch carr. High value (529%) in dead wood. Indicates presence of birch (also roots?) in birch carr

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 121

Letter --

Category Fungi (ascospore, probably of Sordariaceae,

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

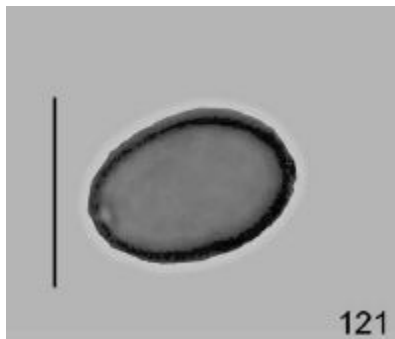
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 9–14× 7–9 µm

Shape Elliptic, slightly compressed

Wall/surface Psilate

Apertures 1 pore

Other --

Similar to Resembles HDV-55A1 van Geel et al., 1980/81 (larger)

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study only twice recorded, high value (53%) in a moss sample from birch carr. Might indicating dung

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 122

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

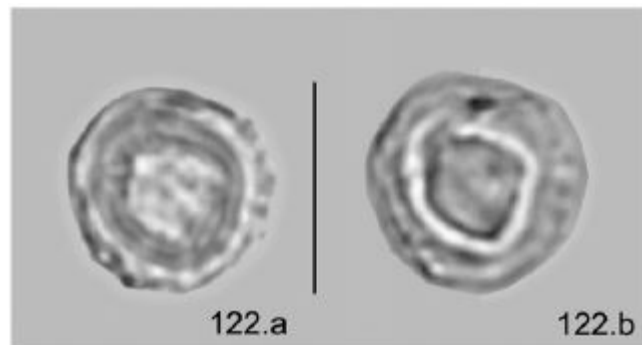
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light greenish yellow to hyaline

Dimensions 11-12 μm diameter, ring diameter variable (possibly depending on development stage)

Shape Discus with elevated ring on both sides

Wall/surface Psilate

Apertures --

Other --

Similar to

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study only twice recorded, high value (40%) in dead wood of birch in birch carr. Indicates presence of birch (also roots?) in birch carr

BIBLIOGRAPHY

First published in Prager 2012

Other articles

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 123

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

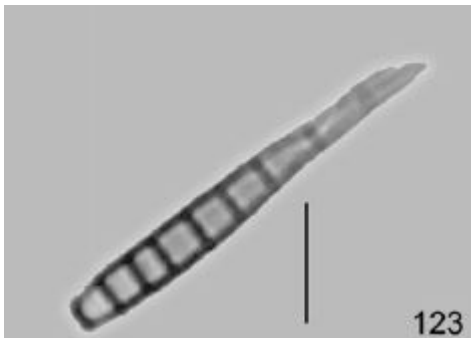
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 24–37 μ m long, max. 2.5-3.5 μ m thick, single cells 2–5 μ m long

Shape Club-shaped, distal end rounded, proximal end tapering, sometimes with long hyaline appendage (conidiophore or hyphae?), sometimes slightly curved, longest cells at tapering end

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input checked="" type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study occasional in alder carr, scarce to numerous. Highest values in hummock mosses but also abundant in (alder and birch) dead wood. Indicates presence of alder carr, possibly drier habitats

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 124

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to pale brown

Dimensions 27–28× 8–10 µm

Shape Ovoid to elliptic, , strongly constricted at septum, One end rounded

Wall/surface Longitudinal rugulate to striate

Apertures Monoseptate with pore; one end with large aperture (3.3 µm in diameter)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

INTERPRETATION

In present study rare in alder litter, scarce. Clear indicator for above ground remains and thus presence of alder

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 125

Letter --

Category Fungi (conidia)

Taxonomical identification *Corynesporopsis quercicola* (Borowska) P.M.

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

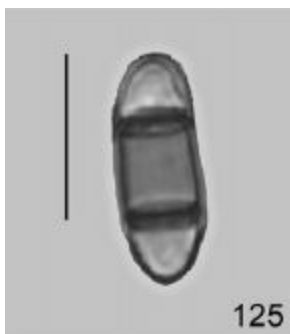
Order Incertae sedis

Family --

Gender *Corynesporopsis*

Species *quercicola*

Image



DESCRIPTION

Colour Central cell(s) bright brown, hyaline end cells

Dimensions 15–18×6–7 µm, (1 in 100 3-septate, 20–22×6–7 µm); central cell(s) longer (6–8 µm) than end cells

Shape Elliptic to cylindrical

Wall/surface Psilate

Apertures Usually 2-septate, septa with pore, small aperture in one or both end cells (hilum?)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
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| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

INTERPRETATION

C. quercicola is observed on dead wood of *Quercus* (Ellis and Ellis, 1997) and other trees (Kirk, 1981). In present study occasional in alder carr, scarce to numerous. Clearly concentrated (collected or produced?) in hummock mosses. One high value (24%) in alder wood. However, high values of EMA-125 also correspond to the distribution of *Quercus* seedlings. Might indicate presence of trees, including alder (also roots?)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 126

Letter A

Category Fungi (fragments of the same unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions Filament 10 µm in diameter

Shape Fragment of the cylinder, 4–7 windings/whorls

Wall/surface Scabrate

Apertures Usually 5-septate (full winding ~15-20 septa)

Other --

Similar to Similar to conidia of *Helicoon fuscosporum* Lindner (Ellis and Ellis, 1997), which has the filaments=coils only 3–4 µm, whole spore-body only 25–30 µm in diameter, and fewer septa per coil plane; known from wet stems of *Rubus idaeus*. Also similar to conidia of

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study EMA-126A and B are similarly distributed: occasional in alder carr, scarce. Indicator for alder carr (also roots?)

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 127

Letter --

Category Protozoa

Taxonomical identification *Diderma* (*Myxomycota*, det. *M. Schnittler*)

TAXONOMY

Kingdom Protozoa

Phylum Myxomycota

Class Myxomycetes

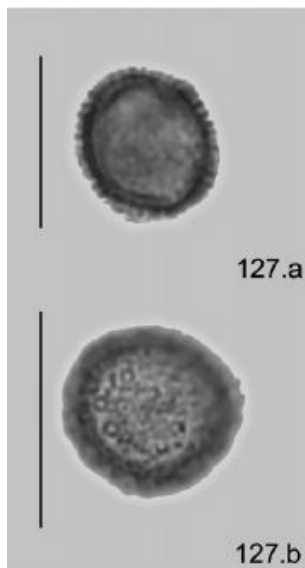
Order Physarales

Family Didymiaceae

Gender *Diderma*

Species --

Image



DESCRIPTION

Colour Pale brown

Dimensions c.11 μm in diameter

Shape Globose

Wall/surface Clavate to pilate, 'pilae' max. 1 μm long

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study occasional in alder carr, mostly scarce, one exceptionally high value (30%) in hummock mosses. Might indicate alder carr

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 128

Letter --

Category Fungi (conidia?)

Taxonomical identification *Actinocladium rhodosporum* Ehrenb. ex Pers.

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Incertae sedis

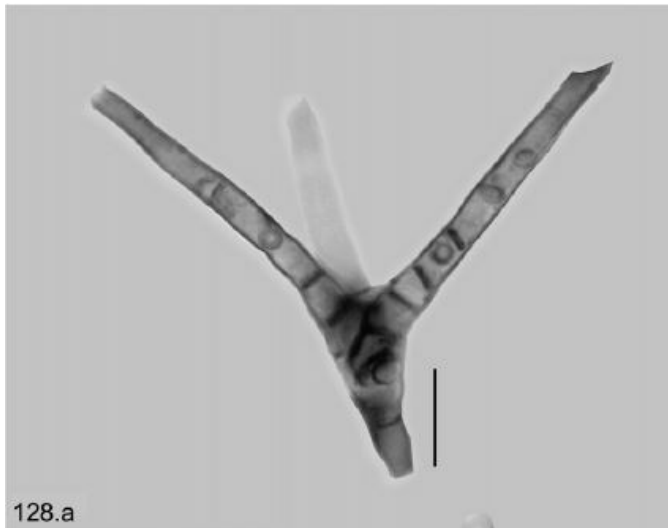
Order Incertae sedis

Family Incertae sedis

Gender *Actinocladium*

Species *rhodosporum*

Image



DESCRIPTION

Colour Greyish brown

Dimensions Total length 46–78 μm , centre muriform, 'legs' 5–6 μm wide at base, 21–54 μm long

Shape Tripod-like with conidiophore ('tripod head'), legs tapering towards ends, tips torn off; 'legs' in angle of 40–70° to conidiophore axis, conidiophore 3–4 μm wide at base

Wall/surface Psilate

Apertures Proximal septated (2–3 septate in the first 15 μm)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

INTERPRETATION

A. rhodosporum observed on wood and bark of numerous trees (Ellis, 1971), also alder (Yurchenko, 2001). In present study rare in alder carr, scarce to recurrent. Highest value (27%) in deadwood of alder. One observation in sedge fen, scarce. Indicates presence of alder (also roots?)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 129

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

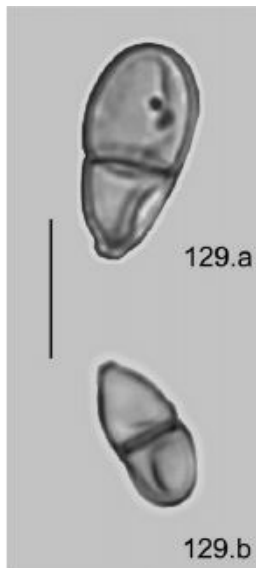
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Whole spore hyaline to pale brown

Dimensions 13–19×6–9 µm

Shape Ovoid to pyriform, slightly constricted at septum, apical cell rounded and usually larger, basal cell conical

Wall/surface Psilate, often dented

Apertures Monoseptate with pore. Basal cell with protruding aperture (hilum)

Other --

Similar to Resembles conidia of numerous fungi, e.g. *Cordana*, *Arthrobotrys*, *Hypomyces*, *Drepanopeziza*, *Endophragmia* and *Endophragmiella* and thus can include spores of many taxa

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

INTERPRETATION

In present study rare in alder carr, clearly concentrated in alder dead wood. One observation in sedge fen, scarce. Indicates presence of alder (also roots?)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 130

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

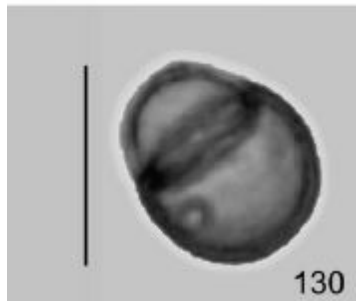
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown (darker than smaller cell)

Dimensions 11–13×9–10 µm

Shape Ovoid, smaller cell 4–5 µm long, aperture (hilum), larger cell rounded

Wall/surface Psilate

Apertures Monoseptate with pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study rare in alder carr, scarce. Might indicate alder carr vegetation

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 131

Letter --

Category Plantae (high abundances indicate local

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

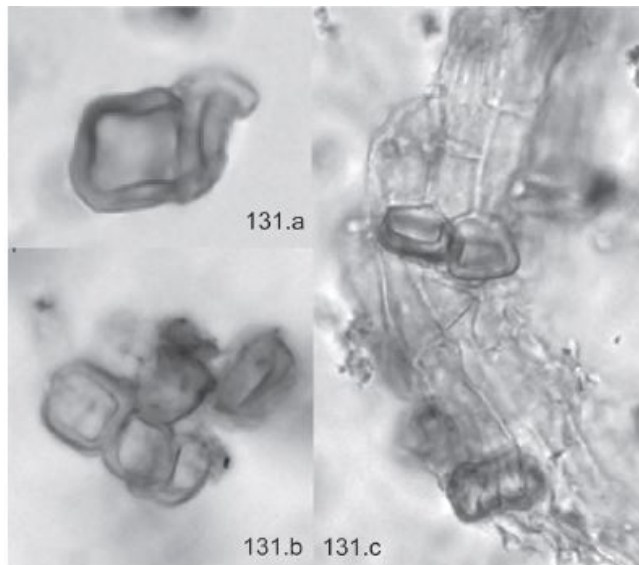
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow to hyaline

Dimensions 10–13×7–11 µm

Shape Single cells rectangular, contact point with rootlet somewhat widened

Wall/surface --

Apertures --

Other Mostly single cells, sometimes in groups or attached to rootlets. Basal cells of Cyperaceae rootlets, partly still attached to rootlet

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Barthelmes 2012

Other articles --

INTERPRETATION

High abundances indicate local presence of Cyperaceae, possibly sedges and enhanced decomposition of Cyperaceae rootlets. Decline of this type can be caused by improved fossil preservation (inhibiting decomposition of Cyperaceae rootlets) or decreasing cover of Cyperaceae at the site

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 132

Letter --

Category Plantae

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

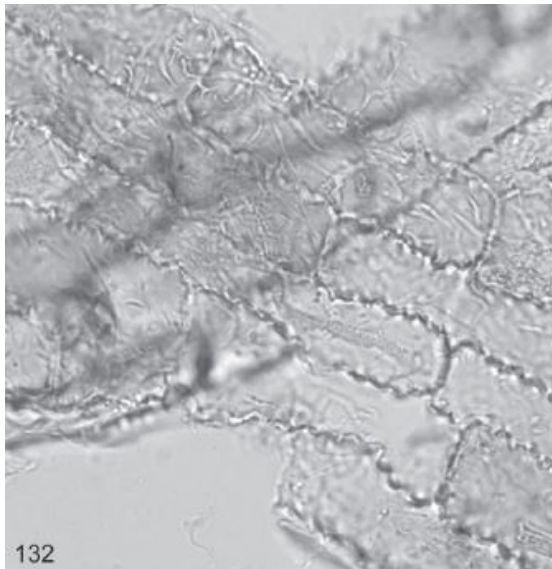
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow to hyaline

Dimensions 5–10×longer than wide

Shape Single cells small, elongated and regularly and finely undulated

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Barthelmes 2012

Other articles --

INTERPRETATION

Probably epidermis of Cyperaceae. High abundances indicate local presence of Cyperaceae, possibly sedges, but may be enhanced by lower water levels and resulting increased oxidative decomposition of larger Cyperaceae tissue. Decline of this type can be caused by improved fossil preservation (inhibiting decomposition of Cyperaceae tissue), declined fossil preservation (decomposition even of Cyperaceae tissue fragments) or decreasing cover of Cyperaceae at the site

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 133

Letter --

Category Fungi (ascospore of cf. Sphaeriaceae)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

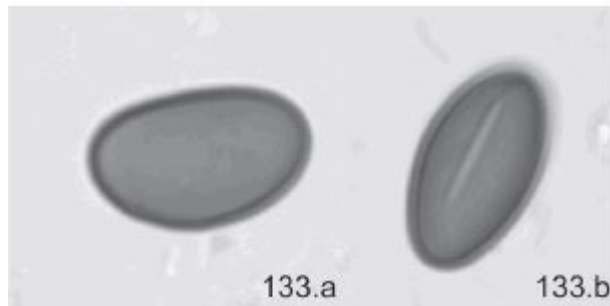
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 16–18 μm × 8–11 μm

Shape Bean shaped to ellipsoid and somewhat flattened, with longitudinal furrow of 8–9 μm length

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Ascospore of cf. Sphaeriaceae, a family which includes genera of wood-decomposing fungi (Breitenbach and Kränzlin, 1981)

BIBLIOGRAPHY

First published in Barthelmes 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 134

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale brown to hyaline

Dimensions 14–20 µm long

Shape Chain of 4–8 cells, single cells globose, flattened towards neighbouring cells, 3–7 µm in diameter, chain curved or kneeled

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Prager 2012

Other articles Barthelmes 2012

INTERPRETATION

EMA-134 has few distinct features and might thus represent spores of species from, e.g. *Sporormia*, *Sporormiella* (which are however often dark) and *Gliomastix murorum*. Recorded also in peat core (Barthelmes et al., 2012–this issue). In present study occasional, scarce to abundant. Highest values in alder litter but recurrent also on other substrates in alder carr and in sedge fen. Clearly indicates, at least if abundant, presence of alder carr vegetation. Probably EMA-134 is strongly susceptible to corrosion. Fungal spore (Prager et al., 2012–this issue), might represent spores of the coprophilous and endophytic genera *Sporormia*, *Sporormiella* or *Gliomastix* (Ahmed and Cain, 1972) or belongs to the cosmopolitan fungal genus *Torula* which includes species on litter, soil and dung (Seiffert et al., 2011)

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 135

Letter --

Category Fungi (Ascospore of cf. *Valsaria foedans* (P.

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

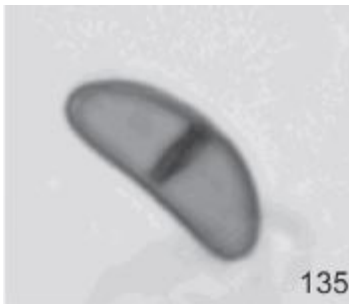
Order Diaporthales

Family Sordariomycetidae

Gender *Valsaria*

Species *foedans*

Image



DESCRIPTION

Colour Brown

Dimensions 12–14×5–6 µm

Shape Bean-shaped

Wall/surface Psilate

Apertures Monoseptate with pore

Other --

Similar to See also TM-307 of Cugny (2011)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Barthelmes 2012

INTERPRETATION

Ascospore of cf. *Valsaria foedans* (P. Karsten) Sacc., a fungus occurring on dead branches of e.g. *Alnus*, *Betula* and *Castanea* (Ellis and Ellis, 1997)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 136

Letter --

Category Plantae (fragment)

**Taxonomical
identification** *Nymphaeaceae*

TAXONOMY

Kingdom --

Phylum --

Class --

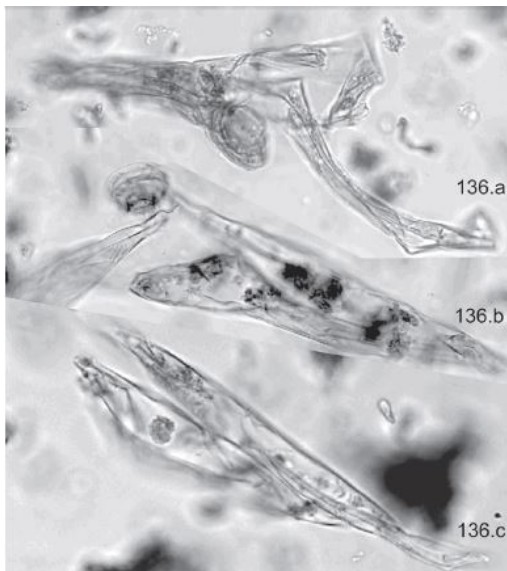
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 90– 130×15–50 µm

Shape Tissue, distinctively folded

Wall/surface Psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Probably part of Nymphaeaceae, because sometimes attached to HDV-127

BIBLIOGRAPHY

First published in Barthelmes 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 137

Letter --

Category Plantae (fragment)

**Taxonomical
identification** *Nymphaeaceae*

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



137

DESCRIPTION

Colour Yellow to light brown

Dimensions Single cells 19–30×52–80 µm, fragments 30–90×20–50 µm

Shape --

Wall/surface Compact tissue with rectangular to trapezoid cells

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Probably part of Nymphaeaceae, because sometimes attached to HDV-127

BIBLIOGRAPHY

First published in Barthelmes 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 140

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellowish-hyaline

Dimensions Fragments of different size (mainly 40–100×20–40 µm)

Shape --

Wall/surface --

Apertures --

Other --

Similar to Corroded HDV-114 (see below)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

EMA-140 indicates heavy decomposition – even of wood –implying low or strongly fluctuating water levels

BIBLIOGRAPHY

First published in Barthelmes 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym GE

Number 5

Letter --

Category Algae?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

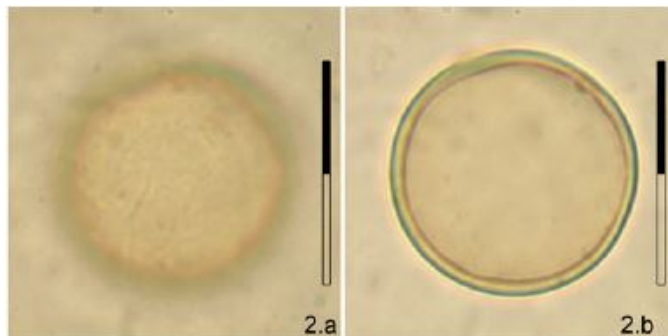
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light yellow

Dimensions About 20–32 μm in diameter

Shape Globose

Wall/surface Smooth, 1–1.5 μm thick, often a straight furrow is present

Apertures --

Other --

Similar to The GE-5 records mainly correspond to those of HdV-303, confirming that HdV-303 and possibly GE-5 are heterogeneous types

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

GE-5 may correspond also to unidentified apolar snow algae cysts (Haas et al. 2007) and may be indicative of snow persistence at the site

BIBLIOGRAPHY

First published in Menozzi 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 1.1.1

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Redish brown

Dimensions 18.4-19.2 μm long, et 10.7-12.3 μm large

Shape Unicelular, flattened laterally

Wall/surface --

Apertures Marked with a transverse slit on the whole side of a wall

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type I	Colour	--
Number	4.2		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	Diameter: 15 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Spherical, wrapped by a perine having a crosslinked appearance
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	This spore has been observed with and without hyphae suspensor
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 8.3

Letter --

Category Fungi (spores of Sordariaceae)

**Taxonomical
identification** *Sordariaceae*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Sordariaceae

Gender --

Species --

Image



DESCRIPTION

Colour Pinkish brown, opaque

Dimensions 16.1-20.7 x 9.2-10.7 µm. Aperture: 0.7-1.5 µm

Shape --

Wall/surface The walls of the projecting pore divide into a vestibule

Apertures A pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

INTERPRETATION

This type of spore has been encountered throughout the peat section, but in more abundant quantities where the moisture content is high

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 20.1

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

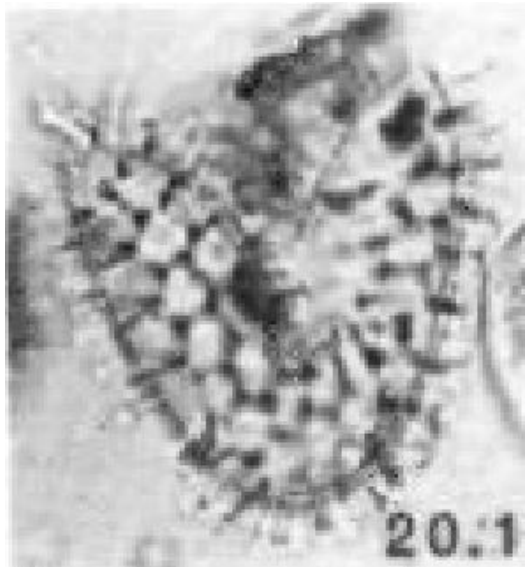
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 45-47.2 x 19.2-20.7 μm

Shape Oblonge

Wall/surface T-shaped protuberances (mean height 4.5 μm), connected together to form a lattice with a mesh diameter of 6.1-6.9 μm

Apertures --

Other --

Similar to A similar fossil has already been described by BAKKER and SMEERDIJK (1982)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 24.1

Letter --

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Diameter 46.2 to 57.7 μm

Shape Spherique, with a large opening (diam. 20,7-23,8 μm) with projecting edges (thickness of the edges 5.3-6.9 μm)

Wall/surface --

Apertures Large opening

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

A report could perhaps be established between these fruiting bodies and the spores of Type 1.28.1.

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 24.2

Letter --

Category Fungi (spores)

**Taxonomical
identification** *Sordariaceae*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Sordariaceae

Gender --

Species --

Image



DESCRIPTION

Colour Pinkish brown, opaque

Dimensions Long. 10.7-12.9 μm , larg. 6.9-8.4 μm

Shape The shape is asymmetrical slightly reminiscent of a pear. The widest extremity is characterized by a flattened and slightly prominent part (width 2.5-3.2 μm).

Wall/surface --

Apertures The other end is terminated by a recessed pore (diameter 0.7-1.2 μm)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This type of spore was found at the same level as Type 1.1.1.

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 28.1

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



28.1

DESCRIPTION

Colour Dark brown, opaque

Dimensions 7.7-9.2 μm long x 5.3-6.1 μm large

Shape Slightly triangular. Walls appear to thicken at the pore

Wall/surface --

Apertures The narrowest part is terminated by a slightly depressed pore (1.5-2.0 μm)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 28.2

Letter --

Category Fungi (spores)

**Taxonomical
identification** *Sordariaceae?*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Sordariaceae

Gender --

Species --

Image

DESCRIPTION

Colour Redish brown, opaque

Dimensions 31.5-33.8 µm

Shape Elongated

Wall/surface --

Apertures Each end is terminated by a pore. On the most rounded end, the pore appears truncated (diam. 2.3-3.0 µm). On the other end. The pore is prominent and the walls appear vestibular. The size of this pore is 3.0 to 4.0 µm in its widest part

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Such spores are concentrated in the peat section and more abundant towards the surface

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type I	Colour	Hyaline brown
Number	28.3		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	22.3-23.1 x 6.9-7.7 am
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Extremes slightly pointing, with a constriction at each septum (long. 5.3-6.1 µm)
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	3-septate
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This type has been observed at same levels than Type I. 24.2 and I.1.1.

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 32.4

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Whitish hyaline

Dimensions 39.1-42.5 μm without the spine protuberances on the surface (1.5-2.0 μm)

Shape Oblonge

Wall/surface A semicircular opening (15.5 μm long x 10 μm wide) sometimes adorns the wall

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type I	Colour	Whitish hyaline
Number	40.1		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	Long. 42-46 µm, larg. 26.9-28.4 µm
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Characterized by a pattern of triangular and interconnected small ridges (top 3.8-4.6 µm) alternating with troughs whose size reaches 3.0-3.8 µm
Species	--	Apertures	--
Image		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

INTERPRETATION

This fossil is confined to a level where the conditions Of humidity are high (sub-zone lib) simultaneously with Type 27 (*Tilletia sphagni*), Type 28 (copepod spermatophore) and rhizopod *Arcella* sp.

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 40.3

Letter --

Category Fungi (spores of Ascomycete)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycete

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions Long. 25.4-26.9 μm , larg. 9.2-10.8 μm

Shape Elongated, without constriction

Wall/surface --

Apertures Monoseptate. It is characterized by a very small pore (diam. 0.5-1.0 μm) at each end

Other --

Similar to Its maximum comes along with that of *Alnus rugosa*

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 40.5

Letter --

Category Fungi (algae?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 75-85 μm long

Shape Ellipsoidal

Wall/surface --

Apertures Open longitudinal groove which often encircles it completely

Other --

Similar to According to Van Geel (pers. comm.), These spores resemble *Spirogyra*, a blue alga of the order zygnémataceae indicating conditions of temporary flooding by relatively eutrophic waters

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

INTERPRETATION

Subsequent observations will be required to confirm the identification.
This fossil is concentrated in sub-area Hb, where the moisture conditions are indeed very high

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type I	Colour	Dark brown
Number	44.4		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	26.9-28.5 x 6.9-7.7 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Elongated and septated with slightly convexe sides
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	A slit (long. 23,1- 23.8 µm) decorates the wall
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type I	Colour	--
Number	60.2		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	Diameter: 18 µm, without the perine
TAXONOMY			
Kingdom	--	Shape	Spherical
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Without pore nor furrow but with a kind of perine covering it
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 60.3

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions Long. 20-30 μm , larg. 7.5-10 μm

Shape Quadrangulaire

Wall/surface Without decoration

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Garneau 1987

INTERPRETATION

Found mainly in isolation but sometimes also agglomerated. It is believed that these spores may be related to *Gloeotrichia* sp.

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type I	Colour	--
Number	84.2		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	Long, total ranging from 40 to 80 µm. Dimensions of each cell: 9-10 µm long and 11-13 µm wide
TAXONOMY			
Kingdom	--	Shape	Not very characteristic
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type I	Colour	The upper cells (towards the apex) are dark brown, opaque. The basal cells are hyaline
Number	88.3		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	Long. 16.5-21 µm, broad. Apical cell, 13 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	The latter cell is truncated and correspondes to the point of attachment of the mycelium
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	2-4-septate
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

These spores are observed in the mineral part of the section

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 88.5

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour The cells of the center are dark brown and those of the tips hyaline and often damaged

Dimensions Long. 45-53 μm , broad. 6.9- 14.6 μm with slight constrictions at each septum. Long, septum: 7.0-16.9 μm

Shape Convex walls

Wall/surface --

Apertures 3-septate

Other --

Similar to This Type resembles Type 121 of Pals ef al. (1980) where it reaches its maximum in the lake deposits

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The distribution of this ascospore coincides with that of Type 1.88.3.

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 100.4

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions Average dimensions: 28.5 µm long, 5.5 µm width

Shape Fusiform, with one side convex and the other flattened, ornamented of a furrow (long, average 14.5 µm), rounded ends

Wall/surface Thickened walls

Apertures Nonseptate

Other --

Similar to It resembles the Type 117 presented by Pals ef al. (1980) found in marine clay. The authors mention a transport of this fossil by external agents (wind, water) because it generally parasites the remains of deciduous tree species

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 104.3

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

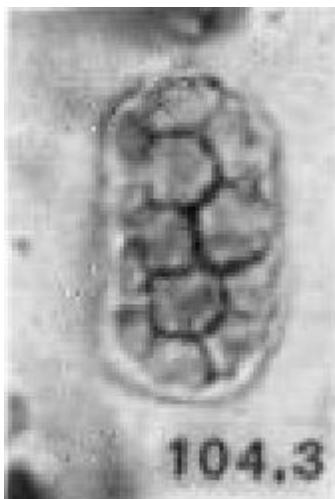
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions Long. 5-8 μm , broad. 4-8 μm . The size of the agglomeration is variable in length: from 23-27 μm up to 40 μm . The width is more constant: 14-16 μm , generally consisting of two rows of cells

Shape Agglomeration of hyaline cells more or less circular or sometimes having the shape of a heart

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 108.5

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown, hyaline ends

Dimensions Long, total: 23-26 μm

Shape Rounded and hyaline ends. Presence of a constriction at each septum (dimension 6-9 μm)

Wall/surface --

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number 116.5

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale

Dimensions 24-28 μm

Shape Spherical

Wall/surface Echinulate, length of spines (0.50-0.80 μm) uniformly distributed on the body

Apertures Presence of an S-shaped furrow whose long. Avg. lenght 30-35 μm

Other --

Similar to It recalls the Type 128 described by Van Geel et al. (1983) found in meso- or eutrophic aquatic environments

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type I	Colour	--
Number	--		
Letter	A		
Category	Animalia?		
Taxonomical identification	--	Dimensions	0.57 µm long, x 0.45-0.50 µm broad
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Capsule rather spherical, At one end and a very small pore (27.5 µm diameter) at the other end
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Probably of animal origin whose only characteristic is to have a circular opening of 0.17 µm of diameter

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type I	Colour	--
Number	--		
Letter	B		
Category	Animalia		
Taxonomical identification	--	Dimensions	Their average dimensions range from 0.95 to 1.7 µm long, and from 0.4 to 0.7 µm wide
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

INTERPRETATION

Under this Type were grouped all the wings of insects found during the macrofossil analysis. These wings belong mostly to beetles. Further identification of these fossils will be necessary to determine their paleoecological significance

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type I	Colour	--
Number	--		
Letter	C		
Category	Animalia		
Taxonomical identification	--	Dimensions	0.5 to 0.8 µm long, x 0.35 to 0.5 µm wide
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Garneau 1987

INTERPRETATION

Different hairy insect leg fragments. These fossils are concentrated in the peatland and at levels where the moisture content seems high. Ask for more precise identification

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number --

Letter D

Category Animalia

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions The length of the body varies from 0.67 to 0.85 mm and the width from 0.85 to 1.5 mm including the arched appendages on each side

Shape The broad body has at the front part two kinds of small legs (the arched appendages) about 0.65 mm long which run along it and project it backwards from 0.15 to 0, 2 mm

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This fossil is reminiscent of a small crustacean carapace

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type I	Colour	--
Number			
Letter	E		
Category	Animalia		
Taxonomical identification	--	Dimensions	Base: 0.5 mm wide x 0.4 mm high Second part: 0.95-1 mm long, x 0.33-0.43 mm wide)
TAXONOMY			
Kingdom	--	Shape	Wing-like fossil with a rather square basal part probably serving as a point of attachment to the body. The second part is elongated, arched and slightly swollen in the upper part before ending in a point
Phylum	--		
Class	--	Wall/surface	--
Order	--		
Family	--		
Gender	--		
Species	--	Apertures	--
Image			
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number --

Letter F

Category Animalia

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions Overall dimensions: average length. Of the assembly 0.7-1 mm, the "trunk": 0.5- 0.57 mm long, x 0.35-0.5 mm wide and each branch has a width varying from 0.16 to 0, 25 mm

Shape Tubular shape very characteristic with a main "trunk" of alternate or grouped secondary branches

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Ganeau 1987

INTERPRETATION

According to VAN GEEL (pers. Comm.), These fossils would constitute the habitat of some small marine animals and it would be very useful to identify them

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type I

Number --

Letter G

Category Animalia

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

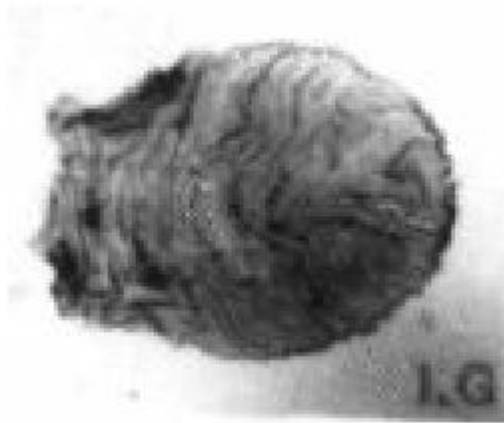
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 0.47-0.62 mm long, x 0.32-0.4 mm large

Shape Invertebrate oblong but flat with one end rounded and the other flattened

Wall/surface The surface of the body is characterized by a pattern composed of a superposition of vertical and horizontal corrugated folds and is marked with small perforations (diameter 2.5-4.6 μm)

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 3

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

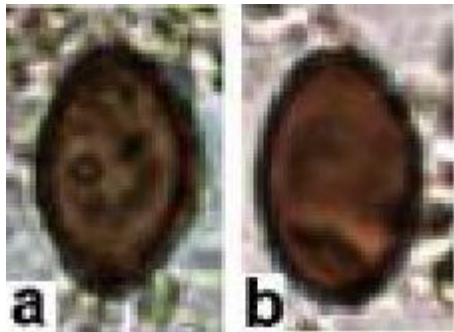
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 9.9–13.3×6.4–8.6 μm

Shape Fusiform

Wall/surface --

Apertures An apical pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 6

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 10.6–14.7×5.2–6.5 μm

Shape Ellipsoidal to cylindrical

Wall/surface --

Apertures A soft longitudinal germ slit

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 14

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 34.3–47×13.3–25.4 μm

Shape Constricted at the septum. Usually one cell larger than the other one

Wall/surface An outer, light-coloured wall showing an irregular pattern of longitudinal furrows and ridges up to c. 2.7 μm high

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 15

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 37–49×23–30 µm

Shape Lemon-shaped

Wall/surface Wall thickened around the pores

Apertures Two different protruding pores, in apical and subapical positions, c. 2 and 4.8 µm in diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 16

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 37.7–52.3×14.3–22.3 µm

Shape Constricted at the septum

Wall/surface --

Apertures Monoseptate

Other Originally the spores may have been 3-septate, with hyaline, thin-walled (not-preserved) end cells

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 17

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

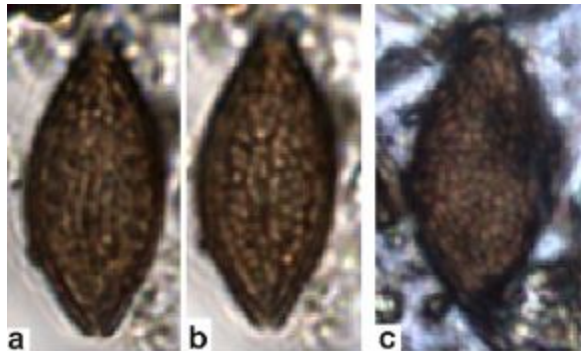
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 20.1–24.1×9.9–12.6 µm

Shape Fusiform, with two apical pores

Wall/surface Reticulate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	IBB	Colour --
Number	18	
Letter	--	
Category	Fungi (spores)	
Taxonomical identification	--	Dimensions 19.3–23.1×9.6–16.8 μm
TAXONOMY		
Kingdom	--	
Phylum	--	Shape Kidney-shaped, with apical pores
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		
		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 19

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 66–73.3×7.9–10.6 μm

Shape Fusiform, slightly constricted at the septum. One cell somewhat shorter than the other

Wall/surface Wall showing a regular pattern of longitudinal narrow ridges and furrows

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 20

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

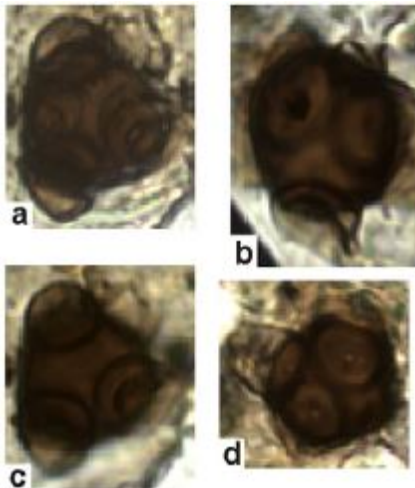
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark

Dimensions c. 11.2–15 µm in diameter

Shape A circular dark cell with (normally five) hyaline additional cells, up to 8.7 µm in diameter

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 21

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

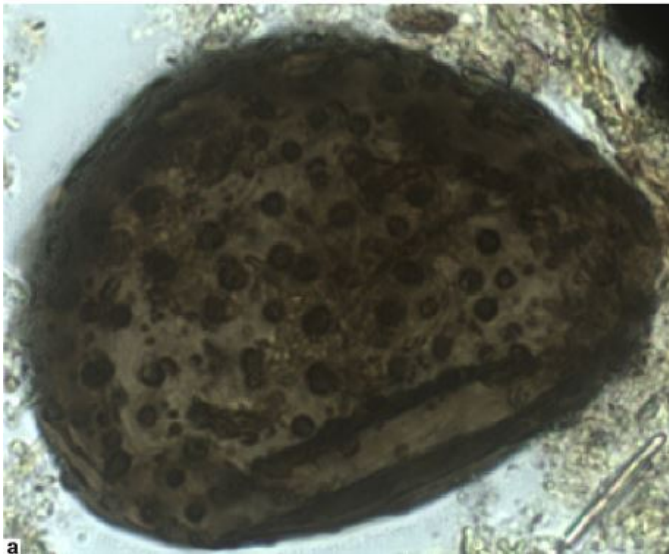
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 2.1–3.3 μm in diameter

Shape Globose

Wall/surface Wall showing dark appendages, 2.1–3.3 μm in diameter, some of those connected by black lines

Apertures --

Other IBB-21 type often appears broken

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

INTERPRETATION

The presence of IBB-21 within the animal assemblage is noteworthy. Although its morphology did not reveal its nature, the position in the CA analysis could suggest an animal origin

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 22

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 26.7–31×10.9–11.9 µm

Shape Constricted at the septum. Each cell showing an S-shaped furrow

Wall/surface --

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It has been tentatively related in this study with *Delitschia* genus spores

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 23

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 13.9–20.2 μm in diameter

Shape Globose

Wall/surface A thicker internal wall and a slightly undulating outer wall

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 24

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 28.3–38.3×9.7–9.5 µm

Shape Constricted at the septum, with a variable number of longitudinal furrows

Wall/surface --

Apertures Monosetate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 25

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

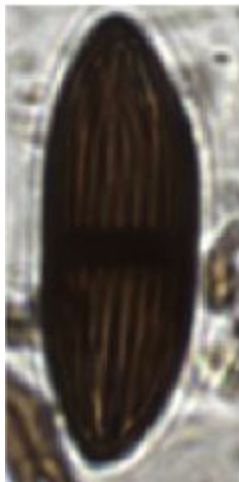
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 28.2–38.9 μm

Shape With many longitudinal light-coloured furrows

Wall/surface --

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It was found in Colombian Andes sediments and tentatively identified as *Neurospora* sp. (Hooghiemstra, 1984)

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 26

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 31.7–32×15.4–15.5 µm

Shape Slightly fusiform, strongly constricted at the septum, probably originally 4-celled. With (8–) 10 longitudinal dark furrows

Wall/surface --

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 27

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

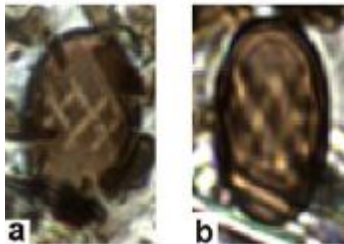
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 16.6–20.3×9.3–11.8 µm

Shape Ellipsoidal, with (6–) 8 oblique light furrows

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Hooghiemstra (1984) found this morphotype also in Colombian Andes sediments and tentatively identified it as *Spirotremesporites ecuatorialis*

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 28

Letter --

Category Fungi (conidia or chlamydospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

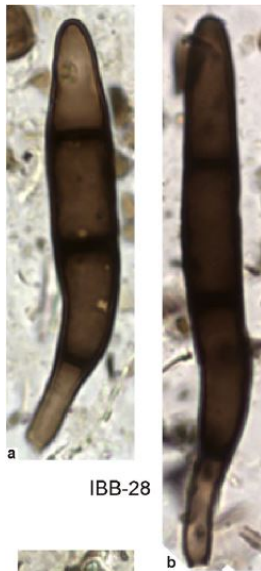
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 51.6–70.5×9.4–11.2 μm , each dark cell c. 13.4–24.6 μm long

Shape End cell rounded. Basal cell paler (thinner-walled) and narrow

Wall/surface --

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 29

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 22–29.3 μm in diameter

Shape Globose

Wall/surface --

Apertures A protruding pore 2.3–6 μm wide

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 30

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

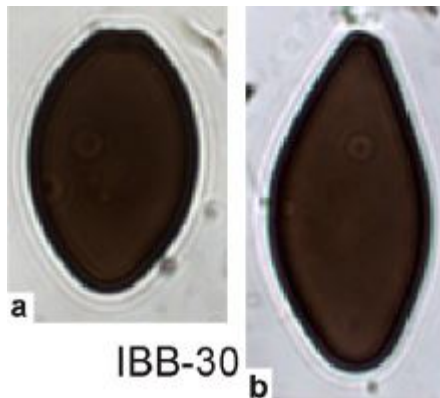
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 21.4–30.4×10.9–18.6 μm

Shape Pyriform, truncate at one end

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 31

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

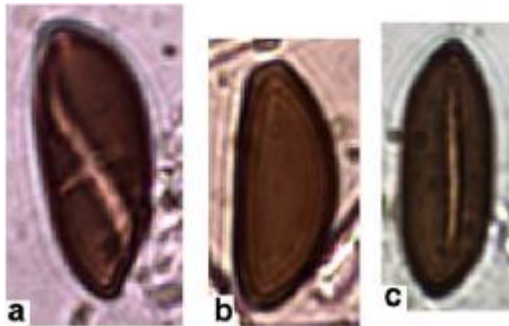
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 17.9–20–29.4×6–9 µm

Shape Fusiform, one side flattened

Wall/surface Paler around the apices

Apertures Bearing a longitudinal or sometimes S shaped slit

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It has been tentatively related in this study with *Rosellinia* genus spores

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 32

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 27.4–37.2×8–9.9 µm

Shape Fusiform, , one side flattened and bearing a longitudinal slit

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IBB

Number 44

Letter --

Category Animalia?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

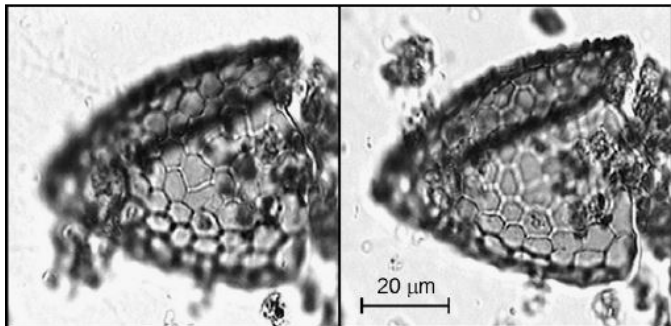
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown-yellowish

Dimensions 52.8 and 115.8 μm length

Shape Folded reticular membrane that occurs with different sizes and irregular outline morphologies. It is usually broken thus making the reconstruction of the whole structure difficult

Wall/surface The reticle is rather regular and with characteristic hexagonal lumina of around 7.1 μm diameter (between 5.0 and 12.4 μm in size each arista) and very thin (0.5 μm), darker muri

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

INTERPRETATION

Based on this stratigraphic pattern, IBB-44 is tentatively considered as indicator of cold climatic conditions

BIBLIOGRAPHY

First published in Montoya 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym IGA

Number 1

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

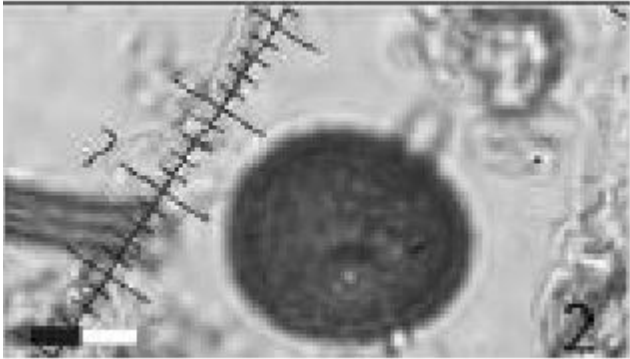
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 16–22 μm in diameter

Shape Globose

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY


First published in Gauthier 2010

Other articles --

INTERPRETATION

The origin of this microfossil remains difficult to determinate, and it could be a coprophilous ascospore or a spore of another origin, such as a bryophyte. Liverworts related to grazing and dung input are recorded in Greenland, *Riccia sorocarpa* Bisch. or *Marchantia alpestris* (Nees) Burgeff, for example. *Riccia* species grow abundantly in the emergent surfaces of regional mountain waters within areas of intense grazing (Carrión 2002a; Carrión et al. 2003). The use of bryophyte spores in pollen analyses has been demonstrated, however, the spore morphology of IGA 1 is very different, and as this type was also found in recent dung (see below) there is a good chance that the IGA 1 originates from dung

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	Light brown
Number	12		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.15 µm long
TAXONOMY			
Kingdom	--	Shape	Kidney-shaped, with two small apertures on extremities
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
	Apertures		
	Other		
	Similar to		

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found only in moss samples from grazed sites

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym LCE

Number 13

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions c.13 μm width

Shape Discoid

Wall/surface --

Apertures With small aperture (porous?) aside

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Present in all kinds of samples and stations

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	Light brown
Number	14		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.18 µm long and 12 µm width
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Egg-shaped, with small aperture by one third of main axis, by the apex-side
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Not found in dung samples, not found in samples from wet sites and not found in moss samples from ungrazed forests

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym LCE

Number 15

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

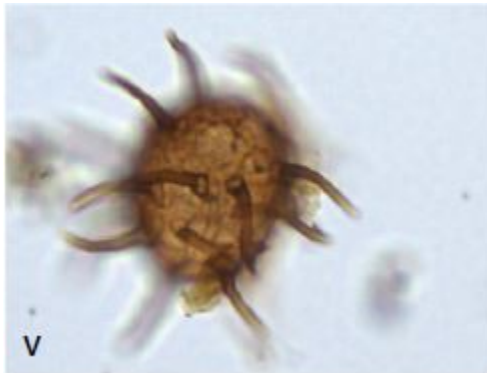
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c.30 μm diameter from which long spines start (up to 35 μm long)

Shape Rugulate spherical center. Spines usually grouped by pairs of two spines closer to each other than with the other.

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Not found in dung samples

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	Light brown
Number	16		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.23 µm in diameter
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Five grouped apertures
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found only in one moss sample from grazed forest

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	--
Number	17		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.23 µm long
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Egg-shaped
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found only in moss samples from grazed sites

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym LCE

Number 18

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions c.18 μm long and 5 μm width

Shape Rectangular

Wall/surface Thick wall (almost 1 μm width)

Apertures One aperture on one of the small face

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	--
Number	19		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.13 µm long
TAXONOMY			
Kingdom	--	Shape	One protuberance in the middle of the main axis
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	An aperture (not protruding) on the other side
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym LCE

Number 20

Letter --

Category Fungi (spores)

Taxonomical identification *Valsaria variospora*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Incertae sedis

Family Incertae sedis

Gender *Valsaria*

Species *variospora*

Image

DESCRIPTION

Colour Brown

Dimensions c.70 µm long and 32 µm width

Shape Body constriction around the septum, with protuberance on extremities

Wall/surface --

Apertures Monoseptate

Other --

Similar to Possibly HdV-140

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found only in moss sample from one unwooded pasture

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	--
Number	21		
Letter	--		
Category	Fungi (Possibly a small specimen of type HdV		
Taxonomical identification	--	Dimensions	c.10 µm long and 5 µm width
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Small, with one constricted septate
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Monoseptate
		Other	--
		Similar to	HdV-85

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	--
Number	22		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.22 µm diameter
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Curved pluri-septate microfossil
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found in moss samples except a small occurrence in a dung from grazed forest

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym LCE

Number 23

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

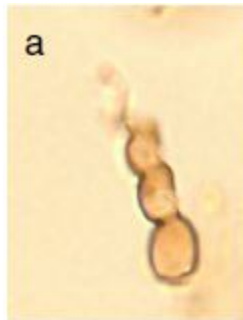
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c.30 μm long

Shape Sinuous, seems to extend, often groups
by dozens around a spherical support

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found in almost all stations except ungrazed forests and in high amounts among dung samples

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym LCE

Number 24

Letter --

Category Fungi (spores)

Taxonomical identification *Valsaria variospora?*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Incertae sedis

Family Incertae sedis

Gender *Valsaria*

Species *variospora*

Image



DESCRIPTION

Colour Brown

Dimensions c.70 µm long and 32 µm width

Shape Body constriction around the septum, with protuberance on extremities

Wall/surface --

Apertures Monoseptate

Other --

Similar to HdV-140 or LCE-10

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found only in moss sample from one sparsely and one densely wooded pasture

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	--
Number	25		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.45 µm long
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Kidney-shaped microfossil
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	Apertures on extremities
		Other	--
		Similar to	LCE-2, but 45 µm long

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Mostly found in mosses from grazed sites and one occurrence in the dung sample from one densely wooded pasture

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym LCE

Number 26

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c.15 μm long and 10 μm width

Shape Microfossil with slightly constriction

Wall/surface Thick wall (1–2 μm thick)

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found in all kinds of samples except dung from wetlands, but not found in unwooded pastures

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym LCE

Number 27

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions c.45 μm long and 30 μm width

Shape Pluri-septate, with one spherical extremity darker than other segments

Wall/surface --

Apertures Aperture on the distal segment

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found only in moss from ungrazed forests

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	Light brown
Number	28		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.45 µm long and 25 µm width
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Mass of globose cells, each from 5 to 10 µm diameter, arranged in two-dimension mosaic
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found only in moss samples from grazed sites

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	Dark brown, except extremities
Number	29		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.45 µm long and 15 µm width
TAXONOMY			
Kingdom	--	Shape	Extremities are angled, one in the opposed direction of the other. Slight constriction at septum
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Monoseptate
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Only one small occurrence in a moss sample from an unwooded pasture

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	Light brown
Number	30		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.15 µm diameter, internal diameter 9 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ring-shaped
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found only in moss sample from a grazed wetland

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	--
Number	31		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.18 µm long and 6 µm width
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Small cylindrical microfossil, with endless screw-like sculpture
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found only in a dung sample from a grazed wetland

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	Light brown
Number	32		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.16 µm diameter
TAXONOMY			
Kingdom	--	Shape	Discoid
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	LCE-2 but without aperture

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym LCE

Number 33

Letter --

Category Fungi

**Taxonomical
identification** *Alternaria?*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Pleosporaceae

Gender *Alternaria*

Species --

Image

DESCRIPTION

Colour --

Dimensions About 100 µm long

Shape Multi-cells microfossils

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

INTERPRETATION

Found only in a dung sample from one grazed forest. Possibly *Alternaria* (see McAndrews et al., 2010. Fungal spores record Iroquoian and Canadian agriculture in 2nd millennium A.D. sediment of Crawford Lake, Ontario, Canada. Veget Hist Archaeobot 19, 495–501.)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LCE	Colour	--
Number	34		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.35 µm long and 30 µm width
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Mass of 12 cells arranged in 3 rows of 4 cells, inner cells bigger than outer. Corner cells more rounded, others rectangular
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Found only in a moss sample from one unwooded pasture

BIBLIOGRAPHY

First published in Dietre 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	LVA	Colour	--
Number	1		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	It is described as IBB-44 in Montoya 2012

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Rull 2008

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym NCP

Number 1

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

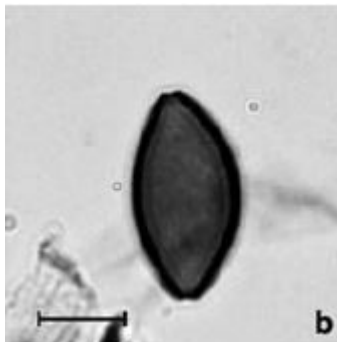
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Length of 23–29 μm

Shape --

Wall/surface Thickness of $\sim 1.5 \mu\text{m}$ without septum

Apertures Pori at each end 2–3 μm wide

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kramer 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym NCP

Number 2

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

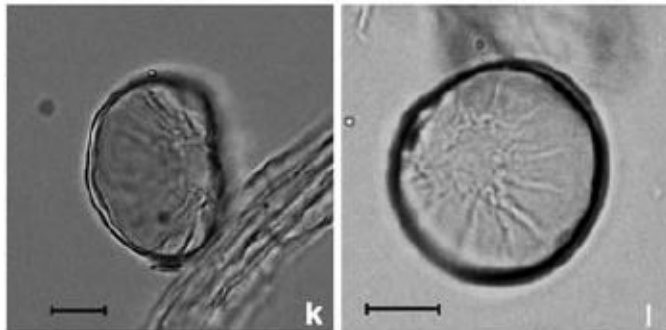
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 30–35 μm in diameter

Shape Circular, with a hyaline structure, from the outer walls to the centre of the microfossil, the structure is contracted, mimicking a kind of aperture

Wall/surface Wall thickness*0.5 μm

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kramer 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym NCP

Number 3

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

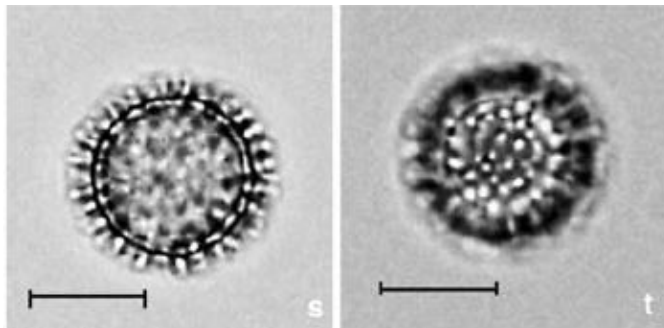
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Diameter of 12–15 μm and a length of the acuminate protuberances of c. 2.5 μm

Shape Globose

Wall/surface Densely patterned surface

Apertures --

Other --

Similar to HdV-181 but probably from a different organism (van Geel et al. 1983, personal communication 2007)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kramer 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym NCP

Number 4

Letter --

Category Algae?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

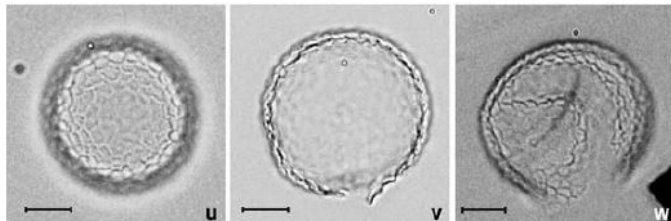
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 35–42 μm in diameter

Shape Globose. The 'brochi' of the reticulum are 2–3 μm in diameter, most of the fossils appearing faultless

Wall/surface Reticulate, 1.0–1.5 μm thick wall

Apertures Some showing an opening without any indication of a hyphenation point like a porus

Other --

Similar to According to J. N. Haas (personal communication 2008), and also because of its recorded openings, this NCP-4 greatly resembles a *Chlorococcus* algae zygote of unknown species

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kramer 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym QM

Number 10

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions 12–14×8–9 µm

Shape Ovaloid, slightly flattened around the location of the pore

Wall/surface --

Apertures A small (c.1 µm) single pore, off-centre and close to one end.

Other --

Similar to Resembles some of the spores designated as Type 123 by Pals et al. (1980), but those recorded from WW and BTC are less variable than those previously illustrated and are consistently small. While Type 123 probably includes a range of species. Type QM10 may be a

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Blackford 2006a

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	QM	Colour	--
Number	12		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Blackford 2006

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	QM	Colour	--
Number	13		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Blackford 2006

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	QM	Colour	--
Number	14		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Blackford 2006

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	QM	Colour	--
Number	16		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Blackford 2006

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	QM	Colour	--
Number	17		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Blackford 2006

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number 15			
Letter --			
Category Unknown			
Taxonomical -- identification		Dimensions (12) 14–18(26) µm in diameter	
TAXONOMY			
Kingdom --		Shape Globose	
Phylum --			
Class --			
Order --			
Family --			
Gender --		Wall/surface Wall 1.5–2 µm thick, smooth and with a S-shaped furrow	
Species --			
Image		Apertures --	
		Other --	
		Similar to	Its morphology may suggest a taxonomical relationship with Type 128Aand Type 128B, particularly for its S-shaped furrow

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In our samples it occurs with Type 128A, which is an eu- to mesotrophic open water environments indicator (vanGeel et al., 1989)

BIBLIOGRAPHY

First published in Miola 2006

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour	Dark brown
Number 24			
Letter --			
Category Fungi (spores)			
Taxonomical -- identification		Dimensions	Up to 300 µm long, 5–7 µm wide
TAXONOMY			
Kingdom --		Shape	With no broader part, often broken off at one or both ends
Phylum --			
Class --			
Order --			
Family --			
Gender --		Wall/surface --	
Species --			
Image		Apertures	Multiseptate
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Miola 2006

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number 74

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Hyaline

Dimensions 20–25 µm in diameter

Shape Globose, with 2 µm high ridges

Wall/surface Reticulate. Meshes of the reticulum about 5 µm wide

Apertures --

Other --

Similar to We observed cells very similar to Type 74 in surface sediment samples collected from a prealpine small pond (Val Piana–Belluno, northeastern Italy). Many Clamydophyceae (Chlorophyta) produce zoöcotes very similar to both fossil Type 74 and our observed objects

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Miola 2006

INTERPRETATION

In order to identify the organisms, producers of zygotes, future studies will involve the analysis of water samples during blooming season of the algal community

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --
Number --
Letter --
Category Fungi (ascospores)
Taxonomical identification *Acrospira mirabilis*

TAXONOMY

Kingdom Fungi
Phylum Ascomycota
Class --
Order Incertae sedis
Family --
Gender *Acrospira*
Species *Acrospira mirabilis?*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Chmura 2006

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Fungi

Taxonomical identification *Aleteverrucosispora* Kar and Bose

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to It resembles other genera in this group but is characterised by a ring of verrucose elements between the polar and equatorial region of each hemisphere which are otherwise unsculptured

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type species: *Aleteverrucosispora annulata* Kar and Bose, 1976. The genus was first described from the Permian of Zaire

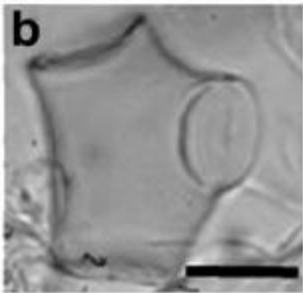
BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Algal form 1	Colour	--
Number	--		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	It has the appearance of a cell that joins two filaments, as if in the conjugation process characteristic of the Zygnemataceae



NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Chmura 2006

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Plantae

Taxonomical identification *Anthoceros type*

TAXONOMY

Kingdom Plantae

Phylum Anthocerotophyta

Class Anthocerotopsida

Order Anthocerotales

Family Anthocerotaceae

Gender *Anthoceros*

Species --

Image



DESCRIPTION

Colour --

Dimensions 45–90 µm in diameter

Shape Circular to sub-triangular

Wall/surface Verrucate surface sculpture with trilete mark

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Cook 2011

Other articles --

INTERPRETATION

Anthoceros is unique among the bryophytes because spore production is a continuous process rather than simultaneous with shedding only (Weier et al. 1970). *Anthoceros* is widely distributed, and frequently found on moist soils, in fields, on the surface of ponds and ditches and as a pioneer alongside open water (Jahns 1980; Allaby 1992). Considered together with changes in aquatic taxa, *Anthoceros* has been demonstrated as a useful indicator of swamp development in southeastern Australia (Dodson 1974a, 1974b; Dodson and Wilson 1975). Here recorded as *Anthoceros* type because spores recorded also resemble those of *Lycopodiella* which are also present in the region. *Lycopodiella* is similar in ecology to *Anthoceros*, growing among shrubs and sedges in swamps, in wet areas in soils or on banks or slopes near streams (McCarthy 1998). *Anthoceros* type representation is greatest in the LTC1 record in MIS 5.1) and in all records during the Holocene and in the European phase, periods that were warmer and wetter and during which swamps developed

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia (egg)

Taxonomical identification *Ascaris*

TAXONOMY

Kingdom Animalia

Phylum Nematoda

Class Chromadorea

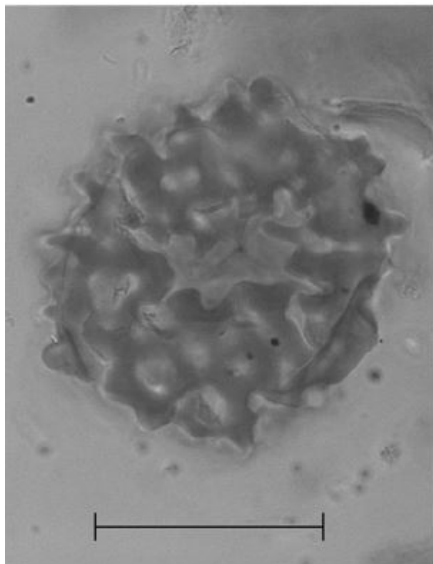
Order Ascaridida

Family Ascarididae

Gender *Ascaris*

Species --

Image



DESCRIPTION

Colour --

Dimensions *Ascaris lumbricoides* (man): 45–75×35–50 µm
Ascaris suum (pig): 50–70×40–60 µm

Shape Round to broadly oval (transverse section), The polar areas are flat or slightly concave

Wall/surface Thick walled eggs. Acetolysed eggs have a rough, irregular reticulum on top of the outer shell

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Brinkkemper 2012

Other articles --

INTERPRETATION

The eggs from *Ascaris suum* are in general more rounded than eggs from *Ascaris lumbricoides*, but a considerable overlap in dimensions remains. The smaller width of human mawworm makes them on average more slender than those of pig. A width/length ratio approaching 1.0 has not been recorded in the material we have analyzed, which leads us to assume that we are dealing with *Ascaris lumbricoides* in practically all cases, again with the additional fact that all samples studied here derive from human cesspits. These and other intestinal parasite eggs are included in a Helminth key published on internet

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category	Plantae		
Taxonomical identification	<i>Aulacomnium palustre</i>	Dimensions --	
TAXONOMY			
Kingdom	Plantae		
Phylum	Bryophyta	Shape --	
Class	Bryopsida		
Order	Bryales		
Family	Aulacomniaceae		
Gender	<i>Aulacomnium</i>	Wall/surface --	
Species	<i>palustre</i>		
Image		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

A species which is tolerant of a wide range of conditions in mires (Dickson, 1973). According to G. Grosse-Brauckmann (pets. comm.), this species also occurs in ombrotrophic raised bogs and hardly permits conclusions concerning ecological conditions

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia

**Taxonomical
identification** *Brachionus*

TAXONOMY

Kingdom Animalia

Phylum Rotifera

Class Monogononta

Order Plana

Family Brachionidae

Gender *Brachionus*

Species --

Image



DESCRIPTION

Colour --

Dimensions 158–161 μm x 95–98 μm

Shape Ellipsoidal to ovoid, often open at one end

Wall/surface Wall is reticulate and heterobrochate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Cook 2011

Other articles --

INTERPRETATION

The genus *Brachionus* (Pallas 1766) (Brachionidae; Wesenberg-Lund 1899) has 26 species in Australia, many of which live in salt lake environments (Shiel 1995). *Brachionus plicatilis* dominates halophytic lakes of western Victoria (Williams 1978; Shiel and Koste 1986) although there is evidence to suggest that too high a level of salinity, such as that of seawater (38‰ at 30°C), as well as complete darkness and low temperatures blocks hatching (Minkoff et al. 1983; Pourriot and Snell 1983). *Brachionus* resting eggs occurred during MIS2 and in the European phase of the LTC1 record with rising levels of the submerged aquatic *Lepilaena cylindrocarpa* type, tolerant of salinities up to 27‰, and an absence of freshwater *Myriophyllum*, indicating reduced lake levels and increasingly high salinities

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Plantae

Taxonomical identification *Brazilea punctata*

TAXONOMY

Kingdom Plantae

Phylum --

Class --

Order --

Family --

Gender *Brazilea*

Species *punctata*

Image

DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to Possible synonyms: *Fusilites* Hemer and Nygreen, 1967; *Hemisphaerium* Hemer and Nygreen, 1967; *Psiloschizosporis* Jain, 1968

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The genus was originally described from the Permian of Brazil. It differs from other genera in this group by having a pitted but otherwise smooth wall

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category

Taxonomical identification *Brodispora*

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to Its overall morphology is similar to *Circulisporites* but it is not described as having an equatorial rupture

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The genus *Brodispora* was described from the Keuper (Late Triassic) of Worcestershire. For the present it is considered to be an acritarch

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Plantae

Taxonomical identification *Bryophyte type*

TAXONOMY

Kingdom Plantae

Phylum Bryophyta

Class --

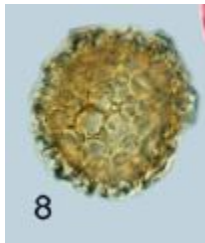
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c.32–36 µm in diameter

Shape Circular

Wall/surface Surface sculpture displays reticulate pattern

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Cook 2011

Other articles --

INTERPRETATION

The bryophyte spore type identified occurred in low levels throughout the Holocene in all records. In broad terms it was representative of moist, shady environments adjacent to the lake

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Algae

**Taxonomical
identification** *Bulbochaete*

TAXONOMY

Kingdom --

Phylum Chlorophyta

Class Chlorophyceae

Order Oedogoniales

Family Oedogoniaceae

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 35--48 X 21--26 µm

Shape Oblong-ellipsoid

Wall/surface The spore wall with 4—6 costae which are transversely adjoined by ridges

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Montoya 2010

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Plantae (Charred Poaceae epidermis)

**Taxonomical
identification** --

TAXONOMY

Kingdom Plantae

Phylum --

Class --

Order Poales

Family Poaceae

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Usually 3–12 μm wide and 2–3 times as long

Shape Alternating long and short epidermal cells, stomata clearly visible

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Cook 2011

Other articles --

INTERPRETATION

The epidermis, or surficial layer of cells covering a plant's primary tissues, is perforated by stomata, the function of which is to regulate gas exchange between the plant and the atmosphere. These pores are present on all aerial leaf and stem structures as well as ovaries and anthers (Sinnot and Wilson 1955; Lowson 1962). Stomata occur on spore capsules of many Bryophyta but otherwise are restricted to the vascular cryptograms and seed plants, and are surrounded by a pair of guard cells that contain chloroplasts (Robbins and Rickett 1945; Weier et al. 1970). Morphologically it is possible to distinguish between the microscopic remains of epidermal cells (including stomata and guard cells) of different plant types, even when charred or burnt and, where modern reference material has been systematically compiled, even within plant families where distinction below family level on the basis of pollen morphology is problematic (e.g. Poaceae, see Palmer 1976; Wooller et al. 2003). In this study, increases in charred Poaceae epidermis generally followed increases in charcoal in all records (except during MIS 5.1–3 in the LTC1 record where there is only one representation). Thus, it was possible to determine that grasses were the major component of low level biomass burning, principally during MIS 5.1 and the Holocene

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Algae

**Taxonomical
identification** *Circulisporites paryus*

TAXONOMY

Kingdom Plantae

Phylum Incertae sedis

Class --

Order --

Family --

Gender *Circulisporites*

Species --

Image

DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to *Concentricystes* Rossignol, 1962 is very similar but is differentiated from *Circulisporites* by having ribs which may spiral or bifurcate and a polar area with complex muri. The Late Devonian genus *Chomotriletes* Naumova, 1953 also has a very similar morphology but

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

INTERPRETATION

The genus was first described from the Triassic of Australia. It differs from other genera in this Group by having a sculpture consisting of a number of simple concentric ribs. Personal observations of limited Late Devonian material from Turkey suggest the possibility of *Chomotriletes* splitting into two hemispheres. However, Playford and Dring (1981, p. 12) clearly stated that no excystment mechanism is evident and they illustrated a complete specimen, albeit flattened, with no sign of equatorial splitting. A species of *Chomotriletes* described by Hart (1964) from the Permian of South Africa is probably synonymous with *Cireulispurites parvus* de Jersey, 1962.

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category Algae			
Taxonomical identification <i>Concentricystes</i>		Dimensions --	
TAXONOMY			
Kingdom Plantae			
Phylum Charophyta		Shape --	
Class Conjugatophyceae			
Order Zygnematales			
Family Zygnemataceae			
Gender <i>Concentricystes</i>		Wall/surface --	
Species --			
Image		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles Montoya 2010

INTERPRETATION

The genus was first described from the Pleistocene of Israel. Sporites H. Potonié 1893 and *Pseudoschizaea* Thiergart and Frantz, 1962 ex Potonié, 1966 are junior synonyms of *Concentricystes*, although Christopher (1976) considered *Pseudoschizaea* to have priority. However, Jansonius and Hills (1978), quoting a personal communication with F.A. Stafleu, stated that *Concentricystes* has priority over *Pseudoschizaea*. As discussed above, *Concentricystes* is morphologically similar to *Circulisporites*. They have been related to freshwater marshes (Rossignol, 1962; Milanesi et al., 2006)

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia

**Taxonomical
identification** *Conochilus natans*

TAXONOMY

Kingdom Animalia

Phylum Rotifera

Class Eurotatoria

Order Flosculariaceae

Family Conochilidae

Gender *Conichilus*

Species *natans*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Resting eggs of rotifers are of regular occurrence in lake deposits

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	--	Colour	--
Number	--		
Letter	--		
Category	Fungi		
Taxonomical identification	<i>Corynespora cassicola</i>	Dimensions	--
TAXONOMY			
Kingdom	Fungi	Shape	Spores are often fragmented conidiophores, which are multicellular, linear and with an apical thickening
Phylum	Ascomycota		
Class	Dothideomycetes		
Order	Pleosporales		
Family	Corynesporascaceae		
Gender	<i>Corynespora</i>	Wall/surface	Psilate
Species	<i>cassicola</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

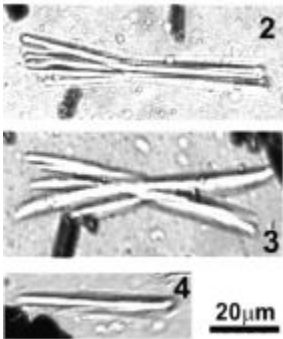
BIBLIOGRAPHY

First published in McAndrews 2010

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category Mineral (bone crystals)			
Taxonomical identification --		Dimensions --	
TAXONOMY			
Kingdom --		Shape --	
Phylum --			
Class --			
Order --			
Family --			
Gender --		Wall/surface --	
Species --			
Image		Apertures --	
		Other --	
		Similar to --	



NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Chichinadze and Kvavadze 2014

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Salt crystals

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

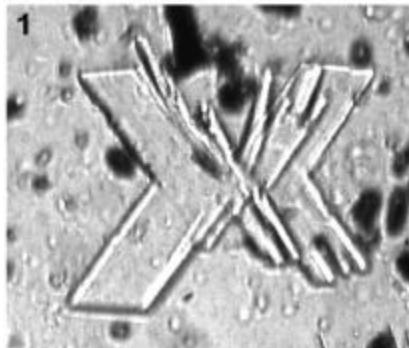
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Chichinadze and Kvavadze 2013, 2014

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia

**Taxonomical
identification** *Dactylobiotus*

TAXONOMY

Kingdom Animalia

Phylum Tardigrada

Class Eutardigrada

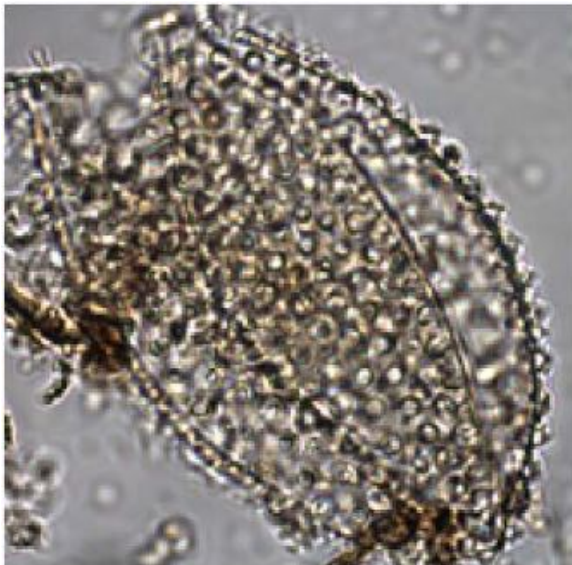
Order Parachela

Family Murrayidae

Gender *Dactylobiotus*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to Egg remains (Kaczmarek et al., 2008); also of similar morphology to *Macrobiotus* sp. Type 2 egg remains from Jankovská (1990)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

INTERPRETATION

Unidentified microfossil remains which could proceed from Tardigrada egg remains. It has been tentatively related in this study with *Dactylobiotus* sp. *Dactylobiotus luci* was identified by Kaczmarek et al. (2008) and related to permanent marsh pools with acid pH from high altitudes of tropical African mountains

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	--	Colour	--
Number	--		
Letter	--		
Category	Plantae		
Taxonomical identification	<i>Dicranum scoparium</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae	Shape	--
Phylum	Bryophyta		
Class	Bryopsida		
Order	Dicranales		
Family	Dicranaceae		
Gender	<i>Dicranum</i>	Wall/surface	--
Species	<i>scoparium</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

A moss with a wide ecological amplitude (Landwehr, 1966)

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Protista

Taxonomical identification *Dinophyceae*

TAXONOMY

Kingdom Protista

Phylum Dinoflagellata

Class Dinophyceae

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 40–58 μm 'body' diameter, appendages 19.5 μm long, 1–2 μm wide, *5 μm apart.

Shape Globose

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Cook 2011

Other articles --

INTERPRETATION

Dinoflagellates constitute a major component of marine plankton and can also live in freshwater. They reproduce by producing characteristic zoospores and, during a resting stage, zygotic cysts (Beam and Himes 1980). Both the alga and cyst can be used in palaeoenvironmental reconstruction (Mudie et al. 2004). In this study zygotic cysts occurred in the late Holocene and the European phase in the LTC1 record and in the late Holocene in the LTC2 record. They are likely derived from material eroded from a local outcrop of marls, laterite and limestone deposited during a major Tertiary marine transgression (Jackson et al. 1972; Jenkin 1988)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category			
Taxonomical identification	<i>Eyrea</i>	Dimensions --	
TAXONOMY			
Kingdom --			
Phylum --		Shape	It is described as being composed of two "shells" with a delicate hyaline wing
Class --			
Order --			
Family --			
Gender --		Wall/surface --	
Species --			
Image			
		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

INTERPRETATION

The genus was placed in a new family Lecaniellaceae by Cookson and Eisenack (1970), and questionably in the order Volvocales. A comparison was made by Cookson and Eisenack with members of Phacotaceae. The Phacotaceae are unicellular members of the Volvocales. Cells are enclosed within a wall-like structure (lorica), which does not contain cellulose and which is frequently impregnated with calcium or ferric compounds. Some genera have a lorica composed of two overlapping halves; other genera have an entire lorica. I consider it is unlikely that such a wall structure would survive the palynological processing techniques commonly used. Elsik (1977) compared the genus with Paralecaniella and considered the only difference to be the scale of flange (wing) development. He recommended re-examination of the genus

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category	Fibers (cotton)		
Taxonomical identification --		Dimensions --	
TAXONOMY			
Kingdom --		Shape --	
Phylum --			
Class --			
Order --			
Family --			
Gender --		Wall/surface --	
Species --			
Image		Apertures --	
		Other --	
		Similar to --	



NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


--

BIBLIOGRAPHY

First published in Chichinadze and Kvavadze 2013, 2014

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category	Fibers (flax)		
Taxonomical identification --		Dimensions --	
TAXONOMY			
Kingdom --			
Phylum --		Shape --	
Class --			
Order --			
Family --			
Gender --		Wall/surface --	
Species --			
Image		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Chichinadze and Kvavadze 2013, 2014

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia

**Taxonomical
identification** *Filinia*

TAXONOMY

Kingdom Animalia

Phylum Rotifera

Class Eurotatoria

Order Flosculariaceae

Family Trochosphaeridae

Gender *Filinia*

Species --

Image



DESCRIPTION

Colour --

Dimensions 58–100 µm x 40–95 µm

Shape Globose, a furrow often encircles the body

Wall/surface Wall has many bladders, each 1 mm diameter, large bladders are 10–18 mm diameter

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gauthier 2010

Other articles Cook 2011, Hillbrand 2012

INTERPRETATION

Filinia species (Filiniidae; Bory de Saint- Vincent 1824) are common among the planktonic rotifers, usually found in fresh-brackish ponds and lakes. Increased human impact around lakes has a negative effect on egg numbers impairing their production or preservation (Müller 1970; Ruttner- Kolisko 1972; Voigt and Koste 1978). In Australia the genus contains *10 species, six of which also occur in New Zealand (Shiel 1995). *Filinia* resting eggs occurred in low numbers sporadically in the Lake Turangmoroke records. Their presence in the Lake Bolac record, however, was generally correlated with the presence of *Botryococcus* throughout the Holocene until their disappearance in the European phase, coincident with the timing of widespread clearance of native vegetation, increased erosion in the catchment and sedimentation in the lake. In an attempt to explain the changes in the *Filinia* and *Tetraedron* records, we can suggest climatic oscillations of water temperature, duration of ice cover, trophic state, and perhaps some ecological causes such as the abilities of individual plants to spread and reproduce, or competition between taxa

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia

Taxonomical identification *Gieysztoria virgulifera*

TAXONOMY

Kingdom Animalia

Phylum Platyhelminthes

Class Rhabdocoela

Order Dalytyphloplanida

Family Dalyliidae

Gender *Gyeysztoria*

Species *virgulifera*

Image

DESCRIPTION

Colour --

Dimensions 62-90 µm, total length range (main body incl. operculum): 73-120 Inn (Luther, 1955; and own measurements)

Shape Elliptical, with one side flattened. With fine operculum suture

Wall/surface No microsculpture on outer oocyte wall

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Haas 1996

Other articles --

INTERPRETATION

The present-day abundance of this annual species is dependent on the aquatic plant cover development (Luther, 1955; Rixen, 1961). It has therefore a high preference for the littoral zone, and never grows in more than 3 m of water. Even if lake "Wallisellen- Langachermoos" has been a shallow lake for most of the Boreal and Atlantic, this type has been very rare (only up to 50 oocytes/cm³ of fresh sediment). It was present during a period showing high minerogenic input represented by the abundance of *Pediastrum* algae and of sand particles, at the time of the first *Fagus sylvatica* L. appearance. As shown by the reconstruction of climatic zones, this corresponds to the onset of a brief period of wetter climate (Haas, 1995)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category			
Taxonomical identification	Gvebespora	Dimensions --	
TAXONOMY			
Kingdom --			
Phylum --		Shape --	
Class --			
Order			
Family --			
Gender --		Wall/surface --	
Species --			
Image		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

INTERPRETATION

The genus *Grebespora* was initially described from the Permo-Triassic of Canada. It has not been demonstrated that *Grebespora* is produced by the rupturing equatorially of a spherical or subspherical vesicle. Examination of comparative material provided by Dr. Jan Jansonius contained forms which suggest the possibility that *Grebespora* represents degraded zonate spores. Palynomorphs described as *Grebespora* by de Jersey (e.g. 1970, 1972) from the Triassic of Australia may belong to a *Brazilea*-like taxon. However, de Jersey did not describe the occurrence of joined "pairs" of *Grebespora*

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category Plantae			
Taxonomical identification	<i>Microlepidozia setacea</i>	Dimensions --	
TAXONOMY			
Kingdom Plantae			
Phylum Bryophyta		Shape --	
Class Equisetopsida			
Order Jungermanniales			
Family Lepidoziaceae			
Gender <i>Microlepidozia</i>		Wall/surface --	
Species --			
Image		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

The only representative of the liverworts that fossilises (partly) in peat bogs. Small fragments of amphigastria were also observed several times in microfossil slides. Det. W.V. Rubers, Utrecht. Grosse-Brauckmann (1974a) reports that P.U. Klinger also identified fossil remains as *M. setacea*. In combination with other micro- and macrofossils *M. setacea* gives information on the local vegetational succession at the site of the Engbertsdijksveen I section. Literature: Van Zanten (1972)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category	Algae		
Taxonomical identification	<i>Kagulubeites spinosus</i>	Dimensions --	
TAXONOMY			
Kingdom	Plantae		
Phylum	Charophyta	Shape --	
Class	Conjugatophyceae		
Order	Zygnematales		
Family	Zygnemataceae		
Gender	<i>Kagulubeites</i>	Wall/surface --	
Species --			
Image			
		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

INTERPRETATION

The genus was originally described from the Permian of Zaire. It differs from other genera in this group by having a variously sculptured wall (e.g. small bacula, verrucae or spinae). Tiwari and Navale (1967) referred to this genus as "Congoites Bose and Maheshwari (in press)", but the name was never used by the latter authors

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia

**Taxonomical
identification** *Keratella*

TAXONOMY

Kingdom Animalia

Phylum Rotifera

Class Eurotifera

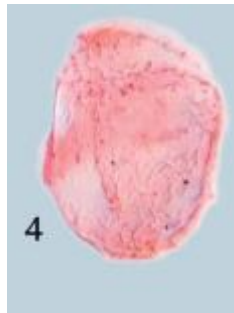
Order Ploima

Family Brachionidae

Gender *Keratella*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Cook 2011

Other articles --

INTERPRETATION

The genus *Keratella* (Bory de Saint-Vincent 1822) (Brachionidae; Wesenberg-Lund 1899) has 13 species in Australia (Shiel 1995), commonly found in billabongs and shallow wetlands with a minor presence in reservoirs. In general, the genus *Keratella* prefers mesotrophic conditions where adequate food levels are available. *Keratella* was limited in occurrence to parts of MIS 2 and 1 in the Lake Turangmoroke records and the Holocene in the Lake Bolac record and presented in low numbers generally consistent with the ecological preferences noted in the literature

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category	Protozoa		
Taxonomical identification	<i>Lacunalites sphaericus</i>	Dimensions --	
TAXONOMY			
Kingdom	Protozoa		
Phylum --		Shape --	
Class --			
Order --			
Family --			
Gender	<i>Lacunalites</i>	Wall/surface --	
Species --			
Image			
		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

INTERPRETATION

Lacunalites sphaericus Hemer and Nygreen, 1967 *Lacunalites* was first described from the Carboniferous of Saudi Arabia. It has a foveate spherical form which Hemer and Nygreen (1967) described as "grooved". The vesicle is often folded or split along this "groove". *Gelasinicysta* Head, 1992 is considered to be a junior synonym. Head (1992) argued that *Lacunalites* differed because it did not rupture completely along its equatorial suture. This may simply be a preservational feature. For example, the numerous specimens of *Peltacystia venosa* Balme and Segroves, 1966 seen exhibit complete, partial or no rupture at all

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category Fungi			
Taxonomical identification	<i>Lecaniella margostrata</i>	Dimensions --	
TAXONOMY			
Kingdom Fungi		Shape --	
Phylum Ascomycota			
Class Lecanoromycetes			
Order Lecanorales			
Family Pliocarpaceae			
Gender <i>Lecaniella</i>		Wall/surface --	
Species <i>margostrata</i>			
Image		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

INTERPRETATION

The genus was first described from the Cretaceous of Western Australia. In their comments on *Lecaniella dictyota*, Cookson and Eisenack (1962) discussed the probability of this species being composed of two halves (hemispheres). As in *Peltacystia* this appears likely, with complete specimens (i.e. both hemispheres together) being rare. The genus differs from others in this group by having a reticulate central zone and a marginal zone composed of radial thickenings

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Fungi

Taxonomical identification *Lophiostoma corticolum*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

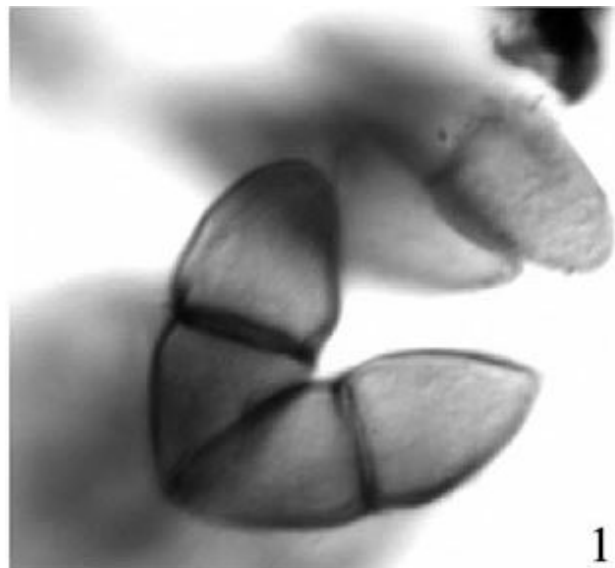
Order Pleosporales

Family Lophiostomataceae

Gender *Lophiostoma*

Species *corticolum*

Image



DESCRIPTION

Colour Brown

Dimensions 31–37×10–13 µm

Shape Fusiform, monoseptate, upper cell wider than lower cell, Ascoma wall double layered, cells up to 25 µm diameter

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Aptroot 2006

INTERPRETATION

L. corticolum is a common, rather ubiquitous saprotroph, cosmopolitan species, with a preference for boreal regions. It often grows on twigs or bark of deciduous trees, but also on shrubs

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia

**Taxonomical
identification** *Macrobiotus ambiguus*

TAXONOMY

Kingdom Animalia

Phylum Tardigrada

Class Eutardigrada

Order Parachela

Family Macrobiotidae

Gender *Macrobiotus*

Species *ambiguus*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Montoya

Other articles --

INTERPRETATION

Unidentified microfossil remains which could proceed from Tardigrada egg remains. It has been tentatively related in this study with *Macrobiotus ambiguous* egg remains (Jankovská, 1991)

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia

Taxonomical identification *Macrobiotus harmsworti/richtersi*

TAXONOMY

Kingdom Animalia

Phylum Tardigrada

Class Eutardigrada

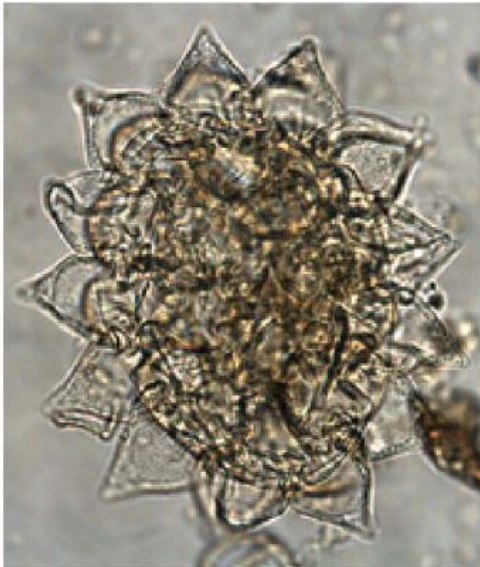
Order Parachela

Family Macrobiotidae

Gender *Macrobiotus*

Species *harmsworti/richtersi*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Classified by Jankovská (1991)

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia

**Taxonomical
identification** *Macrobiotus intermedius*

TAXONOMY

Kingdom Animalia

Phylum Tardigrada

Class Eutardigrada

Order Parachela

Family Macrobiotidae

Gender *Macrobiotus*

Species *intermedius*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Classified by Jankovská (1991)

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category	Protista		
Taxonomical identification	<i>Maculatasporites indicus</i>	Dimensions --	
TAXONOMY			
Kingdom	Protista		
Phylum	Acritarcha	Shape --	
Class --			
Order --			
Family --			
Gender	<i>Maculatasporites</i>	Wall/surface --	
Species	<i>indicus</i>		
Image		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

INTERPRETATION

Maculatasporites was first described from the Permian of India and is a common form in the Permian coal measure sequences of Gondwana. Although not originally described as being twolayered by Tiwari (1964), this character is sometimes seen in Australian Permian material (see Segroves, 1967; Tappan, 1980). The inner wall layer (endospore?) is thin, smooth and often folded. *Spongocystia* Segroves, 1967 is considered here to be a junior synonym. Although Segroves (1967) did not present his reasons for separating these genera, it was probably based upon the relative sizes of their lacunate/foveolate walls. In the absence of other differences, such a distinction does not warrant generic separation. Tappan (1980) who considered *Maculatasporites* to represent a prasinophyte phy coma, presented some excellent scanning electron microscope images of two Australian Permian species. Because of its persistent occurrence in non-marine Permian sediments and its morphologic similarity to Recent zygnematacean spores, species of *Maculatasporites* are here considered to probably represent zygnematacean spores

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	--	Colour	--
Number	--		
Letter	--		
Category	Plantae		
Taxonomical identification	<i>Meesia longiseta</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Bryophyta	Shape	--
Class	Bryopsida		
Order	Splachnales		
Family	Meesiaceae		
Gender	<i>Meesia</i>	Wall/surface	--
Species	<i>longiseta</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Observed at the 101-cm level; is now extinct in the British Isles (Dickson, 1973) and The Netherlands (Rubers, pers. comm.), but occurs in northern, eastern and central parts of Europe and in Belgium and France

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia

Taxonomical identification *Mesostoma lingua*

TAXONOMY

Kingdom Animalia

Phylum Platyhelminthes

Class Rhabditophora

Order Rhabdocoela

Family Typhloplanidae

Gender *Mesostoma*

Species *lingua*

Image

DESCRIPTION

Colour --

Dimensions Diameter 160-360(-500) µm

Shape Concave--convex, lentiform (phacoid). Outer oocyte wall may or may not present a finely psilate microsculpture, : With indistinct radial operculum suture. Oocyte may also or exclusively split equatorially during opening

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This type includes some other *Mesostoma* species (e.g. *Mesostoma ehrenbergi* Focke)

BIBLIOGRAPHY

First published in Haas 1996

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	--	Colour	--
Number	--		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Microdalyellia armigera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia		
Phylum	Platyhelminthes	Shape	--
Class	Rhabditophora		
Order	Rhabdocoela		
Family	Dalyellidae		
Gender	<i>Microdalyellia</i>	Wall/surface	--
Species	<i>armigera</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Haas 1996

Other articles --

INTERPRETATION

An annual species found in water bodies flooded throughout the year. In the Boreal and Atlantic at lake "Wallisellen-Langachermoos", Type 1-A shows rising values during the beginning of the Older Atlantic at a time of increasing eutrophication (change from an oligotrophic/mesotrophic situation to a slightly eutrophic situation due to nutrient input caused by high precipitations), represented for example by the high *Pediastrum* values. During this time a slight rise in NAP-values may indicate a rise in abundance of herbs near the lake or a brief period of opening of the vegetation within the dense forest stands around the lake. This corresponds quite well with ecological values given for the present day by Heitkamp (1982), indicating that *Microdalyellia armigera* is an eurythermic species, with preference for lake environments with phytosociologically poor situations and high tree-leaf input. The *Microdalyellia armigera* Types 1-B (up to 50 oocytes/cm³ of fresh sediment), 1-C (up to 240 oocytes/cm³ of fresh sediment), 1-D (up to 300 oocytes/cm³ of fresh sediment) and 1-E (up to 150 oocytes/cm³ of fresh sediment) were too rare to be able to make any valuable interpretation of their distribution, but *Microdalyellia armigera* Type I-C seems to have preferred paludification environments during the late Atlantic and Subboreal

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia

**Taxonomical
identification** *Neorhabdocoela (unknown)*

TAXONOMY

Kingdom Animalia

Phylum Platyhelminthes

Class Turbellaria

Order Neorhabdocoela

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions --

Shape With fine operculum suture

Wall/surface No microsculpture on outer oocyte wall

Apertures --

Other Opercula often turn up separately on pollen slides

Similar to Roughly like *Strongylostoma radiatum*

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Haas 1996

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Algae

**Taxonomical
identification** *Ovoidites ligneolus*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

Order Zygnematales

Family Zygnemataceae

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions --

Shape Ovoid shape which ruptures longitudinally forming two halves

Wall/surface More or less tectate reticulum

Apertures --

Other --

Similar to Zygosporangia of the zygnematacean alga *Spirogyra rhizobrachialis* Jao, 1935 are close analogs

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Grenfell 1995

INTERPRETATION

Interestingly, *Spirogyra*-like spores, possibly belonging to the form genus *Ovoidites*, together with *Tetraporina antiqua* Naumova, 1950 are found in the Early Carboniferous from the Moscow Basin (van Geel and Grenfell, in press)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category Plantae			
Taxonomical identification <i>Paralecaniella</i>		Dimensions --	
TAXONOMY			
Kingdom Plantae			
Phylum Incertae sedis		Shape --	
Class --			
Order --			
Family --			
Gender <i>Paralecaniella</i>		Wall/surface --	
Species --			
Image		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

INTERPRETATION

The genus *Paralecaniella* was first described from the Tertiary of Australia. If Cookson and Eisenack's (1970) original description is followed, the genus could be interpreted as a zygnematacean spore. However, Elsik (1977) considered *Paralecaniella* to be a dinocyst after studying Australian and Alaskan Tertiary material. Although the Australian Pebble Point Formation material Elsik studied is not topotype material, Cookson and Eisenack (1970) recorded the type species from the Pebble Point

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	--	Colour	--
Number	--		
Letter	--		
Category	Plantae		
Taxonomical identification	<i>Pellaea</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Pteridophyta	Shape	--
Class	Pteridopsida		
Order	Pteridales		
Family	Pteridaceae		
Gender	<i>Pellaea</i>	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Carrión 2000

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category	Plantae		
Taxonomical identification	<i>Peltacystia venosa</i>	Dimensions --	
TAXONOMY			
Kingdom	Plantae		
Phylum	Chlorophyta	Shape --	
Class	Incertae sedis		
Order --			
Family --			
Gender	<i>Peltacystia</i>	Wall/surface --	
Species --			
Image			
		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

INTERPRETATION

The genus was originally described from the Permian of Western Australia. Balme and Segroves' (1966) excellent line drawings and photomicrographs clearly show that the form is composed of two hemispheres which become separated by a complete equatorial rupture. Usually only single hemispheres are encountered, with complete specimens being very rare. This taxon differs from others in this Group by having concentric rings, composed of small verrucae or papillae, which have radial thickenings between them. *Peltacystia* is clearly analogous to zygosporos of the recent zygnematacean alga *Debarya*

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	--	Colour	--
Number	--		
Letter	--		
Category	Plantae		
Taxonomical identification	<i>Philonotis fontana</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Bryophita	Shape	--
Class	Bryopsida		
Order	Bartramiales		
Family	Bartramiaceae		
Gender	<i>Philonotis</i>	Wall/surface	--
Species	<i>fontana</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in --

Other articles --

INTERPRETATION

According to its recent ecological amplitude (Landwehr, 1966), *P. fontana* indicates pronounced water movements under somewhat mesotrophic conditions for the 35-cm level of the Engbertsdijksveen I section

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category	Plantae		
Taxonomical identification	<i>Polytrichum alpestre</i>	Dimensions --	
TAXONOMY			
Kingdom	Plantae		
Phylum	Bryophyta	Shape --	
Class	Polytrichopsida		
Order	Polytrichales		
Family	Polytrichaceae		
Gender	<i>Polytrichum</i>	Wall/surface --	
Species	<i>alpestre</i>		
Image		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

According to Dickson (1973) and Landwehr (1966) *P. alpestre* forms hummocks on ombrotrophic bogs. The stratigraphic position of *P. alpestre* remains, often just below the "wet" overlying vegetation and often absent in the lower levels of the hummock-phases, can perhaps be ascribed to total decomposition in the hummock peat. Sufficient preservation is restricted to the last phases when the hummock is overgrown and conserved by a wetter type of vegetation

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	--	Colour	--
Number	--		
Letter	--		
Category	Protozoa		
Taxonomical identification	<i>Pontigulasia compressa</i>	Dimensions	--
TAXONOMY			
Kingdom	Protozoa		
Phylum	Amoebozoa	Shape	--
Class	Tubulinea		
Order	Arcellinida		
Family	Diffugiidae		
Gender	<i>Pontigulasia</i>	Wall/surface	--
Species	<i>compressa</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in --

Other articles --

INTERPRETATION

They may be restricted to higher temperature bottom waters and others only appear after paludification in the catchment, suggesting inwash from surrounding organic-rich soils

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category Amoebozoa			
Taxonomical identification <i>Diffugia bacillifera</i>		Dimensions --	
TAXONOMY			
Kingdom --			
Phylum --		Shape --	
Class Tubulinea			
Order Arcellinida			
Family Difflugidae			
Gender <i>Diffugia</i>		Wall/surface --	
Species <i>bacillifera</i>			
Image		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in --

Other articles --

INTERPRETATION

They may be restricted to higher temperature bottom waters and others only appear after paludification in the catchment, suggesting inwash from surrounding organic-rich soils

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia

**Taxonomical
identification** *Porifera*

TAXONOMY

Kingdom Animalia

Phylum Porifera

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions Spicules *250–360 µm long

Shape Needle-like in appearance. The body of a sponge is composed of a loose aggregation of cells forming a hollow structure but lacking intercellular nervous coordination. The body is supported by an internal skeleton made from calcareous or siliceous spicules or

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Cook 2011

Other articles --

INTERPRETATION

Although most sponges live in marine environments, *100 species are known from freshwater environments, the majority of which are in the family Spongillidae. In Australia, early estimates identified more than 10 genera and 24 species (Williams 1980); however, they are rarely seen in salt lakes (De Deckker 1988). Sponge spicules were most prevalent at the late glacial– Holocene transition in LTC1, midlate Holocene in LTC2 and very late Holocene and the European phase in LB

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Fungi

Taxonomical identification *Pseudohalonectria lignicola*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Magnaporthales

Family Magnaporthaceae

Gender *Pseudohalonectria*

Species *lignicola*

Image



DESCRIPTION

Colour Brown

Dimensions 25–27×3.5–4 µm

Shape Cylindrical, -septate, cells equal, poles rounded

Wall/surface --

Apertures --

Other Ascomata with ostioles with long neck, hyaline at the tip

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Aptroot 2006

INTERPRETATION

P. lignicola is a rather common, saprotroph species, probably cosmopolitan, but so far recorded from America, Asia and Europe, with a preference for temperate to boreal regions. It usually grows on deadwood of deciduous trees, dependent on water and especially common along and in freshwater lakes and rivers, but also in maritime environments along the Baltic Sea

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia (bee remains)

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Chichinazde and Kvavadze 2013

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia (insect remains)

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Chichinazde and Kvavadze 2013

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia (butterfly remains)

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

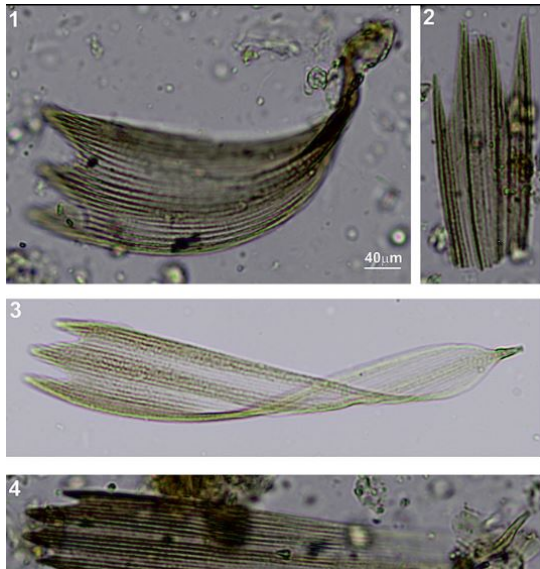
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Chichinazde and Kvavadze 2013

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category	Algae		
Taxonomical identification	<i>Schizosporis reticulatus</i>	Dimensions --	
TAXONOMY			
Kingdom --			
Phylum --		Shape --	
Class --			
Order --			
Family --			
Gender --		Wall/surface --	
Species --			
Image			
		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

INTERPRETATION

The genus was first described from the Cretaceous of Australia by Cookson and Dettmann (1959). Its rather complex morphology was further described by Pierce (1976) who emended the genus and restricted it to the type species *S. reticulatus*. Although Pierce's division of *Schizosporis* is accepted here, it should be noted that Pierce did not study topotype material. Therefore, some of her conclusions regarding *S. reticulatus* may not be valid. *Schizosporis* differs from other genera in this group by having a wall composed of closed (usually), isodiametric, polyhedral/sub-polyhedral cells. When Pierce emended *Schizosporis* she erected a new genus, *Schizophacus* Pierce, 1976, for the other three species originally described by Cookson and Dettmann (1959). *Schizophacus* has been described by Pierce as having an exterior wall surface which may be smooth or have minor ornament. However, two genera having priority (*Brazilea* Tiwari and Navale, 1967 and *Kagulubeites* Bose and Maheshwari, 1968) appear to encompass *Schizophacus* as described by Pierce. It is here suggested that species assigned by Pierce *Schizophacus* should be transferred to *Brazilea* or *Kagulubeites* (as appropriate) and that the genus *Schizophacus* be abandoned. It should be noted that van Geel (1979) considered the Recent analogue of *Schizosporis* to be the ovoid zygospores of *Spirogyra*. If one were to follow Pierce's (1976) proposal to restrict the genus to *Schizosporis reticulatus*, which has a subhemispherical rather than ovoid form, a more appropriate extant analog would be the zygospores of *Debarya*. Conversely, other species previously assigned to *Schizosporis* (herein considered to be species of *Brazilea* or *Kagulubeites*), are indeed analogous to extant zygospores of *Spirogyra*.

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	--	Colour	--
Number	--		
Letter	--		
Category	Fungi		
Taxonomical identification	<i>Setosphaeria turcica</i>	Dimensions	--
TAXONOMY			
Kingdom	Fungi	Shape	It has spores of four to six cells arranged linearly
Phylum	Ascomycota		
Class	Dothideomycetes		
Order	Pleosporales		
Family	Pleosporaceae		
Gender	<i>Setosphaeria</i>	Wall/surface	--
Species	<i>turcica</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in McAndrews 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Protista

Taxonomical identification *Singraulipollenites indicus*

TAXONOMY

Kingdom Protista

Phylum Acritarcha

Class --

Order --

Family --

Gender *Singraulipollenites*

Species *indicus*

Image

DESCRIPTION

Colour --

Dimensions --

Shape Spherical to subspherical form which is often folded

Wall/surface Often numerous circular to oval "bordered pits"

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Jao (1935) described zygosporos of the zygnematacean algae *Zygnema* which are analogous. In particular *Zygnema carinthiacum* Beck, 1929 was described as being coarsely scrobiculate with pits distinctly marked by a concentric circle

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Fungi

Taxonomical identification *Sphacelotheca reiliana*

TAXONOMY

Kingdom Fungi

Phylum Basidiomycota

Class Microbotryomycetes

Order Microbotryales

Family Microbotryaceae

Gender *Sphacelotheca*

Species *reiliana*

Image



DESCRIPTION

Colour --

Dimensions 12–15 µm in diameter

Shape --

Wall/surface Verrucae on a relatively thick wall

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Corn head smut

BIBLIOGRAPHY

First published in McAndrews 2010

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category Animalia			
Taxonomical identification <i>Plumatella</i>		Dimensions --	
TAXONOMY			
Kingdom Animalia			
Phylum Ectoprocta		Shape --	
Class Phylactolaemata			
Order Plumatellida			
Family Plumatellidae			
Gender <i>Plumatella</i>		Wall/surface --	
Species --			
Image		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

INTERPRETATION

In the bryozoan class, species in the phylactolene subclass are exclusively freshwater and have a particular propagation method in the asexual reproduction phase, namely the formation of statoblasts (GRASSE, 1960). Their morphology is very variable and very useful in taxonomy. This statoblast belongs to the genus *Plumatella* (VAN GEEL et al., 1981). It is strange, however, to have found this fossil in the lower part of the section, where brackish or saline conditions prevailed

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Fungi

Taxonomical identification *Stratonia borealis*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

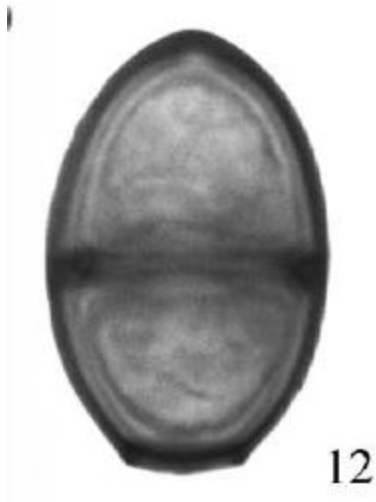
Order Sordariales

Family Lasiosphaeriaceae

Gender *Strattonia*

Species *borealis*

Image



DESCRIPTION

Colour --

Dimensions 15–17×10–12 µm

Shape --

Wall/surface Ellipsoid, one end flattened, still in the ascomata

Apertures With thin submedian septum

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Strattonia species are rather ubiquitous saprotrophs with a preference for dung (coprophilous) or soil, cosmopolitan

BIBLIOGRAPHY

First published in Aptroot 2006

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type

Number 1

Letter A

Category Animalia

**Taxonomical
identification** *Strongylostoma radiatum*

TAXONOMY

Kingdom Animalia

Phylum Platyhelminthes

Class Turbellaria

Order Neorhabdocoela

Family Typhloplanidae

Gender *Stronggylostoma*

Species *radiatum*

Image

DESCRIPTION

Colour --

Dimensions Diameter 125-300 µm

Shape Round, bi-convex

Wall/surface No microsculpture on outer oocyte wall

Apertures Main body with polar operculum. With fine operculum suture

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This type includes some *Mesostoma* species (e.g. *Mesostoma productum* Schmidt) and *Rynchomesostoma rostratum* Mt~ller

BIBLIOGRAPHY

First published in Haas 1996

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Tardigrada II	Colour	--
Number	--		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Tardigrada II</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia		
Phylum	Protosmia	Shape	--
Class	--		
Order	--		
Family	--		
Gender	<i>Tardigrada</i>	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

INTERPRETATION

Unidentified microfossil remains which could proceed from Tardigrada egg remains. It has been tentatively related in this study with *Macrobiotus* sp. Type 3 egg remains from Jankovská (1990)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Tardigrada IV	Colour	--
Number	--		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Tardigrada IV</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia		
Phylum	Protosmia	Shape	--
Class	--		
Order	--		
Family	--		
Gender	<i>Tardigrada</i>	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Unidentified microfossil remains which could proceed from Tardigrada egg remains

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Protista

**Taxonomical
identification** *Tetraporina*

TAXONOMY

Kingdom Protista

Phylum Acritarca

Class --

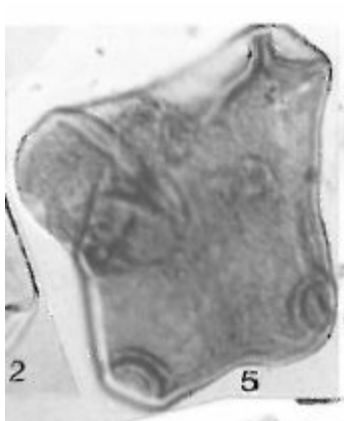
Order --

Family --

Gender *Tetraporina*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Grenfell 1995

Other articles --

INTERPRETATION

Fossil zygnematacean spores with a quadrate pillow-like form *Tetraporina* Naumova, 1939. Type species: *Tetraporina antiqua* Naumova, 1950 The genus *Tetraporina* has had a rather complex, unresolved taxonomic history. Although the genus was first described by Naumova (1939) from Cretaceous material, the first species were described by Naumova (1950) from the Early Carboniferous coal measures of the Moscow Basin. Additional specimens of *Tetraporina antiqua* from Moscow Basin material held at the Laboratory of Palaeobotany and Palynology, University of Utrecht are illustrated here and in van Geel and Grenfell. The sample has a rich Viséan spore assemblage. The variability within this species: one specimen having only 3 invaginations and another having poorly developed invaginations. This variability may in part reflect different developmental stages of the spore. Jansonius and Hills (1977, 1981) have an exhaustive discussion of the generic status of *Tetraporina*. In a summary (Jansonius and Hills, 1981, cards 3918, 3919) they stated that under ICBN Article 34.1b, *Tetraporina* Naumova, 1939 was not validly published and that *Tetraporina* Potonié, 1960 is a junior homonym of *Tetraporina* Bolkhovitina, 1953. However, Farr et al. (1979) and Lindgren (1980) reached different conclusions concerning the validity of *Tetraporina*. These conclusions are followed here for the moment, and are briefly: (1) *Tetraporina* was validly published by Naumova, 1939 [genera published before 1958 do not need to have a nomenclatural type indicated; ICBN art. 37]; (2) the nomenclatural type (a neotype) *T. antiqua* Naumova, 1950 was first selected by Potonié (1960) [although it is clearly unwise for a genus originally described from the Cretaceous to have a Carboniferous type species it is valid under the ICBN regulations]; (3) the selection of a type by Jansonius and Hills (1977) from a paper by Bolkhovitina (1953) is unnecessary. Unfortunately, although it has a simple form, the

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category --

Taxonomical
identification *Tintinnids*

TAXONOMY

Kingdom --

Phylum Ciliophora

Class Spirotrichea

Order Tintinnida

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Mudie 2010

Other articles --

INTERPRETATION

Like dinoflagellates, the tintinnids are flagellated Eukaryotes (Phylum Ciliophora; Class Spirotrichea; Order Tintinnida) of primarily marine habitat (Reid and John 1978, 1981). Several NPP of tintinnid origin are occasional to common in late Holocene sediments of the southwestern Black Sea where they are most common in sediment deposited during the past 2,000 years of land clearance and agricultural development. The most common morphotypes are *Polyasterias problematica* and a *Radiosperma*-type cyst with a flaring, fimbriated membranous wall. A similar cyst is illustrated by Kunz-Pirrung (1998) for the Laptev Sea, as *Radiosperma corbiferum* Meunier 1910, where it occurs in surface sediments with water salinities of 5–30‰, with maxima from 10 to 20‰. Other morphotypes ascribed to *R. corbiferum* and Tintinnid loricas in Eemian sediments of the Baltic Sea region were considered to be markers of highly stratified water, with a brackish surface layer above saline water of 5‰ or more

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category Animalia			
Taxonomical identification <i>Tipulidae</i>		Dimensions --	
TAXONOMY			
Kingdom Animalia			
Phylum Arthropoda		Shape --	
Class Insecta			
Order Diptera			
Family Tipulidae			
Gender --		Wall/surface --	
Species --			
Image		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

INTERPRETATION

Head of tipulid larva concentrated in the peaty (sphagnum peat) and wet part of the section. Some fossils were also found in the mineral part at depths of 90 centimeters or more. It will be necessary to specify the identification of these insects in order to determine whether the individuals in the mineral material are local or have been displaced by running water. In general, tipulids seek fresh, moist or aquatic habitats in grasslands, forests and forests (GRASSE, 1951)

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Animalia

Taxonomical identification *Trichocerca*

TAXONOMY

Kingdom Animalia

Phylum Rotifera

Class Euratoria

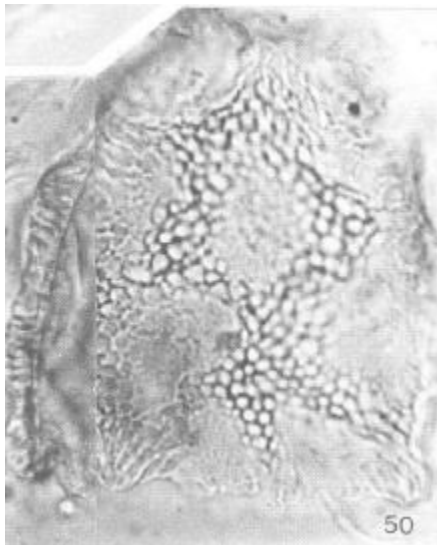
Order Ploima

Family Trichocercidae

Gender *Trichocerca*

Species --

Image



DESCRIPTION

Colour --

Dimensions Size 128–135 μm 6 80–116 μm

Shape --

Wall/surface Surface texture has unevenly distributed sculpture

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Cook 2011

Other articles --

INTERPRETATION

A variety of species of *Trichocerca* (de Lamarck 1801) have been recorded in saline lakes in western Victoria (Timms 1981), Queensland (Timms 1987, 1998) and Western Australia (Brock and Shiel 1983). In Germany, Müller (1970) found that the resting eggs of planktonic *Trichocerca* cylindrical disappeared from the sediments of the Otterstedter Lake during historical times, coincident with human impact recorded in the pollen assemblage. Additionally, van Geel (unpublished data) linked reduced representation of this taxon to human impact during historical times at Lake Gosciaz, Poland. These studies show that *Trichocerca* are excellent indicator taxa if identification is pursued to species level. *Trichocerca* occurred in low numbers sporadically in the LTC1 record

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category Animalia			
Taxonomical identification <i>Trichoptera</i>		Dimensions --	
TAXONOMY			
Kingdom Animalia			
Phylum Arthropoda		Shape --	
Class Insecta			
Order Trichoptera			
Family --			
Gender --		Wall/surface --	
Species --			
Image			
		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Garneau 1987

Other articles --

INTERPRETATION

The fossils found are frontoclypees of insect larvae of the order *Trichoptera*. These larvae are mostly freshwater aquatic (PENNAK, 1978). According to WILLIAMS et al. (1981), the type of frontoclypeus found could belong to the genus *Asynarchus*. Their distribution in the core coincides with that of the tipulides

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type	Colour	--
Number	--		
Letter	C (M)		
Category	Fungi		
Taxonomical identification	<i>Cenococcum geophilum</i>	Dimensions	From 0.2 to 1 mm
TAXONOMY			
Kingdom	Fungi	Shape	The smaller ones spherical, the larger ones more irregularly shaped
Phylum	Ascomycota		
Class	Dothideomycetes		
Order	Mytilinidiales		
Family	Gloniaceae		
Gender	<i>Cenococcum</i>	Wall/surface	--
Species	<i>geophilum</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

The stratigraphic position in the Engbertsdijksveen I section indicates that *C. geophilum* was absent in meso- to oligotrophic peat formed under wet conditions. It was observed only in the sandy subsoil and (probably of very recent, secondary origin) in the top layer of the Engbertsdijksveen I section. The distribution of the sclerotia in the section Wietmarscher Moor III indicates that it may occur in raised bogs but only under relatively dry conditions. In the sandy subsoil (samples 6, 7 and 8), unidentified root fragments with a mycorrhiza mantle of *C. geophilum* were observed. *C. geophilum* grows under various ecological conditions (Ferdinandsen and Winge, 1925) and is frequently fossilised. It is known to be a common (facultative) mycorrhiza former on a variety of tree species and in very different soils (Mikola, 1948; Trappe, 1964)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type	Colour	--
Number	--		
Letter	D		
Category	Plantae		
Taxonomical identification	<i>Eriophorum vaginatum</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	--	Shape	--
Class	--		
Order	Poales		
Family	Cyperaceae		
Gender	<i>Eriophorum</i>	Wall/surface	--
Species	<i>vaginatum</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Sclerenchymatic bodies. For a description see Grosse-Brauckmann (1972)

BIBLIOGRAPHY

First published in Van Geel 1972

Other articles Van Geel 1978

NPP DATABASE

IDENTIFICATION

Acronym --

Number --

Letter --

Category Fungi

Taxonomical identification *Uromyces appendiculatus*

TAXONOMY

Kingdom Fungi

Phylum Basidiomycota

Class Urediniomycetes

Order Uredinales

Family Pucciniaceae

Gender *Uromyces*

Species *appendiculatus*

Image

DESCRIPTION

Colour --

Dimensions Teliospores: 30µm long
Uredospores: 20 µm long

Shape It has subspheroidal teliospores and less common uredospores

Wall/surface Teliospores: scabrate, thick walled
Uredospores: psilate

Apertures Teliospores: one pore
Uredospore: three pores

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in McAndrews 2010

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym --		Colour --	
Number --			
Letter --			
Category Plantae (vegetative remains)			
Taxonomical identification <i>Nymphaceae</i>		Dimensions --	
TAXONOMY			
Kingdom Plantae			
Phylum Magnoliophyta		Shape --	
Class Magnoliopsida			
Order Nymphaeales			
Family Nymphaceae			
Gender --		Wall/surface --	
Species --			
Image			
		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2001

Other articles --

INTERPRETATION

Nymphaeaceae have mucilaginous hairs. The suberized basal cells of these hairs with their central pore and concentric rings are very common in pollen slides from deposits of lakes and pools where Nuphar and/or Nymphaea played a role in the local vegetation (Pals et al., 1980). Also the trichosclereids are characteristic, but those are less frequent. The high frequency of the suberized basal cells is in strong contrast with the often rare pollen of (entomophilous) Nymphaeaceae. Ralska-Jasiewiczowa et al. (1992) showed that the rise of the suberized cells at the Late-Glacial/Holocene transition in the Polish Lake is a better indication for the increase of the thermophilous Nymphaeaceae than pollen of Nuphar and Nymphaea

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	1		
Letter	--		
Category	Plantae (epidermis)		
Taxonomical identification	<i>Azolla</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Pteridophyta	Shape	--
Class	Pteridopsida		
Order	Salviniales		
Family	Azollaceae		
Gender	<i>Azolla</i>	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	2		
Letter	--		
Category	Plantae (epidermis)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Angiospermae	Shape	--
Class	Monocotyledonae		
Order	Poales		
Family	Cyperaceae	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	3		
Letter	--		
Category	Plantae (epidermis)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	Plantae	Shape	--
Phylum	Angiospermae		
Class	Monocotyledonae		
Order	Poales		
Family	Cyperaceae	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	4		
Letter	--		
Category	Plantae (epidermis)		
Taxonomical identification	Carex sp.	Dimensions	--
TAXONOMY			
Kingdom	Plantae	Shape	--
Phylum	Magnoliophyta		
Class	Liliopsida		
Order	Poales		
Family	Cyperaceae	Wall/surface	--
Gender	Carex		
Species	--	Apertures	--
Image			
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	5		
Letter	--		
Category	Plantae (epidermis)		
Taxonomical identification	<i>Tillaea crassulosa</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Magnoliophyta	Shape	--
Class	Magnoliopsida		
Order	Saxifragales		
Family	Crassulaceae		
Gender	<i>Tillaea</i>	Wall/surface	--
Species	<i>crassulosa</i>		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	6		
Letter	--		
Category	Plantae (epidermis)		
Taxonomical identification	<i>Equisetum sp</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Monilophyta	Shape	--
Class	Equisetopsida		
Order	Equisetidae		
Family	Equisetaceae		
Gender	<i>Equisetum</i>	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	7		
Letter	--		
Category	Plantae (epidermis)		
Taxonomical identification	<i>Callitriche sp.</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Magnoliophyta	Shape	--
Class	Magnoliopsida		
Order	Lamiales		
Family	Plantaginaceae		
Gender	<i>Callitriche</i>	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	8		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	Bryophyta	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	8		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	Bryophyta	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	9		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--	Shape	--
Phylum	Bryophyta		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	10		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	Bryophyta	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	11		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	Bryophyta	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	12		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	Bryophyta	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	13		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--	Shape	--
Phylum	Bryophyta		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	14		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	Bryophyta	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	15		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--	Shape	--
Phylum	Bryophyta		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	16		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--	Shape	--
Phylum	Bryophyta		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	17		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	Bryophyta	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	18		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--	Shape	--
Phylum	Bryophyta		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	19		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	Bryophyta	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	20		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	Bryophyta	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	21		
Letter	--		
Category	Plantae		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--	Shape	--
Phylum	Bryophyta		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	22		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	23		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	24		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	25		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	26		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	27		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	28		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	29		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	30		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	31		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	32		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	33		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	34		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	35		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	36		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	37		
Letter	--		
Category	Plantae (fruit/seed)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	38		
Letter	--		
Category	Plantae (macrobotanical remain)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	39		
Letter	--		
Category	Plantae (macrobotanical remain)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	40		
Letter	--		
Category	Plantae (macrobotanical remain)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	41		
Letter	--		
Category	Plantae (macrobotanical remain)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	42		
Letter	--		
Category	Plantae (macrobotanical remain)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	43		
Letter	--		
Category	Plantae (macrobotanical remain)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	44		
Letter	--		
Category	Plantae (macrobotanical remain)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	45		
Letter	--		
Category	Plantae (macrobotanical remain)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	46		
Letter	--		
Category	Plantae (macrobotanical remain)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	47		
Letter	--		
Category	Plantae (macrobotanical remain)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	48		
Letter	--		
Category	Plantae (macrobotanical remain)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	49		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Copepoda</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Maxillopoda		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	50		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Acaridae</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Arachnida		
Order	Sarcoptiformes		
Family	Acaridae	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	51		
Letter	--		
Category	Animalia (cocoons)		
Taxonomical identification	<i>Oligochaeta?</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia		
Phylum	Annelida	Shape	--
Class	Clitellata		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	T	Colour	--
Number	52		
Letter	--		
Category	Animalia (puparia?)		
Taxonomical identification	<i>Insecta</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Insecta		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	t micro	Colour	Septa colorless to brown
Number	11		
Letter	--		
Category	Unknown (conidia?)		
Taxonomical identification	--	Dimensions	190-130 x 15-10 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	5-8-septate
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	t micro	Colour	--
Number	12		
Letter	--		
Category	Fungi		
Taxonomical identification	<i>Anthostomela fuegiana</i>	Dimensions	--
TAXONOMY			
Kingdom	Fungi	Shape	--
Phylum	Ascomycota		
Class	Sordariomycetes		
Order	Xylariales		
Family	Xylariaceae		
Gender	<i>Anthostomella</i>	Wall/surface	--
Species	<i>fuegiana</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	t micro	Colour	--
Number	13		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym t micro		Colour --	
Number 14			
Letter --			
Category Fungi (spores)			
Taxonomical identification --		Dimensions --	
TAXONOMY			
Kingdom --			
Phylum --		Shape --	
Class --			
Order --			
Family --			
Gender --		Wall/surface --	
Species --			
Image		Apertures --	
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	t micro	Colour	--
Number	15		
Letter	--		
Category	Fungi		
Taxonomical identification	<i>Geumannomyces cf. caricis</i>	Dimensions	--
TAXONOMY			
Kingdom	Fungi	Shape	--
Phylum	Ascomycota		
Class	Sordariomycetes		
Order	Sordariomycetidae		
Family	Magnaporthaceae		
Gender	<i>Gaeumannomyces</i>	Wall/surface	--
Species	<i>caricis</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	t micro	Colour	--
Number	16		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	t micro	Colour	--
Number	17		
Letter	--		
Category	Fungi		
Taxonomical identification	<i>Helicoon pluriseptatum</i>	Dimensions	--
TAXONOMY			
Kingdom	Fungi	Shape	--
Phylum	Ascomycota		
Class	Dothideomycetes		
Order	Pleosporales		
Family	Tubeufiaceae		
Gender	<i>Helicoon</i>	Wall/surface	--
Species	<i>pluriseptatum</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	t micro	Colour	--
Number	18		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	t micro	Colour	--
Number	19		
Letter	--		
Category	Algae		
Taxonomical identification	<i>Spyrogyra cf. scrobiculata</i>	Dimensions	--
TAXONOMY			
Kingdom	Protista		
Phylum	Charophyta	Shape	--
Class	Zygnematophyceae		
Order	Zygnematales		
Family	Zygnemataceae		
Gender	<i>Spirogyra</i>	Wall/surface	--
Species	<i>scrobiculata</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	t micro	Colour	--
Number	20		
Letter	--		
Category	Protozoa		
Taxonomical identification	<i>Rhizopoda Assulina</i>	Dimensions	--
TAXONOMY			
Kingdom	Protozoa		
Phylum	Rhizaria	Shape	--
Class	--		
Order	--		
Family	Euglyphidae		
Gender	<i>Assulina</i>	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	t micro	Colour	--
Number	21		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Rotifera Callidina</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Rotifera		
Class	Eurotatoria		
Order	Bdelloidea		
Family	Adinetidae		
Gender	<i>Callidina</i>	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	t micro	Colour	--
Number	22		
Letter	--		
Category	Protozoa		
Taxonomical identification	<i>Rhizopoda Amphitrema</i>	Dimensions	--
TAXONOMY			
Kingdom	Protozoa		
Phylum	Foraminifera	Shape	--
Class	--		
Order	Amphitremida		
Family	Amphitremidae		
Gender	<i>Amphitrema</i>	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1988

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 1

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 12.5-17.5 (-20) x 7.5-12.5 μm

Shape One-celled, ovoidal, rounded at one end and tapering at the other end

Wall/surface --

Apertures Tapering end showing a small pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in many layers, highest values in the most organic layer (VII)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 2

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

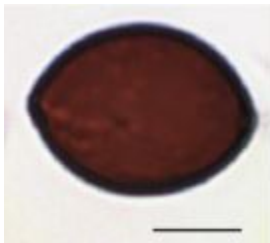
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions (25-) 27.5-35 (-37.5) x (15-)17.5- 22.5 μm

Shape One-celled, ellipsoidal

Wall/surface --

Apertures Apical pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Representative of Sordariales?. Restricted to layers 7001, VIa and VII. Co-occurrence with highest values of spores of coprophilous fungi

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 3

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown to brown

Dimensions 20-27.5 x 7.5-10 µm

Shape One-celled, fusiform

Wall/surface --

Apertures Small pore at both ends

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 4

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

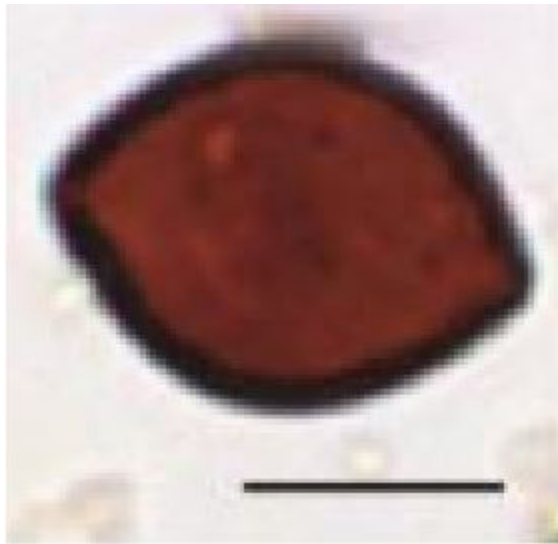
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown to dark brown

Dimensions 18.75-22.5 (-30) x 12.5 (-15) μm

Shape One-celled, lemon-shaped

Wall/surface --

Apertures Small pore at both ends

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Highest values in organic layers (I, VII) and in the charred storage structure (7001)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 5

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown to black

Dimensions 20-30 x 17.5-22.5 μm

Shape One-celled, triangular with rounded corners

Wall/surface Thick-walled

Apertures Showing one apical pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in inorganic clayish sediments (layers IV and VI), formed by soil erosion events

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 7

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Black

Dimensions 20-30 μm in diameter

Shape Globular, further visible characteristics

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Irregularly occurring in many layers

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 8

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions (17.5-) 20-25 (-27.5) μm

Shape One-celled, globose to subglobose.

Wall/surface --

Apertures Some spores showing pores of c. 2.5 μm in diameter

Other --

Similar to TM-382

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Revellés 2015

INTERPRETATION

Showing high values in clayish sediments and being very rare in peat deposits. Highest values in inorganic clayish sediments (layers IV and VI), formed by soil erosion events

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 9

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

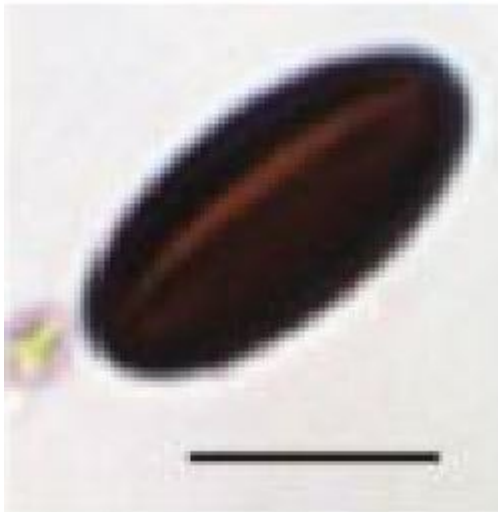
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions c.17.5 x 7.5 μm

Shape One-celled, ellipsoidal

Wall/surface --

Apertures Longitudinal light brown slit

Other --

Similar to TM-257

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input checked="" type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Revellés 2015

INTERPRETATION

Representative of Coniochaetaceae? Highest values in waterlogged layers (VIa and VII), where highest values of spores of carbonicolous/lignicolous fungi were recorded

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 10

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

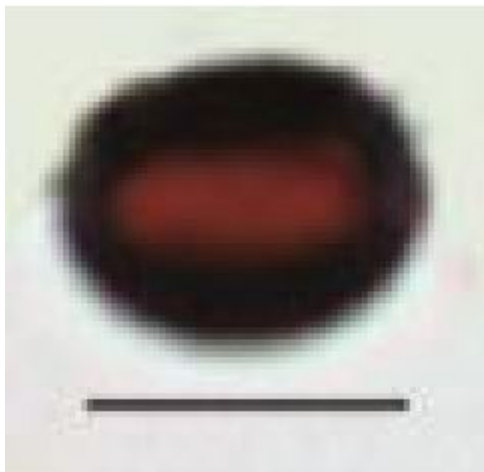
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown, with a longitudinal light brown zone

Dimensions 7.5-10 x 5-7.5 μm

Shape One-celled, globose to ellipsoidal

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input checked="" type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Revellés 2015

INTERPRETATION

Representative of Coniochaetaceae? Occurring in waterlogged layers (VIa and VII), where highest values of spores of carbonicolous/lignicolous fungi were recorded

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 11

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light to dark brown

Dimensions 20-27.5 x 7.5 µm

Shape Fusiform. One side flattened

Wall/surface --

Apertures One side bearing a longitudinal germ slit

Other --

Similar to *Kretzschmaria deusta* (HdV-44), but shorter and without the characteristic wall thickenings at the ends

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input checked="" type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Representative of Xylariaceae? Highest values and occurrence parallel to *Kretzschmaria deusta* (HdV-44). A carbonicolous/lignicolous origin seems probable

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 12

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

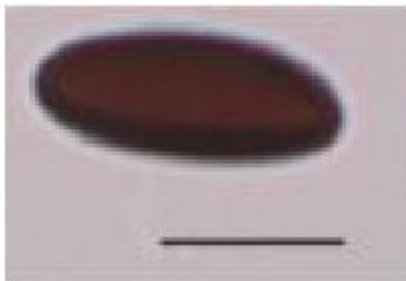
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown, showing a longitudinal light brown zone (germ slit?)

Dimensions 12.5-17.5 x 5-7.5 µm

Shape Ellipsoidal

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input checked="" type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Representative of Xylariaceae? Occurring in waterlogged layers (VIa and VII) and in the charred storage structure (7001). A carbonicolous/lignicolous origin seems probable

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 14

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions (21.25-) 22.5-25 x 10-15 μm

Shape One-celled, flattened at the basal side and rounded at the top

Wall/surface --

Apertures Showing an apical pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in waterlogged layers (VIa and VII)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 15

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown to dark brown

Dimensions 10-12.5 µm in diameter

Shape Globose-subglobose, with some small pores

Wall/surface --

Apertures --

Other --

Similar to TM-334

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Irregularly occurring in many layers

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 18

Letter A

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 37.5-47.5 (-55) x 25-32.5 µm

Shape Ellipsoid, unequally and asymmetrically 4-celled, slightly constricted at the septa, basal cell sub-hyaline and truncated

Wall/surface Thick-walled

Apertures 3-septate

Other --

Similar to UG-1091 (Gelorini et al. 2011), identified as *Bactrodesmium* type, found worldwide on the wood and bark of various deciduous trees (Ellis, 1971)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input checked="" type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in waterlogged layers (VIa and VII) and in the charred storage structure (7001). A carbonicolous/lignicolous origin seems probable

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 18

Letter B

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions (26-25)30-40 x (15)17.5-22.5 μm

Shape Ellipsoid, unequally and asymmetrically 4-celled, constricted at the septa, basal cell subhyaline

Wall/surface Thick-walled

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Irregularly occurring in many layers

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 20

Letter --

Category Fungi (cells)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

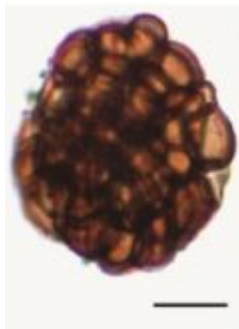
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale brown to dark brown

Dimensions 25-42.5 µm in diameter

Shape Globose clusters of fungal cells (each one c. 7.5 µm)

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Consists of the only significant taxon in the lacustrine sediment (layer IX). Probably related to lacustrine environments poor in nutrients and rich in calcium.

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 21

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 35-42.5 x 10-12.5 μm

Shape Inequilateral (one side almost straight). 5-celled, slightly constricted at the septa

Wall/surface --

Apertures 4-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 26

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

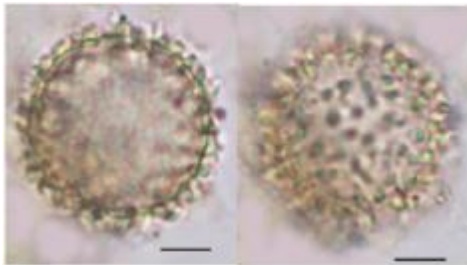
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions c.25 μm in diameter, including c. 2.5 μm long appendages

Shape Globose

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 27

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

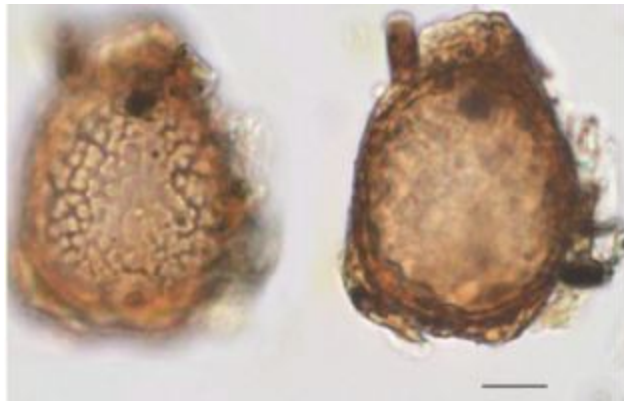
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 45-65 x 30-50 μm

Shape Irregular shape

Wall/surface Walls showing an irregular pattern of thicker and thinner areas, with a characteristic structure between inner and outer layer

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in waterlogged layers (VIa and VII) and in the charred storage structure (7001)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 30

Letter A

Category Fungi (cells)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

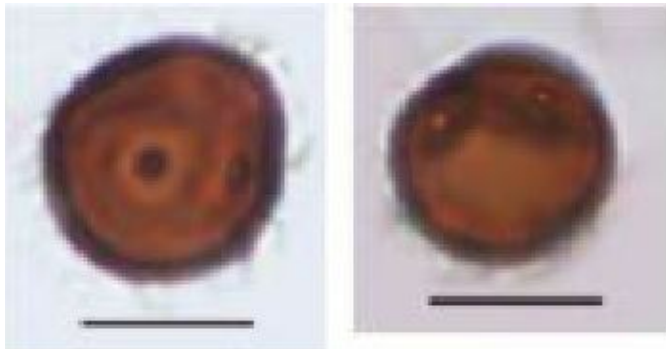
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions 12.5-15 µm in diameter

Shape Subglobose, showing two flattened areas at relatively short distance

Wall/surface Darker walls around the pores

Apertures Each area with a central pore

Other Often occur in clusters of 4 cells (Type UAB-30B)

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in inorganic clayish sediments (layers IV and VI), formed by soil erosion events

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 30

Letter B

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

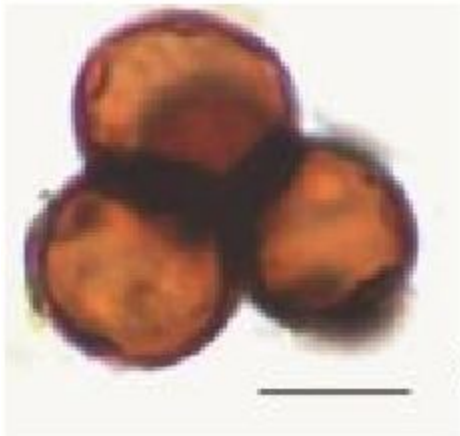
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Greatest diameter of the spores: 22.5 µm

Shape Spores consisting of 4 subglobose fungal cells

Wall/surface --

Apertures --

Other These spores commonly split up in separate cells (see Type UAB-30A)

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in inorganic clayish sediments (layers IV and VI), formed by soil erosion events

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 31

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions Large cell (17.5-25 μm in diameter) and a hyaline small cell (2.5-5 μm in diameter)

Shape --

Wall/surface --

Apertures --

Other --

Similar to UG-1138

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Irregularly occurring in many layers

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 32

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 17.5-22.5 x 10-17.5 µm

Shape One-celled, ellipsoidal, one rounded end

Wall/surface --

Apertures The other end showing an apical pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Highest values in the waterlogged organic layer (VII)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 33

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 22.5-30 x 12.5-20 μm

Shape One-celled, truncated at the base, pointed at the top

Wall/surface --

Apertures Apical pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Representative of Sordariales? Occurring in layers 7001, VIa and VII.
Co-occurrence with highest values of spores of coprophilous fungi

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 34

Letter A

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 52.5 x 22.5 µm

Shape Two-celled, ellipsoidal, slightly constricted at the septum

Wall/surface --

Apertures Each cell with a longitudinal germ slit

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This type may include some *Delitschia* species (mostly coprophilous, occurring world-wide on dung; Bell, 1983). Restricted to layers VIa and VII. Co-occurrence with highest values of spores of coprophilous fungi

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 34

Letter B

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

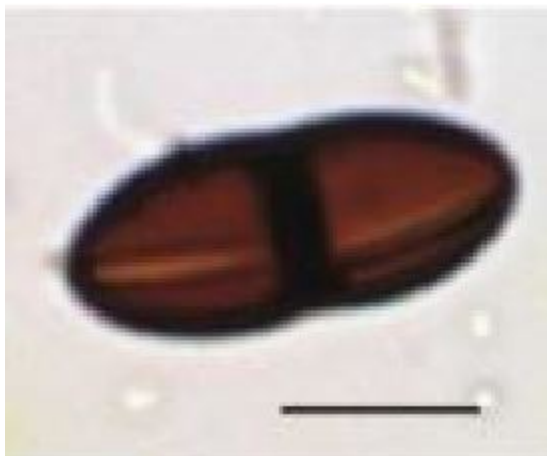
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown to dark brown

Dimensions 22.5-30 x 10-15 µm

Shape Two-celled, ellipsoidal, slightly constricted at the septum

Wall/surface --

Apertures Each cell with a longitudinal germ slit

Other --

Similar to Similar to Type UG-1066 (Gelorini et al., 2011)

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Revellés 2015

INTERPRETATION

This type may include some *Delitschia* species (mostly coprophilous, occurring world-wide on dung; Bell, 1983). Highest values in layers 7001, VIa and VII. Co-occurrence with highest values of spores of coprophilous fungi

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 35

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown and hyaline

Dimensions 27.5-35 x 10-12.5 μm

Shape Four-celled, two brown central cells and one hyaline cell at each end

Wall/surface --

Apertures --

Other Often, the hyaline cells are not preserved

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Highest values in the most organic layer (VII)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 36

Letter --

Category Fungi (ascospores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c.22.5 x 15 μ m

Shape One-celled, ellipsoidal and a slightly flattened base

Wall/surface --

Apertures Apical pore

Other --

Similar to Similar to type HdV-55A, but without the inside thickening of the wall around the pore

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Highest values and occurrence parallel to *Sordaria* type (HdV-55A). A coprophilous origin seems probable

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 37

Letter --

Category Fungi? (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow and hyaline

Dimensions 22.5 μm in diameter

Shape Showing one globular yellow cell, Two to three hyaline cells (5 x 2.5 μm) attached to the globular cell

Wall/surface Rugulated surface, other spores showing pits

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Representative of *Urocystis*? (Compare Type TM-J2 of Cugny, 2011).
Highest values in the waterlogged organic layer (VII)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 38

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

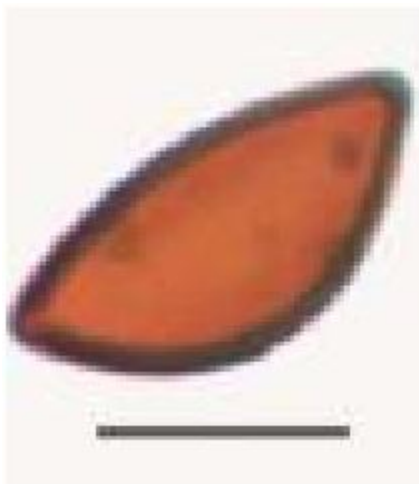
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 15-17.5 (-22.5) x 7.5 (-10) μm

Shape One-celled, one side almost straight, the other convex

Wall/surface --

Apertures One pore at both ends

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input checked="" type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Revellés 2015

INTERPRETATION

Representative of Xylariaceae? Highest values in waterlogged layers (VIa and VII) and in the charred storage structure. A carbonicolous/lignicolous origin seems probable

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 39

Letter --

Category Fungi (ascospores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

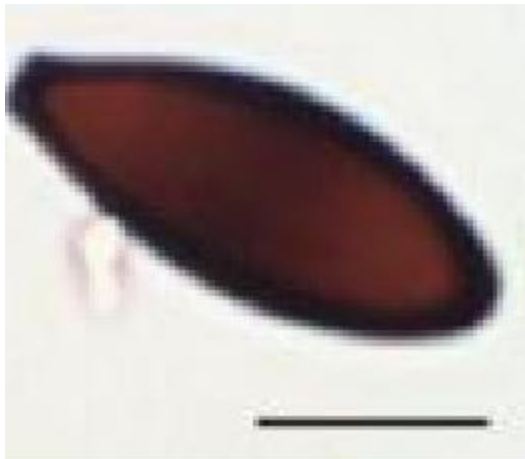
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown to dark brown

Dimensions 17.5-22.5 x 5-7.5 μm

Shape One-celled, ellipsoidal, one end rounded, the other end flattened

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in waterlogged layers (VIa and VII)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 40

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

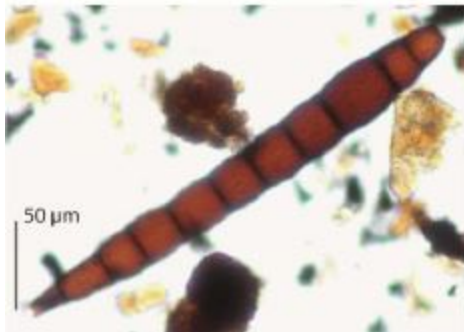
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions (147.5-) 162.5-275 (-345) x (27.5-) 32.5-37.5(-42.5) µm (at the broadest part)

Shape 7-10-septate. Constricted at the septa

Wall/surface Striate pattern on the surface

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in the most organic layer (VII)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 41

Letter A

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

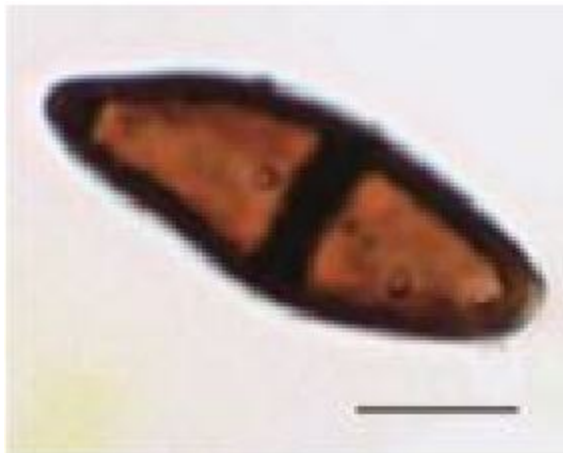
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 35-37.5 x 10-12.5 μm

Shape Two-celled. The two cells triangular-shaped

Wall/surface Thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in the most organic layer (VII)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 41

Letter B

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

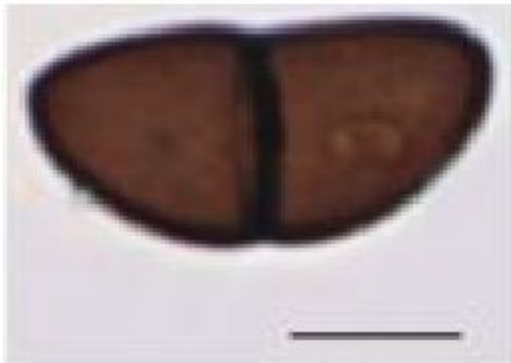
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 25-30 x 10-12.5 μm

Shape Two-celled, constricted at the septum

Wall/surface Thin walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in the most organic layer (VII)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 41

Letter C

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

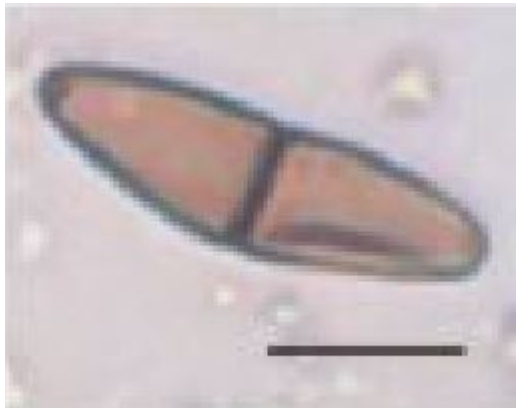
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c.20 x 6.25 μm

Shape Two-celled, constricted at the septum

Wall/surface Thin-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in the most organic layer (VII)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 42

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 45-50 x 7.5 µm

Shape The proximal cell, hyaline, showing the attachment to mycelium

Wall/surface --

Apertures 6-8-septate

Other Often broken. Several 6-8 septate fungal spores with few distinctive characters are combined in the aggregate Type UAB-42

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Highest values in waterlogged layers (VIa and VII)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 43

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour One brown central cell and two pale cells.

Dimensions 25-30 (-32.5) x 12.5-15 μ m

Shape Three-celled. Some of the pale cells show a former connection with mycelium

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input checked="" type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Revellés 2015

INTERPRETATION

The morphological variability of this type may point to several different taxa. Occurring in waterlogged layers (VIa and VII) and highest values in the charred stored structure. A carbonicolous/lignicolous origin seems probable

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 44

Letter --

Category Fungi (spores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

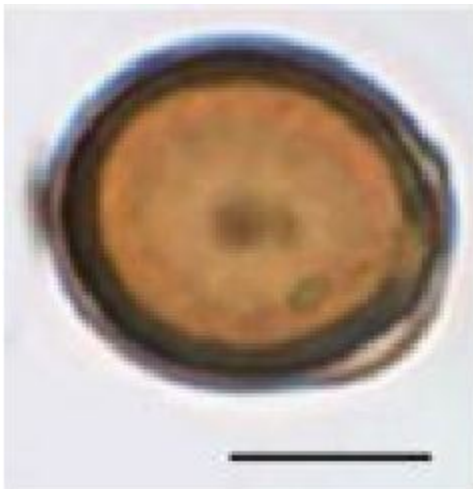
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow, surrounded by a hyaline velum

Dimensions 17.5-25 x 15-20 μm

Shape One-celled, ellipsoidal

Wall/surface --

Apertures One apical pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in the most organic layer (VII)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 45

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions 15-22.5 μm in diameter

Shape Globular

Wall/surface Thick-walled. Showing a thin, hyaline, undulating outer wall

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Showing a thin, hyaline, undulating outer wall

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 46

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions 12.5-22.5 x 7.5-15 μm

Shape Coffee bean-shaped

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Highest values in subaerial peaty layers (I and II)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 47

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions 12.5-17.5 μm in diameter

Shape Globular. Showing a characteristic "operculum-like" circle, c. 10 μm in diameter

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Highest values in subaerial peaty layers (I and II)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 48

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

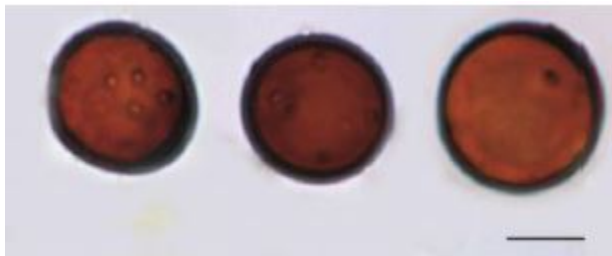
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Orange-brown to dark brown

Dimensions 17.5-20 μm in diameter

Shape One-celled, globose to subglobose

Wall/surface --

Apertures Showing one to several pores, c. 1 μm in diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Highest values in inorganic clayish sediments (layers IV and VI),
formed by soil erosion events

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 49

Letter --

Category Fungi? (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

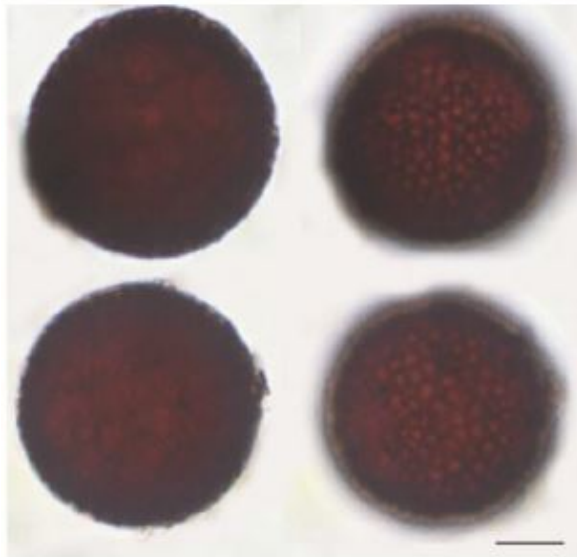
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 32.5-42.5 (-50) x 32.5-42.5 μm

Shape Globose to subglobose, one-celled

Wall/surface Showing a dense pattern of c. 2 μm wide pits all over the surface

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Irregularly occurring in many layers

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 50

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

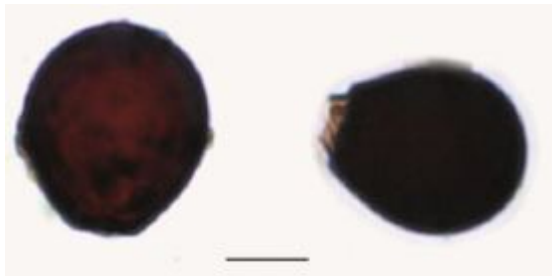
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 17.5-22.5 x 15-20 μm

Shape One-celled, ellipsoidal but truncated at one end

Wall/surface --

Apertures --

Other Often showing hyaline remains at the truncated end

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


Highest values in subaerial peaty layers (I and II).

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UAB	Colour	Brown
Number	52		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	27.5-32.5 x 20 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	One-celled. Ellipsoidal. Spores often showing an external hyaline wall
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Apical pore
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in waterlogged layers (VIa and VII) and in the charred storage structure (7001)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 53

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 37.5-45 x 12.5-15 μm , (each cell c. 5-7.5 μm)

Shape Muriform

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in waterlogged layers (VIa and VII) and in the charred storage structure (7001)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 54

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

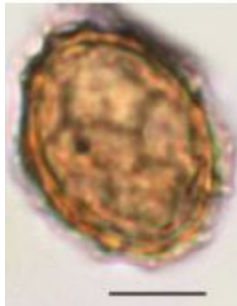
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale orange-brown

Dimensions 25-32.5 x 20-25 μm

Shape Ellipsoidal

Wall/surface Reticulate. Meshes of the reticulum c. 5 μm

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Irregularly occurring in many layers

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UAB

Number 55

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 20-25 x 10-12.5 µm

Shape Ellipsoidal, one-celled

Wall/surface --

Apertures Apical pore at both ends

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Occurring in waterlogged layers (VIa and VII) and in the charred storage structure (7001)

BIBLIOGRAPHY

First published in Revellés 2015

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1002

Letter --

Category Fungi (conidia)

**Taxonomical
identification** *Sporochisma*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Sordariomycetidae

Gender *Sporochisma*

Species --

Image



DESCRIPTION

Colour Central cells pale to dark brown, end cells paler

Dimensions 50–61×12–14 µm (Image scale: 10 µm)

Shape Cylindrical with flattened ends, unequally and subsymmetrically 4- or 6-celled, slightly constricted at the septa; central cells, almost of equal size; end cells short, discoid or somewhat truncate, flattened or slightly rounded at free ends (often absent).

Wall/surface Smooth, thick-walled

Apertures 3-5-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

These conidia probably belong to *Sporoschisma saccardoi*. Specimens of which the end cells are missing, are possibly fragmented conidia of the same species (due to decay) or 3-septate conidia of other *Sporoschisma* species (e.g., *S. juvenile* Boud., *S. mirabile* Berk. & Broome). *Sporoschisma saccardoi* is distributed in tropical (e.g., Indonesia, Taiwan, Ecuador, and South Africa) and more temperate regions (e.g., Europe). It is mainly found on submerged wood in freshwater habitats (Goh et al., 1997)

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1065

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Xylariaceae*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Xylariales

Family Xylariaceae

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 33–35×14–17 µm (Image scale: 10 µm)

Shape Slightly ellipsoid, inequilaterally one-celled, with tapering ends

Wall/surface Smooth, thick-walled

Apertures Germ slit sigmoid and running over the entire spore-length near the less convex side (not always visible)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|---|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input checked="" type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

For distribution and ecology see Type HdV-1052 (Section 3.1.1.2.1.1). Xylariaceae are widely spread in temperate and tropical regions throughout the world. Apart from their endophytic existence, they are best known as saprotrophic wood-rotting fungi, as inhabitants of dung or litter and pathogens of a range of plants

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1066

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Delitschia*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Delitschiaceae

Gender *Delitschia*

Species --

Image



DESCRIPTION

Colour Brown to dark brown

Dimensions 20–30(37)×9–10(15) µm (Image scale: 10 µm)

Shape Ellipsoid to broadly fusiform, unequally and unsymmetrically 2-celled, often constricted at the septum;

Wall/surface Smooth, thick-walled

Apertures Monoseptate, each cell with a straight germ slit parallel to the long axis of the ascospores

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

Based on differences in size of the ascospores and position of the germ slits (centred or not), this morphotype may include some *Delitschia* species. *Delitschia* species are mostly coprophilous, occurring worldwide on various kinds of dung (Bell, 1983; Hanlin, 1990)

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1068

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown (central cells) and subhyaline (end cells)

Dimensions 30–38×14–15 µm (Image scale: 10 µm)

Shape Fusiform, unequally and subsymmetrically 4-celled, not constricted at the septa; central cells thick-walled; end cells thinner (frequently absent)

Wall/surface Smooth

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1070

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Xylariaceae*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Xylariales

Family Xylariaceae

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions 18–21×7–9 µm (Image scale: 10 µm)

Shape Ellipsoid, inequilaterally one-celled, with nearly rounded ends

Wall/surface Slightly thick-walled

Apertures Two spiral germ slits running over the entire spore-length each at one side

Other --

Similar to This morphotype, which resembles the European Type EMA-55 (apart from the presence of one spiral germ slit, see Barthelmes et al., 2006), is probably affiliated with the Xylariaceae

NPP DATABASE

ECOLOGY

- | | | |
|---|--|---|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input checked="" type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

For distribution and ecology see Type HdV-1052 (Section 3.1.1.2.1.1). Xylariaceae are widely spread in temperate and tropical regions throughout the world. Apart from their endophytic existence, they are best known as saprotrophic wood-rotting fungi, as inhabitants of dung or litter and pathogens of a range of plants

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1071

Letter --

Category Fungi (ascospores)

Taxonomical identification *cf. Amphirosellinia*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Xylariales

Family Xylariaceae

Gender *Amphirosellinia*

Species --

Image



DESCRIPTION

Colour Pale brown to brown

Dimensions 29–30×8 µm (Image scale: 10 µm)

Shape Ellipsoid to cylindrical, inequilaterally one-celled, with narrowly to broadly rounded ends

Wall/surface Smooth, thick-walled

Apertures Germ slit sigmoid and running transversally over the entire width of the spore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Based on its size and the position and length of the germ slit on the ventral/transversal side, this morphotype may possibly refer to *Amphirosellinia*, a new Xylariaceae genus which currently includes two former *Rosellinia* species (*R. evansii* Læssøe & Spooner and *R. americana* (Petr.) Rappaz) and three new species, growing inside the bark of dicotyledonous trees (Ju et al., 2004)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG
Number 1072
Letter --
Category Fungi (ascospores)
Taxonomical identification --

TAXONOMY

Kingdom --
Phylum --
Class --
Order --
Family --
Gender --
Species --

Image



DESCRIPTION

Colour Brown

Dimensions 14–22×10–17 µm (Image scale: 10 µm)

Shape Globose to ellipsoid, equilaterally one-celled, mostly covered with a hyaline sheath

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

This morphotype may be strongly related to Type UG-1073, which has a slit running over the entire sporelength (probably as part of the hyaline sheath)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1073

Letter ----

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 17–24×13–17 µm (Image scale: 10 µm)

Shape Globose to ellipsoid, equilaterally one-celled, covered by a hyaline sheath (of which the slit may be a part)

Wall/surface Smooth, thick-walled

Apertures Germ slit straight and running over the entire spore-length

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This morphotype is probably strongly related to Type UG-1072

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1075

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark yellow to pale brown

Dimensions 37–50×16–20 µm (Image scale: 10 µm)

Shape Ellipsoid to broadly fusiform, unequally and subsymmetrically 5-celled, constricted at the septa; with hyaline sheath (present or not)

Wall/surface Microreticulate, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1076

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale brown to brown

Dimensions 38×18 µm (Image scale: 10 µm)

Shape Ellipsoid, unequally and subsymmetrically 3-celled, two (pseudo-) septa almost invisible; not constricted at the septa; central cell large, end cells small and tapering

Wall/surface Smooth, very thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1077

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *cf.*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown to dark brown

Dimensions 14–30×7–12 µm (Image scale: 10 µm)

Shape Ellipsoid, equilaterally one-celled

Wall/surface Smooth, thick-walled

Apertures Germ slit straight and running over the entire spore-length

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Based on size variability, this morphotype may include several species which possibly belong to the families Coniochaetaceae, Sordariaceae or Xylariaceae (Dennis, 1961; Hanlin, 1990; Lu et al., 2000; Petrini, 2003)

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1078

Letter --

Category Fungi (conidia)

Taxonomical identification *Sporidesmium*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order --

Family --

Gender *Sporidesmium*

Species --

Image



DESCRIPTION

Colour Dark yellow to pale brown

Dimensions c. 47–105×8–13 μm (length dependent on the number of septa)
(Image scale: 10 μm)

Shape Straight, slightly curved and narrower towards the ends, unequally and asymmetrically 11- or more celled (often broken), constricted at the septa

Wall/surface Smooth, very thick-walled

Apertures 10-more septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

This morphotype probably includes different *Sporidesmium* species. *Sporidesmium* has a worldwide distribution (e.g., Australia, England, India, Tanzania, and United States) and is common on (fallen) leaves, rotten wood and dead culms of temperate (e.g., *Tilia*, *Sambucus*, *Alnus*) and tropical plants (e.g., *Cissus*, *Cordia*, *Cajanus*, *Eucalyptus*, *Jasminum*, and *Terminalia*) (Ellis, 1976)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1079

Letter --

Category Fungi (spores)

Taxonomical identification *Urocystis* sp.

TAXONOMY

Kingdom Fungi

Phylum Basidiomycota

Class Ustilaginomycetes

Order Urocystidales

Family Urocystidiaceae

Gender *Urocystis*

Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions 11– 14 μm in diameter (Image scale: 10 μm)

Shape Globose, surrounded by small subhyaline cells, 3 μm in diameter, attached to the dark central cell; spore balls often preserved as clusters of two or more specimens

Wall/surface

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Urocystis is widespread, mostly found in leaves and stems, and less often in flowers, seeds and roots of different host plants within the families Cyperaceae, Brassicaceae, Poaceae, Ranunculaceae, etc. (Vánky, 1994; van Geel et al., in press, 2011-this issue)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1080

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Central cells dark brown; end cells subhyaline

Dimensions 45–50 (65)×27–30(40) µm; central cells large (17–20(27)×27–30(40); end cells 5 µm long, 7–9 µm wide (Image scale: 10 µm)

Shape Ellipsoid, unequally and asymmetrically 4-celled, , slightly constricted at the septa

Wall/surface Verrucate central cells thickwalled; end cells thin-walled

Apertures --

Other --

Similar to This morphotype resembles *Savoryella verrucosa* Minoura & T.Muroi, but the ascospores of the latter species are clearly smaller (Ho et al., 1997)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1081

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c. 33×26 µm (Image scale: 10 µm)

Shape Ellipsoid, equally and symmetrically 2-celled, slightly constricted at the short (pseudo-)septum, with two points of attachment (truncate ends)

Wall/surface

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1082

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Central cells brown, end cells subhyaline

Dimensions c. 42×18 µm (Image scale: 10 µm)

Shape Ellipsoid, unequally and asymmetrically 4-celled, constricted at the septa

Wall/surface Smooth (but some protuberances may be caused by corrosion).
Central cells thick walled, end cells thin walled

Apertures --

Other --

Similar to This morphotype may be related to Type UG-1080, which is ornamented, larger and thick-walled. Also some resemblance with Type HdV-1001 (see van Geel et al., in press, 2011-this issue) is apparent. but Type UG-1082 is slightly smaller and thin-walled

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown
Number	1083		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	c. 52×30 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoid, equally and symmetrically 2-celled, not constricted at the septum, with two points of attachment (truncate ends)
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth, thick-walled
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	UG	Colour Two cells dark brown; basal cell paler
Number	1084	
Letter	--	
Category	Fungi (spores)	Dimensions 38–50×29–30 µm (Image scale: 10 µm)
Taxonomical identification	--	
TAXONOMY		
Kingdom	--	Shape Inversely egg-shaped, unequally and asymmetrically 3-celled, slightly constricted at the septa; two cells broad; basal cell narrow
Phylum	--	
Class	--	
Order	--	Wall/surface Smooth, thick-walled
Family	--	
Gender	--	
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG
Number 1085
Letter --
Category Fungi (spores)
Taxonomical identification --

TAXONOMY

Kingdom --
Phylum --
Class --
Order --
Family --
Gender --
Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 36–40×24–28 µm (Image scale: 10 µm)

Shape Spores ellipsoid, unequally and asymmetrically 3-celled, not constricted at the septa; basal cell paler and thinner

Wall/surface Smooth

Apertures --

Other --

Similar to This morphotype may be related to Type UG-1084

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

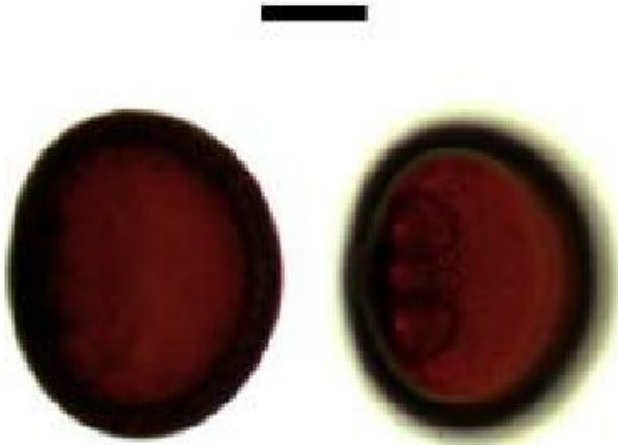
--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	UG	Colour Dark brown
Number	1087	
Letter	--	
Category	Fungi (ascospores)	
Taxonomical identification	--	Dimensions c. 31×25 µm (Image scale: 10 µm)
TAXONOMY		
Kingdom	--	
Phylum	--	Shape Ellipsoid, equilaterally one-celled, two protruding pores located in the center
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface Smooth, very thick-walled
Species	--	
Image		Apertures -- Other -- Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1089

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Central cell ale brown, basal cell subhyaline

Dimensions c. 23×14 µm (Image scale: 10 µm)

Shape Ellipsoid to narrowly inversely club-shaped, unequally and asymmetrically 4-celled, not constricted at the septa

Wall/surface Smooth, thick-walled; basal cell thin walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1090

Letter --

Category Fungi (conidia)

Taxonomical identification *Sporidesmium cf. macrurum*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order --

Family --

Gender *Sporidesmium*

Species --

Image



DESCRIPTION

Colour Cells brown to subhyaline (end cell)

Dimensions 63–36×13–12 µm (Image scale: 10 µm)

Shape Straight, curved or inversely club-shaped to beaklike; conico-truncate and protuberant at the base, unequally and asymmetrically 4-celled, slightly constricted at the septa, cells brown and gradually decreasing in size and colour towards apical part of conidia: end cell subhyaline

Wall/surface Smooth, thick walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Sporidesmium macrurum is mainly distributed in tropical areas (e.g., Brazil, Ceylon, Papua) and occurs on the leaves and leaf-stalks of palms such as *Areca*, *Borassus*, *Cocos*, *Elaeis*, *Licuala*, *Mauritia* and *Phoenix* (Ellis, 1971)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1091

Letter --

Category Fungi (conidia)

**Taxonomical
identification** *Bactrodesmium*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order incertae sedis

Family --

Gender *Bactrodesmium*

Species --

Image

DESCRIPTION

Colour Central cells darker; basal cells subhyaline

Dimensions 30–45× 17–30 µm (Image scale: 10 µm)

Shape Ellipsoid, unequally and asymmetrically 4-celled, slightly constricted at the septa, rounded at one end; septa dark, basal cells truncate and slightly thin-walled

Wall/surface Smooth, thick-walled, basal cells, thin walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Based on size and morphological variation, this morphotype probably includes different *Bactrodesmium* species, and maybe also other representatives of unknown but similarly looking genera. *Bactrodesmium* can be found worldwide on the wood and bark of various deciduous trees (Ellis, 1971)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1092

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown, basal cell subhyaline

Dimensions c. 25×13 µm (Image scale: 10 µm)

Shape Ellipsoid, unequally and asymmetrically 4-celled, constricted at the septa. Basal cell somewhat smaller

Wall/surface Smooth, thick walled, basal cell thin walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow
Number	1095		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	c. 19×14 µm
TAXONOMY			
Kingdom	Fungi		
Phylum	--	Shape	Ellipsoid, inequilaterally one-celled, tapering at one end
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Thick-walled, ornamented with a fingerprint pattern running predominantly in the longitudinal direction
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1096

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions c. 86×10 µm (Image scale: 10 µm)

Shape Fusiform and slightly curved, subequally and subsymmetrically 2-celled, constricted at the septum, with nearly rounded ends

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG
Number 1097
Letter --
Category Fungi (spores or hypha?)
Taxonomical identification --

TAXONOMY

Kingdom --
Phylum --
Class --
Order --
Family --
Gender --
Species --

Image



DESCRIPTION

Colour Pale yellow
Dimensions c. 125×10 µm (Image scale: 10 µm)
Shape Rod-shaped, unequally and asymmetrically 6- or more celled (partly broken), not constricted at the septa; individual cells variable in length
Wall/surface Smooth, thick walled
Apertures --
Other --
Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1098

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark yellow to pale brown

Dimensions c. 50×20 µm (Image scale: 10 µm)

Shape Lemon-shaped, unequally and subsymmetrically 4-celled, slightly constricted at the septa, central cells dark and large; end cells paler, conical and rather acute

Wall/surface Smooth, thick walled, with microreticulate hyaline sheath

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Pale to dark brown. Younger conidia are generally paler than maturing ones
Number	1099		
Letter	--		
Category	Fungi (conidia)		
Taxonomical identification	--	Dimensions	30–52×17–27 µm (Image scale: 10 µm)
TAXONOMY			
Kingdom	--	Shape	Fusiform, unequally and subsymmetrically 5(6)-celled, not constricted at the septa; central cell dark brown and very large; other cells progressively paler and smaller towards the end
Phylum	--		
Class	--	Wall/surface	Smooth, thick-walled
Order	--		
Family	--	Apertures	--
Gender	--		
Species	--	Other	--
Image		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Based on size differences, this morphotype can probably be attributed to different (tropical) *Brachysporium* species, in which Type HdV-1024 (see van Geel et al., in press, 2011- this issue) is included. *Brachysporium* is distributed worldwide and is commonly isolated from rotten wood and bark of various trees and shrubs (Ellis, 1971)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1101

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown to dark brown

Dimensions c. 45×39 µm (Image scale: 10 µm)

Shape Subglobose, subequilaterally one-celled, often covered by a hyaline sheath.

Wall/surface Smooth and thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1104

Letter --

Category Fungi (conidia)

Taxonomical identification *Podosporium rigidum*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Not assigned

Order --

Family --

Gender *Podosporium*

Species *rigidum*

Image



DESCRIPTION

Colour Brown to hyaline

Dimensions c. 50–62×12 µm (length dependent on the number of septa)(Image scale: 10 µm)

Shape Straight, curved or inversely club-shaped to beaklike; funnel-shaped at the base, unequally and asymmetrically 5- or more celled (often broken), slightly constricted at the septa, end cell subhyaline and strongly tapering

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Podosporium rigidum can be found on dead stems and branches of plants, such as *Ampelopsis* and *Rhus* (Ellis, 1971)

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1105

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions c. 32×12 µm (Image scale: 10 µm)

Shape Ellipsoid, equally and symmetrically 2-celled, constricted at the septum, with nearly rounded ends

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1106

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions 24–32×8–11 µm (Image scale: 10 µm)

Shape Ellipsoid, (un)equally and (a)symmetrically 2-celled, constricted at the septum, with slightly tapering ends

Wall/surface Smooth, slightly thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Based on small differences in the morphology of the single cells (symmetrical versus asymmetrical, small versus large), this type probably includes different species or genera

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1107

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c. 67×38 µm (Image scale: 10 µm)

Shape Ellipsoid, equally and symmetrically 2-celled, constricted at the septum, with bulged and rounded ends

Wall/surface Finely striate, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	UG	Colour Brown
Number	1109	
Letter	--	
Category	Fungi (cluster of cells)	
Taxonomical identification	--	Dimensions c. 34×30 µm (Image scale: 10 µm)
TAXONOMY		
Kingdom	--	
Phylum	--	Shape Cluster of 5–10 globose fungal cells, individual cells variable in size
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface Smooth, thick-walled
Species	--	
Image		Apertures --
		Other --
		Similar to Type 200

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input checked="" type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

This type may be related to the European Type HdV-200, which suggests the presence of relatively dry microhabitats (van Geel et al., 1989)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1110

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions 37–39×15–17 µm (Image scale: 10 µm)

Shape Ellipsoid, equally and symmetrically 2-celled, constricted at the septum, with slightly tapering ends.

Wall/surface Densely covered with small, cylindrical free standing processes, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1111

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions 38–45×10–11 µm (Image scale: 10 µm)

Shape Cylindrical to slightly dumbbell-shaped, unequally and asymmetrically 4-celled, slightly constricted at the septa, end cells slightly broader and swollen

Wall/surface Striate, thickwalled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1112

Letter --

Category Fungi (ascospores)

Taxonomical identification *Phaeosphaeria type*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Phaeosphaeriaceae

Gender *Phaeosphaeria*

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c. 25×6 µm (Image scale: 10 µm)

Shape Narrowly fusiform, unequally and asymmetrically 4-celled, slightly constricted at the septa; one central cell enlarged; end cells tapering

Wall/surface Longitudinally and finely striate, thickwalled

Apertures --

Other --

Similar to This morphotype resembles *Phaeosphaeria*, in which one central cell is commonly enlarged (Shoemaker and Babcock, 1989), but may also be related to other genera, which have similarly looking ascospores (such as *Lophiostoma* and *Leptosphaeria*) (Ellis and Ellis. 1985)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Species of *Phaeosphaeria* are known as pathogens on cereals, wild grasses, sedges and rushes (Shoemaker and Babcock, 1989)

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1113

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Meliola sp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Meliolales

Family Meliolaceae

Gender *Meliola*

Species --

Image

DESCRIPTION

Colour Brown

Dimensions 38–45×12–18 µm

Shape Oblong to rarely subellipsoid, unequally and asymmetrically 5-celled,
constricted at the septa

Wall/surface Smooth, thick-walled

Apertures 4-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

For distribution and ecology of *Meliola* see Type UG-1137 (1.1.3.)

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow
Number	1114		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	c. 50–57×20 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Inversely club-shaped to broadly fusiform, truncate at both ends (partly broken off)
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth, thick-walled
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1115

Letter --

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Yellow

Dimensions c. 54×15 µm

Shape Inversely club-shaped, at one end obliquely truncate with an aperture covered by a hyaline membrane (present or not), other end possibly broken off

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to This morphotype is probably related to Type UG-1114

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1118

Letter --

Category Fungi (ascospores)

Taxonomical identification *cf. Savoryella lignicola*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order --

Family --

Gender *Savoryella*

Species *lignicola*

Image



DESCRIPTION

Colour Brown to subhyaline

Dimensions 27–30×11–12 µm; large cells (12–18×11–12 µm) small cells (2 µm long, 5 µm wide) (Image scale: 10 µm)

Shape Ellipsoid to fusiform, unequally and asymmetrically 4-celled, slightly constricted at the septa

Wall/surface Smooth. Central cells, thick walled; small cells, thin-walled

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

Based on shape and the length to width ratio this morphotype may refer to *Savoryella lignicola*, which was first reported from a water cooling tower, but has now been recorded from natural habitats throughout the world (e.g., Australië, Brunei, Hong Kong, Sri Lanka, and United Kingdom). It appears to be the only *Savoryella* species encountered in both marine and freshwater habitats, although it is doubtful at the molecular level if the similarly looking ascospores from both habitats in fact belong to the same species (Ho et al., 1997)

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1120

Letter --

Category Fungi (ascospores)

Taxonomical identification *Savoryella curvispora*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order --

Family --

Gender *Savoryella*

Species *curvispora*

Image



DESCRIPTION

Colour Yellow to brown

Dimensions c. 30×8 µm (Image scale: 10 µm)

Shape Curved, unequally and symmetrically 4-celled, relatively large , end cells subhyaline, small

Wall/surface Smooth, thick-walled. End cells thin-walled

Apertures 3-septate

Other --

Similar to This type may be related to the European type HdV-715

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Savoryella curvispora has been reported from submerged wood in Mauritius, Taiwan, Malaysia, Philippines and South Africa (Ho et al., 1997)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1121

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions c. 22×5 µm (Image scale: 10 µm)

Shape Ellipsoid, subequally and subsymmetrically 2-celled, constricted at the septum, nearly rounded ends.

Wall/surface Covered with a pattern in which parallel or subparallel individual dots are cross-linked to form a reticulum in the grooves (striatoreticulate), thick-walled

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1122

Letter --

Category Fungi (ascospores)

Taxonomical identification *cf. Cookeina sp.*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Ascomycetes

Order Pezizales

Family Sarcoscyphaceae

Gender *Cookeina*

Species

Image



DESCRIPTION

Colour Pale brown

Dimensions c. 52×30 µm (Image scale: 10 µm)

Shape Ellipsoid to fusiform, equally and symmetrically 2- celled, not constricted at the septum, with tapering ends

Wall/surface Slightly thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Cookeina is commonly distributed in the tropics and subtropics, and can be found on fallen angiosperm branches, trunks and occasionally on fruits (Weinstein et al., 2002; Bera et al., 2008)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1123

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale yellow

Dimensions c. 42×9 µm (Image scale: 10 µm)

Shape Fusiform, unequally and asymmetrically 2-celled, slightly constricted at the septum, with tapering ends

Wall/surface Smooth, slightly thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1124

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale yellow

Dimensions c. 32×15 µm (Image scale: 10 µm)

Shape Ellipsoid, subequally and subsymmetrically 2-celled, constricted at the septum

Wall/surface Smooth, thick-walled, and with microreticulate hyaline sheath/coat, ornamented with circular and curving ridges, which are often hollow

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1125

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions 19–32×6–11 μm (Image scale: 10 μm)

Shape Ellipsoid, subequally and subsymmetrically 2-celled, constricted at the septum

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This rather nondescript morphotype probably includes several species or genera

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1126

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions c. 24×7 µm (Image scale: 10 µm)

Shape Ellipsoid to fusiform, equally and symmetrically 2-celled, constricted at the septum, with slightly tapering ends

Wall/surface Finely striate, slightly thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1127

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions 33–41×6–11 µm (Image scale: 10 µm)

Shape Inversely club-shaped, unequally and asymmetrically 5- celled, slightly constricted at the septa

Wall/surface Microreticulate, thick-walled

Apertures 4-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1128

Letter --

Category Fungi (ascospores)

Taxonomical identification *cf. Kretzschmaria clavus (Fr.) Sacc.*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Xylariales

Family Xylariaceae

Gender *Kretzschmaria*

Species *clavus/cetrarioides*

Image

DESCRIPTION

Colour Pale brown

Dimensions c. 32×10 µm

Shape Ellipsoid to subfusiform, inequilaterally one-celled, walled and with tapering ends

Wall/surface Smooth, thick-walled

Apertures Germ slit straight and running about 1/2 of the spore-length near the flattened side

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Kretzschmaria (syn. *Ustulina*) species are found worldwide throughout temperate and tropical regions and occur on plant debris and dead wood (Rogers and Ju, 1998). Only two distinct species, *Kretzschmaria clavus* and *Kretzschmaria cetrarioides*, seem to be distributed in tropical Africa (Dennis, 1961)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1129

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

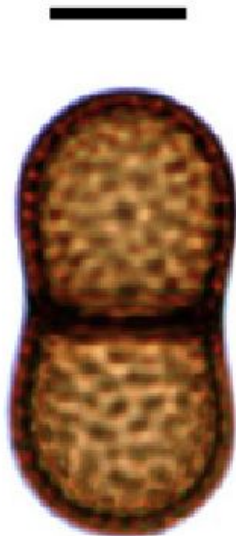
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c. 34×14 µm (Image scale: 10 µm)

Shape Ellipsoid to slightly dumbbell-shaped, equally and symmetrically 2-celled, constricted at the septum

Wall/surface Coarsely reticulate, thickwalled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Subhyaline to pale yellow
Number	1130		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	59–80×47–67 μm
TAXONOMY			
Kingdom	--	Shape	Subglobose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Slightly thin-walled, microreticulate
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1135

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Xylariales

Family Xylariaceae

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions c. 22×9 µm (Image scale: 10 µm)

Shape Ellipsoid, inequilaterally one-celled, truncate at one end but tapering at the other

Wall/surface Smooth and thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This morphotype may be the anamorphic state of a Xylariaceae species. For distribution and ecology see Type HdV-1052 (1.2.1.1.)

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1137

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Meliola sp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Meliolales

Family Meliolaceae

Gender *Meliola*

Species --

Image

DESCRIPTION

Colour Brown

Dimensions c. 53×16 µm

Shape Ellipsoid to oblong, unequally and asymmetrically 4-celled, slightly constricted at the septa

Wall/surface Smooth, thick-walled

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Meliola species are found as parasites on leaves and stems of a wide range of hosts in the tropics. In East Africa they have been found on *Acacia*, *Cynanchum*, *Periploca*, *Secamone*, *Tylophora*, *Perguleria* and *Warburgia* (Mibey and Kokwaro, 1999)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1138

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown to yellow

Dimensions c. 37×28 µm. , one cell large (28 µm in diameter), other cell small (9 µm in diameter)(Image scale: 10 µm)

Shape Flask-shaped, unequally and asymmetrically 2-celled

Wall/surface Smooth. One cell thick walled, other thin walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1139

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Gelasinospora sp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariales

Order Sordariaceae

Family Sordariaceae

Gender *Gelasinospora*

Species --

Image

DESCRIPTION

Colour Dark brown

Dimensions c. 37×25 µm

Shape Ellipsoid to subglobose, inequilaterally one-celled,

Wall/surface Surface sculpture reticulate (ridges and hollows of about 1 µm), thick-walled

Apertures At least three germ pores visible, concentrated near both ends

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

From an evolutionary perspective the occurrence of *Gelasinospora* spores with multiple germ pores is thought to be a recent development. Given that this genus is primarily known from tropical latitudes, and largely from Africa, the evolutionary origin of the genus may be situated in this continent (Krug et al., 1994). *Gelasinospora* is mainly known from dung and dead wood (Hanlin, 1990)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1141

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 19–27×19–24 µm (Image scale: 10 µm)

Shape Globose to subglobose, subequilaterally one-celled

Wall/surface Smooth, very thick-walled (3–4 µm thick)

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown
Number	1142		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	c. 38×13 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoid to slightly curved, unequally and asymmetrically 3-celled, slightly constricted at the septa, surrounded by a hyaline sheath; cells differing in size; basal cell small, conical to tapering
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth, thick-walled
Species	--		
Image		Apertures	2-septate
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1144

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale brown

Dimensions c. 20×7 µm (Image scale: 10 µm)

Shape Ellipsoid to fusiform, subequilaterally one-celled, tapering at both ends; with the paler and thinner girdle running transversally over the entire width of the spore

Wall/surface Smooth and slightly thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1145

Letter --

Category Fungi (conidia)

Taxonomical identification *cf. Fusarium sp.*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Hypocreales

Family Nectriaceae

Gender *Fusarium*

Species --

Image

DESCRIPTION

Colour Pale yellow

Dimensions 37–42×9 µm

Shape Narrowly fusiform, slightly curved, unequally and asymmetrically 4-celled, slightly constricted at the middle septum, and often with a small hyaline projection at the base forming a so-called foot cell

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY


First published in Gelorini 2011

INTERPRETATION

Fusarium species are anamorphic states of *Gibberella* sp. and commonly found on dead herbaceous plants (Ellis and Ellis, 1985). They occur in the normal mycoflora of staple foods such as rice, maize, bean and soybean. While most species are more frequent in tropical and subtropical areas, some inhabit soil in cold climates (Pitt et al., 1994)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	UG	Colour Pale yellow
Number	1147	
Letter	--	
Category	Fungi (spores)	
Taxonomical identification	--	Dimensions c. 50×15 µm (Image scale: 10 µm)
TAXONOMY		
Kingdom	--	
Phylum	--	Shape Fusiform, unequally and symmetrically 6- or more celled (partly broken), slightly constricted at the septa; middle septum median
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface Smooth, thick-walled
Species	--	
Image		Apertures -- Other -- Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1148

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale brown to yellow

Dimensions c. 20×15 µm, one cell large (15 µm in diameter), other cell small (5 µm in diameter) (Image scale: 10 µm)

Shape Flask-shaped, unequally and asymmetrically 2-celled

Wall/surface Smooth, large cell very thick-walled, other cells thin walled. Large cell surrounded by hyaline sheath (present or not) with scabrate pattern

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG
Number 1150
Letter --
Category Fungi (ascospores)
Taxonomical identification --

TAXONOMY

Kingdom --
Phylum --
Class --
Order --
Family --
Gender --
Species --

Image



DESCRIPTION

Colour Pale brown

Dimensions c. 28×9 µm (Image scale: 10 µm)

Shape Fusiform, subequally and symmetrically 2(4)-celled, slightly constricted at the septa. Two central cells thick walled; slightly constricted at the septa

Wall/surface Smooth

Apertures --

Other Subhyaline end cells probably absent

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This morphotype may be related to Type UG-1068, but the wall of Type UG-1150 is thin-walled

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1151

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 21–25×14 µm (Image scale: 10 µm)

Shape Flask-shaped, unequally and asymmetrically 3-celled, constricted at the septa, cells differing in size; one cell very large and almost globose, basal cell subhyaline, small and conical

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	UG	Colour Dark brown
Number	1153	
Letter	--	
Category	Fungi (ascospores)	
Taxonomical identification	--	Dimensions c. 23×14 µm (Image scale: 10 µm)
TAXONOMY		
Kingdom	--	
Phylum	--	Shape Ellipsoid to lemon-shaped, inequilaterally one-celled, tapering ends with two protruding pores of which one is located in a more subpolar position
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface Smooth and thick-walled
Species	--	
Image		Apertures -- Other -- Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1155

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 23–32×12–15 µm (Image scale: 10 µm)

Shape Ellipsoid, equally and symmetrically 2-celled, constricted at the septum; with slightly tapering ends; small opening/pore at one end (only visible in strictly polar or equatorial orientation)

Wall/surface Smooth, thick-walled

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1157

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Xylariales

Family Xylariaceae

Gender *Rosellinia*

Species --

Image



DESCRIPTION

Colour Brown to dark brown

Dimensions c. 25×6 µm (Image scale: 10 µm)

Shape Ellipsoid to fusiform, inequilaterally one-celled, with tapering ends

Wall/surface Smooth, thick-walled

Apertures Germ slit sigmoid and running about 3/4 of the spore-length

Other --

Similar to This morphotype resembles *Rosellinia dingleyae* L.E.Petrini, a new *Rosellinia* species encountered in New Zealand (Petrini, 2003), but the East African ascospores are slightly smaller and may thus represent an unknown tropical *Rosellinia* species

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Rosellinia is widespread in temperate and tropical regions, and commonly found on decaying herbaceous stems and wood. In the tropics some species (such as *Rosellinia necatrix* Berl. Ex Prill.) are particularly known as root pathogens, exclusively in plantations of cultivated trees and shrubs (Petrini, 1993)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG
Number 1158
Letter --
Category Fungi (ascospores)
Taxonomical identification --

TAXONOMY

Kingdom --
Phylum --
Class --
Order --
Family --
Gender --
Species --

Image



DESCRIPTION

Colour Brown
Dimensions c. 54×23 µm (Image scale: 10 µm)
Shape Ellipsoid, inequilaterally one-celled, tapering at one end but truncate at the other
Wall/surface Smooth and thick-walled
Apertures Pore slightly protruding
Other --
Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1159

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions 39–45×18–22 µm (Image scale: 10 µm)

Shape Fusiform, equally and symmetrically 2(4?)-celled (end cells may be missing), constricted at the septum; single cells trapezoidal.

Wall/surface Smooth, thickwalled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1162

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c. 22×11 µm (Image scale: 10 µm)

Shape Ellipsoid, unequally and subsymmetrically 4-celled, not constricted at the septa

Wall/surface Smooth, slightly thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1168

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions c. 32×15 µm (Image scale: 10 µm)

Shape Ellipsoid, inequilaterally one-celled, with subhyaline sheath/coat forming high curving ridges which are partially anastomosing

Wall/surface Thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1171

Letter --

Category Fungi (ascospores)

Taxonomical identification *Apiosordaria type*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Lasiosphaeriaceae

Gender *Apiosordaria*

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 20–30×15–20 µm (Image scale: 10 µm)

Shape Broadly ellipsoid to subglobose, inequilaterally one celled, tapering at porate end but truncate at the other (originally with hyaline appendage)

Wall/surface Smooth and thick-walled

Apertures Pore slightly protruding

Other --

Similar to This morphotype differs from *Cercophora* type (Type HdV-1013) by its more globose and shortened form

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

It superficially resembles the temperate-region species *Apiosordaria verruculosa* (C.N.Jensen) Arx & W.Gams (Type HdV-169, see van Geel and Aptroot, 2006), but ascospores of the latter are usually smaller. This East African type may therefore represent a tropical *Apiosordaria* species or an unknown tropical species of the Sordariales. *Apiosordaria* is particularly known from soil isolates, dung and plant debris (Bell, 1983; Hanlin, 1990)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1172

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 32– 35×14–19 µm (Image scale: 10 µm)

Shape Ellipsoid, inequilaterally one-celled, tapering at porate end but truncate at the other

Wall/surface Smooth and thick-walled

Apertures Pore slightly protruding

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow to brown
Number	1173		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	15–24×6–12 μm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoid to fusiform, (in)equilaterally one-celled, and slightly tapering at both ends
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth, slightly thick-walled
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1174

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Rosellinia sp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Xylariales

Family Xylariaceae

Gender *Rosellinia*

Species --

Image

DESCRIPTION

Colour Dark brown

Dimensions 30–38×8–10 µm

Shape Ellipsoid to fusiform, inequilaterally one-celled, with nearly rounded to slightly tapering ends

Wall/surface Smooth and thick-walled

Apertures Germ slit straight and running over the entire spore-length near the flattened side

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

For distribution and ecology see Type UG-1157 (Section 3.1.1.2.1.1)

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow to brown
Number	1176		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	11–27×4–10 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoid to fusiform, inequilaterally one-celled, slightly tapering at both ends, with one side flattened
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth, slightly thick-walled
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Judging by observed variability in morphology and size, this morphotype probably represents various species

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1177

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions c. 29×12 µm (Image scale: 10 µm)

Shape Ellipsoid, inequilaterally one-celled, truncate at one end but tapering at the other, covered by two polar hyaline caps, of which only the pedicel is clearly visible;

Wall/surface Smooth, thick-walled

Apertures Germ slit straight and running over the entire spore-length

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1178

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Sordaria type*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Ascomycetes

Order Sphaeriales

Family Sordariaceae

Gender *Sordaria*

Species --

Image

DESCRIPTION

Colour Pale brown to dark brown

Dimensions 29–35×17–19 µm

Shape Ellipsoid, equilaterally one-celled, slightly rounded ends

Wall/surface Smooth, thick-walled

Apertures Two protruding pores

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

This type differs from Type HdV-1012 (see van Geel et al., in press, 2011-this issue) by its larger size and more pronounced pores, and may include different Sordariaceous ascospores from genera, such as *Sordaria* and *Arnium*. Both genera have a worldwide distribution and have most frequently been encountered on dung (Bell, 1983)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown
Number	1179		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	c. 28×14 μm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoid, equilaterally one-celled, tapering ends with two protruding pores; surrounded by a hyaline sheath
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Small longitudinal grooves (striae) alternating and running subparallel with lines of minute spheroidal projections (papillae), thick walled
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG
Number 1182
Letter --
Category Fungi (ascospores)
Taxonomical identification --

TAXONOMY

Kingdom --
Phylum --
Class --
Order --
Family --
Gender --
Species --

Image



DESCRIPTION

Colour Dark brown
Dimensions c. 25×17 µm (Image scale: 10 µm)
Shape Ellipsoid, subequally and subsymmetrically 2-celled, not constricted at the septum; with pale septum
Wall/surface Smooth, thick-walled
Apertures Monoseptate
Other --
Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1183

Letter --

Category Fungi (ascospores)

Taxonomical identification *cf. Cercophora sp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Lasiosphaeriaceae

Gender *Cercophora*

Species --

Image

DESCRIPTION

Colour Dark brown

Dimensions c. 23×12 µm

Shape Ellipsoid, unequally and asymmetrically 2-celled, not constricted at the septum, truncated at one end but tapering at the other, pale septum not truly median; covered with slightly ribbed subhyaline sheath

Wall/surface Smooth, thick-walled

Apertures Apical pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Cercophora species occur worldwide on dung or on decaying wood, culms and other plant debris (Bell, 1983; Hanlin, 1990)

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1185

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellowish brown to brown

Dimensions 20–28×10–13 µm (Image scale: 10 µm)

Shape Broadly fusiform, inequilaterally one-celled, tapering at both ends, often with one side flattened

Wall/surface Smooth and thick-walled

Apertures Pore slightly protruding

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Based on small differences in size and morphology, this morphotype may represent several unknown species

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1187

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c. 35×17 µm (Image scale: 10 µm)

Shape Ellipsoid, equilaterally one-celled, tapering ends

Wall/surface Longitudinal sub-parallel striae running over the entire spore-length, thick-walled

Apertures Two protruding pores; surrounded by a hyaline sheath

Other --

Similar to This morphotype superficially resembles *Hypoxylon chestersii* J.D. Rogers & Whalley, but the latter species' ascospores are generally much smaller (14–17×6–7 µm) (Rogers and Whalley, 1978)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	UG	Colour Brown to dark brown
Number	1188	
Letter	--	
Category	Fungi (conidia)	
Taxonomical identification	--	Dimensions 24–27×17–23 µm (Image scale: 10 µm)
TAXONOMY		
Kingdom	--	Shape Slightly pyriform, inequilaterally one-celled, and truncate at one end
Phylum	--	
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface Smooth, thick-walled
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1191

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

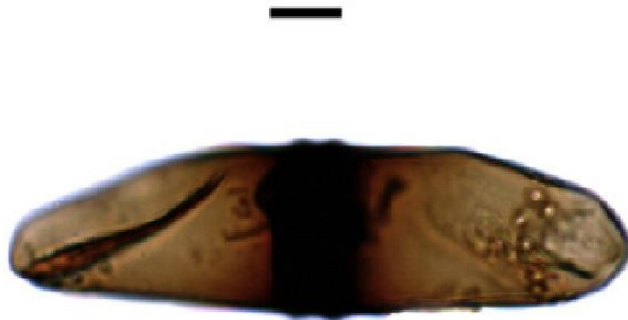
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions c. 88×26 µm (Image scale: 10 µm)

Shape Ellipsoid, equally and symmetrically 2-celled, not constricted at the septum; central zone very dark; septum only visible with overexposure to light

Wall/surface Smooth, relatively thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1192

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

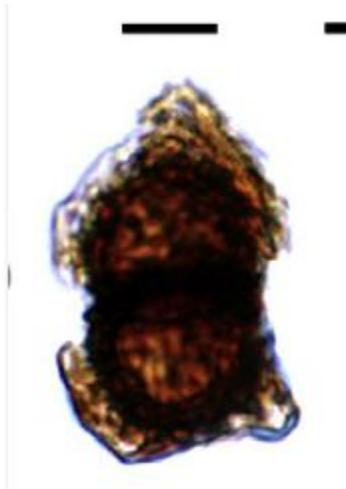
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c. 38×18 µm (Image scale: 10 µm)

Shape Ellipsoid, equally and symmetrically 2-celled, slightly constricted at the septum; with subhyaline verrucate sheath/coat

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1194

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions c. 18×7 µm (Image scale: 10 µm)

Shape Ellipsoid, equally and asymmetrically 2-celled, slightly constricted at the septum, with point of attachment

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG
Number 1195
Letter --
Category Fungi (spores)
Taxonomical identification --

TAXONOMY

Kingdom --
Phylum --
Class --
Order --
Family --
Gender --
Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions c. 18×10 µm (Image scale: 10 µm)

Shape Ellipsoid, equally and asymmetrically 2-celled, not constricted at the septum, with thickened point of attachment

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown
Number	1197		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	12–17×8– 12 μm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoid, inequilaterally one-celled, often covered by hyaline sheath at truncate end
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth and thick-walled
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1199

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour One cell dark brown, basal cell subhyaline

Dimensions c. 46×34 µm (Image scale: 10 µm)

Shape Flask-shaped, unequally and asymmetrically 3-celled, constricted at the septa, cells. differing in size, one cell very large and almost globose, basal cell (partly broken) small

Wall/surface Smooth, very thick-walled

Apertures 2-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1203

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Cells pale brown, subhyaline towards end

Dimensions c. 99×13 µm (Image scale: 10 µm)

Shape Fusiform and slightly curved, unequally and asymmetrically 7- or more celled (partly broken), slightly constricted at the septa; cells large at the basis, smaller towards the ends

Wall/surface Finely striate, thick-walled

Apertures 6-septate (or more)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow
Number	1204		
Letter	--		
Category	Fungi (conidia)		
Taxonomical identification	--	Dimensions	c. 32×9 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Narrowly club-shaped to oblong, unequally and asymmetrically 4-celled, slightly constricted at the septa; basal cells somewhat paler
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth, thick-walled
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1206

Letter --

Category Fungi (conidia)

Taxonomical identification *cf. Acroconidiellina loudetiae M.B.Ellis*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Incertae sedis

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 16–20×13 µm (Image scale: 10 µm)

Shape Ellipsoid, subequally and subsymmetrically 2-celled, sometimes slightly constricted at the septum

Wall/surface Small echinae (~1 µm), thick-walled

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

It is not always clear that it concerns conidia because the point of attachment can be indistinct due to unfavourable orientation. *Acroconidiellina loudetiae* occurs in Tanzania and can be found on leaves of *Loudetia arundinacea* (Hochst. ex A. Rich.) Steud. in grassland vegetation (Ellis, 1976)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1208

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Coniochaeta spp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Coniochaetales

Family Coniochaetaceae

Gender *Coniochaeta*

Species --

Image

DESCRIPTION

Colour Dark brown

Dimensions 20–24×18–24 µm

Shape Ellipsoid to globose, equilaterally one-celled,

Wall/surface Smooth, thick-walled

Apertures Germ slit straight, running over the entire spore-length and enclosed by a pale brown zone. When seen in polar view or a particular side view, the germ slit may be invisible; often the ascospore is also disrupted by a weakening of the germ slit.

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

Based on small differences in size and shape, this morphotype may include *Coniochaeta ligniaria* (Grev.) Masee (Type HdV-172, see van Geel et al., in press, 2011-this issue) and several other *Coniochaeta* species (Hawksworth and Yip, 1981). *Coniochaeta* species are common on dung and dead wood (Hanlin, 1990)

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1211

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Dark brown

Dimensions 35–30×17–20 µm

Shape Ellipsoid to lemon-shaped, inequilaterally one-celled, with slightly tapering ends

Wall/surface Smooth, very thick-walled

Apertures Germ slit straight and running over the entire spore length. When seen from one particular side, the germ slit may be invisible

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1216

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Diporotheca sp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Incertae sedis

Family Diporothecaceae

Gender *Diporotheca*

Species

Image



DESCRIPTION

Colour Pale brown to brown

Dimensions c. 43×18 µm (Image scale: 10 µm)

Shape Broadly fusiform, equilaterally one-celled, tapering ends with two slightly protruding pores, covered by small hyaline end caps

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Diporotheca ascospores with very diverse morphology (see above: Type HdV-1245) have also been recorded from Holocene deposits in more temperate regions (van Geel et al., 1986). For distribution and ecology see Type HdV-1245 (1.2.2.2.)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1217

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions c. 50×23 µm (Image scale: 10 µm)

Shape Ellipsoid, equally and symmetrically 2-celled, constricted at the septum; with hyaline sheath (present or not)

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow
Number	1221		
Letter	--		
Category	Oocyte		
Taxonomical identification	--	Dimensions	125-150×120-150 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Oocyte without operculum, funnel-shaped or oval, stalk typical but often only partly or not preserved, with articulation just beneath the body
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	UG	Colour Yellow
Number	1222	
Letter	--	
Category	Oocyte	
Taxonomical identification	--	Dimensions 112–125×85– 100 μm
TAXONOMY		
Kingdom	--	
Phylum	--	Shape Oocyte without operculum, ellipsoid
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface Finely reticulated
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow
Number	1223		
Letter	--		
Category	Oocyte		
Taxonomical identification	--	Dimensions	98–155×86– 120 μm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Oocyte without operculum, oval to ellipsoid
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
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INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	UG	Colour Yellow
Number	1224	
Letter	--	
Category	Oocyte	
Taxonomical identification	--	Dimensions 137– 188×110–150 µm
TAXONOMY		
Kingdom	--	
Phylum	--	Shape Oocyte without operculum, oval to ellipsoid
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface Surface smooth or microreticulate, with parallel but slightly undulating, longitudinal ribs
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Hyaline to pale yellow
Number	1225		
Letter	--		
Category	Cyst		
Taxonomical identification	--	Dimensions	c. 110×85 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoid
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Surface smooth with slightly undulating, transversely ribs, partly connected to each other and ornamented with regularly placed spines
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Subhyaline to pale yellow
Number	1229		
Letter	--		
Category	Cyst		
Taxonomical identification	--	Dimensions	64–73×55–61 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Subglobose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Surface covered with striae finely arranged in a barely visible fingerprint pattern
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1230

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions c. 87×10 µm (Image scale: 10 µm)

Shape Awl-shaped, unequally and asymmetrically 3-celled, with 2 septa at one end and an apiculate appendage at the other end

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1231

Letter --

Category Algae (colonies)

Taxonomical identification *Botryococcus cf. neglectus* (W. West & G. S.

TAXONOMY

Kingdom Plantae

Phylum Chlorophyta

Class Trebouxiophyceae

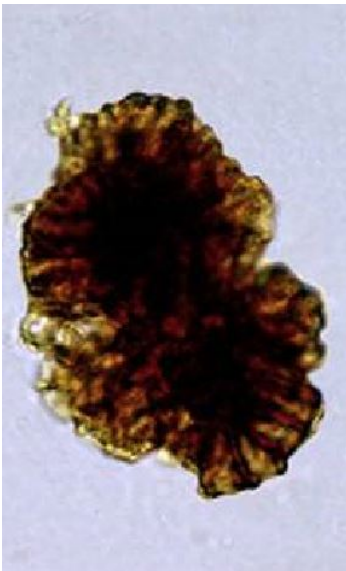
Order Incertae sedis

Family Botryococcaceae

Gender *Botryococcus*

Species *neglectus*

Image



DESCRIPTION

Colour Yellow-brown to brown

Dimensions 25–50 µm, cells (2 µm), peripheral cells (9 µm)

Shape Colonies (cells are arranged in a three-dimensional structure), composed of sub-colonies (25–50 µm) connected by very short and thin undulating strings; cells (2 µm) obovoid, usually radially stacked up to a layer of larger (9 µm) and modified peripheral cells. Peripheral

Wall/surface Irregularly sculpted surface

Apertures --

Other --

Similar to This species of green alga (Chlorophyceae, Chlorococcales) strongly resembles Botryococcus neglectus, which is characteristic for small oligotrophic and mesotrophic aquatic environments in more temperate regions (Komárek and Marvan. 1992)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

However, the colonies and individual cells of this East African morphotype are more regularly arranged, which suggests it is a distinct *B. neglectus* variety or a *Botryococcus* species with more tropical ecological requirements. The genus *Botryococcus* is widely distributed in temperate and tropical regions, but the taxonomic classification of the species within the genus is still open for revision (Jankovská and Komárek, 2000)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1233

Letter --

Category Plantae (coenobia)

**Taxonomical
identification** *Coelastrum reticulatum*

TAXONOMY

Kingdom Plantae

Phylum Chlorophyta

Class Chlorophyceae

Order Chlorococcales

Family Scenedesmaceae

Gender *Coelastrum*

Species *reticulatum*

Image

DESCRIPTION

Colour Hyaline to pale yellow

Dimensions 30–41×25–39 µm

Shape Coenobia (cells are arranged in a single layer) globose to ovoid, covered by a hyaline envelope and built from 2, 4 or 8 cells that are globose to ellipsoid, each measuring up to 10 µm; neighbouring cells connected by 5–7 long. slender processes (up to 8 µm): intercellular

Wall/surface

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Coelastrum reticulatum (Chlorophyceae, Chlorococcales) has a worldwide distribution, and is common in the tropics. It mainly occurs planktonic in warm ponds and productive lakes (Jankovská and Komárek, 2000; John et al., 2002)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Pale yellow to yellow
Number	1234		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	c. 40×38 μm
TAXONOMY			
Kingdom	--	Shape	Globose, unicellular, consisting of 2 intricately lobed semi-cells with concave margins between them and a star-like pattern of projections pointing towards the center
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth
Species	--		
Image		Apertures	--
		Other	--
		Similar to	This African morphotype superficially resembles <i>Micrasterias</i> (Chlorophyceae, Desmidiaceae) which is distinctly larger and of which the semi-cells are more complex and intricately lobed

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

However, experiments show that the size of some *Micrasterias* species, such as *Micrasterias rotata* Ralfs, consistently decreases at high temperatures, and the morphology is less elaborate than in cells grown at low temperature (Neustupa et al., 2008). This NPP type may represent one or more tropical species of *Micrasterias*, but identification is severely hampered by the lack of a centrally placed nucleus, a typical feature of Desmidiaceae

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Hyaline
Number	1235		
Letter	--		
Category	Plantae (Coenobia)		
Taxonomical identification	<i>Pediastrum angulosum</i>	Dimensions	79–190×79–125 µm
TAXONOMY			
Kingdom	Viridiplantae		
Phylum	Chlorophyta	Shape	Coenobia circular, slightly oval or irregular in outline, comprised of 16–64 tightly packed cells. Peripheral cells with two short, conical processes flanking a U-shaped concave margin, cell wall with distinct irregular net-like sculpture. Peripheral and inner cells resp. 27 and 23
Class	Chlorophyceae		
Order	Chlorococcales		
Family	Hydrodictyaceae		
Gender	<i>Pediastrum</i>	Wall/surface	--
Species	<i>angulosum</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

Pediastrum angulosum is a cosmopolitan but not very common planktonic species with numerous varieties in need of taxonomic revision. Based on fossil records in temperate regions (Denmark, Finland, Germany, Russia), it seems indicative for both large and small lake habitats with slightly alkaline water and abundant submerged macrophyte vegetation (Komárek and Jankóvská, 2001). However, the specific ecological requirements of tropical populations is uncertain

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Pale yellow
Number	1236		
Letter	--		
Category	Plantae (coenobia)		
Taxonomical identification	<i>Pediastrum boryanum</i>	Dimensions	Diameter 50–83 µm. Peripheral and inner cells resp. 12 and 8 µm.
TAXONOMY			
Kingdom	Viridiplantae		
Phylum	Chlorophyta	Shape	Coenobia circular, comprised of 16–32 tightly packed cells. Peripheral cells with two triangular lobes flanking a wide V-shaped concave margin, processes very short cylindrical and hyaline
Class	Chlorophyceae		
Order	Chlorococcales		
Family	Hydrodictyaceae		
Gender	<i>Pediastrum</i>	Wall/surface	Regularly granular
Species	<i>boryanum</i> var. <i>brevicorne</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

INTERPRETATION

P. boryanum var. brevicorne is a planktonic thermophilic taxon, occurring in tropical regions and warmer areas of temperate zones (Komárek and Jankóvská, 2001)

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1237

Letter --

Category Plantae (coenobia)

Taxonomical identification *Pediastrum boryanum cf. var. forcipatum*

TAXONOMY

Kingdom Viridiplantae

Phylum Chlorophyta

Class Chlorophyceae

Order Chlorococcales

Family Hydrodictyaceae

Gender *Pediastrum*

Species *boryanum cf. var. forcipatum*

Image

DESCRIPTION

Colour Hyaline to pale yellow

Dimensions 50–100 µm in diameter. All cells 12–22 µm.

Shape Coenobia nearly circular to irregular in outline, comprised of 32–64 tightly packed cells, Peripheral cells with two long, narrow, hyaline processes on little developed lobes, margin between them shallowly concave. cell wall denselv and distinctlv granular

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Pediastrum boryanum var. *forcipatumis* a rare taxon and taxonomically not clearly defined, but probably more thermophilic than other *P. boryanum* varieties. It is mainly distributed in tropical and warm-temperate zones (Komárek and Jankóvska, 2001). In Africa it has previously been reported from Chad (Compère, 1970)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Hyaline
Number	1239		
Letter	--		
Category	Plantae (colonies)		
Taxonomical identification	<i>Scenedesmus sp</i>	Dimensions	26(30)×17 µm. Cells 5–8×17–22 µm.
TAXONOMY			
Kingdom	Plantae		
Phylum	Chlorophyta	Shape	Colonies linear, with four ellipsoid to oblong cells, arranged subparallel to each other, broadly rounded or slightly truncate
Class	Chlorophyceae		
Order	Chlorococcales		
Family	Scenedesmaceae		
Gender	<i>Scenedesmus</i>	Wall/surface	Smooth
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

Scenedesmus species typically occur in freshwater ponds, lakes and/or slow-moving rivers, most abundantly in slightly eutrophic waters. The joint occurrence of *Scenedesmus* and *Pediastrum* species in small water bodies (wells, ditches, watering holes, etc.) and as fossils in lake deposits is indicative of eutrophication caused by human activities, and therefore has occasionally been used to infer past organic pollution (Cronberg, 1986)

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1240

Letter --

Category Algae (zygospores, aplanospores)

**Taxonomical
identification** *Spirogyra*

TAXONOMY

Kingdom Protista

Phylum Charophyta

Class Zygnematophyceae

Order Zygnematales

Family Zygnemataceae

Gender *Spirogyra*

Species --

Image

DESCRIPTION

Colour Yellow to dark yellow

Dimensions 70–75×40–45 µm

Shape Oval, ellipsoid, ovoid or cylindrical-ovoid in shape

Wall/surface Surface with fine striate-rugulate pattern, smooth coating of the outer wall is occasionally present

Apertures Often split along its periphery

Other --

Similar to This African green algae resembles Type 773 reported from a late-Holocene sediment record in The Netherlands (Bakker and van Smeerdijk, 1982)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

Species of *Spirogyra* have a worldwide distribution, and commonly occur in stagnant, shallow waters of mesotrophic to eutrophic small lakes and pools, or in the littoral zones of larger lakes. Many species seem to prefer rather extreme conditions, such as ephemeral standing waters, or strong daily fluctuations in pH and temperature. The sexual reproduction during which these zygospores are formed requires high temperatures, which can best be reached in shallow waters directly exposed to strong solar radiation. The optimum growth conditions for *Spirogyra* species lie above 20 °C (Hoshaw, 1968)

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1241

Letter --

Category Plantae (epidermis)

Taxonomical identification *Epidermis of Nymphaea nouchali* Burm

TAXONOMY

Kingdom Plantae

Phylum Magnoliophyta

Class Magnoliopsida

Order Nymphaeales

Family Nymphaceae

Gender *Nymphaea*

Species *nouchali*

Image

DESCRIPTION

Colour Subhyaline to pale yellow

Dimensions 38–58 µm in diameter. Each cell: 17–25×14–22 µm

Shape Globose to shaped like a rounded square in outline, consisting of 7–8 cells, central cell globose, marginal cells tetragonal

Wall/surface Covered by a very fine, wavy net-like sculpture

Apertures --

Other --

Similar to It can easily be mistaken for coenobia of the coccal green alga *Pediastrum privum* (Printz) E.Hegewald (see Komárek and Jankóvská, 2001)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

This morphotype belongs to the epidermis of *Nymphaea nouchali*, which is the only living *Nymphaea* species found in the 20 lakes studied (Lebrun, unpublished CLANIMAE data). *Nymphaea nouchali* is a common macrophyte in tropical regions, occurring in shallow waters (Verdcourt, 1989)

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1242

Letter --

Category Plantae (spores)

Taxonomical identification *Dryopteris subg. Dryopteris Ching*

TAXONOMY

Kingdom Plantae

Phylum Pteridophyta

Class Pteridopsida

Order Dryopteridales

Family Dryopteridaceae

Gender *Dryopteris*

Species --

Image

DESCRIPTION

Colour Yellow

Dimensions 40–45×15–18 µm

Shape Bean-shaped

Wall/surface Smooth, covered with perisporium forming curving and twisting subhyaline ridges and sacci (winglike compressed inflated folds)

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

Dryopteris is distributed nearly worldwide in both temperate and tropical regions. Most African taxa, such as *Dryopteris kilemensis* (Kuhn) Kuntze, *Dryopteris inaequalis* (Schltdl.) Kuntze and *Dryopteris pentheri* (Krasser) C. Chr., have a smooth perine surface and typically inflated sacci with superficial ridges (Tryon and Lugardon, 1990). *Dryopteris* species are mainly found in shaded habitat along forest margins and streams in evergreen forest (Burrows, 1990)

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1243

Letter --

Category Plantae (spores)

Taxonomical identification *cf. Asplenium sp.*

TAXONOMY

Kingdom Plantae

Phylum Pteridophyta

Class Pteridopsida

Order Blechnales

Family Aspleniaceae

Gender *Asplenium*

Species --

Image

DESCRIPTION

Colour Yellow to brown

Dimensions 42–55×28–38 µm

Shape Bean-shaped

Wall/surface Smooth, covered with perisporium developed into fairly high and coarse, subhyaline ridges. These ridges anastomose or not, bear small echinae (spines) on top and columella-like structures underneath

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Asplenium is one of the largest fern genera, distributed worldwide from Greenland and Europe to South America and New Zealand (Tryon and Lugardon, 1990). It occurs in a wide variety of exposed or partly shaded habitats, e.g., on rocks, in low-altitude semi-deciduous woodland, wet evergreen forest and (sub)montane rain forest (Burrows, 1990; Hemp, 2002)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1246

Letter --

Category Plantae (spores)

**Taxonomical
identification** *Isöetes type*

TAXONOMY

Kingdom Plantae

Phylum Lycophyta

Class Lycopsidea

Order Isoëtales

Family Isoëtaceae

Gender */soëtes*

Species --

Image

DESCRIPTION

Colour Brown

Dimensions 32–37×15–28 µm

Shape Bean-shaped

Wall/surface Low, surface covered with broad disconnected muri mostly wider than high, and irregularly pitted

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

This morphotype may refer to Isoetes, which has similarly looking microspores. Isoetes is a heterosporous, usually lacustrine genus, occurring in aquatic habitats or saturated soils (Tryon and Lugardon, 1990)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown
Number	1247		
Letter	--		
Category	Plantae (spores)		
Taxonomical identification	--	Dimensions	c. 40×33 μm
TAXONOMY			
Kingdom	--	Shape	Bean-shaped
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth, covered with perisporium forming subhyaline to pale yellow echinae (~ 5 μm), densely arranged in a fimbriate (curtain-like) pattern
Species	--	Apertures	--
Image		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown
Number	1248		
Letter	--		
Category	Plantae (spores)		
Taxonomical identification	--	Dimensions	c. 45×30 μm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Bean-shaped
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth, covered with perisporium forming large subhyaline folds with local wing-like extensions, areas between folds microreticulate to perforate
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1249

Letter --

Category Plantae (spores)

Taxonomical identification *cf. Ctenitis/Lastreopsis sp*

TAXONOMY

Kingdom Plantae

Phylum Pteridophyta

Class Pteridopsida

Order Blechnales

Family Dryopteridaceae

Gender *Ctenitis/Lastreopsis*

Species --

Image

DESCRIPTION

Colour Yellow to brown

Dimensions c. 33×23 µm

Shape Bean-shaped

Wall/surface Surface covered with coarse and irregularly distributed echinae, varying in size but up to 5 µm tall

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

This spore strongly resembles both *Ctenitis* and *Lastreopsis*, which besides similar spore morphology have similar articulated trichomes on the leaves (Tryon and Lugardon, 1990). *Ctenitis* is widespread in tropical and south-temperate regions, such as Venezuela, Argentina and tropical Africa, and scattered in north-warm temperate regions of Asia, such as Ceylon. It usually occurs in mesic to wet forests. *Lastreopsis* has nearly the same distribution range, and occurs in tropical/subtropical forests and moist lowlands (Tryon and Lugardon, 1990)

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1250

Letter --

Category Fungi (conidia)

Taxonomical identification *Curvularia cf. comoriensis* Bouriquet & Jauffret

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Euascomycetes

Order Pleosporales

Family Pleosporaceae

Gender *Curvularia*

Species --

Image



DESCRIPTION

Colour Yellow

Dimensions 45–60×13–15 µm (Image scale: 10 µm)

Shape Inversely club-shaped and slightly curved, unequally and asymmetrically 5-celled, not constricted at the septa

Wall/surface Smooth, thickwalled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Curvularia comoriensis has previously been found on Cymbogon in Congo and on the Comoro Islands (Ellis, 1971)

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG
Number 1252
Letter --
Category Fungi (ascospores)
Taxonomical identification --

TAXONOMY

Kingdom --
Phylum --
Class --
Order --
Family --
Gender --
Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions c. 24×13 µm (Image scale: 10 µm)

Shape Ellipsoid, equally and symmetrically 2-celled, not constricted at the septum

Wall/surface Smooth, thick-walled

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown
Number	1253		
Letter	--		
Category	Plantae (spores)		
Taxonomical identification	<i>Polypodiaceae</i>	Dimensions	54–92×23–55 µm
TAXONOMY			
Kingdom	Plantae		
Phylum	Pteridophyta	Shape	Bean-shaped
Class	Pteridopsida		
Order	Polypodiales		
Family	Polypodiaceae		
Gender	--	Wall/surface	Surface covered with large and undulating, solid wart-like projections
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Polypodiaceae are widely distributed throughout the world, with highest species diversity in tropical and subtropical regions. However, in Africa only 11 genera (*Belvisia*, *Drynaria*, *Loxogramme*, *Lepisorus*, *Microgramma*, *Microsorium*, *Phytomatosorus*, *Platecyrium*, *Pleopeltis*, *Polypodium* and *Pyrrosia*) are encountered, of which most species occur in forested areas, such as mixed evergreen forest, riverine forest, rainforest, gallery forest and woodland (Verdcourt, 2001)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1254

Letter --

Category Plantae (spores)

Taxonomical identification *Phaeoceros cf. carolianus*

TAXONOMY

Kingdom Plantae

Phylum Anthocerotophyta

Class Anthocerotopsida

Order Notothyladales

Family Notothyladaceae

Gender *Phaeoceros*

Species --

Image

DESCRIPTION

Colour Brown

Dimensions 37–50×23–37 µm

Shape Arms of the trilete scar long (3/4 the radius) and appearing as prominent ridges

Wall/surface Surface covered with small echinae, not joined by reticulum, some echinae forked and bent

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Phaeoceros is distributed nearly worldwide, growing in diverse open habitat such as moist slopes, cleared areas and (often) fallow land (Proskauer, 1951). Only *P. carolianus* (L.) Prosk. appears to have been reported from Uganda so far (Hodgetts, 2004)

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1255

Letter --

Category Plantae (spores)

Taxonomical identification *Ophioglossum subg. Ophioglossum Linnaeus*

TAXONOMY

Kingdom Plantae

Phylum Pteridophyta

Class Psilotopsida

Order Ophioglossales

Family Ophioglossaceae

Gender *Ophioglossum*

Species --

Image

DESCRIPTION

Colour Brown

Dimensions 35×30 µm

Shape Globose

Wall/surface Surface covered with fine ridges developed into a dense reticulum, and irregularly spaced, depressed areolae (halos) underneath; trilete scar with short arms (1/2 to 2/3 the radius)

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

The subgenus *Ophioglossum* is widely distributed in both tropical and temperate regions at low altitudes. It occurs in a wide range of habitats, from woodland and the margins of evergreen forest to wet grassland and sandy soils overlying granite sheet-rock (Burrows and Johns, 2001)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown
Number	1258		
Letter	--		
Category	Spores		
Taxonomical identification	--	Dimensions	c. 36×34 μm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Tetrahedral-globose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Surface pitted and wrinkled with low coalescent ridges, trilete scar with long arms (3/4 the radius)
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	UG	Colour Yellow
Number	1259	
Letter	--	
Category	Spores	
Taxonomical identification	--	Dimensions 30–38×20–28 µm
TAXONOMY		
Kingdom	--	
Phylum	--	Shape Tetrahedral-globose, usually with concave sides
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface Surface diffusely and irregularly granulate, trilete scar with relatively short arms (2/3 the radius)
Species	--	
Image		Apertures --
		Other In subfossil specimens the sculptured perispore is often missing
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Pteridium aquilinum has a worldwide distribution and occurs in a large variety of habitats (forest margins, grassland, woodland, rocky places and disturbed areas) in lowland to high mountain regions (Friis and Vollesen, 1998; Verdcourt, 2000). It is definitely the most common African fern, often forming vast stands in eastern parts of southern Africa, and frequently becoming an invasive weed following land-clearance and fire (Burrows, 1990)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1260

Letter --

Category Plantae (spores)

Taxonomical identification *Coniogramme africana type*

TAXONOMY

Kingdom Plantae

Phylum Pteridophyta

Class Pteridopsida

Order Polypodiales

Family Pteridaceae

Gender *Coniogramme*

Species --

Image

DESCRIPTION

Colour Yellow to brown

Dimensions 37–30×30 µm

Shape Tetrahedral-globose, often deeply curved

Wall/surface Surface faintly patterned (rugate or irregularly papillate), trilete scar with relatively short arms (2/3 the radius)

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

This type may be affiliated with *Coniogramme africana* Hieron., which occurs in tropical Africa and Madagascar in submontane and subalpine zones at altitudes ranging from ~1100 to 2200 m (Tryon and Lugardon, 1990; Hemp, 2002)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1261

Letter --

Category Plantae (spores)

Taxonomical identification *cf. Pteris/Actiniopteris sp*

TAXONOMY

Kingdom Plantae

Phylum Pteridophyta

Class Pteridopsida

Order Pteridales

Family Pteridaceae

Gender *Pteris/Actiniopteris*

Species --

Image

DESCRIPTION

Colour Yellow to brown

Dimensions 43–48×40–45 µm

Shape Tetrahedral-globose, with prominent equatorial flange/rib

Wall/surface Surface covered with low tubercles, trilete scar with long arms (3/4 the radius)

Apertures --

Other --

Similar to This spore resembles some species of *Pteris* and *Actiniopteris*, which can be morphologically similar

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input checked="" type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Pteris is distributed in the tropics, subtropics and warm temperate regions, whereas *Actiniopteris* is primarily restricted to Africa, Madagascar and the adjacent islands extending northeastward to Afghanistan, Nepal, India and Sri Lanka (Tryon and Lugardon, 1990). Both taxa occur in a wide variety of habitats (rock outcrops, woodland, bushland), but *Actiniopteris* is apparently more favoured by dry conditions (Verdcourt, 1999, 2002)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1262

Letter --

Category Fungi (conidia)

Taxonomical identification *Canalisporium pulchrum* (Hol.-Jech. &

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Incertae sedis

Family Incertae sedis

Gender *Canalisporium*

Species *pulchrum*

Image

DESCRIPTION

Colour Pale to dark brown

Dimensions 48–68×25–32 µm

Shape Ellipsoid to inversely egg-shaped, slightly constricted at the septa; some septa strongly pigmented and heavily accentuated (septal canals often badly visible); with 3 columns of septa, and 4–6 rows of septa. and a single subhvaline basal cell (sometimes missing)

Wall/surface Smooth, thick-walled

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Species of *Canalisporium* are common saprophytes on rotten and submerged wood (e.g., on bamboo culms, palm rachis) and have a pan-tropical distribution. The genus has previously been recorded in Cuba, India, Kenya, Malaysia, Uganda and Australia. (Goh et al., 1998, see also table I in Goh and Hyde, 2000)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown
Number	1263		
Letter	--		
Category	Plantae (spores)		
Taxonomical identification	<i>cf. Grammitis sp</i>	Dimensions	c. 32×30 µm
TAXONOMY			
Kingdom	Plantae		
Phylum	Pteridophyta	Shape	Tetrahedral-globose
Class	Pteridopsida		
Order	Polypodiales		
Family	Polypodiaceae		
Gender	<i>Grammitis</i>	Wall/surface	Surface covered with prominent tubercles, with papillae near the aperture, and a trilete scar with long arms (1/3 to 3/4 the radius)
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Grammitis has a pantropic distribution across tropical, subtropical and warm temperate regions. These are small, often epiphytic ferns, usually growing in mossy substrates on trees (Tryon and Lugardon, 1990)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1264

Letter --

Category Plantae (spores)

**Taxonomical
identification** *Pteris* sp.

TAXONOMY

Kingdom Plantae

Phylum Pteridophyta

Class Pteridopsida

Order Pteridales

Family Pteridaceae

Gender *Pteris*

Species --

Image

DESCRIPTION

Colour Brown

Dimensions c. 62×52 µm

Shape Tetrahedral-globose

Wall/surface Surface covered with a very distinct coarse reticulum, with ridges (up to 2.5 µm tall) partly connected to each other and large papillae (2.5 µm in diameter) within areolae, trilete scar with long arms (3/4 the radius)

Apertures --

Other --

Similar to The large papillae or tubercles within the aureolae of some *Pteris* spores (e.g., *P. vittata* L. and *P. longifolia* L.) are remarkably similar to those of *Onychium* species

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

However, *Pteris* is farmore common in East Africa than *Onychium*, which is mostly distributed in the Sikkim–Himalayan area and southwest China. *Pteris* is widespread in tropical, subtropical and warmtemperate regions and occurs in diverse habitat ranging from river banks, wet evergreen forest and stream-side vegetation to drier areas on limestone outcrops (Tryon and Lugardon, 1990; Verdcourt, 2002)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1268

Letter --

Category Fungi (conidia)

Taxonomical identification *Canalisporium variabile* Goh & K.D.Hyde

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Incertae sedis

Family Incertae sedis

Gender *Canalisporium*

Species *variabile*

Image

DESCRIPTION

Colour Pale brown

Dimensions c. 25×23 µm

Shape Cubical, constricted at conidial septa (cells appear to bulge in outline); septa unpigmented, thin and septal canals clearly visible; with 2(–3) major columns of septa, 2 rows of septa, and a single basal cell. which is subhvaline

Wall/surface Smooth, thick-walled. Single basal cell thin-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Canalisporium variable is a recently described *Canalisporium* species, found on submerged wood and decaying palm rachis in Australia (Goh and Hyde, 2000)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Pale to dark brown
Number	1274		
Letter	--		
Category	Fungi (conidia)		
Taxonomical identification	--	Dimensions	26–33×17–22 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoid, subglobose or club-shaped, cells slightly variable in size and shape), and subhyaline basal cell(s) (sometimes missing), constricted at the septa
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth, thick-walled
Species	--		
Image		Apertures	More than 10-septate
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This morphotype may correspond with several different species due to its scarcity of diagnostic features

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Dark brown. Basal cells often slightly paler than central cells often slightly paler than central cells
Number	1276		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	c. 50×17 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Cylindrical, formed by a cluster of ~12 cells or more, variable in size and shape, constricted at the septa
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth, thickwalled
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1277

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Brown

Dimensions 40–57×40–43 µm

Shape Globose to subglobose, with more than 20 cells septated cells (slightly variable in size and shape), and some subhyaline, thin-walled basal cell(s) (may be missing), slightly constricted at the septa

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to This morphotype differs from Type UG-1274 by its bigger size and higher amount of cells

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type UG-1274 and UG-1277 may be produced by (morphologically) related species

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow to brown
Number	1280		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	c. 100×187 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoid
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Small spines densely arranged across the surface
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input checked="" type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Possibly this is a swollen hair from an aquatic insect larva

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1281

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions 18– 20 μm in diameter (Image scale: 10 μm)

Shape Globose, equilaterally one-celled

Wall/surface Verrucose, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1282

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Yellow

Dimensions 15–20 µm in diameter

Shape Globose to subglobose, equilaterally one-celled, with the subhyaline sheath/coat developed into fairly high, coarse ridges which may or may not anastomose, and with small spines present on the tops of the ridges

Wall/surface Thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow to brown
Number	1284		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	c. 38×27 μm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Nearly triangular to obtuse, two centrally located circular apertures are provided with annuli
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Thick-walled, covered with microreticulate knobs
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1285

Letter --

Category Fungi (ascospores)

Taxonomical identification *cf. Ascodesmis sp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Pezizomycetes

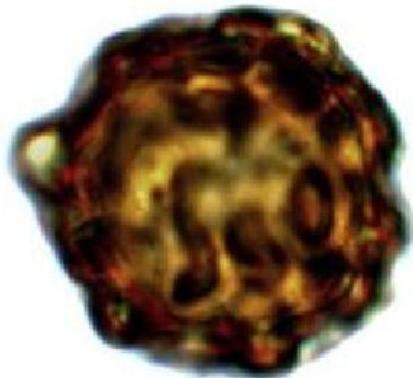
Order Pezizales

Family Ascodesmidaceae

Gender *Ascodesmis*

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 38 μm in diameter (Image scale: 10 μm)

Shape Subglobose, inequilaterally one-celled

Wall/surface Irregularly and coarsely verrucose (individual knobs ~7 μm thick), thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Ascodesmis is widespread on dung of both wild and domesticated animals (Hanlin, 1990)

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow
Number	1286		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	c.49–53 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Subglobose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Irregularly arranged linear and T-shaped appendages (1 to 3 µm), thick-walled
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Subhyaline to pale yellow
Number	1288		
Letter	--		
Category	Cyst		
Taxonomical identification	--	Dimensions	c.110 × 85 µm
TAXONOMY			
Kingdom	--	Shape	Cyst ellipsoid
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Surface ornamented with low reticulated flanges (honeycomb structure)
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow
Number	1291		
Letter	--		
Category	Fungi (chlamydospores)		
Taxonomical identification	--	Dimensions	c.72×57 μm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Broadly ellipsoid, equilaterally one-celled
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth, slightly thin-walled, with hypha-like attachment/appendix
Species	--		
Image		Apertures	--
		Other	--
		Similar to	It differs from the common <i>Glomus</i> chlamydospores (see Type HdV -1103) by its distinctly ellipsoid shape and thinner wall

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

This morphotype probably belongs to the mycorrhizal fungi, and may represent *Glomus* or a related tropical genus. For distribution and ecology see Type HdV-1103

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown to dark brown
Number	1300		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	c.45 µm in diameter
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Thick-walled, surface locally smooth but partly covered with small verrucae (~1 µm) grouped and restricted to some areas
Species	--		
Image		Apertures	Long slit-like aperture
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow to brown
Number	1303		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	c.15 µm in diameter
TAXONOMY			
Kingdom	--	Shape	Globose, shaped like a rounded square
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Thick-walled; with subhyaline outer coat covered with small protuberances (~1 µm)
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow to brown
Number	1306		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	c.10 µm in diameter
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Very thick-walled (~2 µm); with a subhyaline net-like outer coat
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown
Number	1307		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	25–15 µm in diameter
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Thick-walled, surface densely covered with long hairy appendages (3 to 5 µm)
Species	--		
Image		Apertures	Characteristic aperture/pore (~5 µm) with costa
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown
Number	1309		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	25–20 µm in diameter
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Thick-walled, with minute spheroidal protuberances (papillae, 0,5–1 µm tall) irregularly distributed across the surface
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown
Number	1310		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	c.28 µm in diameter
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Thick-walled, with echinae (~3 µm tall) densely distributed
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1311

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Brown

Dimensions 19–12 µm in diameter

Shape Globose

Wall/surface Thick-walled, with small protuberances (~1 µm tall) evenly distributed across the surface

Apertures --

Other --

Similar to This microfossil superficially resembles *Michrystridium* (Acritarcha, European NPP type HdV-115), which was first reported in lake sediment deposited on a subsoil of marine clay in The Netherlands (Pals et al.. 1980: Bakker and van Smeerdiik. 1982)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1312

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Yellow

Dimensions c.22 µm in diameter

Shape Globose

Wall/surface Smooth, slightly thickwalled

Apertures With a possible circular central aperture/hole (~10 µm)

Other --

Similar to This microfossil superficially resembles the testate amoeba *Arcella*, which is clearly larger (~100–130 µm) and has a nucleus (Chardez, 1964)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Yellow to brown
Number	1315		
Letter	--		
Category	Plantae		
Taxonomical identification	<i>Monoletes undiff</i>	Dimensions	Strongly varying in size from approximately 30×15 to 95×55 µm
TAXONOMY			
Kingdom	Plantae		
Phylum	--	Shape	Bean-shaped
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This type comprises all monolete filicales without perispore

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1316

Letter --

Category Plantae (spores)

**Taxonomical
identification** *Asplenium type*

TAXONOMY

Kingdom Plantae

Phylum Pteridophyta

Class Pteridopsida

Order Blechnales

Family Aspleniaceae

Gender *Asplenium*

Species --

Image

DESCRIPTION

Colour Brown

Dimensions 35–45×22–26 µm

Shape Bean-shaped

Wall/surface Smooth surface except low subhyaline plain folds

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

These type of spores are very common within the *Asplenium* genus, but affiliation with other genera is also apparent. For distribution and ecology see Type UG-1243 (2.1.)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1319

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Yellow

Dimensions 20–26 µm in diameter

Shape Globose

Wall/surface Smooth, slightly thickwalled (~1 µm thick), often split

Apertures --

Other --

Similar to This microfossil resembles the European NPP type HdV-119, which is restricted to lake deposits (Pals et al., 1980), but since its morphology is rather simple and nondescript we use a new type number

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1320

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Subhyaline to brown

Dimensions 50–57×29–31 µm (Image scale: 10 µm)

Shape Ellipsoid to lemon-shaped, unequally and subsymmetrically 4-celled, constricted at the septa; central cells large, end cells small

Wall/surface Smooth. Central cells thick-walled; end cells thin walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This morphotype may be related to Type UG-1080

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Subhyaline
Number	1326		
Letter	--		
Category	Cyst		
Taxonomical identification	--	Dimensions	c.41 µm in diameter
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Surface smooth but ornamented with rounded flanges (~4 µm)
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1329

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *cf. Xylariaceae*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Xylariales

Family Xylariaceae

Gender --

Species --

Image

DESCRIPTION

Colour Brown

Dimensions Cell 68 µm long, 10 µm wide

Shape Fusiform, inequilaterally one-celled, extremities needle-shaped and 35 µm long

Wall/surface Smooth and thick-walled

Apertures Germ slit (17 µm) short and centred near the flattened side

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Apart from the atypical extremities, this morphotype appears to be affiliated with the family of Xylariaceae, and perhaps with the genus *Rosellinia* (Petrini, 2003)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1330

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale yellow

Dimensions c.50×15 µm (Image scale: 10 µm)

Shape Inversely club-shaped, slightly curved, unequally and asymmetrically
7- or more celled, not constricted at the septa

Wall/surface Smooth, thick-walled

Apertures 6-septate (or more)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1331

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pale brown

Dimensions c.48×17 µm (Image scale: 10 µm)

Shape Ellipsoid to fusiform, unequally and subsymmetrically 3-celled, with a small hyaline projection at the base forming a so-called foot cell, not constricted at the septa; (pseudo-)septa thickened

Wall/surface Smooth, very thick-walled (thickest in the center)

Apertures 2-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1332

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 34–50×21–28 µm (length dependent on the number of preserved cells)(Image scale: 10 µm)

Shape Ellipsoid, unequally and asymmetrically 3-celled, not constricted at the septa; zone around widest septum dark; basal cell subhyaline, small and tapering (often missing or partly broken)

Wall/surface Smooth or verrucate, thick-walled

Apertures 2-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1333

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 28–37×18 µm (Image scale: 10 µm)

Shape Club-shaped, unequally and asymmetrically 2-celled, not constricted at the septum, end cell subhyaline, small (5–8×5 µm)

Wall/surface Smooth, slightly ribbed in the central part of the large and thick-walled cell (23– 29×18 µm), end cell thin walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1334

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown to subhyaline

Dimensions c.18×13 µm (Image scale: 10 µm)

Shape Inversely egg-shaped, unequally and asymmetrically 3-celled, not constricted at the septa; one cell large and almost globose; basal cells tapering

Wall/surface Smooth, thick-walled

Apertures 2-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1340

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown to subhyaline

Dimensions c. 42×17 µm (Image scale: 10 µm)

Shape Inversely club-shaped, unequally and asymmetrically 2-celled, not constricted at the septum, end cell subhyaline, small (3×8 µm) and trapezoidal

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown to subhyaline
Number	1342		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	c.27×13 μm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoid, unequally and asymmetrically 4-celled, central cells large and thick-walled; end cells small and thin-walled (often damaged or absent)
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Striate in a slightly spiralic pattern. Central cell thick-walled; end cells thin walled
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown
Number	1343		
Letter	--		
Category	Fungi (conidia)		
Taxonomical identification	<i>cf. Cirrenalia sp.</i>	Dimensions	c.31 µm in diameter
TAXONOMY			
Kingdom	Fungi		
Phylum	Ascomycota	Shape	Conidia spiral-shaped, subglobose, unequally and asymmetrically 8-celled, slightly constricted at the septa; cells increasing in diameter from base to end
Class	Sordariomycetes		
Order	Microascales		
Family	Halosphaeriaceae		
Gender	<i>Cirrenalia</i>	Wall/surface	Smooth, thick-walled
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Fourteen species are described in the genus *Cirrenalia*, of which 7 species are marine lignicolous and 7 are terrestrial, mostly occurring on bark and wood and often in wet habitats. This morphotype probably refers to one of the seven known terrestrial species (Ellis, 1976; Somrithipol et al., 2002, Zhao and Liu, 2005)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	UG	Colour	Brown to dark brown
Number	1346		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	c.50–55 µm
TAXONOMY			
Kingdom	--	Shape	Subglobose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Very thick-walled, with striae (~1 µm wide) arranged in a finger-print pattern; with thick and elongated V-shaped furrow (~3 µm wide); covered by a smooth subhyaline outer coat
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym UG

Number 1352

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions c.37×15 µm (Image scale: 10 µm)

Shape Fusiform, unequally and asymmetrically 2-celled, slightly constricted at the septum, more tapering towards one end, one cell slightly broader than the other

Wall/surface Finely reticulate, slightly thick-walled

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1

Letter --

Category Fungi (ascospores)

Taxonomical identification *Gelasinospora sp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Sordariaceae

Gender *Gelasinospora*

Species --

Image



DESCRIPTION

Colour Spore surface almost black, evenly ornamented with c. 1 µm wide round hyaline pits

Dimensions 22--30 (-37) X 14--20 (-24) µm

Shape --

Wall/surface --

Apertures --

Other In sample 22 a corroded perithecium or cleistothecium 380 X 250 µm containing six Type 1 ascospores was found

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1981; 1989; Kuhry 1985; 1997; Garneau 1987; López-Sáez et al 2000; Carrión & Navarro 2002; Chambers 2010; Montoya 2010

INTERPRETATION

Gelasinospora species are mainly fimicolous, but they may also be carbonicolous and lignicolous (Lundqvist, 1972). Type 1 reaches its highest frequencies in layers containing charcoal (see diagram Figs.8 and 4). This may indicate that Type 1 is carbonicolous, but it is also possible that the fungus simply preferred dry conditions (cf. Van Geel, 1972). During a provisional study of lichens occurring in peat bogs, perithecia with similar ascospores were found on the thallus of (recent) *Cladonia arbuscula* (Wallr.) Rabenh. ssp. *arbuscula*. Lichens may, therefore, also be the matrix for Type 1 spores.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 2

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycota

Order Sordariales

Family Sordariaceae

Gender *Gelasinospora*

Species *reticulispora*

Image



DESCRIPTION

Colour Dark brown, ornamented with 2--4 µm wide, hyaline pits

Dimensions 25-33 X 15-19 µm

Shape Ellipsoidal to ovoid

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input checked="" type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1981; 1989; Chambers 2010

INTERPRETATION

Although of less frequent occurrence, Type 2 shows maxima in the same layers as Type 1. According to Domsch and Gams (1972) *G. reticulispora* was isolated from Nothofagus wood in Chile, from seed material of *Beta vulgaris* in the Netherlands, from apple twigs in Quebec and from *Agropyron pungens* leaves in England. Only a few observations in soft isolates: a beech wood in the Ardennes, the rhizosphere of various forest plants in Belgium, *Calluna* heath, rabbit excrements and sand dunes in England. Once recorded from wheat field soil. (Van Geel 1978); . It indicates relative dry conditions (Chambers 2010)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 3

Letter A

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Pleosporaceae

Gender *Pleospora*

Species --

Image



DESCRIPTION

Colour --

Dimensions 60-95 X 30-50 μm

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Kuhry 1985; Van Geel 1989;

INTERPRETATION

Type 3A spores were found especially in layers formed under very dry conditions in the ombrotrophic peat. (In the ombrotrophic parts of the section Engbertsdijksveen I, periods of drought were never as severe as in some levels of the W.M. III section. This difference in local moist conditions is also reflected in the frequencies of Type 10 in both sections.)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 3

Letter B

Category Fungi (ascospores, fruit bodies)

**Taxonomical
identification** *Pleospora*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

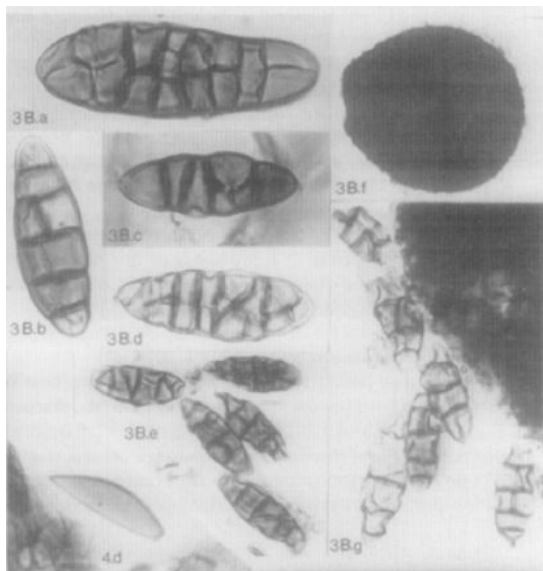
Order Pleosporales

Family Pleosporaceae

Gender *Pleospora*

Species --

Image



DESCRIPTION

Colour --

Dimensions Ascospore: 25-43 × 10-14 µm
Fruit body: 150-290 × 225-320 µm

Shape Fruit body: bearing short, 2.5 µm thick, septate hairs (not present in corroded material)
Ascospores: oblong

Wall/surface --

Apertures 5-7 transverse and one to several longitudinal septa (especially in the more central segments)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input checked="" type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Relatively dry, ombrotrophic peat vegetation. Species of *Pleospora* occur typically on dead plant remains.

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Kuhry 1985; Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 4

Letter --

Category Fungi (perithecia and ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

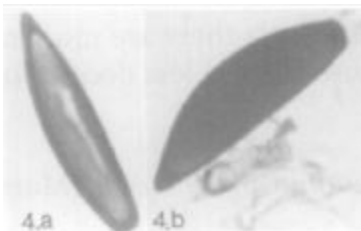
Order Xylariales

Family Xylariaceae

Gender *Anthostomella*

Species *fuegiana*

Image



DESCRIPTION

Colour --

Dimensions Perithecia: almost spherical (125-340 μm in diameter) to oblong (390 X 235 μm). Ascospores: 18-25 X 5-7 μm

Shape Ascospore: inequilateral (one side almost straight), tapering apically into a sharp point, basal end truncate. Germ slit extending over about half of the length of the spore along the straight side. Spores extracted from the perithecia found in the macrofossil-samples

Wall/surface --

Apertures --

Other Perithecia: with a short apical beak. Perithecia immersed; after disappearance of the surrounding plant tissue some perithecia still show a clypeus around the ostiole (a clypeus formed a shield over the perithecium which was immersed in the leaf tissue of the host plant).

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Kuhry 1985

INTERPRETATION

Sheila M. Francis (Commonwealth Mycological Institute, Kew) has identified some ascospore-containing perithecia of the Eng.I section with certainty 51 as *Anthostomella fuegiana* Speg. This fungus grows on *Cladium mariscus*, *Luzula sylvatica*, *Rostkovia grandiflora* and *Eriophorum vaginatum* (Francis, 1975). The presence of the fossil fruit-bodies indicates that it grew in situ in the peat vegetation. Amongst the plants mentioned *E. vaginatum* is the most likely host. There is no good correlation between the occurrence of *A. fuegiana* and *E. vaginatum*. The identifiable fossil remains of *E. vaginatum* are subterranean parts of the plants, occurring in the peat at a lower level than the irrerecognisable leaves in which fruit-bodies of *A. fuegiana* could develop. Ascospores and especially fruit-bodies may be good indicators of the presence of *E. vaginatum* (and possibly of other *Eriophorum* spp.) in the local vegetation, but the absence of the fungus does not necessarily imply the absence of the host plant

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 5

Letter --

Category Fungi (conidia or chlamydospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

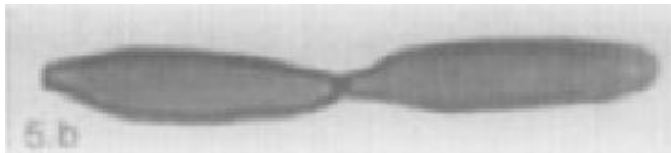
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 19-36 X 4-5 μ m

Shape Most conidia truncate at both ends: sometimes two conidia joined by their truncate ends. Few conidia truncate at one end and apically rounded, probably the first (terminal) ones formed in a series

Wall/surface Outline slightly undulate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input checked="" type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

INTERPRETATION

The fungus may have grown there secondarily under dry conditions after the drainage of the peat bog and the disappearance of the upper peat layer that was burned off for buckwheat cultivation (see section 3.2)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 6

Letter --

Category Fungi (perithecia and ascospores)

Taxonomical identification *Coniochaeta xylariispora* (Ell. & Everh.) Cooke

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

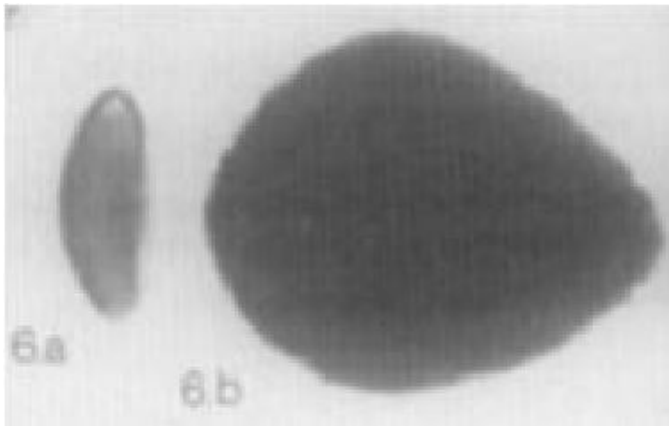
Order Coniochaetales

Family Coniochaetaceae

Gender *Coniochaeta*

Species *xylariispora*

Image



DESCRIPTION

Colour --

Dimensions Perithecia: 270-310 X 195 µm
Ascospores: 12-15 X 5-6 X 3-4 µm

Shape Ascospore: one-celled, bilaterally flattened, with a germ slit along one side

Wall/surface Perithecia: The upper surface covered with pointed hairs up to 45 X 3.5 µm (hairs absent in more decomposed peat)

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Kuhry 1985

INTERPRETATION

G.J. Bollen (Wageningen) and W. Gams (Baarn) identified Type 6 as *Coniochaeta xylariispora*. G.J. BoUen isolated *C. xylariispora* from greenhouse soil which contained a good deal of peat. (Van Geel 1978). they are mainly found in the minerotrophic sandy peat. (Kuhry 1985)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 7

Letter A

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Chaetomiaceae

Gender *Chaetomium*

Species --

Image



DESCRIPTION

Colour --

Dimensions Perithecia (7A.b-d) 290-310 X 195-215 μm
Ascospores (7A.a and 7A.c) 6-7 X 5-4 μm

Shape Lemon-shaped, umbonate at both ends, bilaterally flattened

Wall/surface --

Apertures --

Other Perithecial hairs (essential for identification) not preserved in the fossil material.

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

INTERPRETATION

Chaetomium species are cellulose-decomposing fungi occurring commonly on all kinds of plant remains and dung

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1989; 2001; 2003; Kuhry 1985; Barthelmes 2009; López-Sáez et al 2000;

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 7

Letter B

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Chaetomiaceae

Gender *Chaetomium*

Species --

Image



DESCRIPTION

Colour --

Dimensions 8-9 X 4 µm

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

INTERPRETATION

The curve of the Type 7B spores resembles the curve of the conidiophores of the Type 96A and B. In diagram, the Type 7B curve is shown again next to the curves of Types 96A and 96B

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 8

Letter A

Category Fungi (fruit body)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

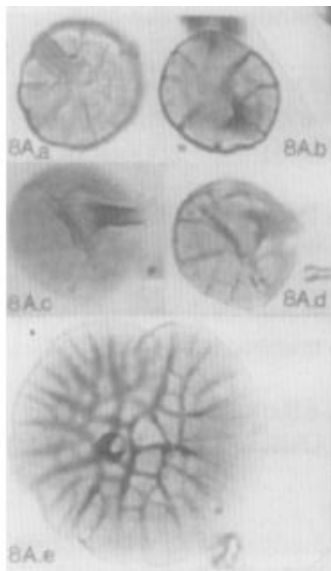
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Mostly 15-20 (-38) μm in diameter

Shape Circular in outline. With one or two short, broken hyphae emerging from the central area. Radially structured basal plate without openings

Wall/surface Smooth. The upper wall convex, made up of radiating files of subquadratic cells, about 2 μm wide at the margin and narrower at the centre

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

Several macroscopic remains of plants bore Type 8A fruit-bodies: On *Eriophorum vaginatum* they were found attached to a superficial, septate mycelium, about 2--3 µm wide and also connected with the fruit-bodies of the 8B Type. On a leaf of *Sphagnum* sect. Cymbifolia {Plate III, 8C.c) they occurred together with Type 8C fruit-bodies. On a leaf of *Sphagnum* sect. Cymbifolia, together with Type 8D fruit-bodies. Plate II, 8B.a shows a fruit-body of the 8B Type with Type 8A (8A.f) attached to it, observed at the 166-cm level pollen slide. There is little doubt that Type 8A consists of young stages of fruit-bodies of microthyriaceous fungi. A description and illustration of the development of fruit-bodies of a recent representative of the Microthyriaceae can be found in Webster (1951). The young fruit-bodies of Type 8A do not resemble Type 13 fungal structures for which some authors (e.g., Edwards, 1922; Dilcher, 1965) suggested that they might be young stages of microthyriaceous fruit-bodies

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 8

Letter B

Category Fungi (fruit body)

Taxonomical identification *Microthyrium spec*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

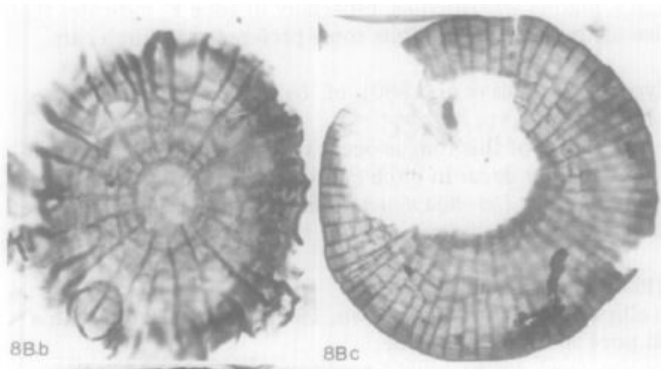
Order Microthyriales

Family Microthyriaceae

Gender *Microthyrium*

Species --

Image



DESCRIPTION

Colour --

Dimensions Fruit body: 40-100 µm in diameter. Ostiole: 8-15 µm wide

Shape Ostiole: Basal plate radially structured. Fruit-bodies that were found freely in pollen samples usually singly, rarely in conrescent pairs

Wall/surface Fruit body: darker centre, margin smooth or slightly crenulate. Wall of the covering membrane made up of radiating files of subquadratic cells, 2-9 µm wide at the margin, and narrower at the centre. Ostiole: surrounded by a ring of small cells with thick black walls

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Garneau 1987; Kuhry 1997; Barthelmes 2009

INTERPRETATION

During the study of macrofossils they were regularly found growing superficially on several plants. A closer study showed some variation in the morphology (different species?), depending on the host species: On *Scheuchzeria palustris*: fruit-bodies pale, 40-75 μ m in diameter, cells 2--3 μ m wide at the margin. Ostiole 8--10 μ m wide. *Scheuchzeria* remains which are normally yellowish, are greyish if infected with Type 8B. On a corroded unidentified seed from the 71-cm level: fruit-bodies 80--100 μ m in diameter, cells 4--9 μ m wide at the margin. Ostiole 8--15 μ m wide. On cf. *Eriophorum vaginatum*: fruit-bodies darkly pigmented, up to 95 μ m in diameter, cells 4--8 μ m wide at the margin; immature fruitbodies present (not illustrated, see Type 8A). On an unidentified epidermis fragment : fruit-bodies 55--65 μ m in diameter, cells 2--4 μ m wide at the margin. Ostiole 10 μ m in diameter

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 8

Letter C

Category Fungi

Taxonomical identification *Actinopeltis spec*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

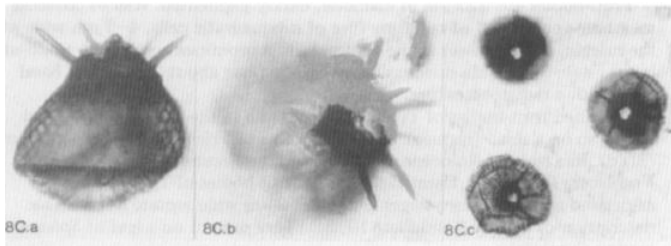
Order Microthyriales

Family Microthyriaceae

Gender *Actinopeltis*

Species --

Image



DESCRIPTION

Colour Darkly pigmented

Dimensions Fruit body: 70-100 μm in diameter
Ostiole: up to 30 μm in length

Shape Ostiole surrounded by a ring of small cells with thick black walls, some of them bearing non-septate setae. Basal plate radially structured

Wall/surface Fruit body: Wall of covering membrane composed of radiating files of subquadratic cells 2-5 μm wide at the smooth margin, narrower at the centre

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

In the samples of the Engbertsdijksveen section I, fruit-bodies of this type were not found in association with macroscopic remains. In a slide of Holocene material from the Breungesheiner Heide, Vogelsberg (M. Schild, Darmstadt), numerous fruit-bodies of the Type 8C, also associated with immature stages are present on a *Sphagnum* leaf (of S. section Cynbifolia). J.A. von Arx (Baarn) tentatively identified Type 8C as *Actinopeltis* spec. *Actinopeltis* is known from ferns, but our fossil material seems to indicate that *Sphagna* may also act as host plants

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Darkly pigmented
Number	8		
Letter	D		
Category	Fungi		
Taxonomical identification	--	Dimensions	Fruit body: 40-122 µm in diameter Ostiole: up to 25 µm long and 6-8 µm wide
TAXONOMY			
Kingdom	--	Shape	Ostiole: surrounded by 6-8 hyphae about 2 µm wide. Basal plate with a radiate structure
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Fruit body: Wall of covering membrane composed of radiating files of subquadratic cells, 4-7 µm wide at the margin, and narrower at the centre
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

Detached fruit-bodies of Type 8D were found in the pollen samples and once also on a small fragment of the epidermis of *Trichophorum caespitosum* (8D.d). In a slide of Holocene material from the Breungesheiner Heide, Vogelsberg (M. Schild, Darmstadt), many fruit-bodies of Type 8D, also associated with immature stages and about 2 µm wide septate hyphae are present on a leaf of *Sphagnum* section *Cymbifolia*

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 8

Letter E

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

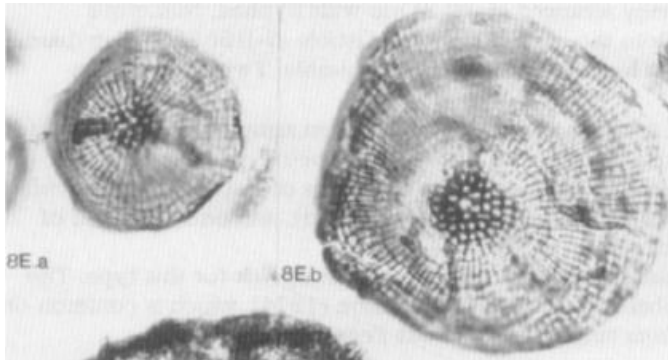
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Fruit body: 65-125 µm in diameter
Cells: 2-5 × 1.5-3.0 µm
1.5-2.0 µm wide hyphae

Shape No basal layer observed

Wall/surface Wall composed of numerous radiating files of regular rectangular cells. Cells around the ostiole dark, thickwalled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 8

Letter F

Category Fungi

Taxonomical identification *Stomiopeltis spec*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

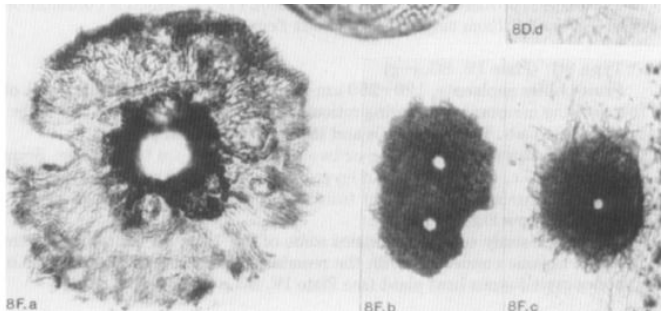
Order Microthyriales

Family Micropeltidaceae

Gender *Stomiopeltis*

Species --

Image



DESCRIPTION

Colour --

Dimensions Fruit body: (55-)100--250(-265) μm in diameter
Ostiole (7-)15(-25) μm in diameter

Shape In some specimens a hyaline basal layer recognisable. Twin fruit-bodies occurring

Wall/surface Fruit body: Wall composed of meandering to radially arranged (1-)2 (-3) μm wide hyphae. Numerous hyphae emerging from the irregular margin

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

Relatively small specimens were found in pollen samples. During the study of the macro-remains, fruit-bodies of the *Stomiopeltis* type were found detached and sometimes attached to the epidermis of leaves of *Erica tetralix* (8F.c), *Calluna vulgaris*, *Oxycoccus palustris* (8F.d), and once on a leaf of *Sphagnum* sect. *Acutifolia* (8F.e). J.A. von Arx, Baarn, suggested the genus *Stomiopeltis* for this type. The fossil fungus is probably *S. callunae* B. Eriksson (1974), which is common on dead leaves of *Calluna vulgaris* throughout Fennoscandia

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 8

Letter G

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

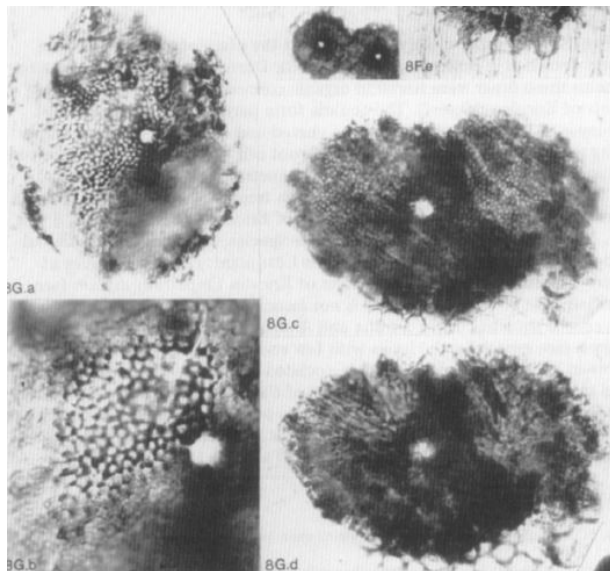
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Fruit body: 120-250 μm in diameter. One or two ostioles 5--10 μm in diameter

Shape Fruit body: applanate. . Epidermis cells and stomata of the host plant often impressed in this membrane Ostiole: Some specimens (8G.c, d) with a second layer of irregularly arranged, 2--4 μm wide cells. Sometimes several confluent fruit~bodies adareated in up to 1000

Wall/surface Fruit body: . Margin irregular. Wall of the covering membrane appearing reticulate, consisting of 1.5-2.5 μm wide isodiametric cells

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 9

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

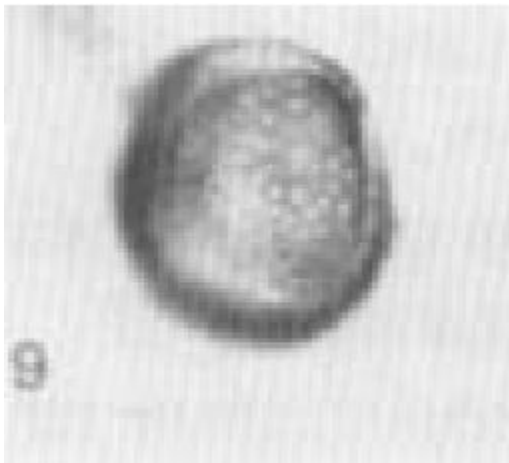
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 11-20 μm in diameter

Shape Globose to somewhat polyhedral cells

Wall/surface Surface ornamented with 0.7-1 μm wide hyaline pits, 1 μm apart

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 10

Letter --

Category Fungi (conidia, chlamydospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

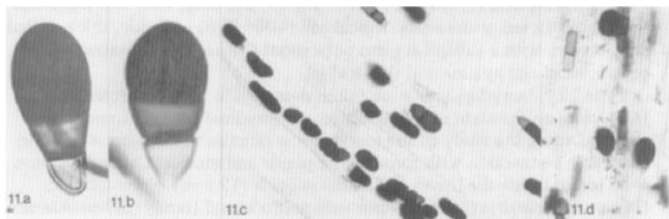
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pigmented, basal cells paler

Dimensions (10-)20—30 (-50) μm long and (7-)9-10(-12) μm wide

Shape The conidia form partly inside the outermost cell-layer of the roots; they are often curved and of a more irregular shape, being appressed to the inner side of the root cell walls. When growing outside the root cells. but attached to mycelium penetrating the roots. the conidia are

Wall/surface --

Apertures Transversely (1-)2-3(-6) septate. In each septum a c. 0.3 μm wide pore

Other Mostly broken off at the place of attachment were found detached in pollen samples

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

Type 10 was earlier shown to be a good indicator of locally dry conditions in raised bog peat (Van Geel, 1972). We can now interpret the behaviour of its curve in the diagrams: its host plant, *Calluna vulgaris*, occurs in the raised bog peat under dry conditions; the drier the conditions, the more conidia are liberated because of the decomposition of the roots and of the slightly pigmented thin-walled mycelium. Type 10 might also play a role in the process of root decomposition. The thick-walled conidia, undamaged by corrosion, become detached from the mycelium and pass through the sieve during the processing of the microfossils.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 11

Letter --

Category Fungi (chlamydospores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

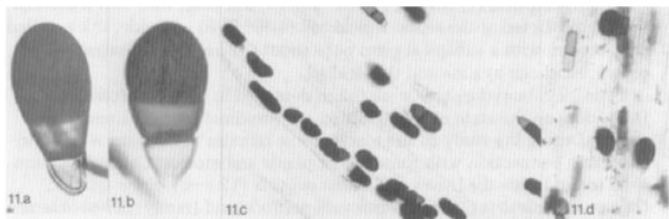
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Top cell almost black, basal cell hyaline

Dimensions 23-40 μm (mostly 27-30 μm) long, and 10-20 μm (mostly 14-17 μm) broad in the apical cell

Shape Sometimes constricted at the septa, with a truncate end, corresponding to the place of mycelial attachment

Wall/surface --

Apertures Mostly 1-2 septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

Fungi of this type were found detached in the pollen samples. During the study of the macroscopic remains Type 11 was found twice in organic connection with an unidentified cyperaceous epidermis (see 11.c). The Type 11 "chlamydospores" are present inside the long narrow epidermal cells. In the narrowest epidermal cells the chlamydospores are longer and attenuate, and the wall is sometimes papillate as a replica of the host cell wall. Although Type 11 varies to a great extent, the finding of infected cyperaceous leafs, in which the fungus shows the same range of variation, suggests that the form taxon Type 11 represents only a single, variable species

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 12

Letter --

Category Fungi (chlamydospores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Apical cell: dark brown

Central cell: brown

Basal cells: hyaline

Dimensions (7-)10-13(-14) μm long. Apical cell (4-)6-7(-8) μm wide

Shape --

Wall/surface Thick-walled

Apertures Transversally 2-septate. In the apical cell, a subapical germ pore about 0.7 μm wide

Other Depending on the state of preservation, the proximal cell was sometimes absent. During the study of the macroscopic remains this fungus was found in organic connection with some higher plants and mosses. In some well-preserved leaves the basal cells were found

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
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| <input checked="" type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1981; Kuhry 1985; Bakker & Van Smeerdijk 1982; Chambers 2010

INTERPRETATION

Chlamydozoospores were found inside the leaves of *Calluna vulgaris* (12.c--d), *Erica tetralix*, *Oxycoccus palustris* (12.e), *Andromeda potifolia* and (rarely) *Scheuchzeria palustris* (12.f). They were also found on leaf surfaces of *Polytrichum alpestre* (12.h) and *Aulacomnium palustre* (12.g). Type 12 chlamydozoospores appeared to be good indicators for locally dry conditions in the peat bog (cf. Van Geel, 1972): they are frequently encountered in microfossil slides from well-decomposed peat. The drier the conditions in the bog, the more chlamydozoospores are likely to be detached as a consequence of the decomposition of the host leaves and the more easily they can pass through the sieve during the preparation for microfossils. The presence of this fungus in almost all samples in the sections Wietmarscher Moor III (Van Geel, 1972) and Engbertsdijksveen indicates that it is still present in comparable habitats and it should be identifiable in living material.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 13

Letter --

Category Fungi (sporangia)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Chytridiomycota

Class Chytridiomycetes

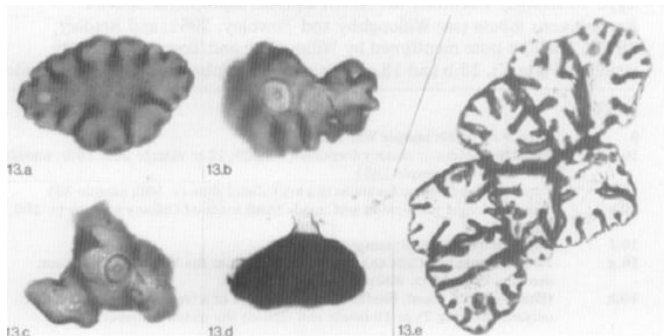
Order Chytridiales

Family Endochytriaceae

Gender *Entophlyctis*

Species --

Image



DESCRIPTION

Colour --

Dimensions 18-40 × 18--32 µm. The ring, often observed at the upper side of the Type 13 sporangia, is 4-7 µm in diameter

Shape --

Wall/surface About 6 µm high, walls about 0.5 µm thick

Apertures The inner part is closed, apart from a small pore in the centre

Other --

Similar to Type 13 strongly resembles the recent aquatic, saprophytic species *Entophlyctis lobata* (see Willoughby and Townley, 1961; and Bradley, 1967)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1981; Kuhry 1985; 1997; Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 14

Letter --

Category Fungi (mycelium, ascospores, fruit bodies)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

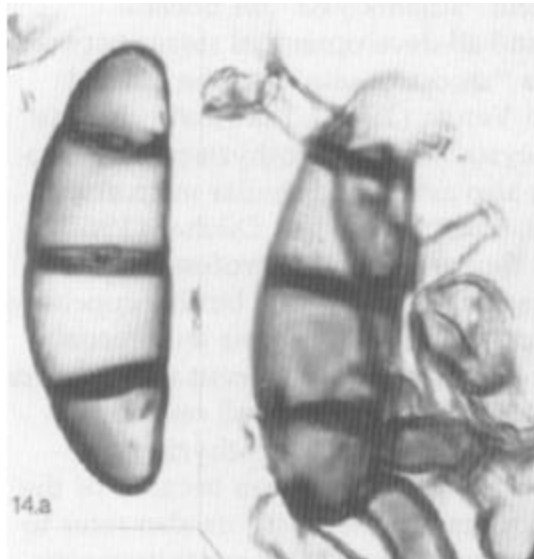
Order Meliolales

Family Meliolaceae

Gender *Meliola*

Species *niessleana*

Image



DESCRIPTION

Colour Fruit-bodies: black

Dimensions Fruit bodies: 150-300 µm in diameter
Mycelium: 5-8 µm wide
Ascospores: 41-55 X 14-18 µm

Shape Fruit body: globose. On a subiculum (hyphal mat under the fruit-body), beset with black c. 8 µm wide setae (mostly broken off in the fossil material). Mycelium: branched and forming a dense network, bearing two-celled capitate hyphopodia (the anchoring and parasitic

Wall/surface Fruit-body: coarsely verrucose
Mycelium: thick-walled

Apertures Mycelium: septate
At the hyphopodia, a pore of about 1.5 µm in diameter (probably the place where the -not observed- haustorium, penetrating the host cell, was connected with the hyphopodium

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1989; Kuhry 1985; Chambers 2010

INTERPRETATION

Meliolaceae are obligate and rather oligophagous parasites on green plants (Hansford, 1961). *Meliola niessleana* is the only British species of *Meliola* and is associated with *Vaccinium vitis-idaea* (Dennis, 1968). Eriksson (1974) found *M. niessleana* on several species of *Vaccinium*

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	15		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	(12) 14–18(26) μm in diameter
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Wall 1.5–2 thick, smooth and with a S-shaped furrow
Species	--		
Image		Apertures	--
		Other	--
		Similar to	Its morphology may suggest a taxonomical relationship with Type 128Aand Type 128B, particularly for its S-shaped furrow

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1972

Other articles Van Geel 1978; Miola 2006

INTERPRETATION

In our samples it occurs with Type 128A, which is an eu- to mesotrophic open water environments indicator (vanGeel et al., 1989)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 16

Letter A

Category Fungi (ascospores)

Taxonomical identification *Byssothecium circinans*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

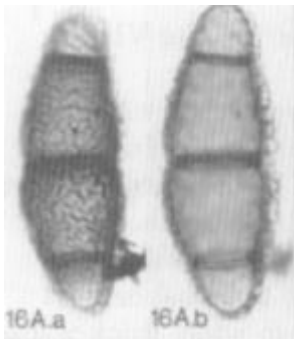
Order Pleosporales

Family Dacampiaceae

Gender *Byssothecium*

Species *circinans*

Image



DESCRIPTION

Colour --

Dimensions (29-)34-38(-47) x 10-13 µm, exclusive of the 1-2(-5) µm thick, undulating episporium, which is attached to the spore wall at regular intervals

Shape Slightly curved, constricted at the middle septum

Wall/surface --

Apertures 3-septate

Other --

Similar to Some mycologists suggested that Type 16A represents ascospores and not the conidia of *Curvularia tuberculata* Jain as suggested previously (Van Geel, 1972); however, Type 16A spores never show the hilum that can be observed in the conidia of *C. tuberculata* and

NPP DATABASE

ECOLOGY

- | | | |
|---|---|---|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input checked="" type="checkbox"/> Parasite/Pathogen |
| <input checked="" type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1980; 1989; Garneau 1987; Montoya 2010

INTERPRETATION

As Van Geel {1978} suggested, the fungus producing the Type 16A ascospores seems to prefer mesotrophic conditions in *Sphagnum* peat. These mesotrophic conditions in the *Sphagnum* peat coincide with relatively dry phases. The species is a saprobe or weak parasite on woody substrates. In the section Engbertsdijksveen I (see diagram Fig.8) spores of Type 16A occur in levels where Gramineae are present in the local vegetation, viz. in the *Molinia coerulea* peat of the 48- to 56-cm levels and in the lower part of the section where peat formation starts.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 17

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

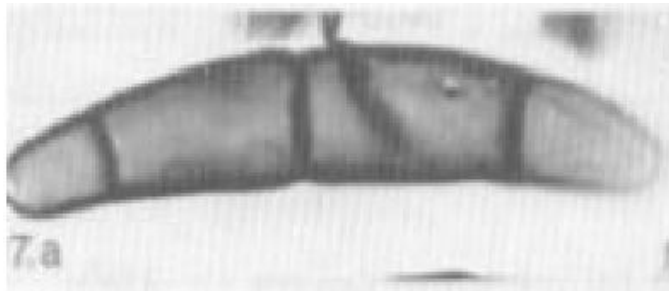
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Middle cells darker than the end cells

Dimensions 44-50 X 8-10 μ m

Shape Curved, three-septate, constricted at the middle septum, Groups of eight (2 X 4) spores were repeatedly found in close proximity, in the position they held in the (non-fossilised) ascus

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

INTERPRETATION

Type 17 spores are absent from the lower part of the section, From the 102-cm level up to the top of the section they occur at regular intervals and are restricted to the ombrotrophic peat

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 18

Letter --

Category Fungi (fruit body, ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Fruit body: 125-450 µm in diameter

Shape Fruit-bodies immersed in long, cylindrical, hyaline pieces of a host plant which usually measure 70-125 µm in diameter, but where the tissue is infected by the fungus and fruit-bodies are present, this tissue has a diameter of 220-500 µm.

Wall/surface Fruit body: wall 7-10 µm thick, outer layer composed of interwoven, 2-4 µm wide, septate hyphae
Ascospore: (35-)37-43(-48) X (10-)11-14(-17) µm

Apertures Ascospores: monoseptate, at both ends with 0.8 µm wide pores. non-septate spores were sometimes found (Type 18B: Van Geel, 1972) together with Type 18A spores in the same fruit-bodies, probably fossilised before maturation.

Other The cylindrical cells of the host tissue measure 10-20 X 35-70 µm. Through the host tissue and the fruit-body walls the ascospores can be observed, and most of the fossil fruit-bodies still contain ascospores.

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

The analysis of the Engbertsdijksveen section revealed fruit-bodies immersed in host tissue (as yet unidentified), possibly leaf fragments or rootlets of *E. vaginatum*. The only remains of *E. vaginatum* that can be identified with certainty are the subterranean tussock bases which penetrate into layers below the erstwhile surface of growth and do not exactly indicate the position of the surface. If the Type 18 fungus occurred on leaves of *E. vaginatum*, it is likely that the levels containing the Type 18 fungal remains will not exactly correspond with the somewhat deeper levels of the macroscopic remains. In the section Engbertsdijksveen the *E. vaginatum* remains occur in thin layers (and not in several thick layers as in the Wietmarscher Moor III section).

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 19

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

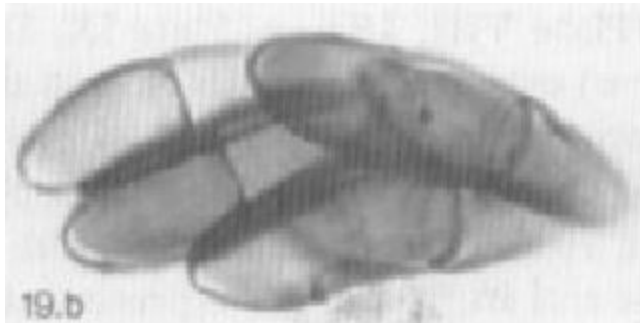
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 27-36 X 9-11 μm

Shape One-septate. One cell slightly broader than the other. Groups of eight (2 X 4) spores were repeatedly found in the position of the (non-fossilised) asci.

Wall/surface At both ends the wall becomes very thin

Apertures At both ends, there is a pore of about 0.5 μm in diameter (or sometimes more)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This spore Type was found only in the *Sphagnum papillosum*--*S. imbricatum* peat from the 126-cm level to the top of the section (Van Geel, 1978). Might indicate very wet conditions with open vegetation (Prager, 2012)

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Prager 2012

NPP DATABASE

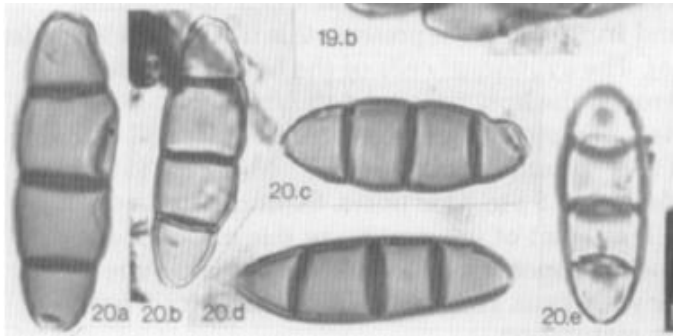
IDENTIFICATION

Acronym HdV
Number 20
Letter --
Category Fungi (ascospores)
Taxonomical identification --

TAXONOMY

Kingdom --
Phylum --
Class --
Order --
Family --
Gender --
Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Kuhry 1985

INTERPRETATION

The morphology of several three-septate ascospore types (Types 14, 16A, 16B, 16C, 17 and 104) found in section Engbertsdijksveen I was characteristic enough to separate them from one another, but there remains a group of (different) three-septate ascospores in which few distinctive characters could be detected. They were combined in the aggregate Type 20. In this group are included the Types 15, 20 and 21 previously distinguished in the Wietmarscher Moor III section (Van Geel, 1972). Some examples are illustrated. These spores never occur in large numbers. Thirty-nine fruit-bodies containing Type 20 spores varying in diameter from 170 to 300 µm were collected. Some examples are given. Three Type 20 fruit-bodies resembling those figured were found together with macroscopic remains of *Empetrum nigrum*. *Empetrum* may have been a host of one of the fungi in the Type 20 group

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 22

Letter --

Category Fungi

Taxonomical identification *Herpotrichiella spec.*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Eurotiomycetes

Order Chaetothyriales

Family Herpotrichiellaceae

Gender *Herpotrichiella*

Species --

Image



DESCRIPTION

Colour --

Dimensions Fruit body: 165-190 µm in diameter
Ascospore: 23-30 X 5-6(-7) µm

Shape Fruit body: ovoid, connected with septate, about 2 µm wide hyphae. dark, septate, 2-5 µm thick setae present near the ostiole. Ascospore: end cells lighter and thinnerwalled, often damaged.

Wall/surface Thick walled

Apertures Ascospore: (2-)3-4(-7)septate, the number of septa varying within the same fruit-body

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

J.A. von Arx (Baarn) tentatively identified the fungus as a species of *Herpotrichiella*. Fruit-bodies and spores were found in highly decomposed peat of section Wietmarscher Moor III (Van Geel, 1972), which did not permit the identification of the peat-forming plants, where the Ericaceae pollen curve attains relatively high percentages. *Calluna vulgaris* was probably the principal local pollen producer and may also have been the host of *Herpotrichiella* spec. Eriksson (1974) found two species of *Herpotrichiella* on several Ericales in Fennoscandia

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 23

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

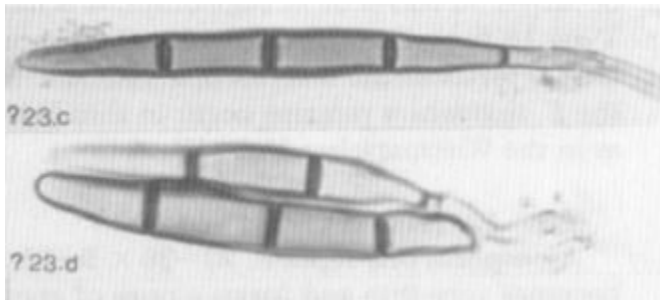
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions (26-)32-56(-64) X (4-)5-6{-7) μm

Shape Almost cylindrical, slightly constricted at the septa. One end cell rather attenuate and conical; the other shorter and more rounded

Wall/surface --

Apertures (1-)3(-4)septate; a small pore present in the centre of each septum.

Other Morphologically Type 23 is not well differentiated. The number of septa is rather variable, but the variability was rather similar in different horizons

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1988

INTERPRETATION

The absence of Type 23 in the lower (and more or less minerotrophic) part of the section may be taken as an indication of the presence of only one species of fungus rather than of a mixture of species. Its presence can be correlated with ombrotrophic *Sphagnum* peat. The Type 23 curve starts at the 92-cm level, where the growth of *Sphagnum* sect. *Acutifolia* (S. cf. *rubellum*) starts. From the 109-cm level onwards the Type 23 curve shows higher frequencies, where *Erica tetralix* also becomes an important constituent of the local stand of vegetation

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 24

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions Each cell: 15 X 6 µm up to 300 µm long, 5–7 µm wide

Shape Rows of 3-5 swollen cells, with no broader part, often broken off at one or both ends

Wall/surface --

Apertures Multiseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Relatively infrequent but rather common in drier vegetation types. (Van Geel 1978). Type 24 is restricted to the ombrotrophic part of the section.(Kuhry 1985)

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Kuhry 1985; Miola 2006

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 25

Letter --

Category Fungi (conidia)

Taxonomical identification *cf. Clasterosporium caricinum*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Magnaporthales

Family Magnaporthaceae

Gender *Clasterosporium*

Species *caricinum*

Image



DESCRIPTION

Colour --

Dimensions 95-110 X 17-20 µm

Shape Straight or only slightly curved. Base truncate, central part swollen, gradually tapering into the rounded apex

Wall/surface Walls relatively thick (1.5 µm) and smooth; inside with a characteristic rough structure

Apertures Septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Prager 2006; Barthelmes 2009

INTERPRETATION

Clasterosporium caricinum, a fungus usually found on the leaves of various sedges growing in marshes and fens which are subject to periodic flooding. This fungus is rather rare in both the Wietmarscher Moor III and the Engbertsdijksveen I sections and no correlations with the distribution could be made. Cowley and Colquhoun (1966) found Pleistocene *C. caricinum*-like remains. For information concerning {recent} *C. caricinum* see Ellis et al. {1951) and Ellis (1971)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 26

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

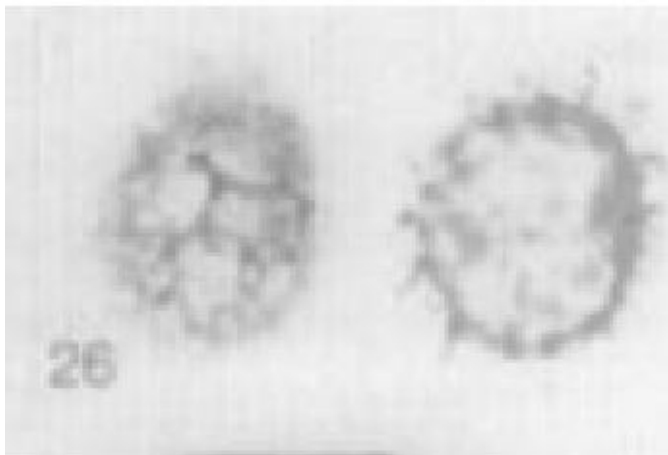
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 9-12 μm in diameter

Shape Globose to subglobose

Wall/surface 1.5 μm thick reticulum with meshes 2-4 μm wide

Apertures --

Other --

Similar to In earlier papers (Graham, 1971; Van Geel, 1972) it was suggested that Type 26 resembled *Trichia favogina* (Myxomycetes) but in the Ustilaginales also spore types occur which cannot be distinguished from the Type 26. Miss Ursula Allitt (Cambridge) sent me a sample of

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

Specific identification of fossil smuts is virtually impossible. When present Type 26 spores always occur in low numbers, but their absence in the lower, more or less minerotrophic part of the section may indicate that they were produced strictly in situ

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 27

Letter --

Category Fungi (spores)

Taxonomical identification *Tilletia sphagni*

TAXONOMY

Kingdom Fungi

Phylum Basidiomycota

Class Exobasidiomycetes

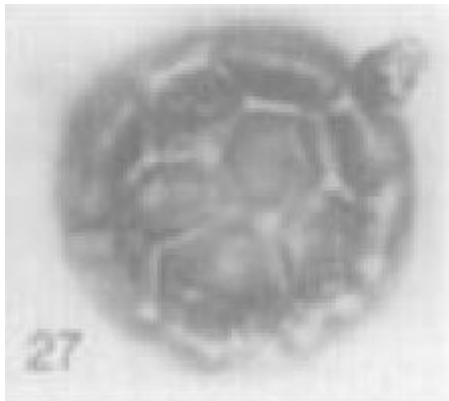
Order Tilletiales

Family Tilletiaceae

Gender *Tilletia*

Species *sphagni*

Image



DESCRIPTION

Colour --

Dimensions 16-21 µm in diameter

Shape --

Wall/surface Appearing reticulate but sculpture consisting of anastomosing grooves. Greatest distance between the grooves 4-7 µm

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van der Wiel 1982; Kuhry 1985; 1997; Garneau 1987;
Carrión & Navarro 2002

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 28

Letter --

Category Animalia (spermatophore)

**Taxonomical
identification** *Copepoda*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Hexanauplia

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 30-160 µm in length; 10-50 µm at the broadest part

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

INTERPRETATION

Probably representing the spermatophores of different species. Type 28 spermatophores are absent in the mineral subsoil and in the lowest 20 cm of the peat section. They are often rather scarce in the remainder of the samples, and indicate the (temporary) presence of open water.

Other articles Van Geel 1989; Garneau 1987; Prager 2012

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	29		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1972

Other articles Van Geel 1978

INTERPRETATION

It was discarded because no good differential morphological criteria could be found

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 30

Letter --

Category Fungi

Taxonomical identification *Helicoon pluriseptatum*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

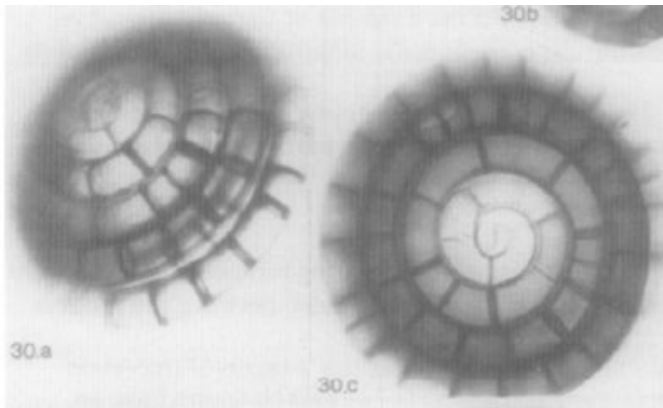
Order Tubeufiales

Family Tubeufiaceae

Gender *Helicoön*

Species *pluriseptatum*

Image



DESCRIPTION

Colour Pigmented

Dimensions (30-) 58-73 µm in diameter
Filaments: 4-)7-9 µm in diameter

Shape --

Wall/surface --

Apertures Multiseptate filaments

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Kuhry 1985, 1997; Garneau 1987

INTERPRETATION

Steinecke (1927) called these conidia "Moorschnecke" or Helicosporium. Hfilsbruch (1967) regarded them as an alga, Leptobasis goesingense Palik. W. Gams (Baarn) gave me unpublished information by D. Mollenhauer who places this organism in the genus *Helicoon* as *Helicoon goesingense* (Palik) Mollenh. (in press), with the synonym *H. pluriseptatum* van Beverwijk. Van Beverwijk (1954) collected *H. pluriseptatum* in peat bogs and marshy places in The Netherlands, from birch leaves, pine needles, a pine cone, leaves of the red oak, and grass blades. The spores appear singly or in groups of two or three, just above the water film adhering to the leaf. The mature conidia formed on the decaying plant material are easily shed and float off at the slightest disturbance (Van Beverwijk, 1954). The curve of this fungus does not seem to give indications about special conditions or substrates (Van Geel 1978). This fungal microfossil was found at one level in the Gypsumville core (zone C), corresponding to the transition from relatively wet mesotrophic to drier oligotrophic conditions. Garneau (1996) describes it from peat sequences of eastern Canada deposited under conditions of relatively high local humidity (Kuhry 1997)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 31

Letter A

Category Protozoa

**Taxonomical
identification** *Amphitrema flavum*

TAXONOMY

Kingdom Protozoa

Phylum Sarcodina

Class --

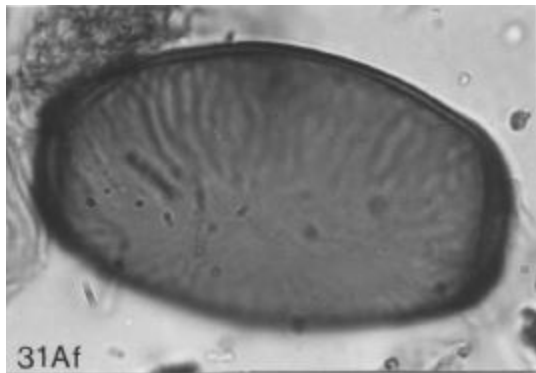
Order Testacea

Family Amphitremidae

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|---|--|
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| <input checked="" type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
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BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1981; 1989; Bakker&Smeerdijk 1981; Kuhry
1985; 1997; Garneau 1987; Barthelmes 2009

INTERPRETATION

Amphitrema flavum (Archer). The shell of *A. flavum* is not destroyed by acetolysis. The curve of *A. flavum* provides reliable information about locally moist conditions. *A. flavum* greatly increases in number with increasing humidity, but it is probably not adapted to larger bodies of open water (for references see Casparie, 1972). Trophic factors may also play a part.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 31

Letter B

Category Foraminifera

**Taxonomical
identification** *Amphitrema wrightianum*

TAXONOMY

Kingdom Chromista

Phylum Foraminifera

Class Foraminifera incertae sedis

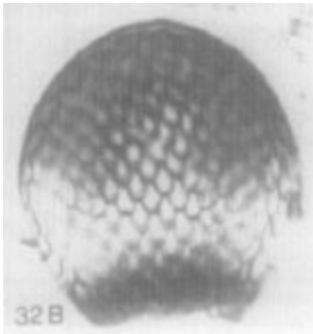
Order --

Family --

Gender *Amphitrema*

Species *wrightianum*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input checked="" type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Bakker&Smeerdijk 1981

INTERPRETATION

The state of preservation of this rhizopod was often rather poor. The impression of its frequency is probably incomplete owing to its partial destruction in the acetolysed material. According to the literature (see Casparie, 1972), *A. wrightianum* can flourish only in very humid surroundings and attains maximum representation in strongly oligotrophic and very acid, open water.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 32

Letter A

Category Chromista

**Taxonomical
identification** *Assulina muscorum*

TAXONOMY

Kingdom Chromista

Phylum Cercozoa

Class Imbricatea

Order Euglyphida

Family Euglyphidae

Gender *Assulina*

Species *muscorum*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input checked="" type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1989; Barthelmes 2009; López-sáez et al 2000; Prager et al 2006; 2012; Kuhry 1985; 1997; Garneau 1987; Montoya 2010

INTERPRETATION

Assulina muscorum Greef (Rhizopoda). *Assulina muscorum* is recently very common in Sphagnum and in other mosses (Hoogenraad and de Groot, 1944; Charman et al., 2000) but generally in greatest abundance in relatively dry conditions (Grospietsch, 1972; Charman et al., 2000). Similarly in our surface samples restricted to hummock-moss samples (e.g. *Hypnum cupressiforme*), most abundant in the dry site. Indicative of mosses under rather dry conditions. This complements van Geel (1978) who found Type 32A in Sphagnum peat.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 32

Letter B

Category Chromista

**Taxonomical
identification** *Assulina seminolum*

TAXONOMY

Kingdom Chromista

Phylum Cercozoa

Class Silicofilosea

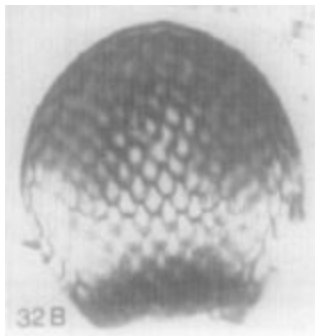
Order Euglyphida

Family Euglyphidae

Gender *Assulina*

Species *seminolum*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The representatives of the genus *Assulina* have a wider ecological amplitude than *Amphitrema flavum*

BIBLIOGRAPHY

First published in Kuhry 1985

Other articles Van Geel 1988; López et al 2000

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 33

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 28-32 μm in diameter

Shape Globose, somewhat flattened.

Wall/surface Wall with a rugulose pattern

Apertures "Pore" at one of the flattened sides, 16-22 μm in diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

A comparison of the Type 33 curve with other curves in the Engbertsdijksveen I section reveals that Type 33 maxima occur in Scheuchzeria peat, but it is not restricted to this peat type and occurs in low frequencies in the "younger *Sphagnum* peat" too. In the Wietmarscher Moor III section, it could not be correlated with other fossils or with special conditions

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 34

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions Greatest diameter 25-35 μm

Shape --

Wall/surface 3 or 4 protuberances each 3-8 μm long and 3-4 μm thick are present

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Very rare in *S. imbricatum* peat

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 35

Letter --

Category Dinoflagellate (cysts)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum Dinoflagellata

Class --

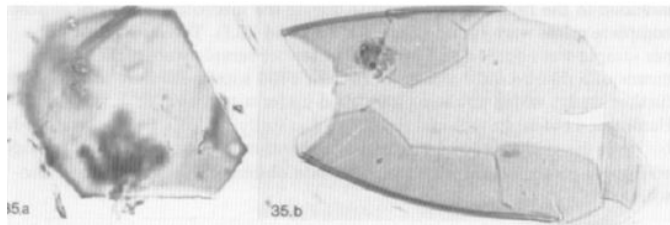
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Greatest diameter 80-220 μm

Shape Globose or oval structures

Wall/surface Psilate; about 0.5 μm thick

Apertures --

Other fractured in a pentagonal or hexagonal pattern (greatest diameter 30-55 μm)

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input checked="" type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

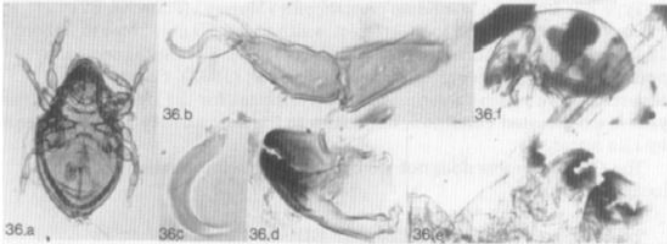
First published in Van Geel 1978

INTERPRETATION

From the curve available from the Ilperveld section it appears that the organism that gives rise to Type 35 is represented better at levels where relatively wet, meso- to oligotrophic conditions prevailed.

Other articles Van Geel 1988; 1989; Bakker&Van Smeerdijk 1982

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	36	
Letter	--	
Category	Animalia (Acari)	
Taxonomical identification	Acari, Oribateri	Dimensions --
TAXONOMY		
Kingdom	Animalia	
Phylum	Arthropoda	Shape --
Class	Arachnida	
Order	Oribatida	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		
		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Montoya 2010; Prager 2012

INTERPRETATION

Acari occur in bogs, fens and meadows; valuable indicators only if determined to species level (Schelvis and van Geel, 1989). Thus here no indication. (Prager 2012). Provisional results of this study indicate a close relationship between the changing local bog vegetation and mite populations and provide additional ecological information (Van Geel 1978)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 37

Letter --

Category Animalia (lorica)

Taxonomical identification *Callidina (habrotrocha)angusticollis*

TAXONOMY

Kingdom Animalia

Phylum Rotifera

Class Eurotatoria

Order Bdelloidea

Family Adinetidae

Gender *Callidina*

Species *angusticollis*

Image



DESCRIPTION

Colour --

Dimensions About 145 μm long, greatest width about 75 μm . "Mouth" about 18 μm in diameter

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

INTERPRETATION

According to Steinecke (1927), this rotifer occurs in pools in peat bogs. According to Borradaile et al. (1963), *Callidina* is a terrestrial form which sometimes remains dormant for the greater part of the year in a desiccated condition, but comes to life immediately when moistened by rain water. The *Callidina* curve does not seem to give much information concerning local conditions. According to Van Geel et al. (1981) this rotifer exhibits some preference to bitch carr.

Other articles Van Geel 1981; Bakker&Van Smeerdijk 1981; Kuhry 1985; 1997; Garneau 1987; Barthelmes 2009; Montoya 2010

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	38		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	15-20 µm in diameter
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Roughly textured walls
Species	--		
Image		Apertures	Often with several small pores
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

Groups of closely clustered Type 38 spores were found in the microfossil slides. Type 38 is one of the doubtful Types: its morphology is not very characteristic. No conclusions could be drawn from its presence in the sections

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 41

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

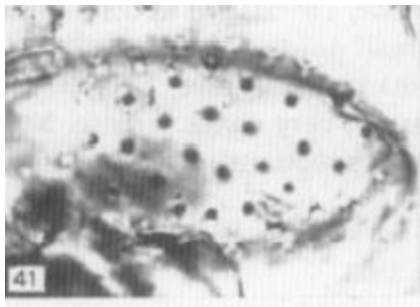
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions --

Shape Characteristic Y-shaped protuberances

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Kuhry 1997

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	42		
Letter	--		
Category	Plantae (epidermis, fragments)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

They were discarded: the correct identification of epidermal fragments and other fragments of higher plants in pollen slides is very difficult. Identification of the macro-remains of bog plants (often to the species) permits better conclusions concerning the local vegetational succession

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	43		
Letter	--		
Category	Plantae (epidermis fragments)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

They were discarded: the correct identification of epidermal fragments and other fragments of higher plants in pollen slides is very difficult. Identification of the macro-remains of bog plants (often to the species) permits better conclusions concerning the local vegetational succession

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	45		
Letter	--		
Category	Plantae (Epidermis, fragments)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

They were discarded: the correct identification of epidermal fragments and other fragments of higher plants in pollen slides is very difficult. Identification of the macro-remains of bog plants (often to the species) permits better conclusions concerning the local vegetational succession

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 44

Letter --

Category Fungi (ascospores)

Taxonomical identification *Ustulina (Kretzschmaria) deusta*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

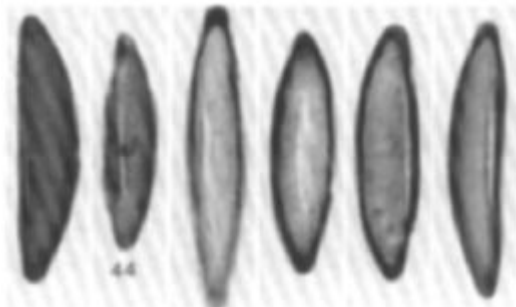
Order Xylariales

Family Xylariaceae

Gender *Ustulina*

Species *deusta*

Image



DESCRIPTION

Colour Dark brown

Dimensions About 35 X 8 µm

Shape Fusiform, one side flattened

Wall/surface Wall thickened at the ends

Apertures One side bearing a longitudinal germ slit

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|---|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input checked="" type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1981; 1986; chapter; Van der Wiel 1982;
Prager 2006; 2012; Barthelmes 2012

INTERPRETATION

This ascomycete is a mild parasite, causing soft-rot of wood, on several tree species (in NW-Europe: *Abies*, *Acer*, *Aesculus*, *Alnus*, *Betula*, *Carpinus*, *Castanea*, *Fagus*, *Fraxinus*, *Populus*, *Quercus*, *Salix*, *Taxus*, *Tilia* and *Ulmus*). The pollen of these trees is transported over relatively long distances from the source and can be analysed in sediment samples from lakes and in peat deposits. The ascospores of *U. deusta*, however, are common at a short distance (several metres) from the trees

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 46

Letter --

Category Protozoa (shell)

Taxonomical identification *Hyalosphenia subflava*

TAXONOMY

Kingdom Protozoa

Phylum Amoebozoa

Class Tubulinea

Order Arcellinida

Family Hyalospheniidae

Gender *Hyalosphenia*

Species *subflava*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It is supposed to give an indication of serious disturbances in the peat growth.

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Garneau, 1987; Van Geel 1989; Kuhry 1997

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 47

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 18-23 X 6-7 μm

Shape One-septate, slightly constricted at the septum. Two or three longitudinal hyaline zones, each about 2 μm wide

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Brown
Number	49		
Letter	--		
Category	Fungi (ascospores?)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Elongate
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Monoseptate
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

A heterogeneous group of spores (probably ascospores), that could not be placed in the Types 18, 19, 47, 64, 83, 85, 87 or 98

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 51

Letter --

Category Fungi (conidia)

Taxonomical identification *cf. Sporidesmium spec*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

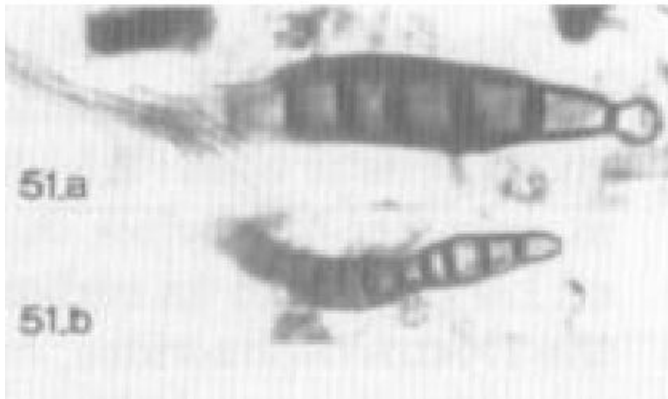
Order --

Family --

Gender *Sporidesmium*

Species --

Image



DESCRIPTION

Colour --

Dimensions 35-50 µm long, 7-9 µm wide at the broadest part

Shape Straight or slightly curved, about 4-6 µm apart. often broken off at both ends along a septum

Wall/surface --

Apertures 5-9-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 52

Letter --

Category Animalia (hairs)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions (80-)90-160(-300) µm long

Shape Often slightly curved. Beset with numerous 2-5 µm long, pointed fringes oriented towards the distal end of the hair. Base of the hairs with a characteristic broadening

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

Type 52 hairs were found in low frequencies during the study of the microfossil slides. During the analysis of the macroscopic remains unidentified remains beset with Type 52 hairs were found several times (52.b--d). The hairs always arise from an integument with a dense, undulate sculpture (52.d). The Type 52 curve does as yet not permit any other conclusion concerning the conditions preferred by Type 52 hairy animals, than that they are remains of bog-dwelling Invertebrata (similar integuments with hairs were observed on recent spiders)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 53

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

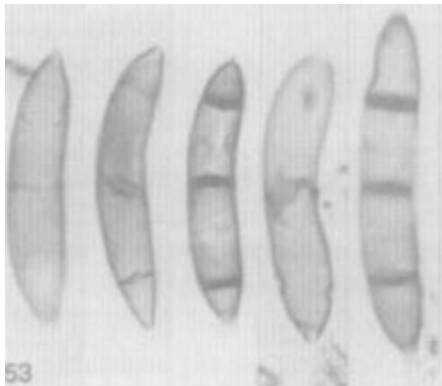
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions 63-82 X 11-14 μm

Shape Slightly curved, . Septa often becoming detached from the wall. Spores tapering at both ends gradually Hyphae could be part of a conidiophore, but more probably represent germ tubes of ascospores

Wall/surface --

Apertures (2-)3-4(-6)-septate. Both ends provided with about 2 μm wide pores or sometimes passing into septate hyphae (often broken off at the point of connection)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The Type 53 curve does not yet give any ecological information

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 54

Letter --

Category

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

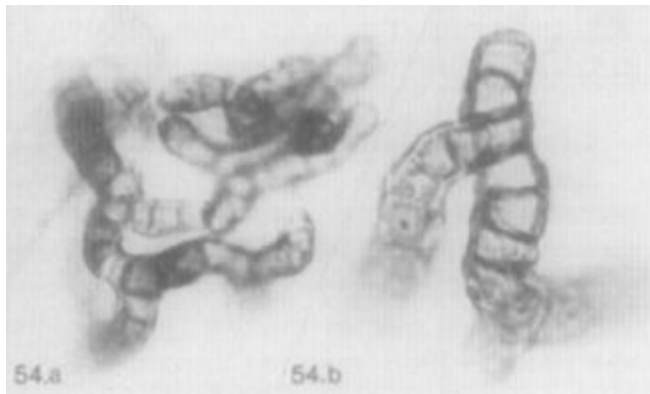
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions Diameter (5-)7-9 μm

Shape Densely branched,

Wall/surface Walls rough, 1--1.5 μm thick

Apertures Septate, transverse septa 3-5 μm apart

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1988

INTERPRETATION

Although maxima and minima in the Type 54 curve could not yet be interpreted, the presence of Type 54 yields information: the curve starts at the 100-cm level; at that level ombrotrophic conditions commenced, judged by the disappearance of *Scheuchzeria* and the appearance of *Sphagna* as important peat formers. The fungus type 54 shows a preference for the purely ombrotrophic *S. acutifolia* peat of the zones 1-3 and is absent in the upper peat layer which was formed in somewhat disturbed trophic conditions

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 55

Letter A

Category Fungi (spores)

**Taxonomical
identification** *Sordaria*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

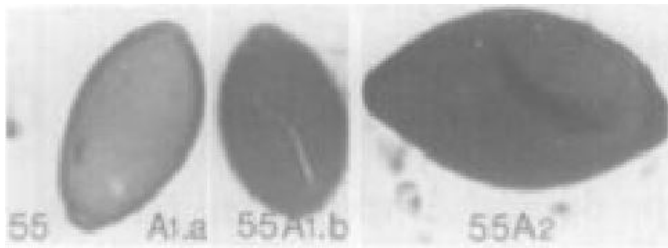
Order Sordariales

Family Sordariaceae

Gender *Sordaria*

Species --

Image



DESCRIPTION

Colour Brown

Dimensions (16-)18--20(-26)x(10-)11(-17) µm

Shape Ellipsoidal, one-celled

Wall/surface Wall around the apical pore is relatively thick and dark

Apertures A protruding apical pore about 1.5 µm wide

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

INTERPRETATION

Includes various species of the Sordariales (van Geel et al. 2003). Sordariales are mainly coprophilous, but occur also on rotting wood and soil (cf. Lundqvist 1972)(Feeser 2009). TYPE 55A might be an indicator for wet, eutrophic conditions and nonwoody elements (sedges?) in wet Alder carr (Prager 2006).

Other articles Van Geel 1981; 1983; 2003; Bakker&Van Smeerdijk 1981; 1982; Kuhry 1997; López-Sáez et al 2000; Carrión&Navarra 2002;Prager 2006; 2012; Feeser 2009; Barthelmes 2009; Montoya 2010

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 55

Letter B

Category Fungi (spores)

**Taxonomical
identification** *Sordaria*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

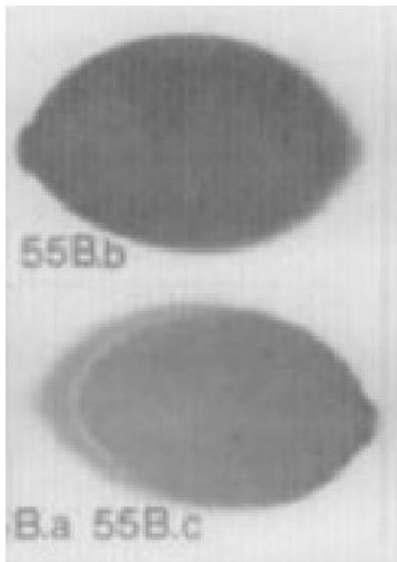
Order Sordariales

Family Sordariaceae

Gender *Sordaria*

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 25-36 X 15-16 μm

Shape Ellipsoidal, one-celled

Wall/surface Smooth-walled

Apertures Two protruding apical pores, about 1.5 μm wide

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

A carbonicolous /lignicolous origin seems probable (Revellés 2015).
Indication unclear. Ascribed to somewhat mesotrophic conditions (van Geel, 1978).

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Bakker&Van Smeerdijk 1981; Van Geel 1983; Kuhry 1985; Prager 2006; Revellés et al 2015;

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 55

Letter C

Category Fungi (spores)

**Taxonomical
identification** *Neurospora*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

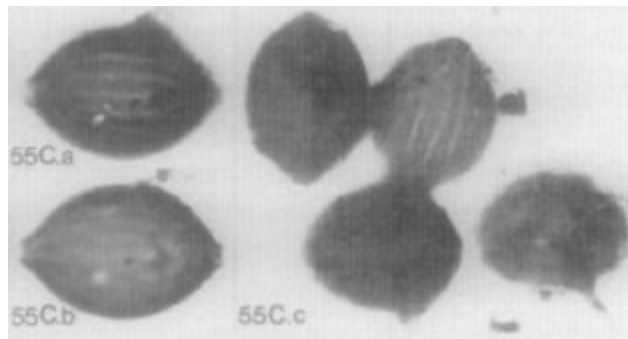
Order Sordariales

Family Sordariaceae

Gender *Neurospora*

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 22-28 X 15-18 μm

Shape Ellipsoidal

Wall/surface With about 16 fine, longitudinal grooves (the exact number is difficult to observe because of the thick spore wall; some of the grooves do not extend over the whole spore length).

Apertures Non-septate; two protruding apical pores, about 1 μm wide

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Bakker&Van Smeerdijk 1981;Van Geel chapter;
Chambers 2010; Cook 2011

INTERPRETATION

Shear and Dodge (1927) and Dennis (1968) mention the conidial state of *Neurospora* on vegetable matter, developing often after it has been charred by fire. The ascospores do not germinate under ordinary cultural conditions but grow readily after having been subjected to moist heat at 65--70 ° C for a few minutes (Shear and Dodge, 1927).(Van Geel 1978)

Neurospora is an indicator for local fires (see also Bakker & van Smeerdijk, 1982, p. 134), but it is also evident that often *Neurospora* ascospores are absent in the charred layers that represent former fires in fens and bogs. The occurrence of ascospores in lake deposits is possible, but no records are available yet.(Van Geel chapter)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 58

Letter --

Category Algae (zygospores, aplanospores)

Taxonomical identification *Zygnemataceae*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

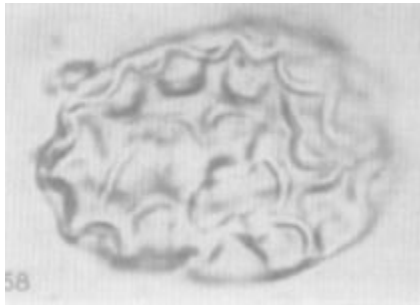
Order Zygnematales

Family Zygnemataceae

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 35-42 × 22-32 µm in diameter

Shape Compressed ellipsoidal

Wall/surface Surface covered with numerous 2-3 µm deep dents, about 5 µm in diameter

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input checked="" type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van der Wiel 1982; Prager 2012

INTERPRETATION

Zygnemataceae produce spores in spring in stagnant, shallow and mesotrophic fresh waters (less than 0.5 m deep) which warm up quickly. Spores germinate in the next year in early spring. The presence of the spores, therefore, indicates that stagnant, shallow and mesotrophic fresh water prevailed at least in springtime

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 59

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

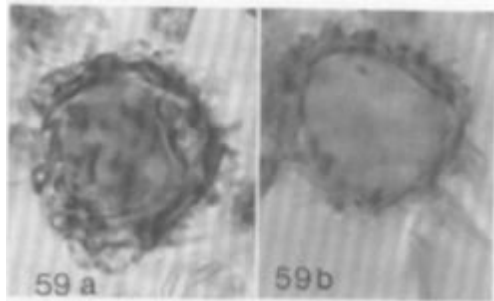
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 23-28 μm in diameter

Shape Globose

Wall/surface 3-5 μm long, bent protuberances

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

INTERPRETATION

Type 59 only in the sandy subsoil of the peat bog section. In the Ilperveld study, Type 59 was found to occur mainly in the oligo- to ombrotrophic peat

Other articles Bakker&Van Smeerdijk 1981; 1982;

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 60

Letter --

Category Algae (zygospores)

Taxonomical identification *Closterium idiosporum*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

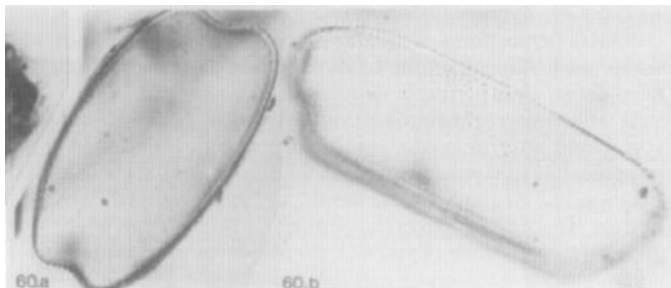
Order Desmidiales

Family Closteriaceae

Gender *Closterium*

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 51-65 X 25-28 μm

Shape Elongated microfossils with indented ends

Wall/surface Protuberances of about 0.3 μm in diameter and about 1 μm apart, evenly distributed over the hyaline surface. Often a longitudinal furrow visible

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input checked="" type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1981; Kuhry 1985

INTERPRETATION

We found the spores in phases of more or less mesotrophic open water. Rfika (1977) mentions the following ecological data: *Closterium idiosporum* is probably acidophilous, but not necessarily in combination with *Sphagnum* (optimum pH: 4-6), but also in slightly basic environments. Probably this species avoids relatively warm areas. It shows a preference for the temperate and cold zones and for montane areas.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 61

Letter --

Category Algae (zygospores)

Taxonomical identification *Mougeotia gracillima*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

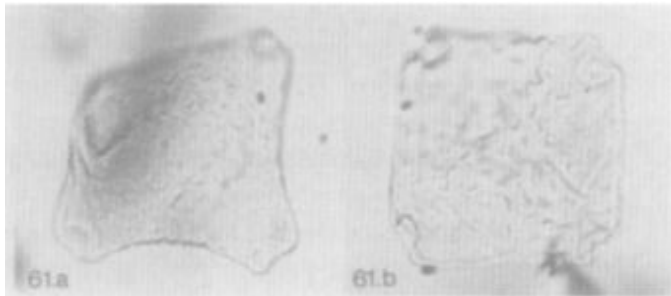
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image



DESCRIPTION

Colour --

Dimensions 22-28 X 25-30 μm

Shape Square laterally straight to concave; the broad ends of the retuse angles (the former places of attachment of the vegetative cells) about 7 μm in diameter providing some indication of the breadth of the vegetative cells

Wall/surface Depressions in the centre of the angles 2-3 μm deep and 3-3.5 μm in diameter. Small pits, about 0.5 μm in diameter and about 2 μm apart present all over the hyaline surface of the zygospore wall.

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input checked="" type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It seems to prefer more oligotrophic conditions

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Kuhry 1985

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 62

Letter --

Category Algae (zygospores, aplanospores)

**Taxonomical
identification** *Zygnemataceae*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

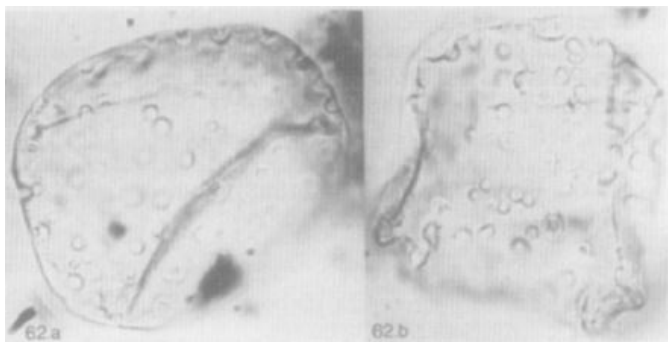
Order Zygnematales

Family Zygnemataceae

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions About 50 X 45 μm

Shape Globose, flattened, often folded

Wall/surface Dents about 2 μm deep and about 2 μm in diameter over the whole surface, 2--8 μm apart. Some of the dents on the spores fused to form one elliptic depression

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input checked="" type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Kuhry 1985

INTERPRETATION

The presence of the spores in the 13--17-cm level and in sample 54 indicates stagnant shallow mesotrophic open water, at least during spring (see Types 58 and 61).

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 63

Letter A

Category Fungi

Taxonomical identification *Lasiosphaeria cf. caudata* (Fuck.) Sacc.

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

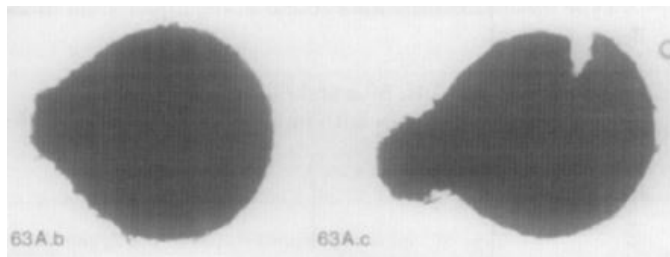
Order Sordariales

Family Lashiosphaeriaceae

Gender *Lashiosphaeria*

Species --

Image



DESCRIPTION

Colour --

Dimensions Fruitbody: 340-620 X 240-500 μm
Ascospore: (72-)75-80(-91) μm

Shape Fruit body: globose to flask-shap, covered with short, septate, 3-5 μm thick hairs, especially around the ostiole, ostiolate. Ascospore: at one end geniculate and tapering into a point, the other end narrowly rounded

Wall/surface --

Apertures Ascospore: 3-septate (rarely four-septate)

Other Ascospores from squashed fossil fruit-bodies often rather pale, possibly immature, 50-60 \times 5 μm . The smaller size of these spores agrees better with Munk's measurements of *L. caudata*: 55-68 \times 6 μm (Munk, 1957)

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Kuhry 1997

INTERPRETATION

Munk found *L. caudata* on decaying wood of Picea, This tree was not yet present in NW Europe during the period studied. The presence of fruit-bodies in the peat strongly suggests Type 63A occurred in situ in the peat. The macrofossil study did not yield any indication of the substrate of the Type 63 fungus. The Type 63A spore curve is not correlated with the distribution of fruitbodies. This may be partly due to a reduced change of preservation of the former in acetolysis

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 64

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

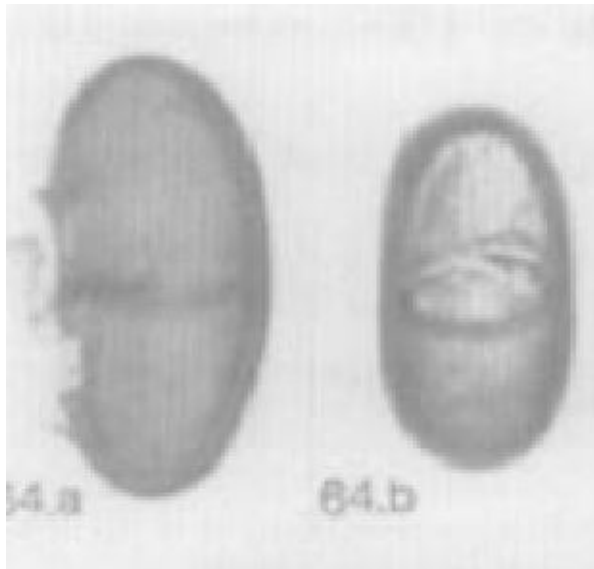
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 23-25 × 12-13 μm

Shape Ellipsoidal

Wall/surface --

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The curve of the Type 64 spores can be correlated with the presence of macroscopic remains of *Empetrum nigrum*. So far it has not become clear whether this coincidence reflects a host--parasite or symbiotic relation, or is simply due to similar ecological requirements

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 65

Letter --

Category Fungi? (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

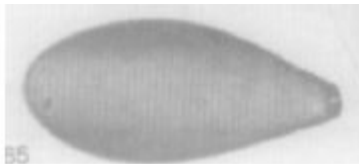
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape Pyriform, (25-)33-38 X (13-)17-21 μm , truncate at one end which is 3-5 μm wide

Wall/surface Wall dark brown with smooth to scabrid surface and irregular inner structure (in this respect Type 65 is different from most other fungal types)

Apertures Provided with a c. 1 μm wide pore in the centre

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
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| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1980; Bakker&Van Smeerdijk 1981; 1982

INTERPRETATION

Type 65 microfossils were found in low frequencies in the 28- and 29-cm samples. It is common in some Preboreal samples of a peat section from "de Borchert" in the municipality of Denekamp, eastern Netherlands (Dee and Bohncke, unpublished). There is a negative correlation between Type 65 and *Amphitrema flavum* (Type 31A). The occurrence of *Amphitrema flavum* indicates moist and oligotrophic local conditions. There is a positive correlation between Type 65 and the occurrence of sclerotia of *Cenococcum geophilum* in the macroscopic remains. *Cenococcum* contributes to the decomposition of dead plant material resulting in re-mineralisation. Probably Type 65 prefers relatively mesotrophic conditions

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 66

Letter --

Category Algae?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

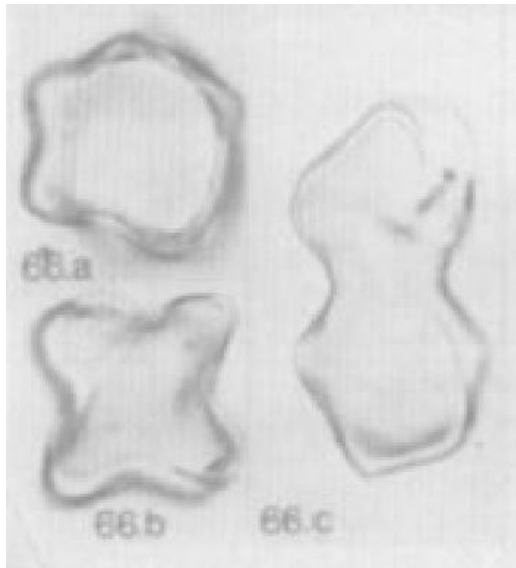
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 19-34 μm in diameter

Shape --

Wall/surface Wall undulating to form 2-5 μm high protuberances

Apertures --

Other The smaller specimens (19-21 μm) have 8 or 12 protuberances, but the bigger ones (30-34 μm) regularly have 8 protuberances

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

INTERPRETATION

The Type 66-producing organism(s) apparently preferred mesotrophic conditions and are absent in the oligotrophic *Sphagnum* peat. P.F.M. Coesel (Amsterdam) suggested that the Type 66 microfossils might be zygospores of species of *Penium* (Desmidiaceae)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 67

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 10-13(-17) X 5-6 μm

Shape One-septate, pyriform, a transverse septum closer to the narrow end; the smaller cell about half as long as the larger one, which has a more or less protruding, about 1 μm wide terminal scar, The smaller cell tapers to one or two scars

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

These scars seem to indicate that the spores were formed in ramifying chains. M.B. Ellis (Kew) suggested that Type 67 conidia could be formed by a species of *Cladosporium*. So far no ecological information can be deduced from the Type 67 curve

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 68

Letter --

Category Plantae (testa fragments of *Erica tetralix*)

**Taxonomical
identification** --

TAXONOMY

Kingdom Plantae

Phylum Magnoliophyta

Class Magnoliopsida

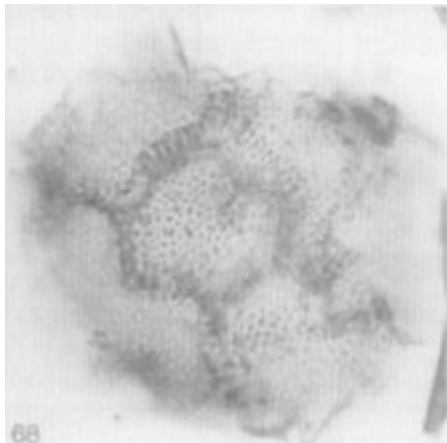
Order Ericales

Family Ericaceae

Gender *Erica*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

During the microfossil analysis of the Engbertsdijksveen I section organic structures (Type 68) were recorded which could later be identified as testa fragments of *Erica tetralix* seeds. Type 68, when present, occurs only in low frequencies; the study of macroscopic remains yielded reliable information concerning distribution of *Erica tetralix* and there was no need to compile a curve of the Type 68 microfossils

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 69

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

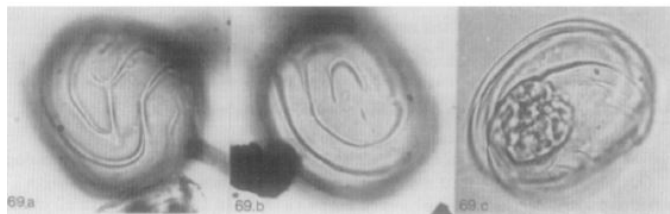
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 35-40 µm in diameter

Shape Globose, often somewhat flattened. Shorter, irregularly arranged, sometimes anastomosing grooves at the poles. Often containing a group of clustered globules, each about 5 µm in diameter

Wall/surface With about six fine grooves over the whole surface, 5-7 µm apart

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 70

Letter --

Category Animalia

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

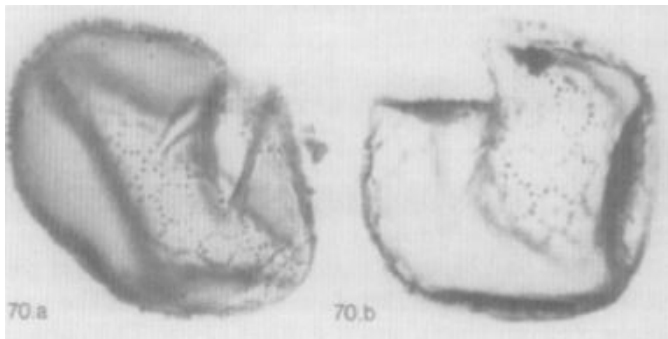
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 55-75 μm in diameter

Shape Globose

Wall/surface Reticulate surface consisting of single rows of about 1--1.5 μm high spines, 1.5-2 μm apart, meshes of the reticulum 5-10 μm wide

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

Complete Type 70 microfossils always showing a long furrow. H. Miiller (Hannover-Buchholz) suggested that the Type 70 microfossils might be resting eggs of the rotifer *Cephalodella exigua*. Most of the observed Type 70 specimens were found in the oligotrophic Sphagnum peat

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 71

Letter --

Category Animalia (claws)

**Taxonomical
identification** *Araneida*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Arachnida

Order Araneae

Family Araneidae

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Varying in greatest length from about 40 μm to 150 μm

Shape Apart from the appreciable variation in size, all specimens of almost identical morphology. Outline resembling a bird's wing

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

The longest appendages varying in length from 45 µm in the largest observed claws to 9 µm in the smallest. In all claws the appendages diminishing in size towards the proximal end (the original place of attachment with the tarsus), 8-14 in number. The entire surface striate. Type 71 occurs in low frequencies. According to P.J. van Helsdingen, Leiden (pets. comm.), these claws do not permit specific identifications of the spiders

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 72

Letter A

Category Animalia (postabdomina)

**Taxonomical
identification** *Alona rustica*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Branchiopoda

Order Diplostraca

Family Chydoridae

Gender *Alona*

Species *rustica*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Female cladoceran postabdomina

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Dark brown
Number	73		
Letter	--		
Category	Fungi? (spores)		
Taxonomical identification	--	Dimensions	41-52 X 33-35 µm exclusive of the hyaline vesicles at both ends, 3-4 µm high, greatest diameter 4-8 µm
TAXONOMY			
Kingdom	--	Shape	Prolate
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input checked="" type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The Type 73 curve shows a preference for relatively dry conditions

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 74

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

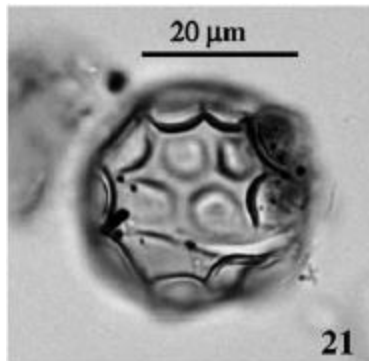
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 20-25 µm in diameter.
Up to 300 µm long, 5-7 µm wide

Shape Globose

Wall/surface Reticulate, with 2 µm high ridges. Meshes of the reticulum about 5 µm wide, with no broader part

Apertures --

Other Often broken off at one or both ends

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Miola 2006

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 75

Letter --

Category Animalia

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

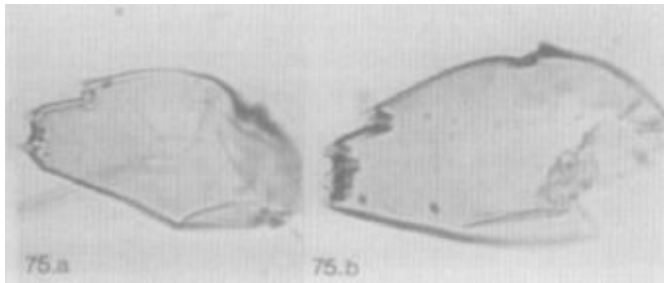
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 35-55 μm long; greatest breadth 18-23 μm . The distal side: 7-10 μm wide and bearing 4 or 5 spines 2-3 μm in length

Shape Distal side flattened. At one side two denticles, each bearing a spine

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The Type 75-bearing animals lived in oligotrophic, wet sites

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Hyaline
Number	76		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	17-22 µm high, 25-31 µm in diameter
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Lenticular, with a 1.5-2 µm high ridge at the junction of the two valves
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 76 microfossil in sample 45 excepted) indicates that the Type 76-producing organism preferred very wet conditions

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 77

Letter A

Category Fungi (ascospores)

Taxonomical identification *Geoglossum sphagnophilum* Ehrenb. ex Wallr.

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Geoglossomycetes

Order Geoglossales

Family Geoglossaceae

Gender *Geoglossum*

Species *sphagnophilum*

Image



DESCRIPTION

Colour --

Dimensions 71-92(-108) X 6-7 μ m

Shape --

Wall/surface --

Apertures 7-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van der Wiel 1982; Barthelmes 2009

INTERPRETATION

A fungus growing on *Sphagnum* (Van Geel, 1978). It is known that after one winter the fruit-bodies of *Geoglossum* become completely mucilaginous so that the chance of finding fossilised fruit-bodies is extremely small (R.A. Maas Geesteranus, Leiden, pers. comm.). In the literature (Favre, 1948; Maas Geesteranus, 1964, 1965) *G. sphagnophilum* (*G. glabrum* Pers. ex Ft. is an incorrect name) is reported to grow among *Sphagnum*. *Sphagnum* remains are present in all *Geoglossum*-containing samples of the Engbertsdijksveen I section, but the curve of the fossil ascospores yields additional information. The spores were encountered in the lower part of the Engbertsdijksveen I section, especially in the tops of hummock vegetation, just before the (wet) *Scheuchzeria palustris* overgrowing phases (see diagrams for samples 26--28 cm, 37--39 cm, 59--60 cm), and in the 71--77-cm level, characterised by *Scheuchzeria palustris*, *Oxycoccus palustris* and *Andromeda polifolia*. *G. sphagnophilum* does not occur in the almost pure *Scheuchzeria* layers formed under excessively wet conditions. In the *Sphagnum* cf. *rubellum* peat of the 95--130-cm interval the ascospores were encountered at regular intervals in low frequencies. *G. sphagnophilum* was absent in the *Sphagnum imbricatum* peat from the 138-cm level to the top (except for one ascospore at the 230-cm level). The change in climatic conditions that caused the growth of *S. imbricatum* (see section 4.2.3) may have been unfavourable for *G. sphagnophilum*. There are no recent records of *G. sphagnophilum* in The Netherlands

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 77

Letter B

Category Fungi (ascospores)

Taxonomical identification *Trichoglossum cf. hirsutum* Boud

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Geoglossomycetes

Order Geoglossales

Family Geoglossaceae

Gender *Trichoglossum*

Species *hirsutum*

Image



DESCRIPTION

Colour --

Dimensions 114 × 6.5 µm (129-cm level) and 163 × 8 µm

Shape 15-septate

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van der Wiel 1982

INTERPRETATION

The spores were probably produced locally in the peat (R.A. Maas Geesteranus, Leiden, pers. comm.). Transport over long distances is unlikely; the relatively small fruit-bodies grow among taller plants. Similar ascospores are produced by *Geoglossum peckianum* Cooke, but this species does not grow in *Sphagnum* peat (Favre, 1948; Maas Geesteranus, 1964)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 78

Letter --

Category Fungi (fruit body)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

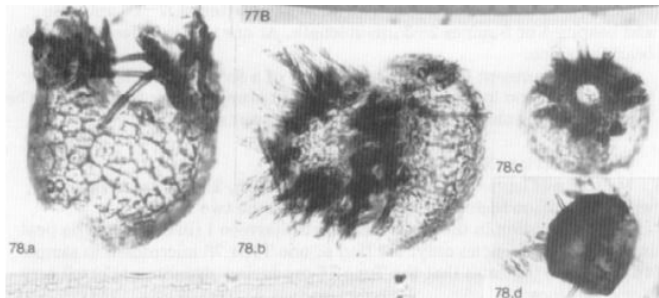
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 40-100 µm in diameter

Shape Ascomata or pycnidia, more or less globose, empty

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 79

Letter --

Category Fungi (mycelial fragments)

Taxonomical identification --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pigmented

Dimensions 8 µm wide, septate at 20-90 µm distance

Shape Straight hyphae

Wall/surface Roughened

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Probably a mixture of different fungal remains

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Hyaline
Number	80		
Letter	--		
Category	Plantae (epidermis, hairs of Ericaceae)		
Taxonomical identification	--	Dimensions	Up to 150 µm in length and 6-10 µm thick at the proximal end, tapering towards 3-5 µm at the distal end
TAXONOMY			
Kingdom	Plantae		
Phylum	Magnoliophyta	Shape	--
Class	Magnoliopsida		
Order	Ericales		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

During the analysis of the macroscopic remains the observation was made that Type 80 hairs occur on the leaves of *Calluna vulgaris* (80. c) and *Empetrum nigrum* near the groove on the lower side of the leaves. Similar hairs were observed on leaves of *Erica tetralix*. As macro-remains of Ericales permit identification to the species, the Type 80 curve is not shown in the diagram

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 81

Letter --

Category Animalia (compound insects? eyes)

**Taxonomical
identification** --

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Insecta

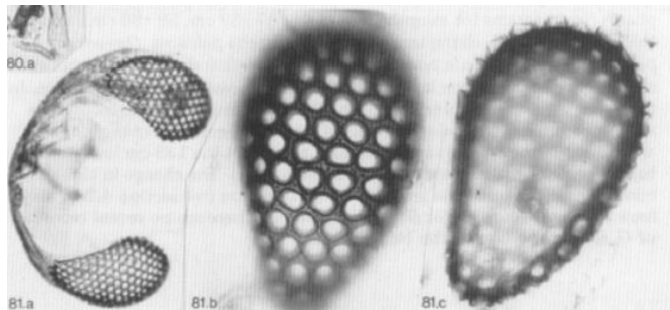
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Up to 80 × 53 µm. Shortest distance between the eyes about 120 µm

Shape Dome shape. Ommatidial openings 4-5 µm in diameter and surrounded at the outer side by a 2-4 µm high cylindric rim. Holes 2-4 µm apart

Wall/surface The surface between the holes covered with thin, about 2 µm high setae

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 82

Letter --

Category Fungi (unidentified)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

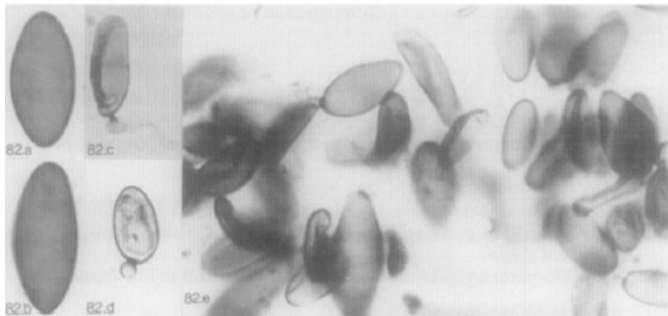
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 120-420 μm in diameter. Beaks: , 30-40 μm high, 40-50 μm in diameter, widening to 50-75 μm at the distal end. Spore: (17-)21-28 (-31) X (9-)10-13(-15) μm

Shape Fruitbody: Spherical, with one, rarely two, short beaks
Spore: ellipsoidal, Some spores with a hyaline cellular appendage at one end, possibly the remnant of an appendage, but more likely a germ tube

Wall/surface Spore: smoothwalled

Apertures Spore: with a very small (about 0.5 μm wide) germ pore at one end, sometimes with several, scattered pores.

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

Some specimens showing an indistinct septum (82.c). During the recording of Type 82 spores in the microfossil slides doubts arose about the homogeneity of this type because the morphology is not sufficiently characteristic. The analysis of macroscopic remains yielded hundreds of Type 82 fruit-bodies of characteristic shape and quite often still filled with spores. The Type 82 fruit-body curve and the Type 82 spore curve are well correlated, indicating that Type 82 is homogeneous. Type 82 grew in the ombrotrophic peat, but the curves do not seem to correspond with other phenomena: the changes in frequency and the absence at some levels in the ombrotrophic peat could not yet be explained

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 83

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

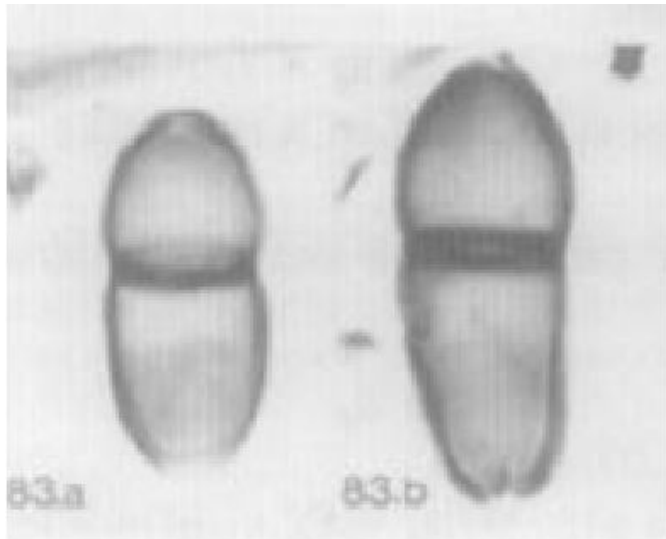
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 24-29 X 11-12 μm

Shape Unequally monoseptate, and slightly constricted

Wall/surface Wall becoming thinner at both ends

Apertures At both ends, a pore about 1 μm wide (or wider due to corrosion)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Kuhry 1997; Barthelmes 2009

INTERPRETATION

This fungal spore is most prominent under ombrotrophic conditions at the Beauval (zones E and F) and Gypsumville (zone D) sites. Some, but not all, of the maxima of this Type correlate with higher charcoal concentrations in the peat (Kuhry 1997); Type 83 spores are very scarce: only present in the samples 85 cm and 86 cm. This level is characterised by high frequencies of a hitherto unidentified seed (Type 106). (Van Geel 1978)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 84

Letter --

Category Animalia (fragments of skin)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface Covered with closely spaced conical spines with a diameter of about 1 μm at the base and about 1 μm high

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 84 is rather rare and occurs in the ombrotrophic *Sphagnum* peat

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 85

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Pigmented

Dimensions 13-17 × 7-8 µm

Shape Monoseptate, equally bicellular, slightly constricted at the septum

Wall/surface Ornamented by a dense pattern of longitudinal ridges

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 85 spores are present in the ombrotrophic peat in low frequencies

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 86

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions About 11-12 μm in diameter

Shape --

Wall/surface Up to 2 μm long, spiny protuberances placed in a reticular pattern

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 86 microfossils occur in the ombrotrophic part of the section in low frequencies

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 87

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 39-44 × 14-18 μm

Shape Ellipsoidal

Wall/surface With very characteristic, coarsely textured walls (especially near the septum)

Apertures Monoseptate. Some of the spores with a single protruding, subapical germ pore or hilum about 1.5 μm wide

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 87 spores occur in low frequencies in the ombrotrophic part of the section

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 88

Letter A

Category Animalia (invertebrata mandible)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 40-60 μm in diameter. In the macroscopic samples mandibles of Type 88A of the same morphology but much larger, 380-490 μm in greatest diameter

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 88

Letter B

Category Animalia (invertebrata mandible)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

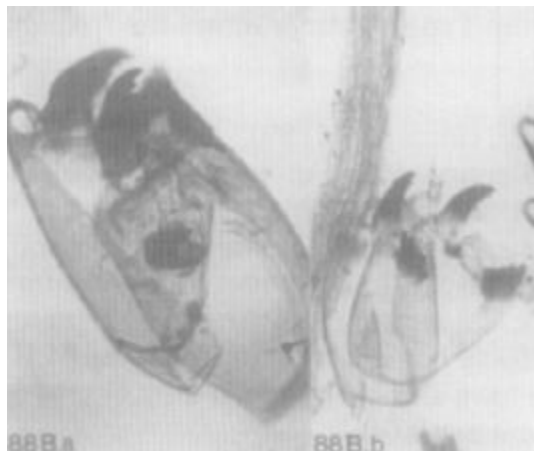
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

INTERPRETATION

During the microfossil analysis the Type 88B mandibles were not separated from the Type 88A mandibles, so that the Type 88 curve shows the frequencies of a heterogeneous group

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 89

Letter --

Category Fungi (conidia)

Taxonomical identification *Tetraploa aristata*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Massarinaceae

Gender *Tetraploa*

Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions 35–40×20–25 µm. Appendages: 12–80 µm long (frequently broken), 5–8 µm wide

Shape Consisting of (3-)4 columns of 2 or 4 cells, each column terminating in a septate appendage, verrucose pigmented

Wall/surface Verrucose, thickwalled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 2001; Gelorini 2011

INTERPRETATION

Tetraploa aristata is a widespread fungus, usually found on leaf bases and stems just above the soil. Known host plants are *Ammophila*, *Carex*, *Cladium*, *Cyperus*, *Dactylis*, *Deschampsia*, *Juncus*, *Phaseolus*, *Phragmites* and *Triticum* (Ellis, 1971). The identification of the fossil conidia was confirmed by M.B. Ellis (Kew). Fossil conidia of *Tetraploa* have also been reported by Gupta (1970) and Van Geel and Van der Hammen (1973)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 90

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

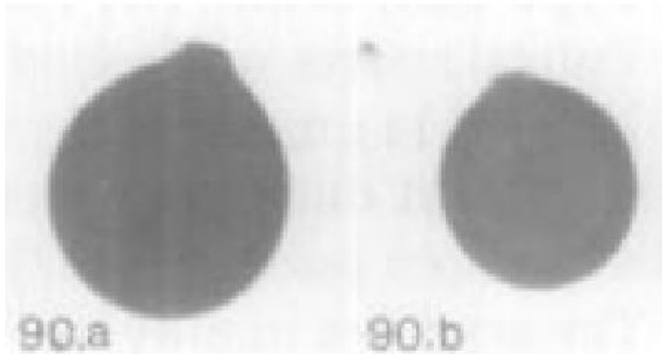
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 14-18(-21) × 11-14 μm, inclusive of a terminal, 1-3(-6) μm long, about 2-4 μm wide protuberance

Shape Ellipsoidal

Wall/surface Most of the Type 90 microfossils with several, 0.5 μm wide pores scattered over the surface

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Kuhry 1985; 1997

INTERPRETATION

Type 90 is restricted to the ombrotrophic part of the section and is absent in the lower part of the section. Fluctuations in the Type 90 curve could not be explained

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 91

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

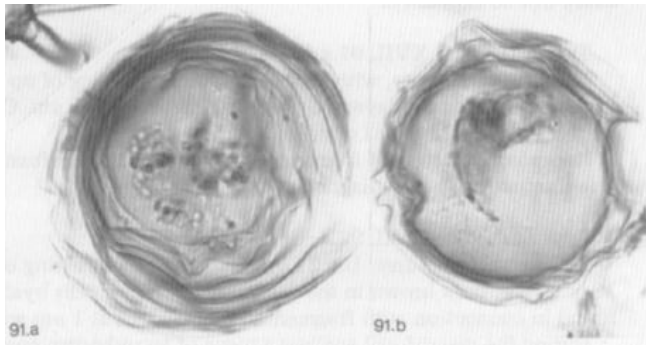
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Greatest diameter 35-65 μm

Shape --

Wall/surface Lamellate, consisting of up to ten very thin, loosely arranged layers

Apertures --

Other Centre often partly filled with remains of cell content

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Garneau 1987

INTERPRETATION

Repeatedly clusters of four small-sized Type 91 microfossils were observed. The fluctuations in the diagram cannot be explained yet

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 92

Letter --

Category Fungi (structures)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

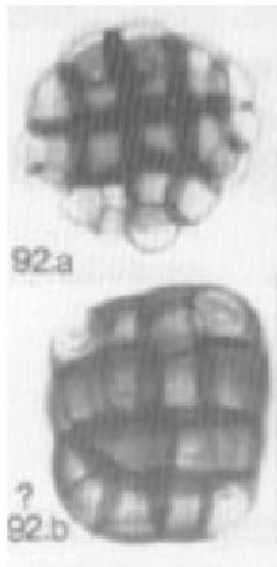
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown to hyaline

Dimensions 16-27 μm in diameter

Shape Flat structures. Sometimes found in connection with fragmented hyphae, about 1 μm wide

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Bakker&Van Smeerdijk, 1982

INTERPRETATION

Type 92 is of common occurrence at some levels in the oligotrophic peat. The impression gained from the curve is that Type 92 prefers conditions of increasing wetness in the relatively drier vegetation types of oligotrophic peat bogs

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 93

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

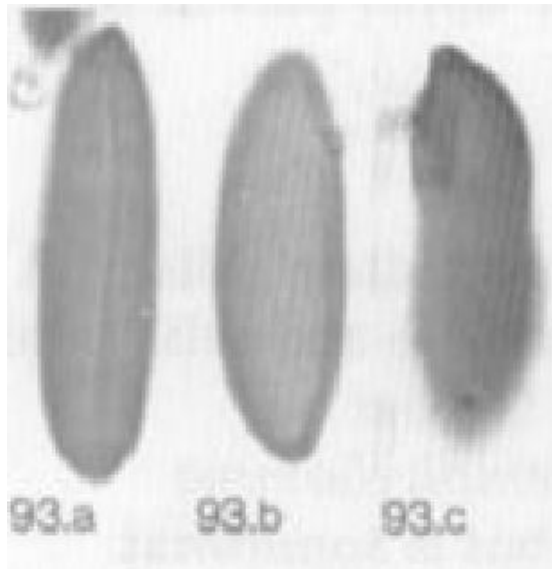
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 24-29 × 7-9 μm

Shape One-celled, unilaterally flattened, with a distinct longitudinal germ slit at the straight side. Both ends somewhat pointed

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

INTERPRETATION

The Type 93 spores are most probably produced by one or more species of the Xylariaceae. These spores occur in the ombrotrophic upper part of the section but are always found in low frequencies

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 95

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

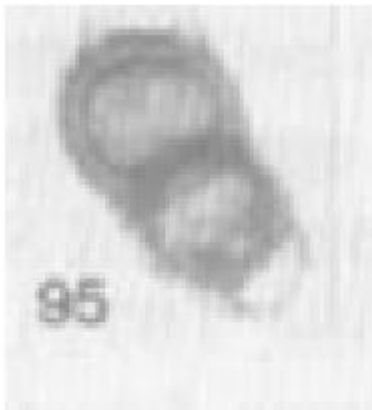
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Blackish brown (intermediate cells) to subhyaline (end cells)

Dimensions 17-19 X 8-10 µm

Shape Conidia (?) . End cells: one of them bluntly rounded, the other one apparently broken off

Wall/surface The intermediate cells with thick and verruculose walls, end cells verruculose

Apertures 3-septate

Other --

Similar to Type 95 has much in common with the conidia of *Stemphyliomma valparadisiacum* (Speg.) Sacc. & Tray. (see Ellis, 1971), but is somewhat shorter

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 96

Letter --

Category Fungi (conidiophores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Dark

Dimensions Up to 380 µm long. Basal cells: 21-28 µm in diameter

Shape Conidiophores (or setae ?) unbranched, 5-8 µm wide near the base, the tip always broken off. Arising from flat, radially lobed basal cells

Wall/surface Thick-walled

Apertures Septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 98

Letter --

Category Fungi (conidia)

Taxonomical identification *cf. Spadicoides bina*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Helminthosphaeriaceae

Gender *Spadicoides*

Species *bina*

Image



DESCRIPTION

Colour --

Dimensions 7-10 X 4-5.5 µm

Shape One cell somewhat smaller than the other one

Wall/surface --

Apertures One-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

INTERPRETATION

S. bina is known growing on dead wood and bark of various trees including *Betula*, *Celtis*, *Fagus*, *Pinus*, *Prunus*, *Quercus* and *Ulmus*; in Europe and N America (Ellis, 1971). Det. W. Gams (Baarn)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 16

Letter B

Category Fungi (spores)

**Taxonomical
identification** *Byssothecium circinans*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Dacampiaceae

Gender *Byssothecium*

Species *circinans*

Image

DESCRIPTION

Colour --

Dimensions 34-40 X 13-15 µm

Shape Slightly curved, constricted at the middle septum

Wall/surface (0.5-)2-3(-5) µm thick fimbriate surface sculpture

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Probably ascospores. Some mycologists suggested that the hairy surface structure might be an artefact.

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 16

Letter C

Category Fungi (spores)

**Taxonomical
identification** *Byssothecium circinans*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Dacampiaceae

Gender *Byssothecium*

Species *circinans*

Image

DESCRIPTION

Colour --

Dimensions 34-39 X 13-15 µm

Shape Slightly curved

Wall/surface Smooth-wailed

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Spores of this type occurred in the same levels as 16A and 16B.

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	63	
Letter	B	
Category	Fungi	
Taxonomical identification	<i>Lasiosphaeria cf. caudata (Fuck.) Sacc.</i>	Dimensions 112-114 X 9 µm
TAXONOMY		
Kingdom	Fungi	
Phylum	Ascomycota	Shape --
Class	Sordariomycetes	
Order	Sordariales	
Family	Lashiosphaeriaceae	
Gender	<i>Lashiosphaeria</i>	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Garneau 1996, Kuhry 1997

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	63		
Letter	C		
Category	Fungi		
Taxonomical identification	<i>Lasiosphaeria cf. caudata (Fuck.) Sacc.</i>	Dimensions	50 × 7 µm
TAXONOMY			
Kingdom	Fungi		
Phylum	Ascomycota	Shape	--
Class	Sordariomycetes		
Order	Sordariales		
Family	Lashiosphaeriaceae		
Gender	<i>Lashiosphaeria</i>	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Garneau 1996, Kuhry 1997

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	96		
Letter	A		
Category	Fungi (remains)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

Type 96A may represent fungal remains of one or more species of the dematiaceous genera *Beltrania*, *Beltraniopsis*, *Beltraniella*, *Ellisiopsis*, *Pseudobeltrania* and *Hemibeltrania* (M.B. Ellis, pers. comm.; cf. Ellis, 1971). The Type 96A/B curve can apparently be correlated with the maxima and minima in the curves of Type 7B and Type 54. In the raised bog Wietmarscher Moor Type 96A (and B) was found on living leaves of *Oxycoccus palustris*. At the upper subhyaline parts of the conidiophores often several 1 ~m wide pores (scars) were observed. No conidia were found

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	96		
Letter	B		
Category	Fungi (conidiophores)		
Taxonomical identification	--	Dimensions	3-5 µm in diameter, up to 220 µm long (tip always broken off)
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Conidiophores (or setae) unbranched, septate. Arising from fiat basal cells
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 99

Letter --

Category Fungi (ascospores or conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

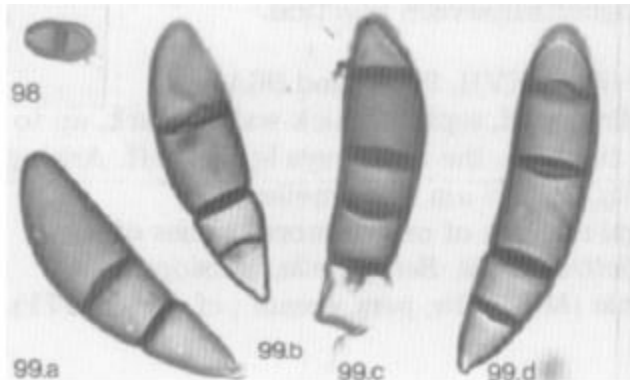
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour proximal part usually subhyaline, distal part brown

Dimensions 30-45 X 9-10 µm

Shape Slightly curved, piano-convex, with a distinctly protuberant, about 1.2 µm wide, appendage or hilum at the proximal end, separated by a constriction at one of the septa.

Wall/surface --

Apertures (2-)4(-5) septate. Proximal part 0-1-septate, distal part 1--3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 100

Letter --

Category Algae

Taxonomical identification *cf. Cylindrocystis brebissonii Menegh*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

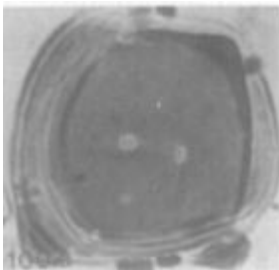
Order Zygnematales

Family Mesotaeniaceae

Gender *Cylindrocystis*

Species --

Image



DESCRIPTION

Colour --

Dimensions 50-81 × 38-53 μm

Shape Quadrangular, pillow-shaped

Wall/surface Wall about 0.5 μm thick, at the angles thickened to (2-)3-4(-7) μm and often with some long furrows over the surface

Apertures --

Other --

Similar to Type 100 fossils were compared with recent zygospores (c. 35 × 35 μm) of *C. brebissonii* (Mesotaeniaceae) (suggestion H. Smit, Amsterdam) and showed a striking resemblance

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

The subaerial desmid *C. brebissonii*, which occurs in acid environments, probably represents a species aggregate (GrSnblad, 1959; P.F.M. Coesel, pers. comm.) and the fossil occurrence supports this view: Type 100 was found from the 98-cm level to the top of the section. During a later phase of the work, Type 100 microfossils were distinguished at lower levels too. In the 50-, 54- and 55-cm levels (*Molinia* peat) they were rather common but distinctly smaller, v/z. 30--51 X 30-38 μ m. Apparently different species were present in different peat types: the larger type in *Sphagnum* peat, and the smaller type in *Molinia* peat. In combination with zygospores of *Mougeotia* cf. *gracillima* (Type 61), *C. brebissonii* yields indications about the locally prevailing conditions during the formation of the early Subboreal *Molinia* peat. *Molinia coerulea* and *Gentiana pneumonanthe* indicate dry conditions during summer, whereas *Mougeotia* and *Cylindrocystis* indicate shallow open water during spring (see section 4.2.2)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 101

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

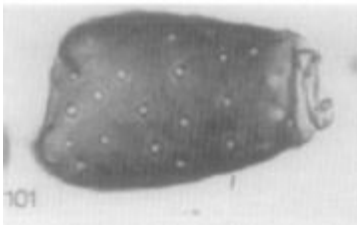
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 75-132 μm in length, 44-80 μm in greatest width

Shape --

Wall/surface Wall somewhat resembling overlapping roof tiles

Apertures With pores of 2-3 μm in diameter equally distributed over the surface

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Probably (a part of) one of the peatbog-inhabiting invertebrates. Type 101 is very rare in Sphagnum peat

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 103

Letter --

Category Rotifera

Taxonomical identification ? *Stephanoceros eichhornii* Ehrenberg

TAXONOMY

Kingdom Animalia

Phylum Rotifera

Class Eurotatoria

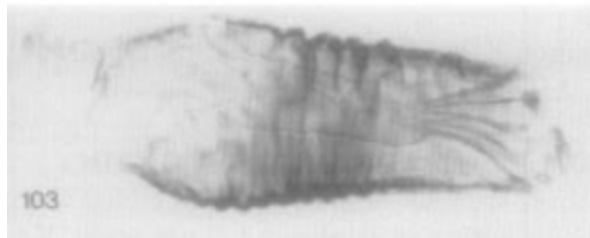
Order Collothecacea

Family Collothecidae

Gender *Stephanoceros*

Species *eichhornii*

Image



DESCRIPTION

Colour --

Dimensions 95-112 × 44-50 µm

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	104		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	26-30 × 10-12 µm
TAXONOMY			
Kingdom	--	Shape	3-septate, somewhat constricted at the septa. Both end cells with a pore about 1.5 µm wide
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

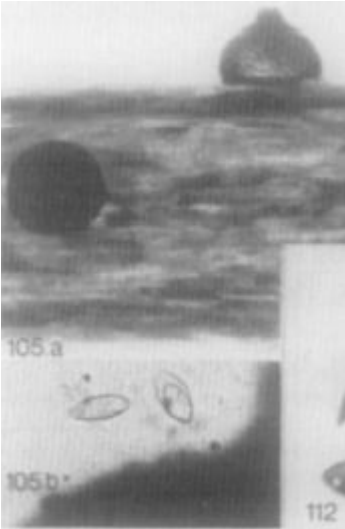
--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	105	
Letter	--	
Category	Fungi (fruit body, ascospores)	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures -- Other -- Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 106

Letter A

Category Animalia (oribatid mite egg)

**Taxonomical
identification** *Rhysotritia ardua*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Arachnida

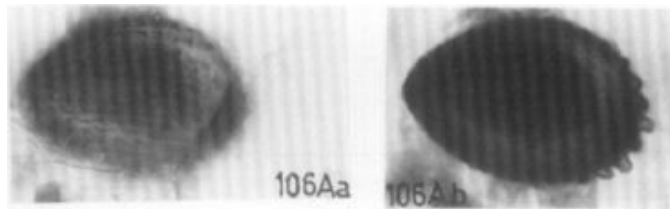
Order Oribatida

Family Euphthiracaridae

Gender *Rhysotritia*

Species *ardua*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Bakker&Van Smeerdijk 1981; 1982

INTERPRETATION

Type 106 seeds occur in horizons of meso-oligotrophic hummock vegetation types. previously described by Van Geel (1978), who erroneously interpreted this fossil as of botanical origin. Type 106A was frequently present (in 60% of the cases) in the abdomina of mites of Type 106B. The proposed relation was confirmed by L. van der Hammen (Leiden, personal communication), who recognized Type 106A as the egg stage of the acarid *Rhysotritia ardua* (Type 106B). Type 106A was found twice as a fragment in the microfossil slides levels (from 190 cm and 240 cm). These samples represent a relatively wet, oligotrophic bog where macroscopic remains were absent. Type 106B was found in eu- to mesotrophic reedmarsh vegetation and not in meso- to oligotrophic hummock types in which Van Geel (1978) found greater numbers of Type 106A. Since *Rhysotritia* species are known to feed on fungal hyphae, the fungi-rich meso- to eutrophic environment seems to be the most suitable habitat. The taxonomy of this species has been discussed by M~irkel and Meyer (1959)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 107

Letter --

Category Animalia

**Taxonomical
identification** *Mandible*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Insecta

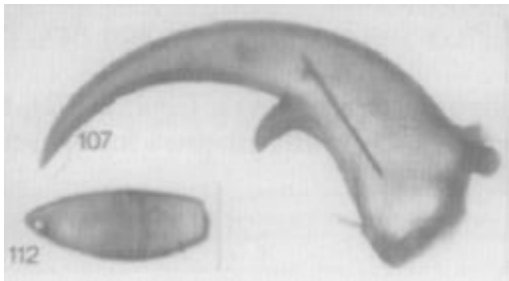
Order Coleoptera

Family Carabidae

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 710-770 μm long, distal end pointed, proximal end 250-260 μm in diameter. In the inner curve with a pointed tooth (85-90 μm in length) and a bundle of hairs (135-140 μm in length)

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1989

INTERPRETATION

Possibly belonging to some coleopteran larvae (J. Krikken, Leiden, pers. comm.). The diagrams show that the Type 107 mandibles occur in the mesotrophic lower part of the Engbertsdijksveen I section

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 108

Letter --

Category Animalia (abdominal gills of larvae of May-flies)

**Taxonomical
identification** --

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Diptera

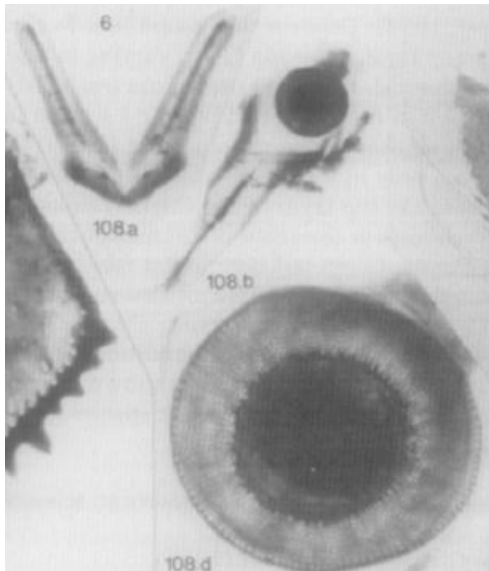
Order Insecta

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 1000-1500 µm long and 200-350 µm broad in the middle

Shape Flat elements with a distinct dark midrib. Proximal part broken off from the animal body

Wall/surface Surface covered with small hairs, 8-28 µm long. Margins covered with rows of 400-500 µm long hairs (not always preserved)

Apertures --

Other Some of the Type 108 remains with a proximal circular structure, 250-440 µm in diameter and a very dark central part (108.b and 108.d)

Similar to Pairs of the Type 108 macrofossils were found several times (joined by their proximal parts; see 108.a). Type 108 macrofossils were mostly found in *Scheuchzeria* peat and indicate a considerable volume of available free water

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1989

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 109

Letter --

Category Animalia (mandible, epinota)

**Taxonomical
identification** *Myrmica spec*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Insecta

Order Hymenoptera

Family Formicidae

Gender *Myrmica*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

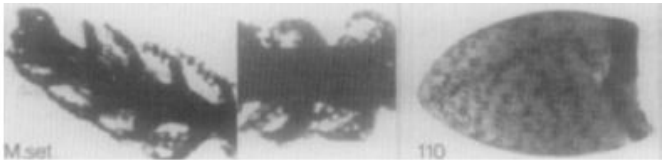
Other articles Van Geel 1989

INTERPRETATION

The observed epinota permit the conclusion that one species is rather common in the material, but at least one additional species is occasionally encountered. *Myrmica* specimens were almost exclusively restricted to the lower part of the section. Apparently they had no liking for the *Sphagnum* bog. These animals use special plant material to build their nests (Krikken, pers. comm.; Peus, 1932). Their relation with aphids and the aphid host plants may have been a factor restricting the range

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	110		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--



NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Probably of animal origin

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 111

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

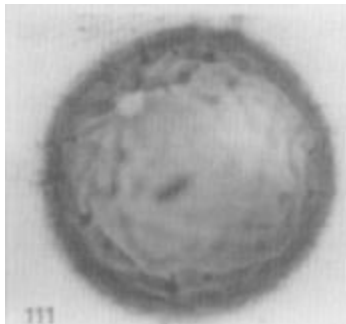
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Unknown macrofossil, probably of animal origin, occurring in low frequencies in the sandy subsoil and in the peat up to the 16-cm level (phase A and lower part of phase B)

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 112

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Cercophora*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

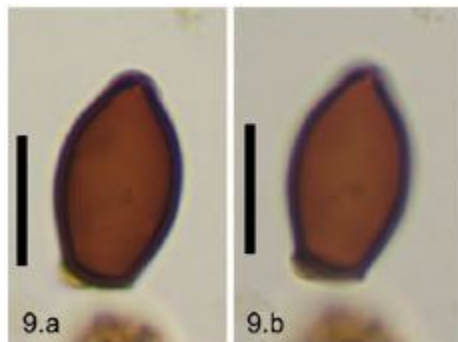
Order Sordariales

Family Lasiosphaeriaceae

Gender *Cercophora*

Species --

Image



DESCRIPTION

Colour --

Dimensions 13–27 (-36)6–14 (-18) μm in size

Shape Truncated at the basal side and tapering at the apical end

Wall/surface --

Apertures Subapical pore is c. 0.7 μm in diameter. Ascospores with one septum also occur, and if so, there is no constriction at the septum.

Other The fossil spores may still have the hyaline appendage at the basal end

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

INTERPRETATION

According to Lundqvist [29], representatives of the Sordariaceous genus *Cercophora* are coprophilous or occur on decaying wood and herbaceous stems and leaves. Van Geel [11] recognised fossil spores of the *Cercophora*-type for the first time, and Buurman et al. [3] recorded many spores of this type, in combination with other dung indicators, at a Bronze Age site in The Netherlands.

Other articles Van Geel 1981; 1983; 2003; Bakker&Van Smeerdijk 1982; Van der Wiel 1982; Barthelmes 2009; 2012; Montoya 2010

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 113

Letter --

Category Fungi (spores, cells)

**Taxonomical
identification** *Sporormiella*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Sporormiaceae

Gender *Sporormiella*

Species --

Image



DESCRIPTION

Colour --

Dimensions End cells 18–22×11–13 µm, middle cells (14–16×10–13) µm

Shape End cells show one flattened and one round, middle cells show two flattened ends

Wall/surface --

Apertures 3-(multi)septate, Sigmoid germinal aperture extends entire length of cell

Other Ascospores break into separate cells when ripe

Similar to The part spores resemble *Preussia punctata* (Auersw.) Cain, but differ in dimensions

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Davis 1987

Other articles Van Geel 2003; 2011; Aptroot 2006; David&Shafer 2006; Barthelmes 2009; Feeser 2009; Montoya 2010; Cook 2011

INTERPRETATION

Spores of *Sporormiella* are commonly produced on the dung of herbivores such as cows, sheep, goats, horses, rabbits, moose, deer, elk and caribou (Davis 1975, 1976; Davis et al. 1977; Pirozynski et al. 1988; Bell 1993, 2005; Davis and Shafer 2006; Raper and Bush, 2009). The presence of the fruiting bodies indicates the local presence of large herbivores at a site. When found as fossils, *Sporormiella* spores are a reliable proxy for the presence of megafaunal biomass, their representation declining during mass extinctions and increasing during the introduction of domesticated livestock in recent centuries

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	114		
Letter	--		
Category	Scalariform perforation plate		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Pals et al 1980

Other articles Van der Wiel 1982; Prager 2006; Barthelmes 2009;
2012

INTERPRETATION

Scalariform perforation plate, occurring in vessels of *Betula* *Alnus*, *Corylus* and *Myrica*. The number of rungs can be used for identification to genus level, but too often small fragments were observed, making identification impossible. Type 114 is restricted in its occurrence to the clay which was sedimented under marine conditions. This means that these wood fragments were always water eroded and the wood had decomposed into very small fragments before sedimentation. Type 114 is absent in microfossil slides from levels where *Betula* was a local element (zone 5). This means that Type 114 in fact cannot be used as an indicator for local growth of the plants by which they were formed.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 115

Letter --

Category Chromista (Acritarch)

**Taxonomical
identification** *Micrhystridium*

TAXONOMY

Kingdom Chromista

Phylum Myzozoa

Class Dinoflagellata incertae sedis

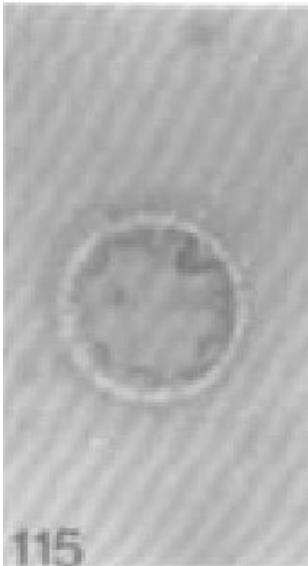
Order

Family Hystrichosphaeridea

Gender *Micrhystridium*

Species --

Image



DESCRIPTION

Colour --

Dimensions 2--17 (-19) μm in diameter

Shape --

Wall/surface 0.5-1.0 (-1.2) μm long protuberances, evenly distributed on the surface, 0.4-0.7 μm apart. Protuberances (0.4-)0.5--0.6(-0.7) μm thick

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Pals et al 1980

INTERPRETATION

Type 115 is restricted in its occurrence to the marine clay deposit and the start of the lake deposit, where it apparently is an indicator for clay from the subsoil mixed with the lake deposit

Other articles Bakker&Van Smeerdijk 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 116

Letter --

Category Chromista

**Taxonomical
identification** *Cymatiosphaera*

TAXONOMY

Kingdom Chromista

Phylum Miozoa

Class Dinophyceae

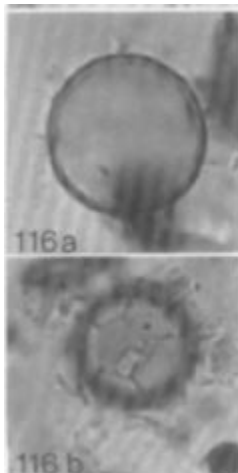
Order Gonyaulacales

Family Pterospermopsidaceae

Gender *Cymatiosphaera*

Species --

Image



DESCRIPTION

Colour --

Dimensions 16-20.5 μm in diameter

Shape Globose

Wall/surface Reticulate, 2.0-2.5 μm thick reticulum with meshes 3.5-6 μm wide

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Pals et al 1980

Other articles Bakker&Van Smeerdijk 1981; 1982

INTERPRETATION

The curve shows that Type 116 belongs to the indicators of marine conditions. Acritarch microfossil described by Pals et al. (1980), who report that Type 116 belongs to the indicators of marine influences. This is supported by the presence of Type 116 in surface samples of the Coastal Dune valley "De Slufter" in the island of Texel, The Netherlands. Type 116 was identified as Cynratiosphaera by W.F. Herengreen, Geological Survey (pers. comm.). However, in the Ilperveld section, Type 116 is found in small numbers chiefly in peat in different parts of the section, and in the marine-influenced part in two cases only. In the peat of the Ilperveld section Type 116 shows a preference to relatively wet conditions

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 117

Letter --

Category Fungi (ascospores)

Taxonomical identification *cf. Ustulina deusta (Fries) Petrak*

DESCRIPTION

Colour Dark brown

Dimensions 28-38 X 8-10 µm

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Shape Non-septate. One side flattened and bearing a longitudinal germ slit

Wall/surface Wall somewhat thickened at the ends

Image

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

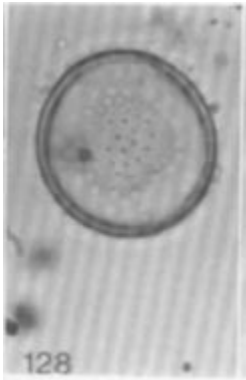
First published in Pals et al 1980

Other articles --

INTERPRETATION

Similar spores occur in raised bog material (see Van Geel, 1978: Type 44, p.79). According to Dennis (1968) *U. deusta* is common on stumps and dead roots of deciduous trees. The ascospores belong to those elements in the clay of zone 1 which do not bear any relation to the local conditions (open water)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	118		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
	Apertures	--	
	Other	--	
	Similar to	--	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

High values restricted to samples of wooded mire phases

BIBLIOGRAPHY

First published in Barthelmes 2009

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	119		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--



NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Lacustrine environment with aquatic angiospermes

BIBLIOGRAPHY

First published in Carrión&Navarro 2002

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	121		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	3-septate spores, the two end cells very pale and often missing
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input checked="" type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Its occurrence is probably related to temporary drying up of the wetland surfaces, especially in the late summer and early fall

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 123

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

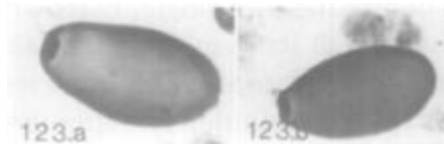
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions (11-) 14--19(-21) X 7--9(-11) μm

Shape One-celled, ellipsoidal to pyriform . obliquely truncated at one end, which is up to 3 μm wide and provided with a somewhat sunken pore (hilum?) in the centre. Pore surrounded by an annulus

Wall/surface Smooth; the inner wall sometimes a bit rough

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The available evidence only permits the conclusion that Type 123 occurs under meso to eutrophic conditions

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Pals et al 1980; Bakker&Van Smeerdijk, 1981; 1982;
Prager 2012

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 124

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Persiciospora sp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

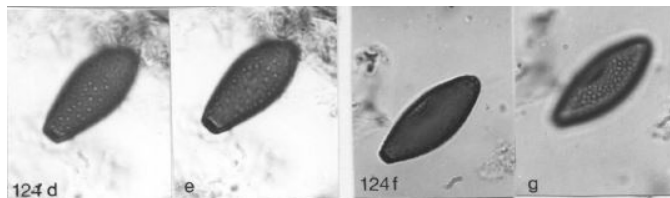
Order Melanosporales

Family Ceratostomataceae

Gender *Persiciospora*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY


First published in Pals et al 1980

Other articles Van der Wiel 1982; Bakker&Van Smeerdijk, 1981;
1982

INTERPRETATION

Type 124 is rarely recorded from modern open fen and carr vegetation with highest abundance in alder dead wood (Prager et al., in prep.). (Barthelmes 2009); It seems that Type 124 is related to a helophyte marsh with eu- to mesotrophic conditions (Bakker&Van Smeerdijk 1982)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	126		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles Garneau 1987

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 128

Letter A

Category Algae? (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

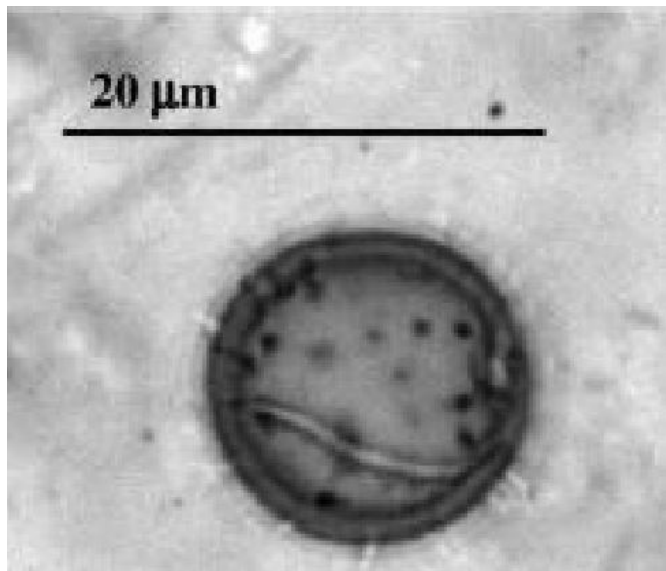
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to Similar to *Sigmopollis hispidus* (Hedlund 1965)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982; Van der Wiel, 1982;
Van Geel 1983; 1989; Carrión&Navarro, 2002; Chmura
2006; Prager 2006; 2012; Barthelmes 2009;

INTERPRETATION

Globose microfossil (Pals et al.,1980), attributed to meso- to eutrophic open water (Van Geel et al., 1989). Extending this records, Prager et al. (subm.) found this NPP type in modern open fen vegetation and alder carr types with highest abundances in alder and sedge litter and surface water under drier conditions. Mesotrophic, cold to temperate open water. Unknown, algal cyst or spore?

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	129		
Letter	--		
Category	Plantae (cells)		
Taxonomical identification	<i>Nymphaeaceae trichosclereids</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Magnoliophyta	Shape	--
Class	Magnoliopsida		
Order	Nymphaeales		
Family	Nymphaeaceae		
Gender	--	Wall/surface	Thick-walled
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

INTERPRETATION

Fossils were most abundant in the mesotrophic pond phase (zone C) that was gradually encroached upon by the surrounding rich fen. Substrate was predominantly gyttja

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 130

Letter --

Category Algae

**Taxonomical
identification** *Spirogyra sp*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Zygnematophyceae

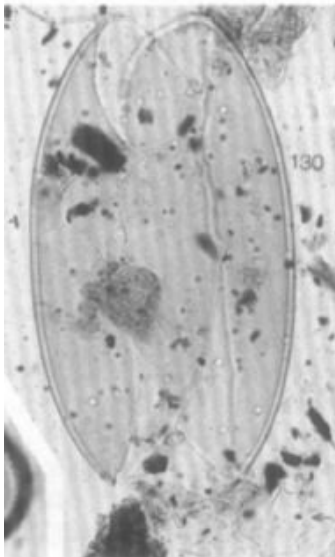
Order Zygnematales

Family Zygnemataceae

Gender *Spirogyra*

Species --

Image



DESCRIPTION

Colour --

Dimensions 170-256 × 108-145 µm in size

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles Van Geel 1983

INTERPRETATION

Specimens of *Spirogyra* are common in stagnant, shallow water
Spirogyra specms were found in the section in low quantities
throughout

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 131

Letter --

Category Algae

**Taxonomical
identification** *Spirogyra sp*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

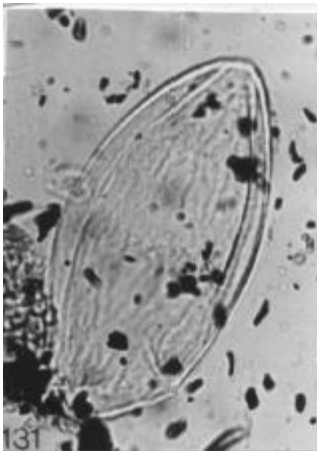
Order Zygnematales

Family Zygnemataceae

Gender *Spirogyra*

Species --

Image



DESCRIPTION

Colour --

Dimensions Length 20–80 µm

Shape Oval, radially symmetrical

Wall/surface Wall shows longitudinal furrow

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input checked="" type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van der Wiel 1982

INTERPRETATION

It occurs as mats of green filaments in clear, oxygen rich, seasonally fluctuating freshwater ponds, streams and lakes. Hoshaw (1968) recorded optimal conditions for the growth of most species in waters above 20°C, indicating stagnant, shallow lakes that more easily reach this temperature.

Other articles Chmura 2006; Medeanic 2006; Chambers 2010; Kramer 2010; Cook 2011;

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	132		
Letter	--		
Category	Protista		
Taxonomical identification	<i>Spirogyra</i>	Dimensions	--
TAXONOMY			
Kingdom	Protista		
Phylum	Charophyta	Shape	--
Class	Zygnematophyceae		
Order	Zygnematales		
Family	Zygnemataceae		
Gender	<i>Spirogyra</i>	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles --

INTERPRETATION

Because I was unable to distinguish with certainty between the different Types, they were combined into one curve specimens of *Spirogyra* are common in stagnant, shallow water *Spirogyra* specimens were found in the sector in low quantities throughout

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 133

Letter --

Category Algae

**Taxonomical
identification** *Mougeotia*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

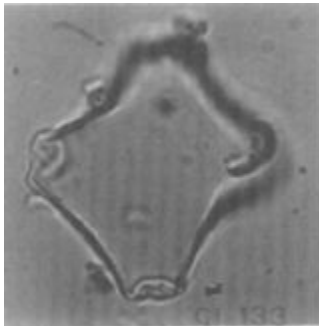
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles --

INTERPRETATION

Zygospores of *Mougeotia* species are indicative of stagnant, shallow, mesotrophic fresh-water conditions prevailing in spring time. In the section they occur throughout, but in subzone IIIC their representation is very low, probably because this subzone is characterized by a much higher water level and slowly flowing water

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 134

Letter --

Category Algae (zygospores)

**Taxonomical
identification** *Mougeotia*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image

DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other Because I was unable to distinguish between the different Types with certainty, they were combined into two curves one curve including the Types cf Type 133 and cf Type 313 and one curve including the Types cf Type 134, cf Type 135 and cf Type 136

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van der Wiel 1982

INTERPRETATION

Zygospores of *Mougeotia* species are indicative of stagnant, shallow, mesotrophic fresh-water conditions prevailing in spring time. In the section they occur throughout, but in subzone IIIC their representation is very low, probably because this subzone is characterized by a much higher water level and slowly flowing water

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 135

Letter --

Category Algae (zygospores)

**Taxonomical
identification** *Mougeotia*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

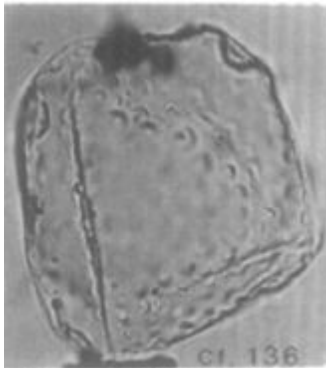
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other Because I was unable to distinguish between the different Types with certmnty, they were combined into two curves one curve including the Types cf Type 133 and cf Type 313 and one curve including the Types cf Type 134. cf Type 135 and cf Type 136

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles --

INTERPRETATION

Zygospores of *Mougeotia* species are indicative of stagnant, shallow, mesotrophic fresh-water conditions prevailing in spring time. In the section they occur throughout, but in subzone IIIC their representation is very low, probably because this subzone is characterized by a much higher water level and slowly flowing water.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 136

Letter --

Category Algae (zygospores)

**Taxonomical
identification** *Mougeotia*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

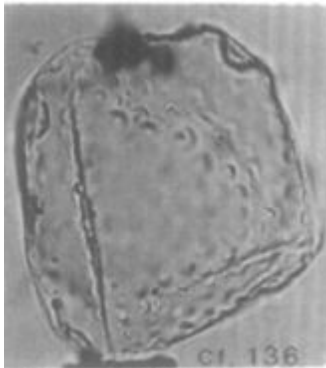
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other Because I was unable to distinguish between the different Types with certmnty, they were combined into two curves one curve including the Types cf Type 133 and cf Type 313 and one curve including the Types cf Type 134. cf Type 135 and cf Type 136

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles --

INTERPRETATION

Zygospores of *Mougeotia* species are indicative of stagnant, shallow, mesotrophic fresh-water conditions prevailing in spring time. In the section they occur throughout, but in subzone IIIC their representation is very low, probably because this subzone is characterized by a much higher water level and slowly flowing water.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 137

Letter --

Category Plantae (leaf-spinules)

Taxonomical identification *Ceratophyllum sp*

TAXONOMY

Kingdom Plantae

Phylum Magnoliophyta

Class Magnoliopsida

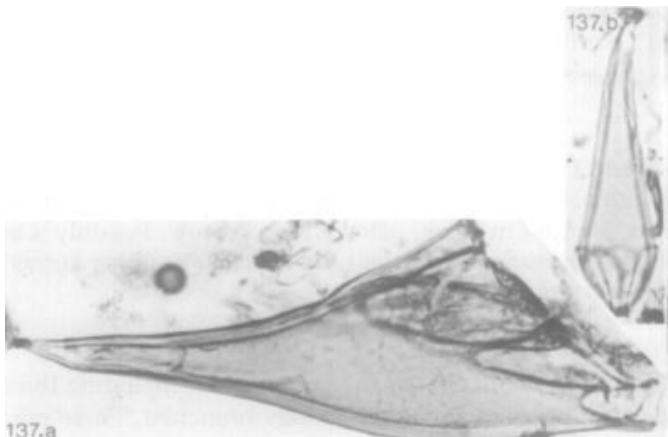
Order Ceratophyllales

Family Ceratophyllaceae

Gender *Ceratophyllum*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape Single, narrowly elongate and sharply thickened cell, bearing at its base the impression of its previous attachment to adjacent cells

Wall/surface --

Apertures --

Other --

Similar to Both *Ceratophyllum demersum* and *Ceratophyllum submersum* bear this type of spinule

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Van Geel 1989; Kuhry 1985; 1997

INTERPRETATION

Their presence, indicating a mean July temperature of at least 13 ° C, is of importance for the interpretation of the climate during the Preboreal (see section 8), especially during the so-called Rammelbeek phase. *Ceratophyllum* indicates stagnant, open bodies of water. This microfossil Type is indicative of eutrophic to mesotrophic open water and ephemeral pools

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 139

Letter --

Category Animalia (reproductive structure)

Taxonomical identification *Piscicola geometra* Linnaeus

TAXONOMY

Kingdom Animalia

Phylum Annelida

Class Clitellata

Order Rhynchobdellida

Family Piscicolidae

Gender *Piscicola*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape Reproductive structure of a leech described by Pals et al. (1980) who found it in considerable numbers in the Klokkeweel section

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

Type 139 is the capsular cocoon in which a number of ova are enclosed (Meglitsch, 1967). Most piscicolids are reported to live as ectoparasites on freshwater fishes and Crustacea in turbulent water (Meglitsch, 1967). This is in accordance with the occurrence of Type 139 in sample 263, where an influence of eutrophic fresh water is supposed to have been present

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 140

Letter --

Category Fungi (ascospores)

Taxonomical identification *Valsaria variospora*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

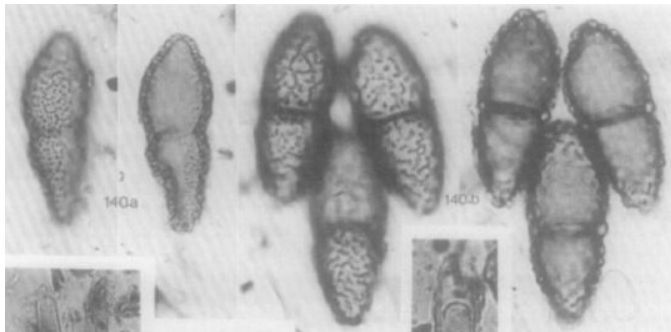
Order incertae sedis

Family incertae sedis

Gender *Valsaria*

Species *variospora*

Image



DESCRIPTION

Colour --

Dimensions 28-36 (32) × 15-20 (17) µm

Shape Uniseptate and slightly constricted

Wall/surface Reclusive of the 1-2 µm thick, undulating epispore whmh is attached to the spore wall at regular intervals. One cell often somewhat smaller than the other one

Apertures --

Other --

Similar to Fossil ascospores of the Type 140 often occur in deposits formed under eutrophic wet conditions [15,39]. The ascomycete *V. variospora*, as described by Hawksworth and Booth [23], has ascospores. which are quite similar to Type 140.

NPP DATABASE

ECOLOGY

- | | | |
|--|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input checked="" type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 140 is of regular occurrence in deposits formed under eutrophic wet conditions (cf. Van der Wiel, 1982; Van der Woude, 1981)

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles Van Geel 1983; 2003; Barthelmes 2009; Montoya 2010

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 141

Letter --

Category Algae (zygospores)

**Taxonomical
identification** *Mougeotia*

TAXONOMY

Kingdom Fungi

Phylum Charophyta

Class Conjugatophyceae

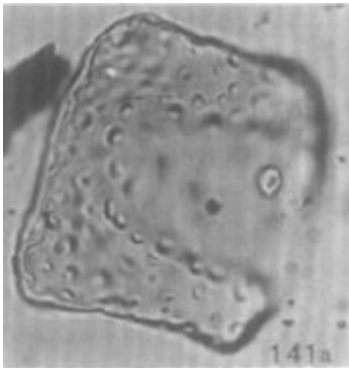
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image



DESCRIPTION

Colour --

Dimensions 36-45 (40) × 32-41 (36) μm

Shape Square

Wall/surface Laterally straight Small pits, about 1 μm m diameter, 3 μm apart are present all over the hyaline surface of the zygospore wall

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Hyaline
Number	142		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	19-32 (27) µm in diameter
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	"Reticulate", meshes of the "reticulum" 1-3 µm wide
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 143

Letter --

Category Fungi (ascospores)

Taxonomical identification *Diporotheca rhizophila*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

Order --

Family Diporothecaceae

Gender --

Species --

Image



DESCRIPTION

Colour Blackish brown

Dimensions Fruitbody: c. 180-300 µm
Ascospore: 47-57 × 17-25 µm

Shape Fusiform, both ends truncate

Wall/surface Fruit-body: Coarsely verrucose wall, verrucae 15-20 µm high
Ascospore: Surface often with dark brown anastomosing ribs

Apertures Ascospore: 2-septate, a germ pore c. 3 µm in diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|---|---|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input checked="" type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input checked="" type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input checked="" type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles Van Geel 1986; 1989; 2003; Prager 2006; Barthelmes 2009; Montoya 2010; hillbrand 2012

INTERPRETATION

Diporotheca rhizophila is known to be a parasite on the roots of *Solanum* species (nightshade family; Gordon and Shaw, 1960). In Europe this fungus grows especially on roots of *Solanum nigrum* which mainly grows under wet meso- and eutrophic conditions in disturbed environments such as forest openings, alder carrs, reed belts, and as ruderals or on agricultural fields (Ellenberg and Leuschner, 2010). For this reason, findings of spores of *D. rhizophila* have often been seen as indicative for past and extant nutrient rich, eutrophic wetland conditions (e.g. Ramezani et al., 2008; Montoya et al., 2010; Wheeler et al., 2010), which were often interpreted to be the result of human influence. Although other host-parasite relationships are up to now not known for *D. rhizophila* from the mycological literature, some palynological studies argued for other possible hosts, such as the wetland fern *Thelypteris palustris* because of analogies in the past frequency of occurrences (van Geel et al., 1986; van Geel and Aptroot, 2006). *Diporotheca rhizophila* is known as a mildly pathogenic fungus, parasitical on the surface of roots of several *Solanum* species (Mibey and Hawksworth, 1995). Our results leave room for two different interpretations, which may both be valid to a varying degree in different geographical and climatic settings. The growth of *Diporotheca* on roots in the soil means that *Diporotheca* spores are probably mainly dispersed by soil erosion. In the Pyrenees *Diporotheca rhizophila* spores were most abundant in a wet zone highly trampled by livestock (Cugny, 2011). This suggests that soil disturbance, and subsequent extensive soil erosion might be decisive for the presence of *D. rhizophila* ascospores in wetland soils, and subsequently also in palynological samples from lake sediments. Taking these considerations into account, the high input of *Diporotheca* spores in Lake Nussbaumersee was probably due to the increased soil erosion and

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 144

Letter --

Category Fungi (A possibly heterogeneous group of

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

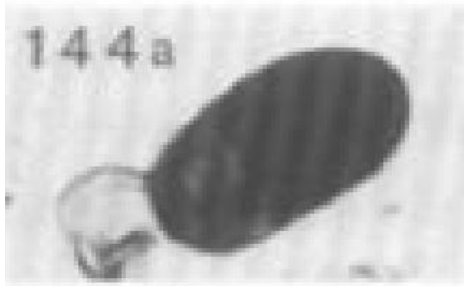
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Detached cells: 8-14 (10) × 7-11 (9) μm

Shape Shortly ellipsoidal hyaline basal cell generally laclong, the two darkly pigmented cells are usually found detached m the pollen samples.

Wall/surface --

Apertures 2-septate. Each septum a ca 1 μm wide pore Apical cell also provided with a ca 1 μm wide pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 145

Letter --

Category Spores

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

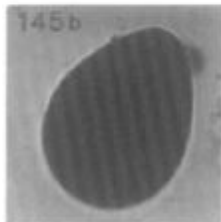
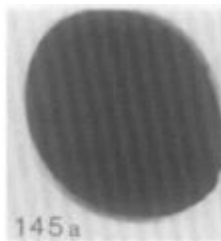
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light or dark brown

Dimensions 20-37 (27) × 16-32 (23) μm

Shape Ovoid, one-celled

Wall/surface Smooth-walled. Walls relatively thick

Apertures With an apical pore of about 1 μm in diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 146

Letter --

Category Cyanobacteria

**Taxonomical
identification** *Gloeotrichia*

TAXONOMY

Kingdom Eubacteria

Phylum Cyanobacteria

Class Oscillatoriophyycideae

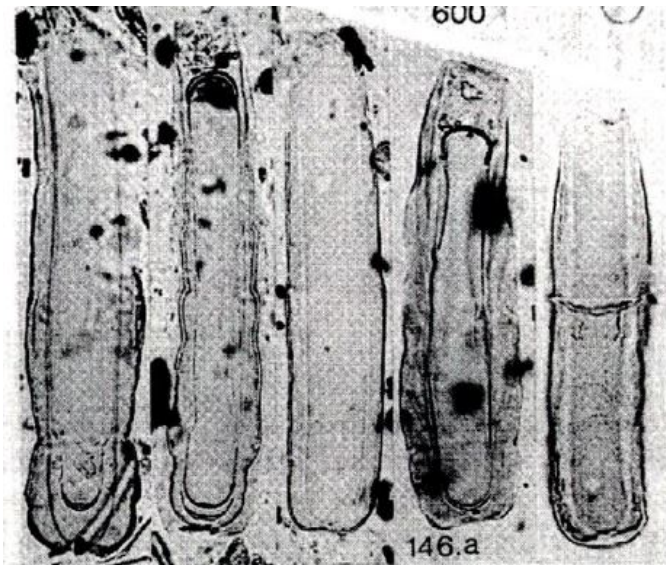
Order Oscillatoriales

Family Gloeotrichiaceae

Gender *Gloeotrichia*

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 60.0-167.5 x 15.5-32.5m

Shape Tube-shaped sheaths. The proximal end of the sheaths rounded

Wall/surface Walls 1.5-10 µm thick, the relatively thick ones showing a lamellate structure. Some specimens show one or more constrictions of the sheath

Apertures Proximal end showing a depression with a c. 3 µm wide pore. The distal end always open, originally surrounding the basal cells of a series of living algal cells (trichome).

Other Sheaths empty or still filled with an akinete

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input checked="" type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles Van Geel 1983, 1989; Garneau 1987; Kuhry 1997;
Chmura 2006

INTERPRETATION

According to Tappan (1980), blue-green algae find optimal conditions in an alkaline environment (Ph 314 7--8.5}, rich in oxidizable organic compounds. They tolerate very low concentrations of phosphorus and of nitrogen. Nitrogen-fixing forms obtain nitrogen and carbon dioxide from the atmosphere and require only light, water and a few minor elements in addition, so that their nutritional requirements are the simplest of any organism. According to Chmura 2006, their interpretation of the significance of *Gloeotrichia* differs from that presented in other paleoecological studies where its occurrence is linked with changes in nutrient status, particularly development of eutrophic conditions in aquatic ecosystems (e.g., van Geel et al., 1994). Studies of modern phycology support our interpretation. In modern lakes *Gloeotrichia* occurs in oligotrophic as well as eutrophic waters, with variable stratification regimes (e.g., Roelofs and Oglesby, 1970; Head et al., 1999; Tymowski and Duthie, 2000). Experimental studies by Hyenstrand et al. (2000) have shown no change in abundance of *Gloeotrichia* with addition of phosphate, nitrate, or ammonium, but addition of iron did cause its abundance to increase

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 147

Letter --

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions Measuring 40-125 (71) μm in length from the truncate end to the first septum. Greatest width 13—24 (19) μm

Shape Obclavate to fusiform, one end showing some septa, but the septate part mostly found broken off, truncate at the other end

Wall/surface --

Apertures --

Other --

Similar to HdV-1034 (shorter and with additional longitudinal septa, verrucate, and long narrow cervical above attachment place)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Indicates in situ presence of birch/birch carr.

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles Prager 2012

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 148

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

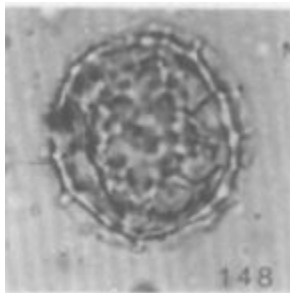
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Red-green

Dimensions 24-37 (31) μm In diameter (not including the 3 μm thick reticulum),
meshes of the reticulum 4-7 μm wide

Shape Globose

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 149

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

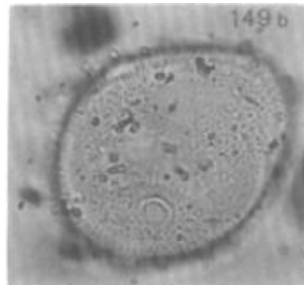
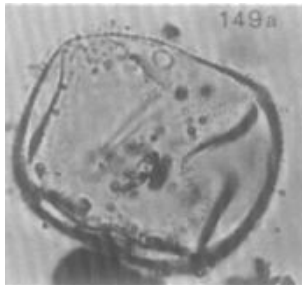
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 39 × 32 µm

Shape Irregularly globose

Wall/surface --

Apertures Provided with a few scattered pores 3 µm diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

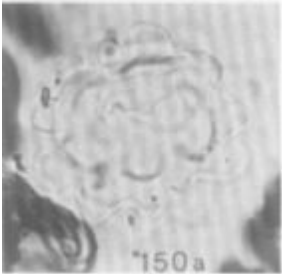
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BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	150		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	23-36 (29) µm in diameter, including the 4-5 µm broad protuberances
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles Van Geel 1983

INTERPRETATION

it seems to be restricted to the *Phragmites*-phase However, there is no obvious correlation with the macroscopic remains of one of the plants growing in situ

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 151

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

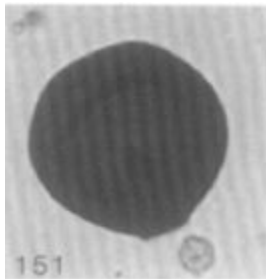
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions 20-35 (27) × 18-32 (25) µm

Shape Globose

Wall/surface --

Apertures Provided with a protruding pore of about 1 µm in diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It seems to be restricted m its occurrence to shallow,stagnant waters

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 152

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

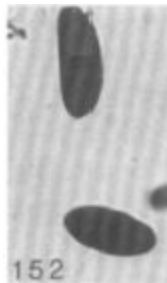
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 14-15 (15) × 5-6 (6) μm

Shape Elongate, two-celled, slightly constricted at the septum

Wall/surface --

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This Type shows a maximum in subzone IB which coincides with the bryophyte maximum

BIBLIOGRAPHY

First published in Van der Wiel 1982

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	158		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	22.4-25.6-30.4 x 10.4-12-15 µm
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Gemmate
Species	--		
Image		Apertures	Monoseptate
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Klaver 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	159		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	21.6-23.9-35 x 19.2-22.3-28.8 µm
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Echinate to baculate
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Klaver 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 160

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

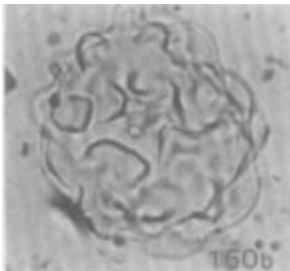
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 34-60 μm in diameter

Shape Globose with polygonal plates

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Dam et al 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	161		
Letter	--		
Category	Animalia (head capsules of larvae)		
Taxonomical identification	<i>Diptera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Insecta		
Order	Diptera		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input checked="" type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

According to Dr. Th. Van Leeuwen (Amsterdam, pers. commun., 1983) these head capsules are characteristic of larvae of Limoniidae, Tipulidae and Cylindrotomidae. The occurrence of caudal discs of larvae of the genus *Prionocera* (Type 108, p.90) at corresponding levels indicates that Type 161 accordingly represents head capsules of the tipulid *Prionocera*

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 165

Letter --

Category Plantae (spores)

Taxonomical identification *Riccia cf. sorocarpa* Bischoff

TAXONOMY

Kingdom Plantae

Phylum Marchantiophyta

Class Marchantiopsida

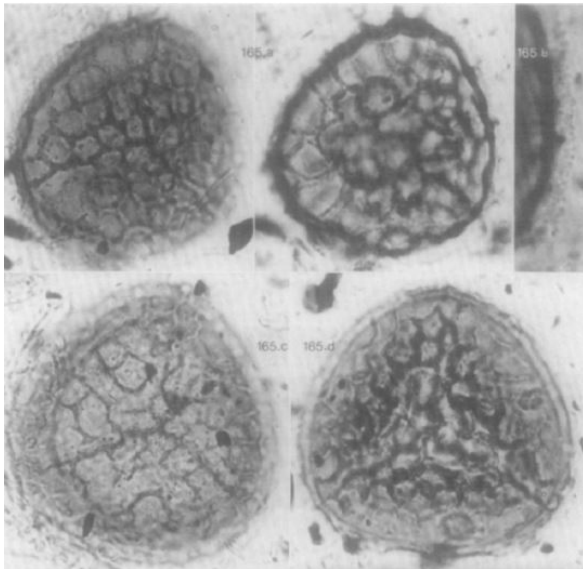
Order Marchantiales

Family Ricciaceae

Gender *Riccia*

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 67.9-92.2 µm in diameter

Shape Trilete, circular to subtriangular in outline, the narrow leasura arms running to the edge of the proximal face, leasura forming part of the reticulum. Muri 4-5 µm high, the outer parts becoming hyaline, rendering the spores somewhat vague in outline

Wall/surface Reticulate. Meshes of the reticulum 5-12 µm in diameter at the proximal, and 11-15 µm at the distal side

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

INTERPRETATION

This species is a pioneer on arable land (cf. Koelbloed and Kroeze, 1965; Van Geel et al., 1981) and also occurs in more natural pioneer conditions at open sites alongside open water. The spores that were found in the samples of local zone II must have been dislocated by water running off towards the sampling site, or, alternatively, during the cold seasons the area where sporulating *Riccia* specimens were present became inundated and spores spread with the water throughout the inundated area. The presence of *Riccia* spores in local zone II, in combination with pollen of *Cerealia* and seeds of *Plantago major* is an indication of the presence of arable land in the vicinity of the sampling site during the Late Bronze Age

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 166

Letter A

Category Plantae (oospores)

**Taxonomical
identification** *Oedogoniaceae*

TAXONOMY

Kingdom Plantae

Phylum Chlorophyta

Class Chlorophyceae

Order Oedogoniales

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions 44.6-45.6 x 24.3-26.3 µm

Shape Oblong, ellipsoid

Wall/surface Spore wall with 8-10 costae which are c. 1.5 µm high and transversally adjoined by ridges (three records only)

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

the total assemblage of fossils indicates stagnant shallow open water and eutrophic conditions

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 167

Letter --

Category Algae (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom

Phylum

Class

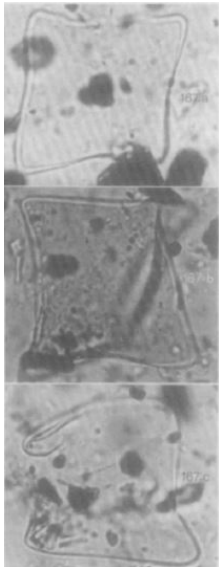
Order

Family

Gender

Species

Image



DESCRIPTION

Colour Hyaline

Dimensions 37.5-43.0 × 35.0-42.5 µm

Shape Tetragonal, with straight or slightly concave sides

Wall/surface Wall smooth, c. 0.7 µm thick

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 167 spores are present in low frequencies in local zone II (stagnant shallow open water, eutrophic conditions)

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 168

Letter

Category Fungi (conidia or ascospores)

Taxonomical
identification

TAXONOMY

Kingdom

Phylum

Class

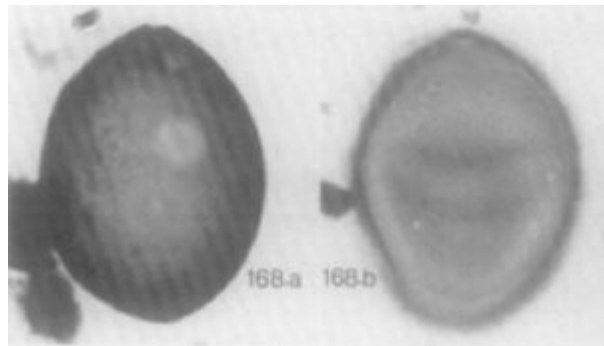
Order

Family

Gender

Species

Image



DESCRIPTION

Colour Brown

Dimensions 27.2-38.8 X 20.5-30.0 μm

Shape Ellipsoid, one-celled. The other end of the spore bluntly pointed

Wall/surface --

Apertures With one apical pore c. 2 μm in diameter.

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 168 is common in local zone II (stagnant shallow open water, eutrophic conditions)

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	106		
Letter	B		
Category	Animalia		
Taxonomical identification	<i>Rhysotritia ardua</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Arachnida		
Order	Oribatida		
Family	Euphthiracaridae	Wall/surface	--
Gender	<i>Rhysotrichia</i>		
Species	<i>ardua</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in --

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 166

Letter B

Category Plantae (oospores)

**Taxonomical
identification** *Oedogoniaceae*

TAXONOMY

Kingdom Plantae

Phylum Chlorophyta

Class Chlorophyceae

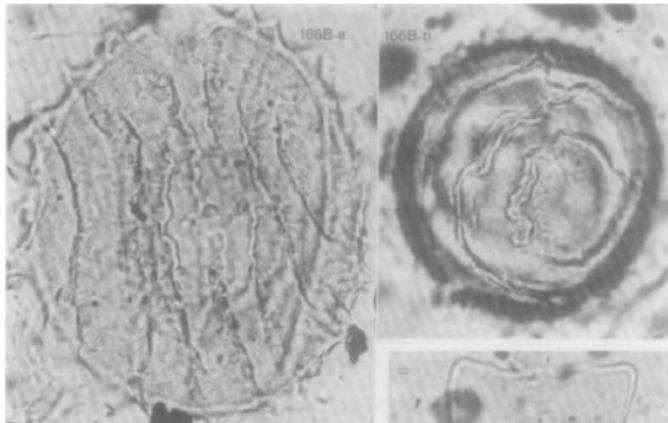
Order Oedogoniales

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 44.6-45.6 x 24.3-26.3 μm

Shape Ellipsoid to orbicular in outline

Wall/surface The spore wall with 7-8 c. 5 μm high costae

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 169

Letter --

Category Fungi (ascospores)

Taxonomical identification *Tripterospora tp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

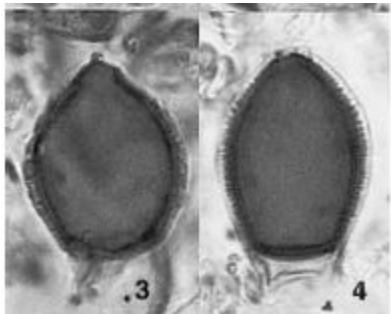
Order Sordariales

Family Lasiosphaeriaceae

Gender *Tripterospora*

Species --

Image



DESCRIPTION

Colour --

Dimensions 19.4-23.0 X 13.4-16.5 µm, the truncated base 5.0-10.8 µm in diameter

Shape Ellipsoid with a somewhat eccentrically placed, the base is truncated

Wall/surface --

Apertures 1.0-1.4 µm wide, germ pore at the apex

Other Some spores still showing the remains of a c. 8 µm long hyaline basal pedicel

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983; 2003; 2009

Other articles --

INTERPRETATION

Type 169 ascospores probably were produced by a representative of the Sordariaceae (cf. Lundqvist, 1972) related with the genus *Tripterospora* (*Zopfiella*, see Lundqvist, 1969). We suppose that Type 169 ascospores were not produced in situ in the open water of zone II. The spores probably became incorporated in the gyttja by translocation of material from uninundated spots where dung, dead wood or some other organic substrate was present

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 170

Letter --

Category Bacteria (heterocysts)

Taxonomical identification *Rivularia tp*

TAXONOMY

Kingdom Bacteria

Phylum Cyanobacteria

Class Cyanophyceae

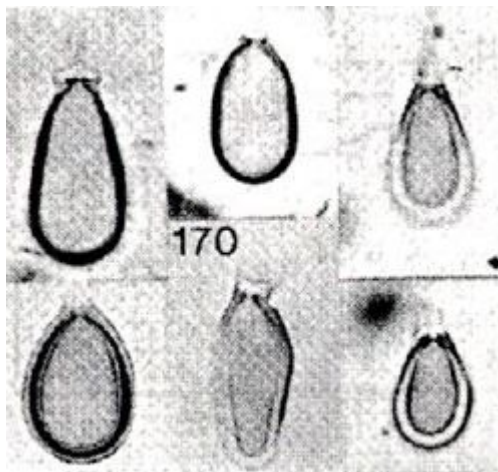
Order Nostocales

Family Rivulariaceae

Gender *Rivularia*

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 9.7-18.4 x 6.0-13.3 μm

Shape --

Wall/surface Wall c. 1 μm thick

Apertures The narrow truncated end of the cell with a c. 1 μm wide pore, origir/ally forming the connection with the trichome.

Other Ellipsoid to almond-shaped, narrow truncated end. Often remains of the proximal part of the gelatinous sheath still in organic connection with the heterocyst

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983;

Other articles Van Geel 1989; Carrión&Navarro 2002

INTERPRETATION

It appeared that representatives of the genus *Rivularia* have heterocysts that are identical with Type 170, as far as the wall of the cell is concerned, but because representatives of other genera may also have similar heterocysts, we call these microfossils the *Rivularia*-type. The fossilisation of especially the heterocysts of blue-green algae is made possible by their relatively thick cell walls. In the heterocysts the nitrogen fixation takes place, and since oxygen deactivates nitrogenase, the thick wall of the heterocyst may serve to protect the cyanophyte from the inhibiting effect of oxygen on nitrogen fixation (Tappan, 1980). The heterocysts of the *Rivularia*-type are abundant in sample 11, which is the topmost sample of the black soil horizon (zone IB), forming the top layer of the sandy clay deposit. This may be taken as an indication that the water table was often high enough to permit blue-green algae to develop on the damp soft. The *Rivularia*-type is also abundant in the gyttja of zone II, which indicates a pH of 7--8.5 at the time of deposition. Heterocysts of the *Rivularia*-type were also observed in the Late Glacial lake deposit from Usselo (Van Geel, in prep.). For ecological and taxonomical information on blue-green algae, see Geitler (1932), Tappan (1980) and Bourrelly (1970). See also under Type 146, p. 313

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 171

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

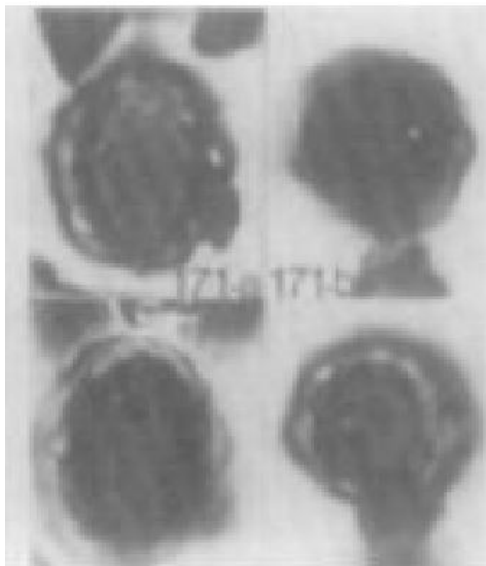
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown, episore hyaline

Dimensions 12.5-13.0 × 8.9-9.0 μm

Shape Ellipsoid, one-celled, up to 2 μm high, undulate hyaline episore

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 172

Letter --

Category Fungi (ascospores)

Taxonomical identification *Coniochaeta cf. lignaria*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariomycetidae

Family Coniochaetaceae

Gender *Coniochaeta*

Species *lignaria*

Image



DESCRIPTION

Colour Dark brown and a light brown zone (not mentioned in literature on *C. lignaria*) encircling the spore

Dimensions 14.5-19.9 × 11.6-14.6 (-15.7) µm

Shape Ellipsoid, one-celled, bilaterally flattened

Wall/surface --

Apertures Germ slit along the narrow side in the light brown zone

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles Van Geel 1989, 2011; López-Sáez 2000; Barthelmes, 2009; Montoya 2010; Prager 2012

INTERPRETATION

According to Munk {1957), *C. ligniaria* is common on dung and wood (Van Geel, 1983).

In present study occasional in open sites (herbal litter and superficial peat), scarce to highly abundant, highest value in *Phragmites australis* litter. Rare in alder carr. Indicates open fen vegetation, possibly with *Phragmites australis* (Prager 2012)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 173

Letter A

Category Fungi (conidia or chlamydospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Top cell hyaline. Basal cell brown

Dimensions (14-) 16- 18 (-23) x 7-10 μm , the 2-septate spores 21-25 x 8-10 -11 μm

Shape Transversally slightly constricted at the septum,

Wall/surface --

Apertures Monoseptate, rarely 2-septate. Basal cell provided with a ea. 0.7x11 μm wide, protruding pore (former point of attachment to a mycelium?)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles Van Geel 1989

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 174

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

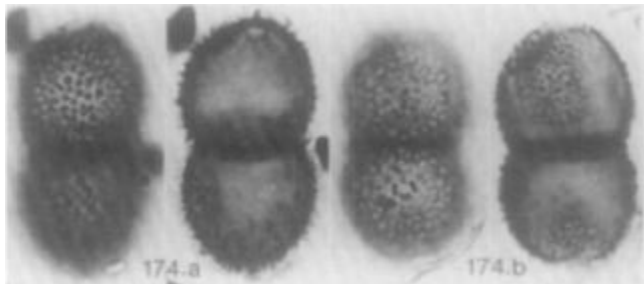
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 24.9-30.0 X 13.6-16.5 μm

Shape --

Wall/surface 1.1-1.8 μm long hairs on the surface. Hairs ca. 0.9 μm broad at the base and c. 0.2 μm at the top

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 174 is of regular occurrence in local zone II (stagnant shallow open water, eutrophic conditions)

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 175

Letter --

Category Animalia (invertebrata egg)

**Taxonomical
identification** --

TAXONOMY

Kingdom Animalia

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions 87.5-127.5 X 55.0-77.5 µm

Shape Ovoid to ellipsoid

Wall/surface The 2.5-9.5 µm high reticuloid ornamentation on the surface

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

INTERPRETATION

Type 175, possibly representing an egg of an invertebrate, is of infrequent occurrence in the samples 13, 16 and 19 (stagnant shallow open water, eutrophic conditions)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 176

Letter --

Category Animalia

**Taxonomical
identification** --

TAXONOMY

Kingdom Animalia

Phylum --

Class --

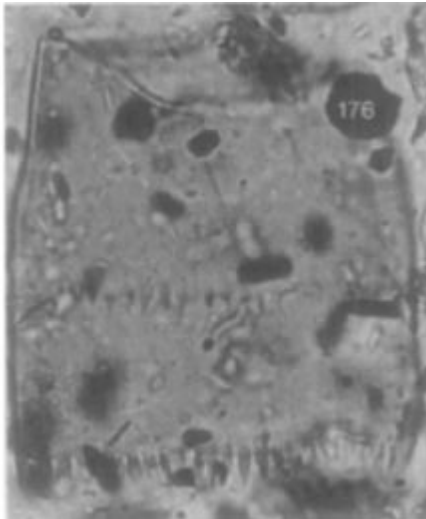
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions c. 68x60 μm

Shape Cylindrical, with two rows of 3-5 μm long, pointed appendages

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 176 represents pleonal segments of a representative of the Harpacticoidea (Copepoda, fam.Canthocamptidae or Bryocamptidae), living in shallow water. The occurrence in sample 16 is in agreement with the identification

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 178

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

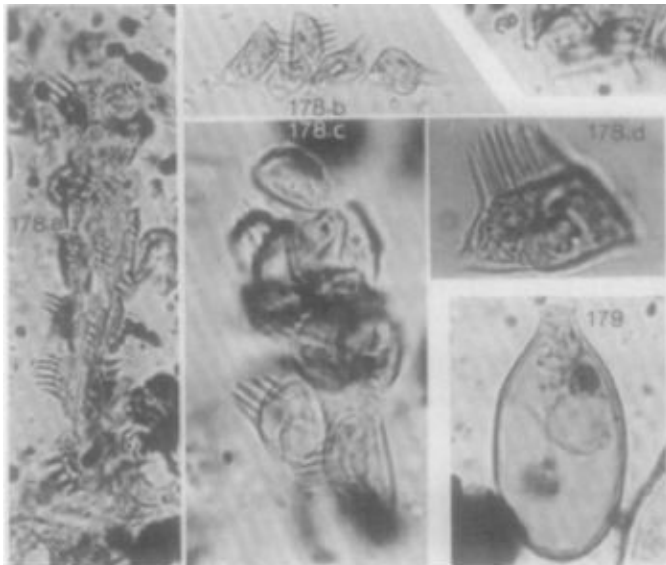
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 12.0-20.2 x 6.0-10.7 μm

Shape Semicircular in outline, on the rounded side with a row of 5 or 6 (rarely 11) 4.9-7.8 μm long spines

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Possibly indicates wet conditions with open water. This confirms observations by van Geel et al. (1982/83), who attributed Type 178 to shallow eutrophic open water

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles Prager 2012

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 179

Letter --

Category Animalia (invertebrata)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

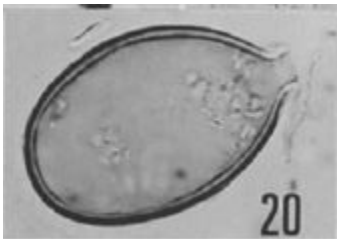
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 25-60 X 13-38 μm

Shape Vasiform microfossil

Wall/surface --

Apertures With a protruding 3.0-7.5 μm wide opening at one end

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

INTERPRETATION

Type 179 represents an unknown invertebrate that was of regular occurrence in local zone II (stagnant shallow open water, eutrophic conditions)

Other articles Van Geel 1989; Kuhry 1997; Carrión&Navarro 2002

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 180

Letter --

Category Animalia?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

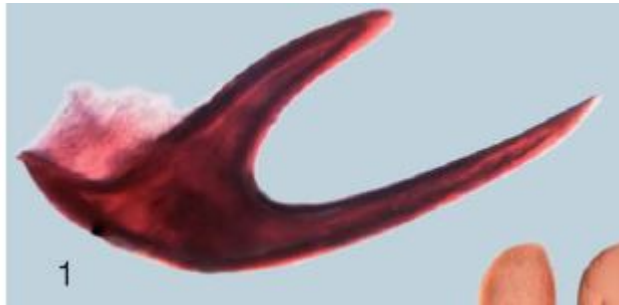
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions its greatest diameter ranges from 43-117 μm

Shape Hook shape

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

INTERPRETATION

In this study Type 180 was found in the European phase and latter part of the Holocene during saline lake conditions and/or swamp development

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles Van Geel 1989; Cook 2009; 2011

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 181

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

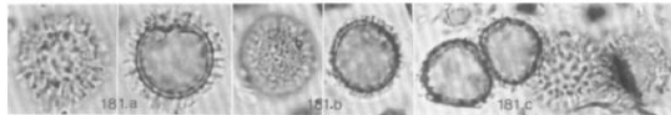
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 11.6-15.3 μm in diameter

Shape Globose, with 1.5-2.9 μm long, closely spaced and 0.3-0.5 μm broad hairs

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Indicating shallow open water (Van Geel et al., 1982/83)

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles Bathelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 182

Letter --

Category Algae? (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

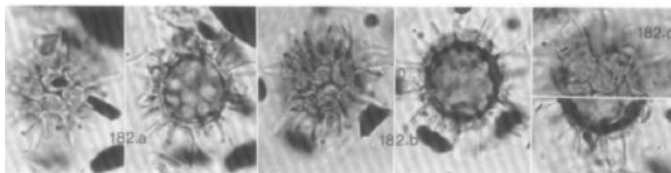
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 11.6-18.4 (-23.5) μm in diameter

Shape Globose

Wall/surface Reticulate c. 0.5 μm high superficial sculpturing, meshes of the reticulum 2.5-5.0 μm in diameter. Muri of the reticulum with 5.8-10.7 μm long hairs, c. 0.3 μm in diameter

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Stagnant shallow open water

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles Carrión&Navarro 2002

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 183

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

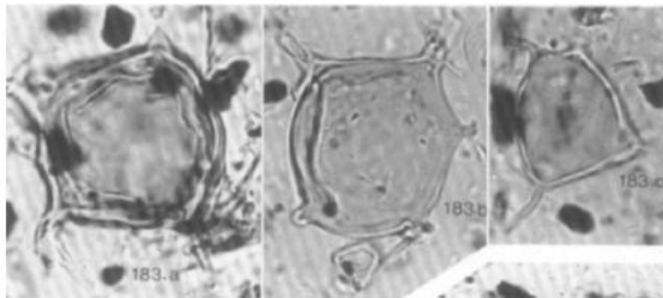
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 21.3-36.9 μm in diameter

Shape Flattened, more or less isodiametrical microfossil, rhomboid in outline. The (3)4 or 5(6) edges each forming one, rarely two, thin-walled (wall c. 0.1 μm thick) and up to 20 μm long, hyaline and sometimes dichotomously branched appendages about 1.5 μm in diameter

Wall/surface Wall c. 0.8 μm thick

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 183 is common in local zone II (stagnant shallow open water, eutrophic conditions)

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 184

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 9.8-17.5 μm in diameter

Shape Globose, consisting of 7-17 cells varying in diameter from 2.9 μm in the smaller specimens to 6 μm in the largest ones. Cells at the outer side of the microfossils flattened, showing a characteristic about 0.8 μm raised ring with diameter of 2.4-4.9 μm

Wall/surface Walls c. 0.3 μm thick

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Van Geel 1983

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 185

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

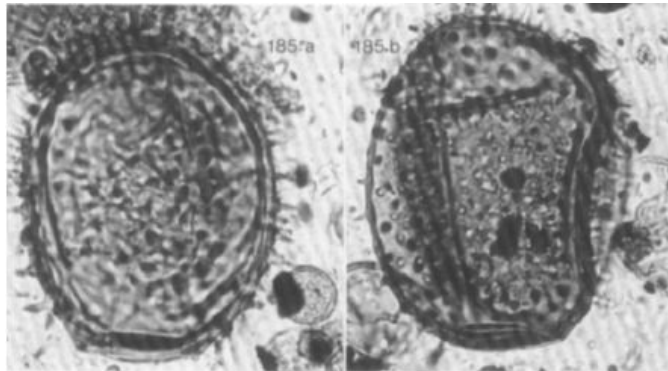
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 77.6-135.8 × 58.1-96.1 μm

Shape Ellipsoid. One apex of the microfossil flattened, forming a zone of 22-28 μm in diameter without spines

Wall/surface The 2.9-12.6 μm long spiny processes on the surface 3-12 μm apart from one another

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 185 is of regular occurrence in local zone II (stagnant shallow open water, eutrophic conditions). Its provenance is unknown

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 186

Letter --

Category Rhizopod?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions 33.9-44.6 × 17.5-22.3 μm

Shape Ellipsoid

Wall/surface

Apertures With c. 2.4 μm wide pores at both ends

Other --

Similar to There is some similarity with *Amphitrema flavum* (Rhizopoda) but Type 186 is ellipsoid and *A. flavum* is more or less cylindrical in outline

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

INTERPRETATION

The ecological preferences of *A. flavum* (ombrotrophic *Sphagnum* peat) are completely different from the local conditions prevailing during the deposition of the samples (13, 16) where Type 186 was observed

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 187

Letter A

Category Animalia (invertebrata?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

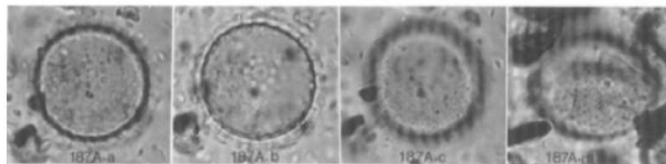
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 20.4-27.2 μm in diameter

Shape Flattened globose microfossil, Central c. 1.5 μm wide pore at one side. Around the central pore c. 9 irregularly placed processes, arranged in a circle of about 5 μm in diameter

Wall/surface Surface of Type 187A covered with c. 27 rows of radially arranged 0.3-1.8 μm long processes, ca. 0.3 μm in diameter

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles Van Geel 1989

INTERPRETATION

Type 187A and related forms apparently represent Invertebrata, occurring in eutrophic conditions in lake deposits, *Phragmites* and *Carex* peat

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 187

Letter B

Category Animalia (invertebrata?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Hyaline

Dimensions 47.5-60.0 µm in diameter

Shape Depressed globose microfossil, Around the pore a ring (diameter 8-10.5 11 µm) formed by irregularly oriented processes

Wall/surface Processes all over the surface bearing a hyaline "episporium" 2(- 5) µm distant from the spore wall

Apertures 2.0-2.5 µm wide central pore at one side.

Other In some specimens radially oriented processes visible below the episporium (cf. Type 187C)

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 187

Letter C

Category Animalia (invertebrata?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Hyaline

Dimensions 36-45µm in diameter

Shape Depressed globose, Around that pore two concentric rings (diameters 7-10 µm and 23-28 1 µm}, formed by irregularly inserted processes. No " epis pore" (cf. Type 1878)

Wall/surface The surface, the central parts excepted, beset with 40-49 rows formed by radially arranged processes ea. 0.3 µm in diameter

Apertures 1.5-2.5 µm wide central pore at one side.

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 187

Letter D

Category Animalia (invertebrata?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 16.1-20.5 1- μ m in diameter

Shape Depressed globose. Apart from the central parts beset with 19-22 (-29) rows of radially arranged, up to 1.5 μ m long processes 0.3-0.4 μ m in diameter

Wall/surface

Apertures Central ea. 1 μ m wide pore at one side.

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The observation of a specimen of 187D attached to a gemmula of a fresh-water sponge by its aporate side provides an indication of the true identity of Types 187A- D

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	188		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	Greatest diameter 82.5-132.9 µm
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Covered with closely spaced 2-3 µm high hollow appendages ca. 1.4 µm in diameter
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 189

Letter A

Category Animalia

Taxonomical identification *Simocephalus sp., ephippium*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Branchipoda

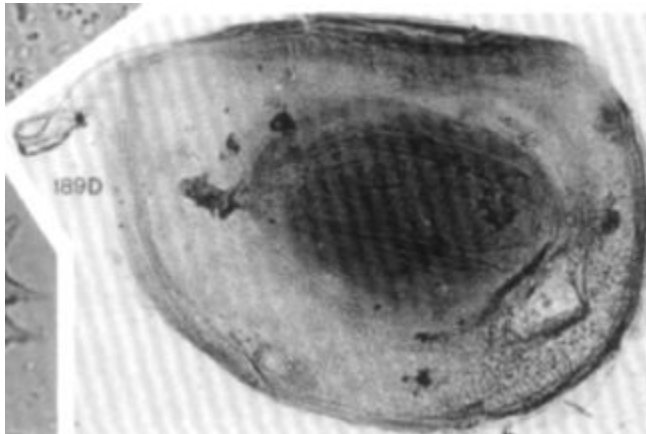
Order Diplostraca

Family Daphniidae

Gender *Simocephalus*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Simocephalus species are Cladocera with a dorsal adhesive apparatus and are mostly attached to littoral vegetation. Ehippia of *Simocephalus* are of regular occurrence in local zone II (stagnant, shallow water, eutrophic conditions and a dense stand of vegetation)

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 190

Letter --

Category Animalia (cocoons)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

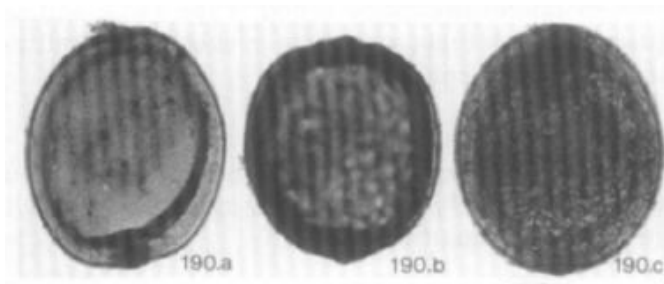
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 300-360 X 210-260 μm

Shape Ellipsoid

Wall/surface All 5-6 μm thick with a spongy structure and often with a very rough surface because of corrosion. Both poles of the cocoon showing a thickening of the wall, about 20 μm in diameter

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

INTERPRETATION

Possibly cocoons of Herpobdellidae (cf. *Herpobdella*), aquatic carnivorous annelids (Wesenberg-Lund, 1939) Taking the size of the cocoons into consideration, it is more probable that Type 190 cocoons belong to representatives of the Tubificidae (R.O. Brinkhurst, pets. comm., 1982.

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 191

Letter --

Category Animalia (cocoons)

**Taxonomical
identification** *Turbellaria*

TAXONOMY

Kingdom Animalia

Phylum Platyhelminthes

Class Turbellaria

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Dark brown

Dimensions 380-580 µm in diameter

Shape Globose, somewhat flattened

Wall/surface Shiny chitinous wall c. 8 µm thick, often broken

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 191 occurs in local zone II (stagnant shallow open water, eutrophic conditions)

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 192

Letter --

Category Animalia (statoblast)

**Taxonomical
identification** *Lophopus crystallinus*

TAXONOMY

Kingdom Animalia

Phylum Bryozoa

Class Phylactolaemata

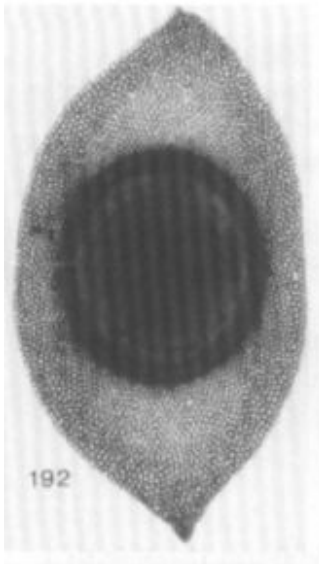
Order --

Family Lophopodidae

Gender *Lophopus*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

INTERPRETATION

A morphological description and details concerning distribution and biology of this representative of the Bryozoa are given by Lacourt (1968). The species has a limited holarctic distribution. The boundary of the range of the species, both in Europe and in North America and Asia, coincides with the -4°C January isotherm. The species tolerates temperatures as low as 0°C . The substrate consists of water plants. The development already begins in water of 9°C . The bathymetric distribution reaches from just under the surface to a depth of about 2 m. The species is also found in high mountain lakes but is nowhere common and usually even rare (Lacourt, 1968). In the present study the statoblasts were observed in local zone II, representing stagnant shallow open water, eutrophic conditions and a dense stand of vegetation

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 193

Letter --

Category Plantae (unknown seed)

**Taxonomical
identification** --

TAXONOMY

Kingdom Plantae

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 660-860 X 300-410 μm

Shape Inequilateral (one side almost straight), with a clear hypostase at the chalazal end. Seed coat consisting of two distinct cell layers. Outer layer (undamaged in well-preserved specimens only) more or less ziazaa-wise arranged groups of up to 100 pm long oblong cells. which

Wall/surface --

Apertures --

Other In corroded specimens the outer cell layer is torn up and the clamp, partly detached from the seed, may play a role in the transport or anchoring/ moving of the seeds. Cells of the inner layer broader than long (direction in relation to length and breadth of the whole seed).

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

INTERPRETATION

The diagram shows that the plant producing Type 193 seeds played a role in the upper part of local zone II, which can be characterized as a phase of shallow stagnant open water with a rather dense stand of vegetation and eutrophic conditions

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 194

Letter --

Category Animalia (cocoons)

**Taxonomical
identification** *Oligochaeta*

TAXONOMY

Kingdom Animalia

Phylum Annelida

Class Clitellata

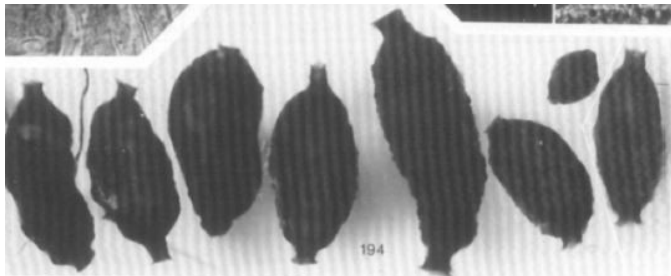
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 190-1280 × 160-660 µm

Shape Ellipsoid or spheroidal, with two 30-120 µm wide collars or tubes opposite one another on the longitudinal axis

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 195

Letter --

Category Animalia (wings)

Taxonomical identification *Conomelus anceps*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Insecta

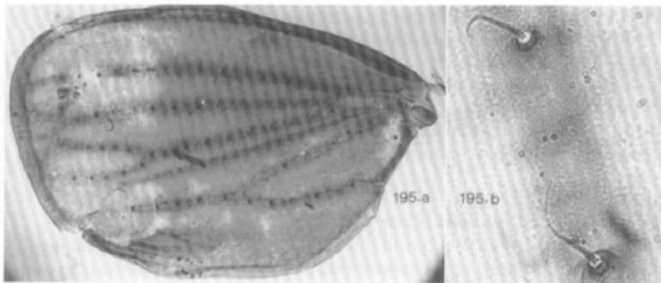
Order Hemiptera

Family Delphacidae

Gender *Cronomelus*

Species *anceps*

Image



DESCRIPTION

Colour --

Dimensions 960-1530 X 560-880 µm

Shape Wings with four veins, of which the lowest is dichotomously branched at the proximal side, the next one branched in the distal direction. Some specimens even have all three upper veins branched at the distal side. Veins with regularly interspaced, isolated hairs

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

INTERPRETATION

Its fossil co-occurrence in the section Enkhuizen dike with seed optima of *Carex rostrata* and *Lychnis flos-cuculi* suggests some preference for these species as its food plants

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 200

Letter --

Category Fungi (cluster of cells)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

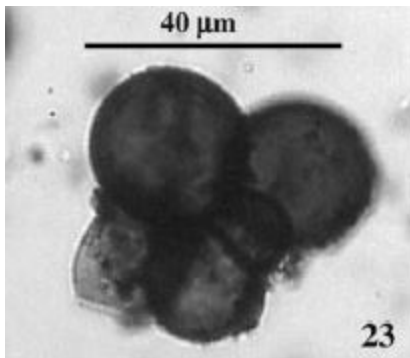
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Greatest diameter of the clusters (18-)30- 38(- 45) μm

Shape Cluster of 5-10 globose fungal cells, Individual cells variable in size, the smaller cells often concentrated at one side of the cluster. One of the smaller cells often tapering into a short ea. 2.5 μm wide hypha, broken off at the end (the former connection with a mycelium)

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles Kuhry 1997; Barthelmes 2009

INTERPRETATION

The maxima in the curves of Types 200 and 201 coincide with a phase with in situ occurrence of *Equisetum fluviale*, *Phragmites* and *Carex rostrata*. Several pieces of unspecific plant tissue were observed with many Type 200 fungi in organic connection with it; repeatedly also Type 201 spores were present on the same tissue. After an aquatic phase (local zones A1, A2 and A3) the fungal Types 200 and 201 were the first fungi to show manifest maxima. Experience gained from former analyses of fossil fungi point to a dry (non-aquatic) habitat, viz., standing culms of the above-mentioned helophytes or on plant remains on the temporarily desiccating bottom of the pool (note also the coetaneous minimum of the curve of the alga *Botryococcus*). Future studies may reveal specific host plants of Types 200 and 201

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 201

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

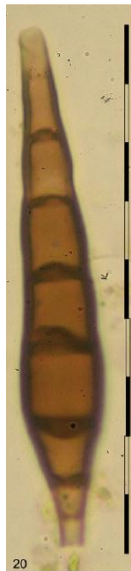
Order --

Family --

Gender --

Species --

Image



20

DESCRIPTION

Colour --

Dimensions 98-143 μm long, 13-20 μm wide at the broadest part, broken off at one or both ends

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

For palaeoecological information, see Type 200

BIBLIOGRAPHY

First published in Kuhry 1985

Other articles Van Geel 1989; Kuhry 1997

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Hyaline to light brown
Number	202		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	Greatest diameter 14- 25 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Irregularly ellipsoid
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	2.0- 2.8 µm wide pore provided with an annulus
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

In combination with several other fungi (Types 203, 204 and 207) and also because of the absence or scarcity of algal remains, Type 202 indicates terrestrial conditions at the sampling site during zone AO. Type 202 fungal spore (x 1000; sample 289)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	203		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	11.5- 13.5 x 6.5 - 7.0 µm
TAXONOMY			
Kingdom	--	Shape	One-celled, at one side somewhat flattened
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	One end with a ea. 0.8 µm wide pore
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 204

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

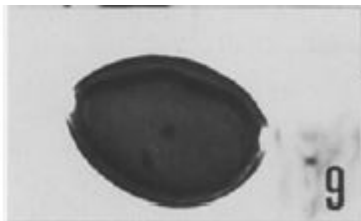
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 30- 33 x 19- 21 μ m

Shape Ellipsoidal, one-celled

Wall/surface --

Apertures With two protruding apical pores, 1-2 μ m wide

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Brown
Number	205		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	37.5- 48.0 x 20.0- 25.0 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoidal
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	Non-septate, with a ea. 2 µm wide pore at one end and often a ea. 0.5 µm wide pore at the other end
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Includes various species of the Sordariales (van Geel et al. 2003). Sordariales are mainly coprophilous, but occur also on rotting wood and soil

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles Kuhry 1997; Feeser 2009

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 207

Letter --

Category Fungi (spores)

Taxonomical identification *Glomus cf. fasciculatum*

TAXONOMY

Kingdom Fungi

Phylum Glomeromycota

Class Glomeromycetes

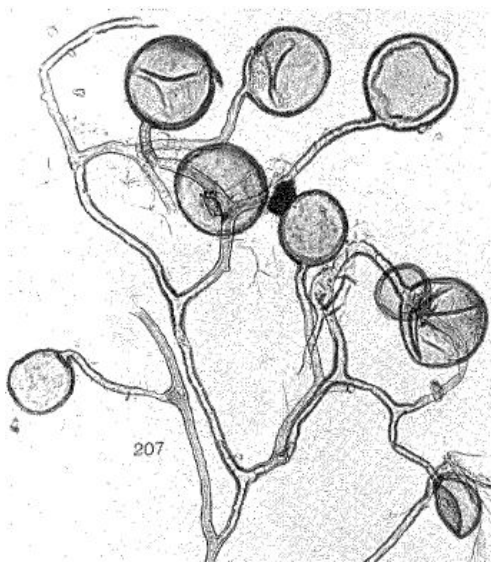
Order Glomerales

Family Glomeraceae

Gender *Glomus*

Species *fasciculatum*

Image



DESCRIPTION

Colour --

Dimensions (17.5-) 25 x 68 (- 138) μm

Shape Globose

Wall/surface Wall of small chlamydospores ea. 0.5 μm thick, that of larger ones up to 5 μm thick

Apertures --

Other Spores often partly filled with spongy tissue (former contents?)

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input checked="" type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

INTERPRETATION

Anderson et al. (1984) identified *G. fasciculatum* in postglacial lake sediments in Maine (USA). The fungus became established with tundra vegetation on newly developing soils soon after the melting of Wisconsin ice. It was postulated that erosion accounts for the abundance of abundance in Holocene sediments was attributed to a decrease in the rate of soil erosion after the establishment of trees

Other articles Van Geel 1989, 2001, 2003; Garneau 1987; Carrión & Navarro 2002; Chmura 2006; Barthelmes 2009; Montoya, 2010; Cook, 2001

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 208

Letter --

Category Algae (zygospores, aplanospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Hyaline

Dimensions 97.5-155.0 x 56.0-62.5 μm . Spore: 47.4-55.0 x 34.0-45.2 μm . Wall of the spore c. 0.7 μm thick

Shape H-shaped, The space connecting the two parallel cylindrical filaments containing a more or less square spore with rounded edges

Wall/surface Wall c. 0.2 μm thick

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

Although up to now only fossil zygosporos and aplanosporos of filamentous algae were observed (Van Geel, 1976, 1978; Van Geel and Van der Hammen, 1978), the H-shaped microfossils probably are fossilized conjugating filament cells of a zygnemataceous form, showing the formed zygosporos in situ. Only six observations in zone AO

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 209

Letter --

Category Algae?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 30-41.9 μm in diameter

Shape --

Wall/surface Wall undulating to form 12 to 26 protuberances

Apertures --

Other --

Similar to Type 128

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

INTERPRETATION

In their paleoecological study van Geel et al. (1989) had previously interpreted Type 128 as indicating eutrophic to mesotrophic, shallow, probably slowly moving, fresh waters. Its occurrence in Everglades slough and marsh zones provides support for interpretations of both slow moving and open water, but not eutrophic conditions (Chmura 2006)

Other articles Chmura 2006; Prager 2006; Cook 2009, 2011

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	210		
Letter	--		
Category	Spores		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Foveolate/fossulate
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Vermiculate
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	211		
Letter	--		
Category	Spores		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Vermiculate
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	212		
Letter	--		
Category	Spores		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	213	
Letter	--	
Category	Algae (spores)	
Taxonomical identification	<i>Zygnema</i>	Dimensions c. 52 µm in diameter
TAXONOMY		
Kingdom	Plantae	
Phylum	Charophyta	Shape Flattened globose
Class	Zygnematophyceae	
Order	Zygnematales	
Family	Zygnemataceae	
Gender	<i>Zygnema</i>	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles Barthelmes 2009

INTERPRETATION

Differing from other spores of the heterogeneous *Zygnema* type (Type 314, Van Geel et al., 1981) in the relatively larger diameter of the pits: 8-9 l'ffi. The spores of Type 213 occur at the transition of zone A4 and A5, where *Carex rostrata*, *Phragmites australis* and *Equisetum fluuiatile* show a sharp decline and *Menyanthes* and *Carex uesicaria* become dominant elements in the in situ stand of vegetation. This points to the development of shallow pools intermingled with small cushions of terrestrial vegetation, with the actual sampling site in a pool. This situation will have caused a rise in the trophic situation of the pools through increased mineralisation and run off, which explains the maximum of the *Zygnema* type

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	214		
Letter	--		
Category	Algae (zygospores)		
Taxonomical identification	<i>Debarya sp</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Charophyta	Shape	--
Class	Zygnematophyceae		
Order	Zygnematales		
Family	Zygnemataceae		
Gender	<i>Debarya</i>	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Apparently *Debarya* could develop especially in the initial phase of the sandy pool, which fits with its occurrence in small, early Holocene, temporary pools in sandy regions (Ellis-Adam and Van Geel, 1975)

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 215

Letter --

Category Bryophyta

Taxonomical identification *Meesia triquetra*

TAXONOMY

Kingdom Plantae

Phylum Bryophyta

Class Bryopsida

Order Splachnales

Family Meesiaceae

Gender *Meesia*

Species *triquetra*

Image

DESCRIPTION

Colour --

Dimensions Greatest diameter 54.0-72.0 µm

Shape Spheroidal

Wall/surface Wall 1.5-3.5 µm thick, densely beset with protuberances 0.4-1.0 µm in diameter, but often partly psilate

Apertures --

Other The description of recent spores of the species by Boros and Járαι-Komlódi (1975, p.270) is different as far as the size is concerned: 30.0-52.3 µm, mean value 44.2 µm; walls about 1.5 µm thick

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

An additional indication is the strong correlation between the occurrence of vegetative macroscopic remains of the species and that of the fossil spores in microfossil samples from corresponding levels (Wiegers and Van Geel, 1984; see also Dickson, 1973, p.109). In combination with *Carex limosa*, *Calliergon stramineum*, *C. megalophyllum*, *Sphagnum* and the thecamoeba *Amphitrema flavum* (Type 31A), *Meesia triquetra* is indicative of a low-nutrient situation in local wnes B3 and C

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 216

Letter --

Category Candelabrum like branched hairs

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

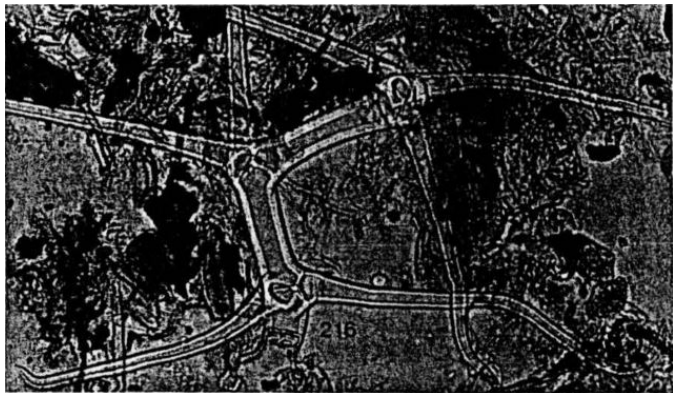
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

Similar hairs were illustrated and identified with some reservations by Moeckli (1952). and Godwin (1956) as leaf hairs of *Verbascum*. In the second edition of the History of the British Flora, Godwin (1975) revised his identification and reported that these hairs are in fact contaminant leaf hairs of *Platanus* spec. shed from maturing leaves in spring. In the present case contamination of the samples is not at all improbable: several *Platanus* trees grew at a range of ca. 50 m from our palynological laboratory and the samples were prepared in 1976

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	217		
Letter	--		
Category	Plantae (conductive tissue of Pteridophyta and		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

During the microfossil analysis also fragments of conductive tissues were counted. The frequency curve strongly parallels the curve of *Equisetum* spores. Apparently most of the tissue consists of disintegrated nodal xylem of *Equisetum fluuiatile* (see Type 244)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	218		
Letter	--		
Category	Plantae (tracheids of Coniferae)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	219		
Letter	--		
Category	Animalia (mandibles, labia etc. of various		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

INTERPRETATION

Type 219 is heterogeneous and as a consequence the curve cannot be ecologically interpreted. The analysis of macrofossils resulted in the identification of complete head capsules of Chironomidae, often to the species level

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	220		
Letter	--		
Category	Animalia (remains of fresh-water sponges,		
Taxonomical identification	<i>Porifera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Porifera		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

During the microfossil analysis spicules, observed at some levels in the pool deposit. Gemmulae (for descriptions and illustrations of an example, see Pals et al., 1980) were of regular occurrence in local zones A4 and A5. These gemmulae were in a poor state of preservation, so that only some specimens could be identified: *Ephydatia* cf. *muelleri* and *Spongilla* spec. According to R.W.M. van Soest (Amsterdam, pers. commun., 1983) these organisms are restricted to the submerged parts of helophytes. The stratigraphic position of the gemmules and the spectrum of coetaneous plant species fit perfectly with the idea of a former transition from an aquatic to a fen phase. In a late Holocene deposit gemmulae were observed in a layer formed under similar conditions (Van Geel et al., 1983). An introduction to pertinent literature in freshwater sponge taxonomy and a summary of palaeolimnological studies using freshwater sponge remains as a diagnostic tool is given by Harrison (1988)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 221

Letter --

Category Animalia (invertebrata?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 39-63 x 21-42 μm

Shape Often folded

Wall/surface Normally with ea. 1 μm high protuberances 1.5-3.0 μm apart and ea. 0.5 μm in diameter below the tips, slightly widened at the tip. Rarely smooth-walled

Apertures --

Other Endamaged specimens show a characteristic furrow in the central part of the microfossil

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles Montoya 2010

INTERPRETATION

Type 221, probably of invertebrate origin, is of regular occurrence in samples from the sandy pool deposit (local zones AO, A1 and A2) to become rare in the gyttja of zone A3, and absent in the peat of Allerød age (local zones A4, A5, Band C) to re-appear in the sandy pool deposit of local zone D

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 222

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions 43.8-70.0 (-75.2) µm in diameter

Shape Globose. Type 222 microfossils are often folded

Wall/surface Wall 1.5-3.1 µm thick

Apertures Circular poroid area (diameter 5-8 µm) with relative thin wall and surrounded by a thicker annulus.

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

Untrained palynologists could easily confuse pollen grains of Poaceae and this Type 222 (differentiating feature: the "pore" of Type 222 is not open and the wall is a compact and not astratified pollen wall). Type 222 is of regular occurrence in the sandy deposits of local zones AO, A 1 and A2 to become rare in zone A3

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	173		
Letter	B		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	11.5-12.5 x 8-9 µm
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Provided with a c. 11 µm wide protruding pore
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles Van Geel 1989

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 189

Letter B

Category Animalia

**Taxonomical
identification** *Moina sp., ephippium*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Branchiopoda

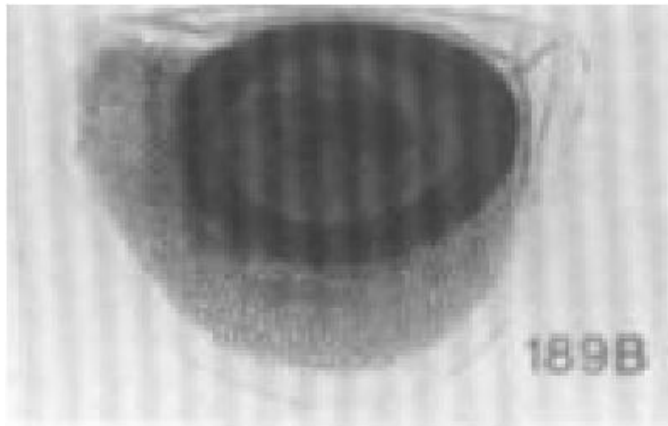
Order Cladocera

Family Moinidae

Gender *Moina*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles Kuhry 1997

INTERPRETATION

According to F16ssner (1972), representatives of the genus *Moina* (Cladocera) occur in nitrogen-rich, relatively warm water (20--25 ° C; in extratropical areas especially in shallow, often temporary waters, which may warm up to such temperature levels). Four ephippia were found in local zone II (the whole spectrum of micro-and macrofossils indicates stagnant shallow open water and eutrophic conditions)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 189

Letter C

Category Animalia

**Taxonomical
identification** *Daphnia "pulex-type"*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Branchiopoda

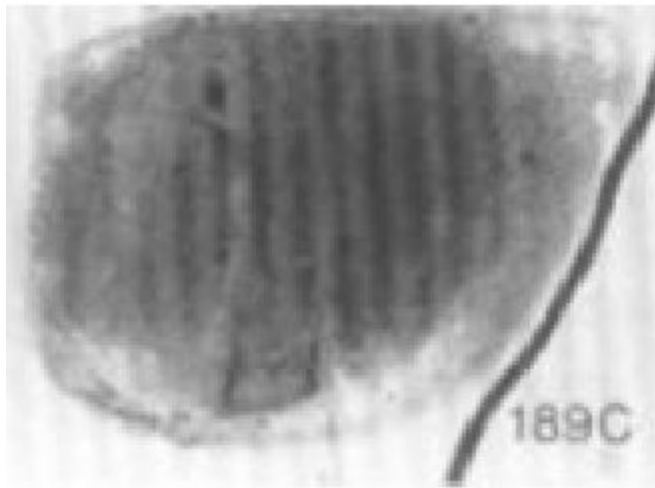
Order Cladocera

Family Daphniidae

Gender *Daphnia*

Species *pulex*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Daphnia pulex is a common pelagic species, living in plankton of both shallow and deep waters, and is, therefore, a eurytopic species

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 189

Letter D

Category Animalia

**Taxonomical
identification** *Daphnia* sp., *ephippia*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Branchiopoda

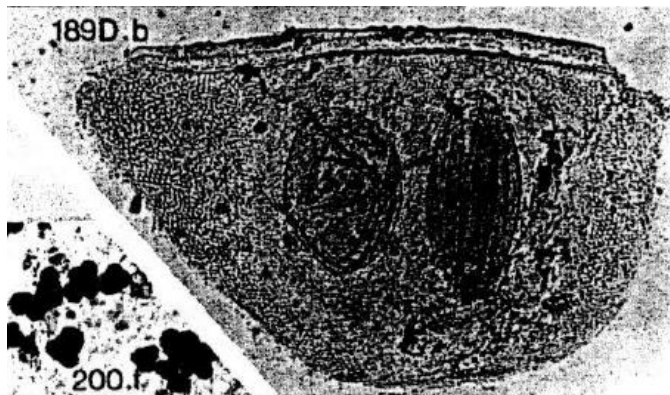
Order Cladocera

Family Daphniidae

Gender *Daphnia*

Species *ephippia*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

INTERPRETATION

Ephippia of *Daphnia* occur in local zone D1 in a sandy deposit which was formed under mesotrophic aquatic conditions (with *Scenedesmus*, *Ca lliergon stramineum* and *Drepanocladus exannulalus*), after a rise of the water table at the Allemd/Late Dryas transition

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	206		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	8.5-10.0 x 5.0-6.0 µm
TAXONOMY			
Kingdom	--	Shape	One-celled, one side flattened (visible in lateral view only)
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Both ends with a ea. 0.3 µm wide pore
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

INTERPRETATION

Type 206 is restricted in its occurrence to the lower part of local zone B1, which represents the initial phase of the sedge fen stage. See also *Chaetomium* (Type ?A)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Hyaline
Number	223		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	Greatest diameter (23.0 -) 30.5- 37.0 µm
TAXONOMY			
Kingdom	--	Shape	Ellipsoid to globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	5- 3.0(- 4.0) µm long hollow spines formed by the ea. 0.25 µm thick wall. Distance between points of the spines (1.5-) 2.0- 4.0 µm
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 223 is of regular occurrence in the sandy pool deposit of the local zones A2 and A3

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 224

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions Greatest diameter 26.0- 69.0 µm inclusive of a reticulum

Shape Globose

Wall/surface Reticulum formed by a very thin, undulating velum. Muri of the reticulum 2.0 - 5.0 (- 8.0) µm high and about 3.0 µm wide at the base; meshes of the reticulum 4.0- 7.0 µm wide. A spongy structure lies between wall and velum, especially inside the muri

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 224 is almost restricted in its occurrence to the gyttja of local zone A3

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 225

Letter --

Category Algae (spores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Hyaline

Dimensions 19.5- 26.0 μm in diameter

Shape Globose

Wall/surface Wall c. 0.2 μm thick forming 0.8- 1.8 μm protuberances, 1.3 μm in diameter at the truncated top. Distance between the protuberances 1.0- 2.5 (- 4.0) μm

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

They are found in the eutrophic to mesotrophic open water and ephemeral pool phases at both the Beauval and Gypsumville sites

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles Kuhry 1997; Barthelmes 2009

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Hyaline
Number	226		
Letter	--		
Category	Algae (spores?)		
Taxonomical identification	--	Dimensions	Greatest diameter (incl. processes) 35.0- 47.9 µm
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Wall c. 0.3 µm thick, forming 40-50 blunt processes, each 1.5- 2.5 µm high
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Hyaline
Number	227		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	31.0- 38.5 µm in diameter
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Wall c. 0.3 µm thick with 4- 8 c. 2.5 µm wide, protruding pores
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 228

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 58.0- 69.5 μm in diameter

Shape Globose

Wall/surface Ca. 40 protuberances, each c. 5 μm high and 5-9 μm in diameter at the truncated top. Distance between protuberances 4- 10 μm . Wall c. 0.3 μm thick

Apertures A 1.5 μm wide pore in the centre of the flat part of the protuberances

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles Kuhry 1997; Kramer 2010

INTERPRETATION

it is considered to be of aquatic origin. Van Geel et al. (1989) presume an algae derivation, but do not provide information on ecological preferences. Consistent with the results of the PCA, it will be classified as an indicator of unstable lake conditions

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 229

Letter --

Category Algae (spores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Hyaline

Dimensions 16.5- 27.0 μm in diameter

Shape Globose

Wall/surface c. 2.5 μm high reticulum that is formed by a c. 0.2 μm thick wall.
Meshes of the reticulum c. 6 μm

Apertures --

Other --

Similar to Possibly related with Type 74 (Van Gee), 1978)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Possibly cysts of marine Dinoflagellatae. Only few observations in local zone A (contamination with pre-Weichselian materia)?)

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 230

Letter --

Category Dinoflagellate

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum Dinoflagellata

Class --

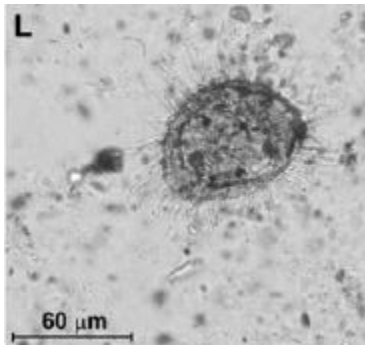
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 50- 58 μm in diameter

Shape Globose

Wall/surface Up to 19.5 μm long and 1(- 2) μm wide appendages that are slightly widened at the ends. Distance between appendages c. 5 μm

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Possibly cysts of marine Dinoflagellatae. Only few observations in local zone A (contamination with pre-Weichselian materia)?)

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles Miola 2010

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 231

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions Greatest diameter 43- 58 μm

Shape Ellipsoidal or pear-shaped

Wall/surface Characteristic, roughly "scabrate" wall surface consisting of irregularly placed protuberances ea. 1 μm in diameter and of an irregular shape

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 232

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions 55- 72 μm in diameter

Shape Globose to ellipsoidal microfossils

Wall/surface Exclusive of the 3.0- 5.5 μm long and ea. 1.0 μm wide appendages on the c. 1 μm thick wall. Bases of appendages at c. 2 μm distance, but often some parts of the microfossil show greater distances between appendages

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	233		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	20- 23 µm in diameter
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	c. 20 appendages, evenly distributed over the surface. Appendages 2.2- 4.1 µm high and 3- 5 µm broad at the bases
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	234		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	(16.1-) 22.0-29.3 μm in diameter
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Globose, ruptured along a narrow slit
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Wall with numerous ea. 0.5 μm wide irregularly placed pits
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	235		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	19.1- 23.8 x 16.8-18.0 µm
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	With irregular rows of appendages, 0.4 µm in diameter and 0.5- 2.01 µm apart
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	236		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c. 15 µm in diameter
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Reticulate, , meshes c. 7 µm in diameter. Often with a hyaline velum around the spore
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	237		
Letter	--		
Category	Plantae (leaves)		
Taxonomical identification	<i>Junniperus communis</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Pinophyta	Shape	--
Class	Pinopsida		
Order	Pinales		
Family	Cupressaceae		
Gender	<i>Juniperus</i>	Wall/surface	--
Species	<i>communis</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

INTERPRETATION

During the Bölling period (Ib) Juniperus pollen shows relatively high percentages. The presence of leaves in the sediment indicates that the plants grew at a short distance from the pool

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	238		
Letter	--		
Category	Plantae (vegetative remains)		
Taxonomical identification	<i>Salix (reticulata)</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Magnoliophyta	Shape	--
Class	Magnoliopsida		
Order	Malpighiales		
Family	Salicaceae		
Gender	<i>Salix</i>	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

During the analysis of macrofossils, several fragments of leaves of dwarf willows were observed (238.a-d). These leaves were too incomplete to permit specific identifications, but they are referable to *Salix*: because of the characteristic epidermis cells with thickened cell walls around ea. 8µm wide hollows originally bearing hairs (238.d,g and 238.o.- u). Several stem fragments with an epidermis pattern showing the same hollows (238.g), some of them with leaf scars (238.j) and often with about 1 mm long tongue-shaped bracts (238.e,f and h) were observed

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	239		
Letter	--		
Category	Plantae (fruits)		
Taxonomical identification	<i>Agrostis</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae	Shape	--
Phylum	Magnoliophyta		
Class	Liliopsida		
Order	Poales		
Family	Poaceae		
Gender	<i>Agrostis</i>	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

Several characteristic fruits of apparently the same representative of the Poaceae were observed in the pool sediments of the local zones A and D. The fruits always showed the bifid remains of the stigma. In order to make future identifications possible (which were the poaceous taxa playing a role during the Lateglacial'), the fruits are illustrated here

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	240		
Letter	B		
Category	Plantae (epidermis fragments with stomata)		
Taxonomical identification	<i>Phragmites australis</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Magnoliophyta	Shape	--
Class	Liliopsida		
Order	Poales		
Family	Poaceae		
Gender	<i>Phragmites</i>	Wall/surface	--
Species	<i>australis</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

Rhizomes of *Phragmites* often occur in Holocene peat deposits. This species occurs in the hydrosphere at the borders of lakes and especially plays an important role when lakes and pools become filled in with vegetation (Ill'aler, 1970). Because of their deep-lying rhizomes and roots (going down to 1 metre) *Phragmites* can maintain itself for a long time, after the superficially rooting vegetation elements have become of a meso- or oligotrophic character. Even after compaction of peat deposits the vertical distance between properly identifiable rhizomes and the original contemporaneous vegetation surface may be considerable (and lead to a "Verdrangungs", see Grosse-Brauckmann, 1980, p.142). In the present study much attention was paid to pieces of epidermis that were present in the macrofossil samples. Hundreds of slides were made in order to look for characteristic cell patterns, etc. In this way overground remains (showing stomata) could be distinguished from the epidermis of rhizomes of *Phragmites*, both showing the characteristic short, curved cells among long cells (for detailed descriptions, see Grosse-Brauckmann, 1972). By comparing the representation of underground and overground remains of *Phragmites* with the pollen curve of Poaceae in the section Usselo, we found that the pronounced early Allerød maximum of pollen of Poaceae represents a phase (local zone A4) during which *Phragmites* played an important role in the local stand of vegetation. During that phase rhizomes penetrated into the underlying sandy gyttja. In the present case a less detailed study might have brought out that *S. reticulata* (x 100; sample 206) resulted in a misinterpretation: the maximum of Poaceae pollen would probably have been interpreted as an extension of herbaceous vegetation at the cost of *Betula*, which showed a decline as a consequence of the inclusion of Poaceae in the pollen total.

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	241		
Letter	--		
Category	Plantae (leaf fragments)		
Taxonomical identification	<i>Potamogeton</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Magnoliophyta	Shape	--
Class	Liliopsida		
Order	Alismatales		
Family	Potamogetonaceae		
Gender	<i>Potamogeton</i>	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

INTERPRETATION

Leaf fragments with a parallel nervation and intercrossing nerves at regular intervals. Cells distinctly broader than long (length: direction of the parallel nerves). See also Katz et al., (1977), table 53. Especially in local zones A3 and A4, where *P. alpinus* is well represented with seeds

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	242		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	0.2-0.3 µm in diameter
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Wall 12- 25 µm thick, with a 20 µm wide, short (detached) stalk
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

Although Type 242 was placed in the diagram among the botanical remains. its origin is rather uncertain. It has a very characteristic vertical distribution: restricted to the sandy gyttja that was deposited during the Belling period (Ib)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	243		
Letter	--		
Category	Plantae (epidermis, fragments with hyaline		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Probably roots; the root-forming plant was not recognized as such

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	244		
Letter	--		
Category	Plantae (paired groups of nodal xylem		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Pteridophyta	Shape	--
Class	Equisetopsida		
Order	Equisetales		
Family	Equisetaceae		
Gender	<i>Equisetum</i>	Wall/surface	--
Species	<i>fluviatile</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

Fossil rhizomes and even stem fragments of *Equisetum* can easily be recognized in sediments (for detailed descriptions and illustrations of *E. fluviatile* see GrosseBrauckmann, 1972). The identifications are based on the characteristic cell pattern of the epidermis. During the present study it appeared that, apart from the epidermis, also conductive tissue of *E. fluviatile* may become fossilized. Especially the characteristic paired groups of nodal xylem, consisting of tracheary elements with thick, reticulate cell walls, can be attributed with certainty to *Equisetum* (see also Type 21i, p.103). Publications relevant to the morphology of recent Equisetaceae: Barratt (1920), Golub and Wetmore (19413) and Bierhorst (1958)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	245		
Letter	--		
Category	Plantae (roots?)		
Taxonomical identification	--	Dimensions	1.2-18 µm long and ea 0.5 µm thick
TAXONOMY			
Kingdom	--	Shape	Appearance of swollen roots (?)
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Dark brown
Number	246		
Letter	--		
Category	Plantae (rootlets)		
Taxonomical identification	--	Dimensions	A diameter of up to 140 µm were observed
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

INTERPRETATION

Oligotrophic conditions. They were conspicuous because of their dark brown color and their restricted vertical distribution. Taxon unknown

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	247		
Letter	--		
Category	Animalia (bud scale)		
Taxonomical identification	--	Dimensions	Greatest diameter of 2.4-4.0 µm
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	In the central parts showing a cell pattern of predominantly long rows (247.c); the rims of the bud scales with a more irregular cell pattern
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

In the sandy deposit of Late Dry as age (local zone D3) macrofossils were almost absent, probably because of a very fast accumulation of the deposit. In several samples Type 247 was present, but the taxon producing such bud scales is unknown

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 248

Letter --

Category Animalia (mandible)

Taxonomical identification *Sialis lutaria*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Insecta

Order Megaloptera

Family Sialidae

Gender *Sialinae*

Species *lutaria*

Image

DESCRIPTION

Colour --

Dimensions Mandibles: 1.2-2.2 µm long
Labrums: Labrums ea. 1.1 µm broad
indentation with a 12-28 µm long

Shape Mandibles curved, armed with two acute teeth in the middle of the inner curve. Labrums , fiat, campanulate in outline,anterior edge crinkled, teeth asymmetrical and each indentation with slightly curved spine

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

The following data were taken from Elliott (1977), Kaiser (1977) and Aspiick . et al., (1980). Additional data were supplied by A.W.M. Mol, 's Hertogenbosch (pers. commun., 1983), who also made the specific identification of the remains of this megalopterid. Representatives of the genus *Sialis* (alder flies) nowadays occur in the Holarctic area. Six species occur in Europe, five of which extending to the northernmost part of Scandinavia. Specific identifications of larvae are mainly based on characteristics of the abdomen, but these do not fossilize. Labrums also show some differences: two of the six species (viz. *S. lutaria* and *S. morio* Klingstedt) have the asymmetrical teeth of Type 249. The other four species have lower, symmetrical teeth, or the teeth may be almost lacking. An additional indication of the fossil occurrence of *S. lutaria* or *S. morio* in the Usselo deposit is the fact that these two species often occur in stagnant water, whereas the other four species only occur in running water. There are hardly any ecological data concerning *S. morio*. It is a species from northern Europe and the montane areas in Central and S.E. Europe. The distribution map in Aspbuck et al. (1980) is probably still rather incomplete. *S. lutaria* is a fairly wide-spread species and the larvae live in ponds, lakes and sluggish parts of streams where there is an abundance of silt. The adults are poor fliers and are found near the waters where the larvae occur. The eggs are usually laid on stems and leaves of plants overhanging the water. Also emerged parts of helophytes are used as a substrate. The hatching time of the eggs varies, depending on the prevailing temperature. From a palaeoclimatological point of view it may be of interest that eggs of *S. lutaria* hardly develop when the temperature falls below 10°C (Seitz, 1941). The larvae are carnivorous, the first instar larvae feeding on microorganisms and detritus, the subsequent instars changing to benthic crustaceans and finally to the predominant preys.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 249

Letter --

Category Animalia (mandible)

Taxonomical identification *Sialis lutaria*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Insecta

Order Megaloptera

Family Sialidae

Gender *Sialinae*

Species *lutaria*

Image

DESCRIPTION

Colour --

Dimensions Mandibles: 1.2-2.2 mm long
Labrums: Labrums c. 1.1 mm broad
indentation with a 12-28 µm long

Shape Mandibles curved, armed with two acute teeth in the middle of the inner curve. Labrums , fiat, campanulate in outline,anterior edge crinkled, teeth asymmetrical and each indentation with slightly curved spine

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Same as Type 248

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	250		
Letter	--		
Category	Animalia (mandible)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Morphologically heterogeneous group of pointed mandibles
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	251		
Letter	--		
Category	Animalia (mandible)		
Taxonomical identification	--	Dimensions	Greatest diameter 0.4-1.4 mm
TAXONOMY			
Kingdom	--	Shape	Mandibles with several thickened dark brown blunt processes at the distal end
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The stratigraphic position indicates that Type 251 mandibles are of aquatic (larvae of) invertebrates

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 252

Letter --

Category Animalia (tarsal segments)

**Taxonomical
identification** *Coleoptera*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Insecta

Order Coleoptera

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions Greatest diameter 0. 7-0.8 mm

Shape Bi-lobed tarsal

Wall/surface Densely beset with up to 125µm long hairs, which are bifid at the distal end and inserted in a small pit

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	253		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Coleoptera (metasternum)</i>	Dimensions	Greatest diameter 1.0- 3.7 µm
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Euarthropoda		
Class	Insecta		
Order	Coleoptera		
Family	--	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Heterogeneous group

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	254		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	0.2-0.4 µm in diameter
TAXONOMY			
Kingdom	--	Shape	Depressed globose macrofossils, with a large opening
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Chitinous, wall 5-10 µm thick
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Of regular occurrence in the oligotrophic peat of local zones 83 and C. Not consequently counted and the occurrence only indicated by dots

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 255

Letter --

Category Animalia (Arthropoda?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions Diameter 0.9-1.4 µm

Shape Partly overlapping segments, , with a peculiar fringe at the distal side of the rings (255.d). Each segment showing two, 60- 85µm long organs

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

INTERPRETATION

In spite of its peculiar morphology, Type 255 could not yet be identified. Its occurrence in the section Usselo in the upper part of local zone B indicates a preference for the oligotrophic sedge fen

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	256		
Letter	--		
Category	Fungi (basidiospores)		
Taxonomical identification	--	Dimensions	12.5 µm in diameter. Meshes about 4 µm wide
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Reticulate
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Willemsem 1996

INTERPRETATION

Probably belonging to the Ustilaginales. This type has been found in zone B and it might represent the spores of a parasite on cultivated plants

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	257		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	20.8 x 13 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoid with longitudinal ridges
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Willemsem 1996

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	258		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	Total length about 20.8 x 10.4 µm
TAXONOMY			
Kingdom	--	Shape	Two-celled fungal spore
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Within the septum a pore is present
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Willemsem 1996

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 259

Letter --

Category Fungi (conidia)

**Taxonomical
identification** *Mycogone sp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Hypocreomycetidae

Family Hypocreales

Gender *Mycogone*

Species --

Image

DESCRIPTION

Colour Upper cell: pigmented

Lower cell: hyaline

Dimensions Upper cell: diameter c. 370 µm

Lower cell: diameter c. 210 µm

Shape Two celled, sometimes occurring as single fragments. Upper cell larger than the lower cell

Wall/surface Upper cell: course texture

Lower cell: psilate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Willemsem 1996

INTERPRETATION

This Type was recorded in one of the dung samples of the house site (Willemssen, 1990). *Mycogone* species are reported from soil and are more commonly found as parasites on the fructifications of higher Basidiomycetes (Barron, 1968)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	260		
Letter	--		
Category	Animalia		
Taxonomical identification	--	Dimensions	c. 441 × 277 μm
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Consisting of two slightly overlapping plates with c. 12.5 μm-long spines at the borders
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This Type has been found within the oldest anthropogenic accumulation layer of the house site (Willemsen, 1990)

BIBLIOGRAPHY

First published in Willemsen 1996

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 261

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Arnium*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Lasiosphaeriaceae

Gender *Arnium*

Species --

Image

DESCRIPTION

Colour --

Dimensions 52– 86x30–36 µm in size

Shape One-celled, ellipsoidal

Wall/surface --

Apertures With c. 1.5 µm wide pore at both ends

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2003

Other articles Feeser 2009

INTERPRETATION

The large spores are characteristic, but not with certainty identifiable to any genus. They seem to belong to a member of the Sordariales, most probably to the genus *Arnium*, which is one of the few genera with ascospores with two germ pores. According to Dennis (1978), most *Arnium* species occur on dung, but some species are also abundant on rotting herbaceous stems and wood

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	262		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	<i>Arnium imitans</i>	Dimensions	38–41x18–21 µm in size
TAXONOMY			
Kingdom	Fungi	Shape	Ellipsoidal
Phylum	Ascomycetes		
Class	Sordariomycetes		
Order	Sordariales		
Family	Lasiosphaeriaceae		
Gender	<i>Arnium</i>	Wall/surface	--
Species	--		
Image		Apertures	Monoseptate, with a c. 1 µm wide, slightly protruding pore at both ends
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2003

Other articles --

INTERPRETATION

They seem to belong to a member of the Sordariales, most probably to the genus *Arnium*, which is one of the few genera with ascospores with two germ pores [29]. The genus has few species with septate ascospores, e.g. *A. imitans*, but the ascospore dimensions are too large

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	263		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	<i>Valsaria</i>	Dimensions	c. 42x22 µm in size
TAXONOMY			
Kingdom	Fungi	Shape	--
Phylum	Ascomycota		
Class	Dothideomycetes		
Order	Incertae sedis		
Family	Incertae sedis		
Gender	<i>Valsaria</i>	Wall/surface	Characteristic velum, which forms longitudinal ribs
Species	--		
Image		Apertures	Monosepate and an equatorial ring around the septum
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Like Type 140, these seem to be ascospores of a (different) member of the genus *Valsaria*

BIBLIOGRAPHY

First published in Van Geel 2003

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 264

Letter --

Category Fungi (chlamydospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

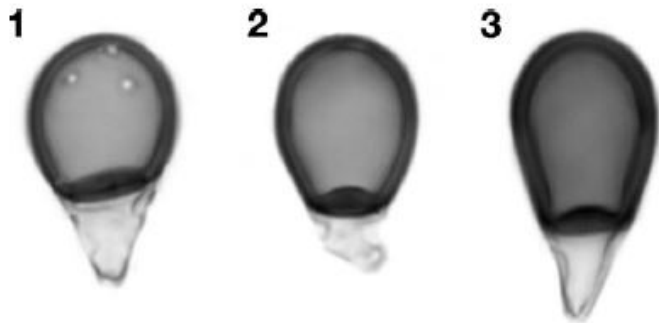
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Top cells: brown
Basal cells: hyaline

Dimensions (16–) 18–20 (–21)×10–13 µm. Top cells: 10–13 µm long, and 10–13 µm wide. At the septum, the spores are 5–6 µm wide

Shape Top cells narrower towards septum. Basal cells are triangular shaped

Wall/surface --

Apertures Transversally monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 264 spores occur in the *Sphagnum papillosum* peat section of Saxnäs Mosse

BIBLIOGRAPHY

First published in Van der Linden 2006

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Dark brown (wall)
Number	265		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	18–20×10–13 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoidal
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth
Species	--		
Image		Apertures	With two protruding apical pores, about 1 µm wide
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van der Linden 2006

INTERPRETATION

Type 265 spores are present together with *Sphagnum* Section *Cuspidata* and *Rhynchospora alba* in Saxnäs Mosse. Type 265 spores may indicate local wet conditions

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 266

Letter --

Category Fungi (uredospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

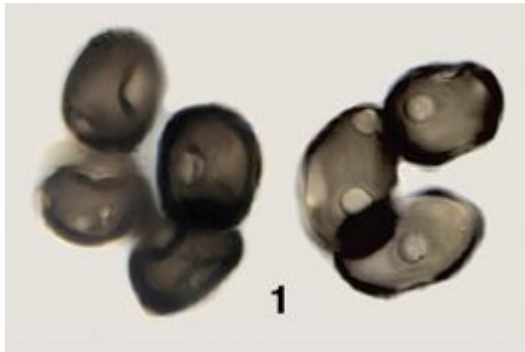
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown-black with light coloured round thin sections

Dimensions 17–18×12–14 µm, 2.5 µm in diameter

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 266 spores occur in the top 5 cm of the Lappmyran peat section

BIBLIOGRAPHY

First published in Van der Linden 2008

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 267

Letter --

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 88–100×2.5–4 µm

Shape Long chains of fungal cells

Wall/surface --

Apertures 18–24 septate, small pores in end cells

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Spores were found in the deepest part (96–30 cm) of the Lappmyran peat section together with *Sphagnum* section Cuspidata

BIBLIOGRAPHY

First published in Van der Linden 2008

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 268

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

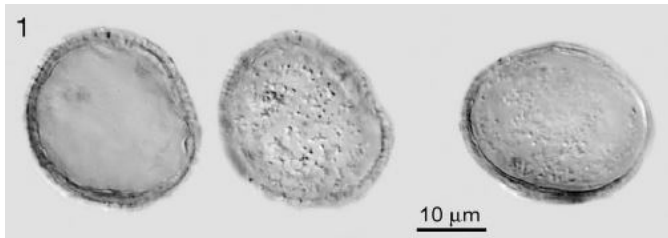
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 21–24 μm diameter

Shape Globose

Wall/surface Bacculate or sometimes eroded psilate surface

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van der Linden 2008b

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 269

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

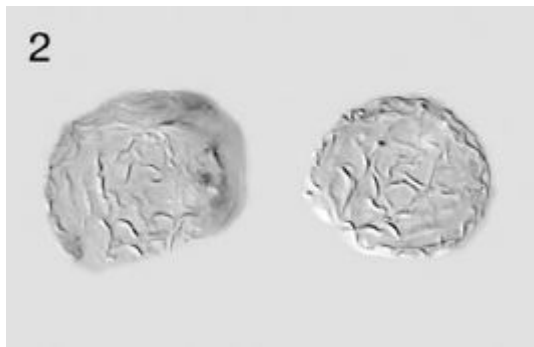
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 14–21 μm diameter

Shape Globose

Wall/surface “Wrinkled” surface

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van der Linden 2008B

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 303

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

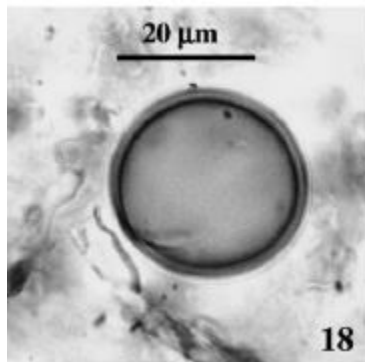
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellow to brownish yellow. Hyaline (Miola 2006)

Dimensions 13-18 µm in diameter

Shape Globose, often with a furrow

Wall/surface Smooth, 1-1.5 µm thick, often with a furrow

Apertures --

Other --

Similar to We tentatively analysed a sample of surface sediment from a small pond with variable water level (Val Piana – Belluno, northeastern Italy), where a rare community of *S. scorpioides* is still present. In the acetolysed samples many globose, smooth, yellow cells with a

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1981

Other articles Miola 2006

INTERPRETATION

Type 303 is frequently recorded in fossil associations of open water environments in euto mesotrophic conditions (van Geel et al., 1981). In our samples Type 303 and remains of *Scorpidium scorpioides* have been frequently recorded together. Basic fucsin colours both the microfossil and the observed cell walls, therefore we can exclude a fungal or animal origin for both of them. Probably Type 303 is produced by aquatic organisms that form dense populations in the same environments of “brown mosses” as *S. scorpioides*. A very common aquatic taxon in small North-Italian ponds is *Chlamydomonas* sp. (Stoch, 2004), some species of which produce resting zygotes with the same morphology of Type 303 (Ettl, 1983, see e.g. pp. 360, 364, 373). So our future researches will be focused on this group of algae

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 304

Letter --

Category Algae (zygospores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions About 28 μm in diameter

Shape Globose

Wall/surface 30, 8-12 μm long protuberances which are mostly branched

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

These microfossils probably represent the zygospores of representatives of the desmidiaceous genera *Staurastrum*, *Cosmarium* or *Micrasterias* (see Type 332). They only occur in the gyttja deposit of the Younger Dryas (Zone A)

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 305

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 15 X 8--8.5 μ m

Shape Almond-shaped

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 306

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 15.5-20.0 x 7- 10 μ m

Shape One-celles, one end rounded, the other end narrowly rounded

Wall/surface --

Apertures The narrowly rounded end with a somewhat protruding pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Van Geel 1989

INTERPRETATION

Type 306 shows high frequencies in the Carer fen (local zone B), but the reason for this co-occurrence (saprophytic or parasitic fungus?) is still unknown

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 307

Letter A

Category Animalia?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

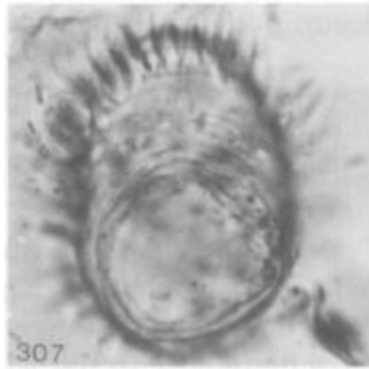
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions About 18 μm in diameter. The cylindrical body is about 25 μm in length

Shape Cylindrical

Wall/surface About 4-5 μm long hairs on the surface

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input checked="" type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It only occurs in the Late Glacial lake deposit (zone A), and is probably of animal origin

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Van Geel 1983

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 308

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

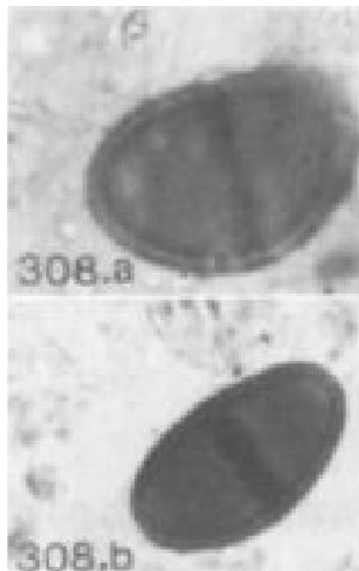
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 16--20 × 9--12 μm

Shape Bicellular

Wall/surface Rough

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 310

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

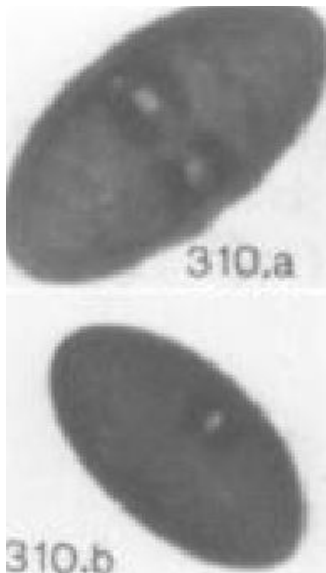
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 20-28 X 7-13 μm

Shape Ellipsoidal

Wall/surface --

Apertures With 3-6 pores in the equatorial plane, thickened around these pores, especially at the apical sides

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 312

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

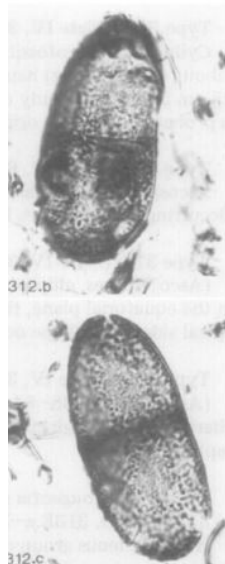
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 38--54 X 18--20 μm

Shape --

Wall/surface Outer wall smooth: inner wall with a characteristic, rough structure

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 313

Letter A

Category Algae (zygospores)

**Taxonomical
identification** *Mougeotia sp.*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

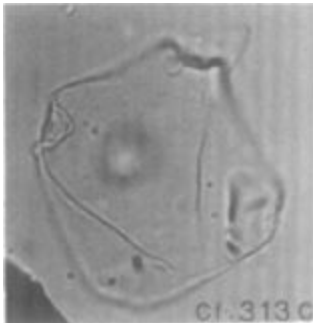
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image



DESCRIPTION

Colour --

Dimensions 36--44 X 38--48 µm

Shape Square, with straight lateral sides. The broad ends of the retuse angles 9--11 µm in diameter, providing some indication of the breadth of the vegetative cells. Depression in the centre of the retuse angle 2--3 µm deep and 3--4 µm in diameter.

Wall/surface Densely covered with small pits about 0.3 µm in diameter.

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1981

Other articles Van der Wiel 1982; Van Geel 1983, 1989; Granfell 1995; Medeanic 2006b

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 314

Letter --

Category Algae (zygospores)

**Taxonomical
identification** *Zygnema* sp.

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class --

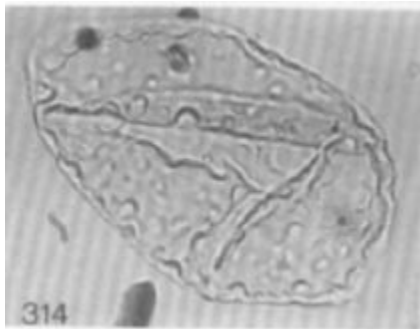
Order Zygnematales

Family Zygnemataceae

Gender *Zygnema*

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 35–53 mm and 22–32 mm in diameter

Shape Spheroidal, sometimes oval

Wall/surface Pitted surfaces (3–6 µm in diameter)

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input checked="" type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

INTERPRETATION

Zygnemataceae are unbranched filamentous green algae, inhabiting shallow, stagnant, oxygen-rich freshwater lakes, ponds, small pools or wet soils. The cell walls of the filaments do not fossilize, but the morphologically characteristic and resistant spore walls preserve. Within the family, twelve genera are distinguished, among which are *Mougeotia*, *Zygnema*, *Spirogyra* and *Debarya*

Other articles Bakker&Van Smeerdijk 1981, 1982; Van Geel 1980, 1989, 1996, 2001; Chmura 2006; Medeanic 2006b; Montoya 2010; Chambers 2010

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 315

Letter --

Category Algae (zygospores, aplanospores)

**Taxonomical
identification** *Spirogyra*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

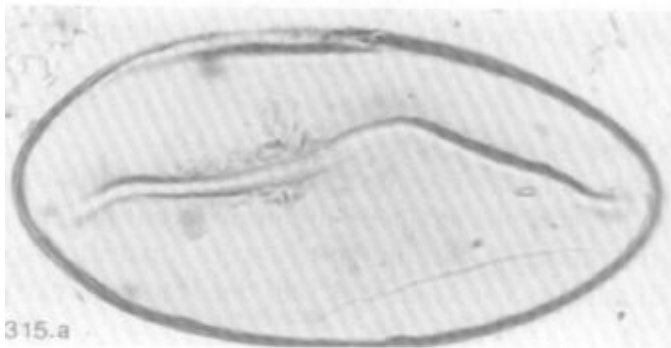
Order Zygnematales

Family Zygnemataceae

Gender *Spirogyra*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape Ellipsoidal, with a longitudinal furrow which often encircles (almost) the whole spore

Wall/surface Smooth

Apertures --

Other --

Similar to Similar spores were illustrated and described by Van Geel (1976; spore Type C) and by Van Geel and Van der Hammen (1978)

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Van Geel 1989

INTERPRETATION

The occurrence of spores of *Spirogyra* species indicates open, relative eutrophic water during the Younger Dryas and Early Preboreal (local zones A and B) and in the upper part of the section (local zone G) when shallow open water was present (at least temporarily). Group of ellipsoidal zygospores (or possibly aplanospores) of different *Spirogyra* species (= Type 130; Pals et al., 1980)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 317

Letter --

Category Algae?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

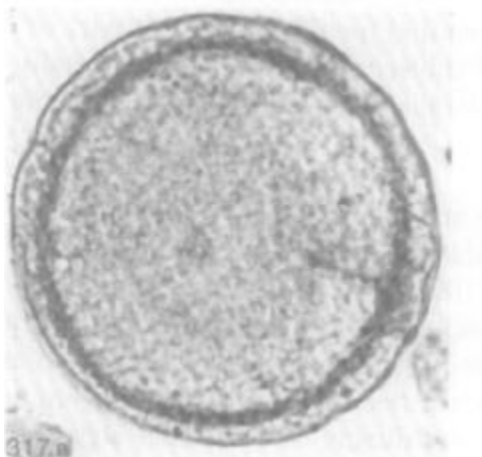
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions (36--)42(--47) μm in diameter

Shape Compressed globose

Wall/surface Hyaline outer wall c. 1 μm thick and an inner granular structured wall often attached to the outer wall but sometimes separated from it

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

INTERPRETATION

Its co-occurrence with various zygnemataceous spore types, mainly in the lower part of the Rammelbeek phase (zone C), strongly suggests that this microfossil is probably also of algal origin

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 320

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions About 12 × 5.5 μm

Shape Ellipsoidal

Wall/surface Scabrate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It only occurs in the lake sediment at the transition from the Younger Dryas to the Friesland phase

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 322

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 12--13 X 3.5--5 μ m

Shape Uniseptate, equally bicellular, slightly curved

Wall/surface --

Apertures Two pores about 0.3 μ m wide at the ends. Pore in the septum with a characteristic, thickened annulus

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

INTERPRETATION

This Type occurs through the whole section and reaches relatively high frequencies between sample 187 and 194, but no correlation with other fossils or special conditions could be detected

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 324

Letter --

Category Fungi

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 25--28 X 11--13.5 μ m

Shape 3-4-septate, Apical cell rounded and mostly the biggest, followed by three or four cells gradually becoming smaller. The basal cell may have been connected with a mycelium

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 327

Letter --

Category Fungi (ascospores)

Taxonomical identification *Hypoxylon argillaceum*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

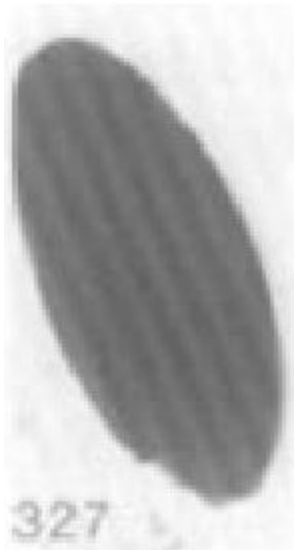
Order Xylariales

Family Xylariaceae

Gender *Hypoxylon*

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions About 26 X 12 µm

Shape Ellipsoidal, sometimes ruptured

Wall/surface --

Apertures Non-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Hypoxylon argillaceum is common on wood

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 332

Letter --

Category Algae (semicell)

**Taxonomical
identification** *Cosmarium protractum*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

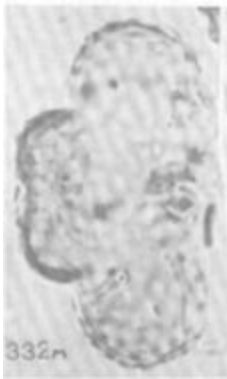
Order Desmidiales

Family Desmidiaceae

Gender *Cosmarium*

Species *protractum*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Van Geel 1989, Kramer 2010

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 333

Letter --

Category Algae?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

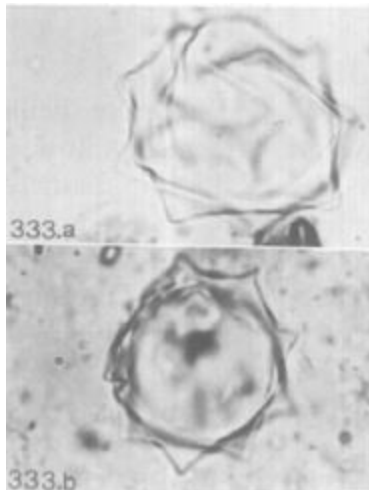
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions Total diameter 24--27 μm

Shape More or less isodiametric microfossils

Wall/surface About 0.3 μm thick, forming c. 20 spiny, 3--4 μm long protuberances

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Probably these Type 333 microfossils are of algal origin

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 334

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

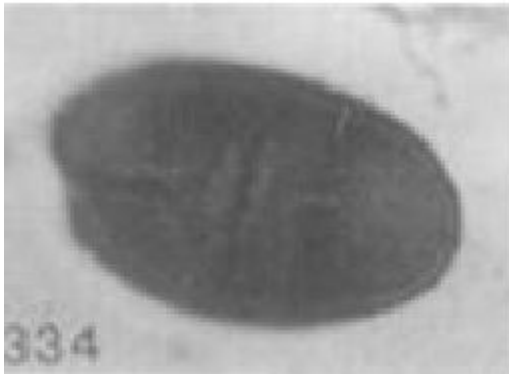
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 22--31 X 11--13 µm

Shape --

Wall/surface characteristic, about 3--4µm wide, roughly structured thickening of the inner wall

Apertures Monoseptate. At both sides of the septum

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

From its irregular occurrence in the lower part of the section no conclusions can be drawn

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 336

Letter --

Category Fungi (ascospores)

Taxonomical identification *Apiosordaria montagnei*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Lasiosphaeriaceae

Gender *Apiosordaria*

Species --

Image



DESCRIPTION

Colour --

Dimensions 25--27 f 9--11 μm

Shape Slightly constricted at the septum

Wall/surface --

Apertures Unequally monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Its occurrence is restricted to certain levels, but there is no clear correlation with any other fossil or with a special ecological situation

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 339

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 19-22 X 46-56 μm

Shape At one apex ending in a tube, or broken off beyond characteristic thickenings. The other end thinwalled or open, but with a characteristic thickening

Wall/surface The granular septa often becoming detached from the wall or hardly visible

Apertures 5-6-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 340

Letter --

Category Plantae (bryophyte spores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

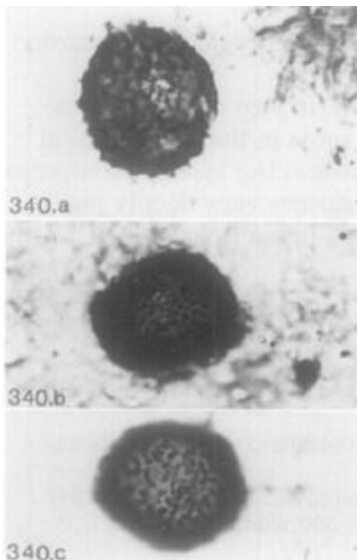
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 15-20 μm in diameter

Shape Globose

Wall/surface 1-1.5 μm long protuberances arranged in an irregular, reticuloid pattern

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Van Geel 1989; Barthelmes 2009

INTERPRETATION

In the present study two manifest maxima are correlated with sharp declines of the alga *Botryococcus* (local zones A3/A4 and A5/B1). The maxima do not correlate with maxima of macroscopic remains of a certain bryophyte taxon. This may indicate that terrestrialisation induced abundant spore production of one, or of more, rare species. Bryozoa-Phylactolaemata. Statoblasts of six species were observed and recorded, their presence indicating open water or temporary inundations. Statoblasts were absent in the pool deposit of local zones A1, A2 and A3 and occurred especially in the predominantly organic deposits of A4, A5, B3 and D1. This can be explained as follows: freshwater Bryozoa need a solid substrate and do not occur on fine sand and mud (Hoc, 1963). In the case of the Usselo-pool, aquatic macrophytes initially were absent or very scarce, mainly because of unsuitable trophic conditions (Van Geel et al., 1984). When an adequate substrate became available (stems of *Phragmites*, *Menyanthes* and *Carex* species, from local zone A4 onward) Bryozoa could become local elements of the fauna. The availability of food (small organisms such as diatoms and protozoa) also will have played a role. The presence of statoblasts in the predominantly non-aquatic local zones B and C can be explained in the following way: During the Allerød period one or more pools with open water were present in depressions in the dune landscape surrounding the sampling site. Rises of the water table during the cold season resulted in temporary flooding of the sampling site and the floating statoblasts spread all-over the inundated area. *Betula x intermedia* type, catkin scales. In the sandy gyttja of Boiling age (Ib) catkin scales of *Betula* were of regular occurrence, which in first instance were considered to be of *Betula nana*, because of the erect two outer lobes (Bialobrzęska and Truchanowiczówna, 1960), but the three lobes are so broad that a hybrid between *B. nana* and tree

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 341

Letter A

Category Algae? (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

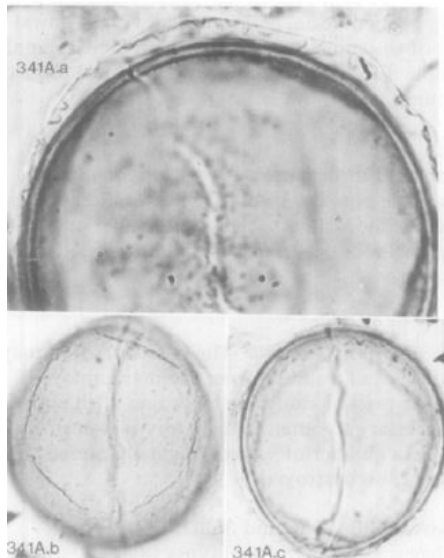
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to greenish yellow

Dimensions 70--90 μm in diameter

Shape Spheroidal, often ruptured along an equatorial suture

Wall/surface Inner wall, smooth. Outer wall with small ellipsoidal pits, 1.5--2.5 μm in diameter and 1--4 μm apart. Outer wall not attached to the inner wall

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

INTERPRETATION

Because of their occurrence together with zygnemataceous spore types in the last part of the Rammelbeek phase and their mode of rupturing, these microfossils (and also Type 341B) probably are of algal origin. They could well be the spores of representatives of the Zygnemataceae or Oedogoniaceae, although the spores are rather large for these taxa

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 342

Letter --

Category Algae (spores)

Taxonomical identification *Spirogyra cf. scrobiculata*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

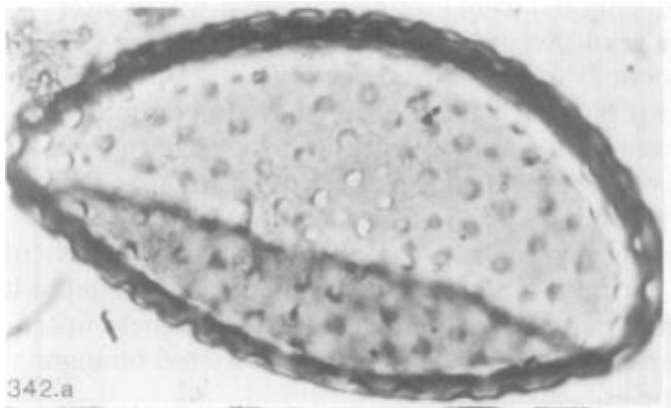
Order Zygnematales

Family Zygnemataceae

Gender *Spirogyra*

Species *scrobiculata*

Image



DESCRIPTION

Colour --

Dimensions 80--90 X 44--52 μm

Shape Ellipsoidal. Most of the spores burst open along a meridional suture

Wall/surface Wall about 1.5--2 μm thick, with pits 2.5 μm wide and 3--4 μm apart

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Kuhry 1985

INTERPRETATION

The spores have been found in the upper part of Rammelbeek phase (local zone C), together with the spore Types 341A and 341B. Spores of *Spirogyra* cf. *scrobiculata* are found at the end of subzone IIIa and in subzone 111~. In view of this record *Spirogyra* cf. *scrobiculata* (Zygnemataceae) conceivably requires marshy conditions for the production of spores, instead of open water. Sporulation most probably occurs in temporary, small and shallow pools during the wet seasons

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 343

Letter --

Category Fungi (spores)

Taxonomical identification *cf. Scopinella barbata*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

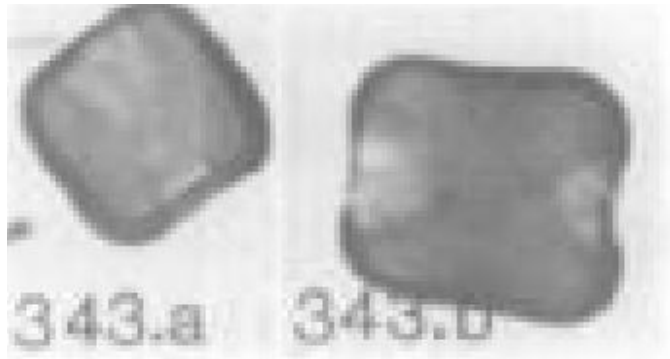
Order Hypocreales

Family Incertae sedis

Gender *Scopinella*

Species --

Image



DESCRIPTION

Colour --

Dimensions 7.5-1 X 8-9 µm

Shape Quadrangular

Wall/surface In two opposite sides thinner walled, with a greater number of hyaline spots in the wall, 3 µm in diameter

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

INTERPRETATION

Hawksworth (1975) mentions and illustrates the typical ascospores of *S. barbara*, with their usually Z-shaped and in surface view deeply pigmented band. Type 343 occurs in the Rammelbeek phase {local zone C)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 350

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

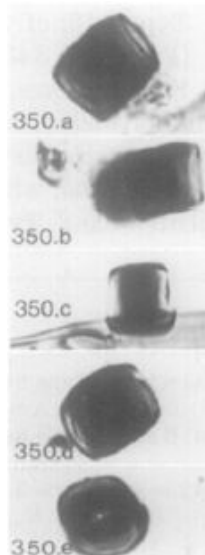
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline ends

Dimensions 11 X 9-10 μm

Shape Cylindrical

Wall/surface --

Apertures With in the equatorial plane a characteristic septum with strong pigmentation, and provided with a central pore c. 0.5 μm wide

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Its occurrence is mainly restricted to a level between sample 87 and 97 where the mycorrhizal roots of *Pinus* (Type 387) show a maximum

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 351

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Strong pigmentation

Dimensions 19-31 μm long

Shape Ellipsoidal

Wall/surface Sometimes somewhat rough on the inner side of the wall, especially the smaller ones

Apertures With a single pore c. 1 μm in diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 351 spores show high frequencies of occurrence during the period of human habitation

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Prager 2012

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 352

Letter --

Category Rhizopod

**Taxonomical
identification** *Arcella*

TAXONOMY

Kingdom Protista

Phylum Amoebozoa

Class Tubulinea

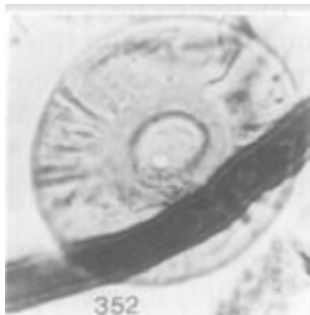
Order Arcellinida

Family Arcellidae

Gender *Arcella*

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 26-35 µm in diameter

Shape Discoid theca

Wall/surface --

Apertures --

Other The radial striation may be artificial contraction ridges of the wall resulting from the preliminary treatment for pollen analysis

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Garneau 1987; Kuhry 1997; Montoya 2010; Prager 2012; López -Sáez 2000

INTERPRETATION

It is present in both freshwater and sea water. It is more frequent when the humidity of the site increases. In the present study the recording of rhizopods is incomplete, since acetolysis, necessary to obtain satisfactory pollen slides, completely destroys the remains of a number of species originally present in the peat. *Arcella* species are usually also destroyed

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 353

Letter A

Category Animalia (cocoons)

**Taxonomical
identification** *Rhabdocoella*

TAXONOMY

Kingdom Animalia

Phylum Platyhelminthes

Class Rhabdocoela

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions 90--150 µm in length

Shape Apical appendage

Wall/surface Wall c. 0.5 µm thick, smooth

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

INTERPRETATION

Type 353 (mainly 353D) shows a pronounced maximum in the local zone C (I~ammelbeek phase). Specific identification of these microfossils is highly desirable, because Frey (1964) reports a restricted temperature range of some of the species

Other articles Garneau 1987; Barthelmes 2009; Montoya 2010

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 353

Letter B

Category Animalia (cocoons)

**Taxonomical
identification** *Rhabdocoela*

TAXONOMY

Kingdom Animalia

Phylum Platyhelminthes

Class Rhabdocoela

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape Rounded top

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

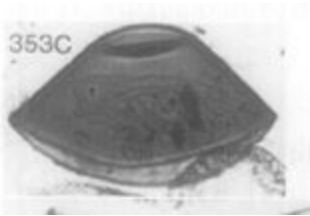
Other articles Garneau 1987; Montoya 2010

INTERPRETATION

Type 353 (mainly 353D) shows a pronounced maximum in the local zone C (I~ammelbeek phase). Specific identification of these microfossils is highly desirable, because Frey (1964) reports a restricted temperature range of some of the species

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	353	
Letter	C	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --



NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Garneau 1987; Montoya 2010

INTERPRETATION

Type 353 (mainly 353D) shows a pronounced maximum in the local zone C (I~ammelbeek phase). Specific identification of these microfossils is highly desirable, because Frey (1964) reports a restricted temperature range of some of the species

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 353

Letter D

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

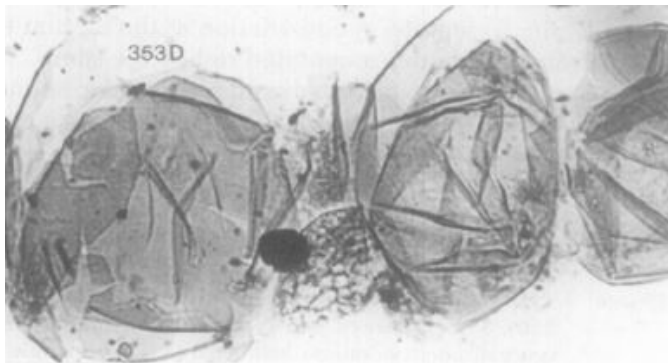
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape It is also saccate but torn apart into polygonal structures. Its morphology also suggests a cocoon of a representative of the Rhabdocoela

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Garneau 1987; Montoya 2010

INTERPRETATION

Type 353 (mainly 353D) shows a pronounced maximum in the local zone C (Hammelbeek phase). Specific identification of these microfossils is highly desirable, because Frey (1964) reports a restricted temperature range of some of the species

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 354

Letter --

Category Bryophyta?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

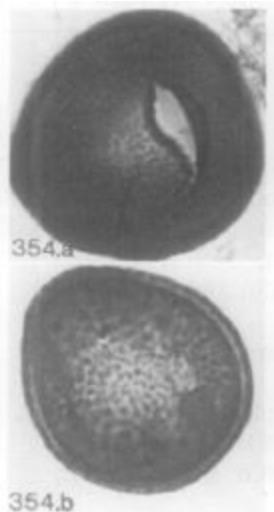
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 26--31 μm in diameter

Shape Flattened microfossil, circular in outline.

Wall/surface Rough, 1.5-2 μm thick

Apertures Often a fissure in the centre on one or on both sides

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

INTERPRETATION

These microfossils have only been found in zone D, the initial phase of the *Sphagnum* peat formation. For morphological reasons we expect that Type 354 represents spores of Bryophyta species (but not of *Sphagnum*), but no other mosses than *Sphagnum* have been observed in the macrofossil samples

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 356

Letter --

Category Algae? (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

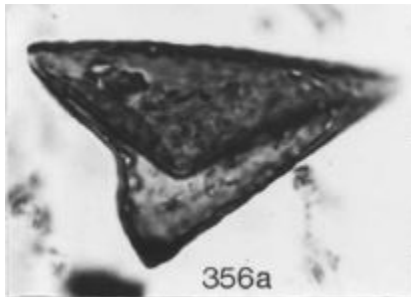
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 25--36 X 27--34 μm

Shape Square

Wall/surface Wall densely pitted with 0.7 μm wide pits.

Apertures --

Other Most of the spores broken along a preformed suture

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Bakker&Smeerdijk, 1981

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 357

Letter --

Category Fungi (teleutospores)

**Taxonomical
identification** *Puccinia*

TAXONOMY

Kingdom Fungi

Phylum Basidiomycota

Class Pucciniomycetes

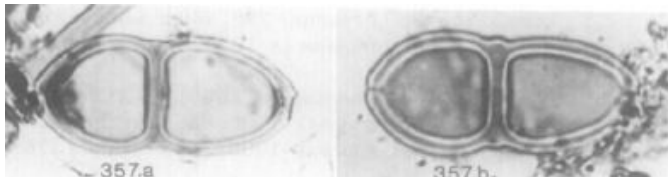
Order Pucciniales

Family Pucciniaceae

Gender *Puccinia*

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 34-36 X 15-19 μm

Shape Apical truncate ends

Wall/surface Wall relatively thick (1.5-2 μm)

Apertures At the ends small, 0.7 μm wide pores

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 358

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

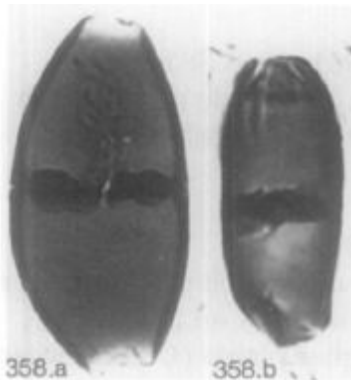
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 33--39 X 17--20 μm

Shape --

Wall/surface --

Apertures Monoseptate. Open at both ends; septum with a c. 0.7 μm wide pore, but mostly torn apart

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 359

Letter --

Category Fungi (spores)

Taxonomical identification *Brachysporium (ovovatum/bloxami/betulicola)*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

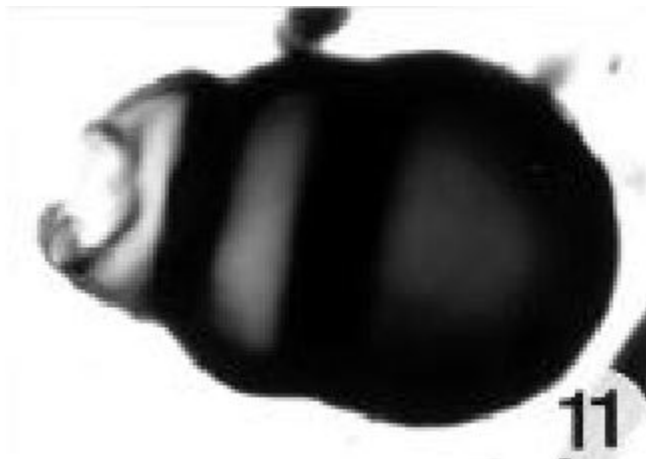
Order Trichosphaeriales

Family Trichosphaeriaceae

Gender *Brachysporium*

Species --

Image



DESCRIPTION

Colour Hyaline to pigmented

Dimensions (19--21--23(--40) × 9--11(--15) μm

Shape Mostly 2--3(--5)-septate. A constriction at the septum between the hyaline basal cell and the more pigmented rest of the spore. Top cell rounded, basal cell often elongate and Basal cell sometimes missing.

Wall/surface --

Apertures Basal cell provided with a pore, corresponding with the place of mycelium attachment. In each septum a pore of 0.3 μm wide

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

INTERPRETATION

Both *Brachysporium* species live on decaying wood of trees and shrubs, and *Bactrodesmium betulicola* occurs on *Betula* branches. The Type 359 spores occur in the *Betula* peat of zone F and show a maximum between samples 220 and 245

Other articles Carrión&Navarro, 2002; Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 360

Letter --

Category Fungi (spores)

Taxonomical identification *Brachysporium*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

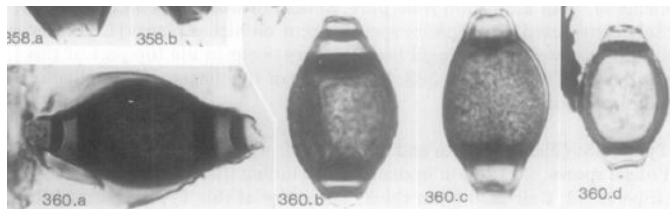
Order Trichosphaeriales

Family Trichosphaeriaceae

Gender *Brachysporium*

Species --

Image



DESCRIPTION

Colour Hyaline ends to strongly pigmented spore body

Dimensions 19--22 X 14--17.5 µm

Shape Sometimes provided with a hyaline "episporium"

Wall/surface Inner side of its wall granular

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

A genus of fungi occurring on rotten wood and bark (Ellis & Ellis, 1997)

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Barthelmes 2009

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 361

Letter --

Category Fungi (cells)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 10--15 μm in diameter

Shape Group of fungal cells (361.c), often fallen apart (361.a and 361.b) into polyhedral cells,

Wall/surface --

Apertures With a c. 0.5 μm wide pore in each plane

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Van der Wiel 1982

INTERPRETATION

The presence of Type 361 is restricted to local zone G where, by human action, sandy layers were deposited

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 364

Letter --

Category Fungi (basidiospores)

**Taxonomical
identification** *Thecaphora*

TAXONOMY

Kingdom Fungi

Phylum Basidiomycota

Class Ustilaginomycetes

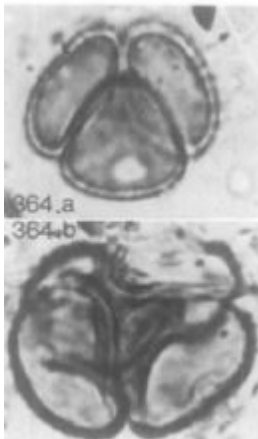
Order Ustilaginales

Family Glomosporiaceae

Gender *Thecaphora*

Species --

Image



DESCRIPTION

Colour --

Dimensions Each cell 10--13 μm in diameter

Shape Mostly occurring as groups of 3--6 cells

Wall/surface Small protuberances on the surface, densely distributed

Apertures With 2.5--3 μm wide pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

INTERPRETATION

Thecaphora species occur on higher plants (Leguminosae and Convolvulaceae). The fossil basidiospores occur in the top part of this section, mainly near sample 333. In this part of the diagram also pollen of Papillionaceae is present

Other articles Carrión&Navarro 2002

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 365

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

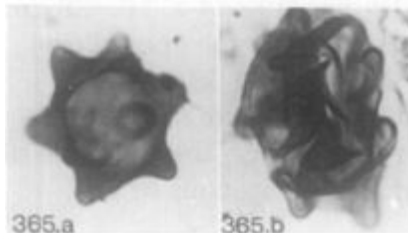
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 20-26 μm in diameter

Shape --

Wall/surface 3-6 μm long, rounded protuberances. Wall c. 0.5 μm thick

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Montoya 2010

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 366

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

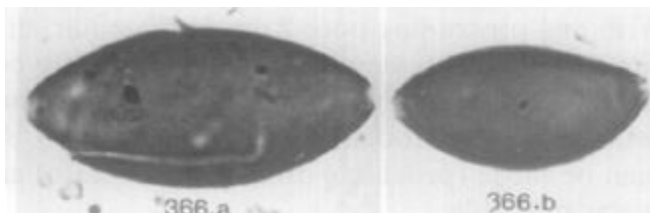
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 17-37 X 7.5-18 μm

Shape One-celled

Wall/surface Smooth

Apertures Pores 1-2.5 μm wide at both ends

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 367

Letter --

Category Fungi? (colonies of cells?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

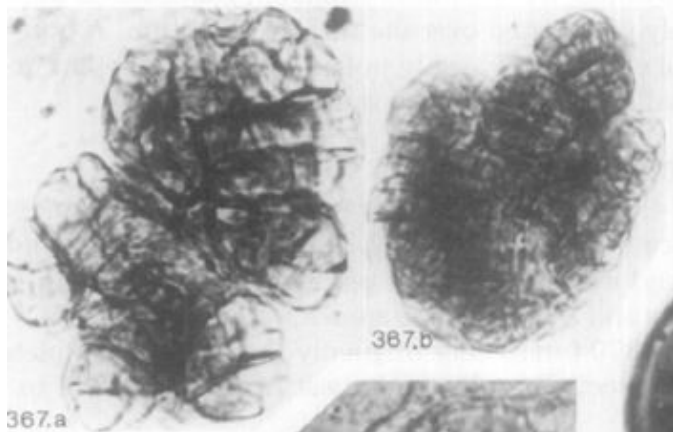
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Diameter of the cells c. $2 \times 2 \mu\text{m}$. Diameter of the colonies very variable, 30-60 X 20-35 μm

Shape --

Wall/surface --

Apertures --

Other --

Similar to Type 367 (Van Geel et al., 1981) has been named *Polyadosporites* following Jarzen and Elsik (1986). Regarding *Fusiformisporites* (Plate I; Elsik, 1980, 1983), we have not seen any published connection of this type to an extant fungal taxon. However, although in smaller size.

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Van Geel 1983; Carrión 1999; Carrión&Navarro 2002;

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 368

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Podospora*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

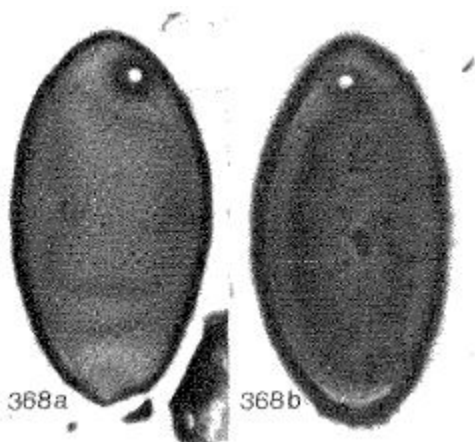
Order Sordariales

Family Lasiosphaeriaceae

Gender *Podospora*

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 29-63 mm x 16-40 mm

Shape Ellipsoidal. Basal end is bluntly conical

Wall/surface Smooth

Apertures One pore, 2 mm in diameter with annulus, protruding from directly below the apex.

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1981

Other articles López-Sáez 2000; Van Geel 2003; Aptroot 2006;
Feeser 2009; Montoya 2010

INTERPRETATION

Ascospores of the coprophilous *Podospora* type have been recorded in low frequencies in samples from archaeological sites where high densities of megafauna or humans were present (van Geel et al. 1981, 1983; Buurman et al. 1995). *Podospora* species are common, rather ubiquitous coprophilous fungi, with a preference for herbivore dung, cosmopolitan, with a preference for boreal regions (APTROOT, 2006)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 369

Letter --

Category Plantae (pollen?)

**Taxonomical
identification** *Lemna*

TAXONOMY

Kingdom Plantae

Phylum Magnoliophyta

Class Liliopsida

Order Alismatales

Family Araceae

Gender *Lemna*

Species --

Image

DESCRIPTION

Colour Hyaline

Dimensions 24-28 µm in diameter

Shape One-celles

Wall/surface 1-3 µm long spines, sparcely distributed over the surface. Wall thin

Apertures A pore was observed in some of the examples

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Present in zone G (dominant human influence on the local stand of vegetation)

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 370

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

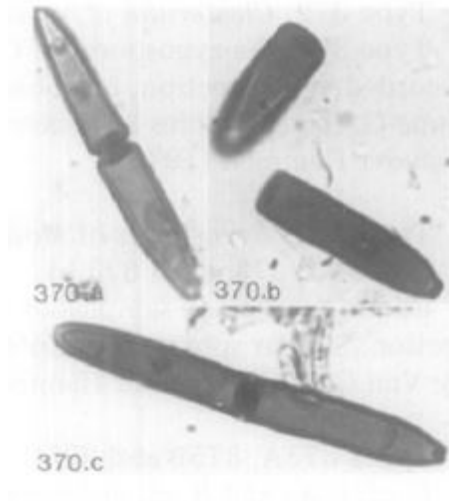
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 16-25 X 4.5-5 μm

Shape The narrow end of the spores rounded or truncate

Wall/surface --

Apertures The broad truncate ends with about 0.3 μm wide pores surrounded by an annulus

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

INTERPRETATION

This broad end was originally the place of attachment with another spore. These spores were mostly found detached. Possibly two Type 370 fungal cells originally formed one complete spore. Type 370 occurs in the section in the sandy peat from sample 344 to sample 371

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 371

Letter --

Category Algae (cells)

Taxonomical identification *Tetraedron minimum*

TAXONOMY

Kingdom Plantae

Phylum Chlorophyta

Class Chlorophyceae

Order Sphaeropleales

Family Hydrodictyaceae

Gender *Tetraëdron*

Species *minimum*

Image



DESCRIPTION

Colour --

Dimensions c. 12-15 × 13-17 µm, and c. 6µm thick

Shape Quadratic and cushion-shaped

Wall/surface At the tips of the lobes there are small, hollow protuberances, c. 0.3 µm long and in diameter. Cell surface covered with numerous small pits c. 0.4µm in diameter

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Van Geel 1981; Bakker&Van Smeerdijk 1982; Montoya 2010; Gauthier 2010;

INTERPRETATION

The individual cells were identified as *Tetraedron* cf. *T. minimum* as was earlier done by Van Geel et al. (1980/1981). According to the description of Prescott (1962), the size range is similar, but no protuberances on the lobes are reported, and Van Essen (1974) does not mention any sculptural features of this kind either. Streble and Krauter (1976), on the other hand, report the incidence of lobular extensions in this species. In the Ilperveld section, apart from individual cells, also groups of cells comprising 3--12 units were observed whose cells exhibited no morphological differences from Type 371. For our analyses such aggregates were included in the Type 371 scores, but this proved to be erroneous, because in the section "de Borchert" Type 371 has never been found in the form of aggregates (S.J.P. Bohncke, pers. comm.). The groups of Type 371 are now distinguished as Type 723, which possibly represents a coenobium formed by a closely related alga, or by Type 371 only under specific conditions. The levels in the Ilperveld section where Type 371 and Type 723 were found indicate eu- to mesotrophic conditions of open fresh water

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 372

Letter --

Category Algae (zygospores)

Taxonomical identification *Closterium rostratum*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

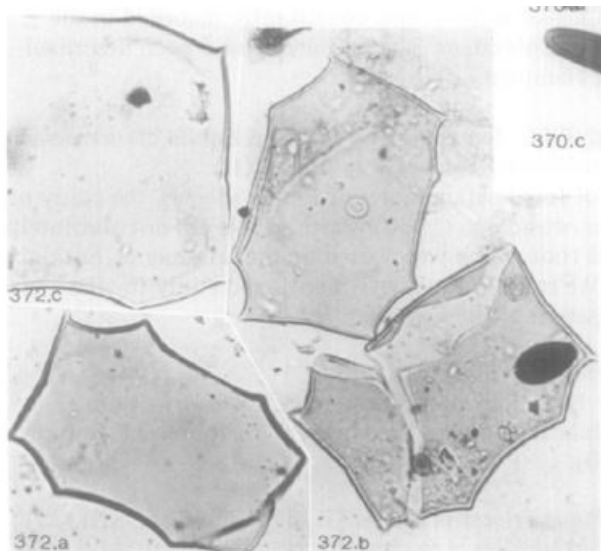
Order Desmidiales

Family Closteriaceae

Gender *Closterium*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Closterium cf. *rostratum* (Desmidiaceae) seems to prefer open water

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Kuhry 1985

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 373

Letter --

Category Algae (zygospores)

Taxonomical identification *Mougeotia laetevirens*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

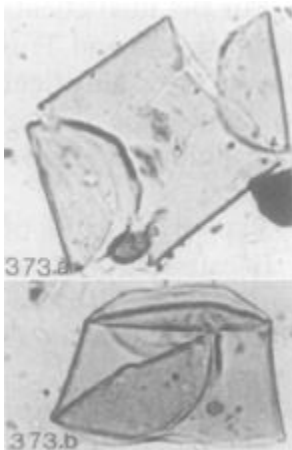
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species *laetevirens*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1982

Other articles Van der Wiel 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 375

Letter A

Category Plantae (female catkin scales of *Betula* cf.

Taxonomical identification *Betula verrucosa*

TAXONOMY

Kingdom Plantae

Phylum Magnoliophyta

Class Magnoliopsida

Order Fagales

Family Betulaceae

Gender *Betula*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

INTERPRETATION

For the identification of fossil catkin scales of *Betula* species, the study of Biarobrzaska and Truchanowicz6wna (1960) was used. We are not absolutely sure of our identifications (not which were based on measurements, but only on their shape and size). We refer to the above-mentioned study for the morphological characterisation of the species

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 376

Letter --

Category Plantae (fruits)

**Taxonomical
identification** *Betula sp.*

TAXONOMY

Kingdom Plantae

Phylum Magnoliophyta

Class Magnoliopsida

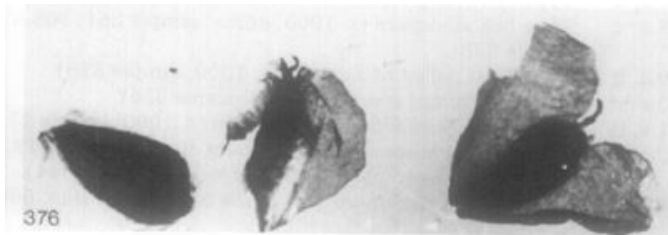
Order Fagales

Family Betulaceae

Gender *Betula*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

INTERPRETATION

Because of the rather bad state of preservation, no efforts were made to identify the *Betula* fruits with the study of Bia/obrzeska and Truchanowiczówna (1960)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 377

Letter --

Category Plantae (needles)

**Taxonomical
identification** *Pinus sylvestris*

TAXONOMY

Kingdom Plantae

Phylum Pinophyta

Class Pinopsida

Order Pinales

Family Pinaceae

Gender *Pinus*

Species *sylvestris*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

INTERPRETATION

The morphology of *Pinus* needles is so characteristic that there is no need for a detailed description. Even badly damaged needles are recognisable (cf. 377) because of the characteristic needle-epidermis with long rows of stomata

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 378

Letter --

Category Fungi (fruit body)

Taxonomical identification *Ophiostomaceae*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Ophiostomatales

Family Ophiostomaceae

Gender --

Species --

Image



DESCRIPTION

Colour Dark-coloured

Dimensions 200-230 µm across with a beak of 500-600 µm long and 28-33 µm thick

Shape Globose

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

INTERPRETATION

Asci and ascospores absent (not fossilised). We suppose that *Pinus sylvestris* standing along the depression was the host of this fungus (Ceratocystis?)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 379

Letter --

Category Plantae (catkin scales)

Taxonomical identification *Populus tremula*

TAXONOMY

Kingdom Plantae

Phylum Magnoliophyta

Class Magnoliopsida

Order Malpighiales

Family Salicaceae

Gender *Populus*

Species *tremula*

Image



DESCRIPTION

Colour --

Dimensions c. 0.5 cm in diameter, inclusive of the c. 10-14 appendages

Shape Fan-shaped

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1981

INTERPRETATION

The presence of catkin scales of *Populus tremula* at corresponding levels shows that complete catkins dropped into the bog and resulted in an over-representation of *Populus* pollen

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 380

Letter --

Category Plantae (male cone)

**Taxonomical
identification** *Pinus sylvestris*

TAXONOMY

Kingdom Plantae

Phylum Pinophyta

Class Pinopsida

Order Pinales

Family Pinaceae

Gender *Pinus*

Species *sylvestris*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

INTERPRETATION

Male cone of *Pinus sylvestris* with discernible anthers, often still filled with *Pinus* pollen and indicating an over-representation of the pollen type in the pollen diagram at corresponding levels

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 381

Letter --

Category Plantae (scale leaf)

Taxonomical identification *Pinus sylvestris*

TAXONOMY

Kingdom Plantae

Phylum Pinophyta

Class Pinopsida

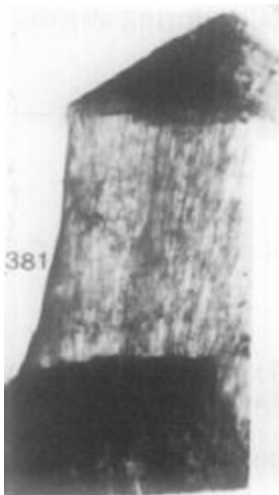
Order Pinales

Family Pinaceae

Gender *Pinus*

Species *sylvestris*

Image



DESCRIPTION

Colour --

Dimensions Length 0.5-1.0 cm; c. 0.2 cm broad at the base

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

INTERPRETATION

In combination with other *Pinus* macrofossils (Types 377, 380, 387), scale leaves indicate the local occurrence or at least the close proximity of former stands of *Pinus*

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 382

Letter --

Category Plantae (bud-scales)

**Taxonomical
identification** *Populus tremula*

TAXONOMY

Kingdom Plantae

Phylum Magnoliophyta

Class Magnoliopsida

Order Malpighiales

Family Salicaceae

Gender *Populus*

Species *tremula*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

INTERPRETATION

In levels corresponding with zone Vc NwD bud scales and even complete buds of *Populus tremula* were found. In conjunction with catkin-scales (Type 379) and high pollen percentages the buds indicate that *Populus* trees were growing around the depression of De Borchert during the Late Preboreal. The presence of buds of *Populus* is in agreement with other observations that during early spring *Populus* trees loose many of their buds, especially during stormy weather

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Hyaline
Number	307		
Letter	B		
Category	Animalia		
Taxonomical identification	--	Dimensions	14.6-16.5 µm in diameter
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Cylindrical, The cylindrical body consists of many fused rings
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	27-39 µm long hairy appendages; some specimens provided with a velum between the appendages
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

INTERPRETATION

Type 307B is apparently related with Type 307 (A), distinguished by Van Geel et al. (1981), but Type 307B bears much larger hairs and shows a slightly smaller diameter of the cylinder

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	332		
Letter	B		
Category	Algae (semicell)		
Taxonomical identification	<i>Cosmarium turpinii brebisson</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Charophyta	Shape	--
Class	Conjugatophyceae		
Order	Desmidiales		
Family	Desmidiaceae		
Gender	<i>Cosmarium</i>	Wall/surface	--
Species	<i>turpinii</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Van Geel 1989, Kramer 2010

INTERPRETATION

Cosmarium is known as a pioneer alga with rapid vegetative reproduction that prefers an environment with low pH-values (van Geel et al. 1989). The modern alkalinity of the lake indicates that Lake Naleng possesses a poor buffering capacity. Low pH values can be obtained where concentrations of free carbon dioxide are relatively high. High concentrations of CO₂ occur in cold-water bodies and at low photosynthetic activity. As there are only few other remains from photosynthetically active organisms found in the record, a comparably low pH value can be assumed for this period. According to its location on the negative part of the first PCA axis, *Cosmarium* is also weighted as an indicator of relatively dry and cold conditions

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 332

Letter C

Category Algae (semicell)

Taxonomical identification *Euastrum insulare*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

Order Desmidiales

Family Desmidiaceae

Gender *Euastrum*

Species *insulare*

Image

DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Van Geel 1989, Kramer 2010

INTERPRETATION

Cosmarium is known as a pioneer alga with rapid vegetative reproduction that prefers an environment with low pH-values (van Geel et al. 1989). The modern alkalinity of the lake indicates that Lake Naleng possesses a poor buffering capacity. Low pH values can be obtained where concentrations of free carbon dioxide are relatively high. High concentrations of CO₂ occur in cold-water bodies and at low photosynthetic activity. As there are only few other remains from photosynthetically active organisms found in the record, a comparably low pH value can be assumed for this period. According to its location on the negative part of the first PCA axis, *Cosmarium* is also weighted as an indicator of relatively dry and cold conditions

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	332		
Letter	D		
Category	Algae (semicell)		
Taxonomical identification	<i>Cosmarium sportella</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Charophyta	Shape	--
Class	Conjugatophyceae		
Order	Desmidiales		
Family	Desmidiaceae		
Gender	<i>Cosmarium</i>	Wall/surface	--
Species	<i>sportella</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Van Geel 1989, Kramer 2010

INTERPRETATION

It is possibly a small form of *C. turpinii* var. *eximium*. The desmidiaceous semicells only occur in the lake sediment of Younger Dryas age; their presence indicates meso- to eutrophic conditions (cf. Coesel, 1979a, b)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	332		
Letter	E		
Category	Algae (semicell)		
Taxonomical identification	<i>Cosmarium controversum</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Charophyta	Shape	--
Class	Conjugatophyceae		
Order	Desmidiales		
Family	Desmidiaceae		
Gender	<i>Cosmarium</i>	Wall/surface	--
Species			
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Van Geel 1989, Kramer 2010

INTERPRETATION

It is possibly a small form of *C. turpinii* var. *eximium*. The desmidiaceous semicells only occur in the lake sediment of Younger Dryas age; their presence indicates meso- to eutrophic conditions (cf. Coesel, 1979a, b)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	332		
Letter	F		
Category	Algae (semicell)		
Taxonomical identification	<i>Cosmarium botrytis</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Charophyta	Shape	--
Class	Conjugatophyceae		
Order	Desmidiales		
Family	Desmidiaceae		
Gender	<i>Cosmarium</i>	Wall/surface	--
Species	<i>botrytis</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles Van Geel 1989, Kramer 2010

INTERPRETATION

these algae are pioneers with a relatively fast vegetative reproduction. In the section Usselo they occur in the lower part of local zone A2, co-occurring with the first maxima of other pioneer algae, viz., the *Gloeotrichia* type and Characeae

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 341

Letter B

Category Algae (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 70-90 μm in diameter

Shape --

Wall/surface Wall 1.5-2 μm thick with an irregular reticuloid pattern of ridges on the surface

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

INTERPRETATION

For the same reasons as given in the case of Type 341A, this Type can also be a zygnemataceous or oedogoniaceous spore. From the course of the curves one can conclude that there must be a small difference in the ecological amplitudes of Types 341A and 341B

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	375		
Letter	B		
Category	Plantae (female catkin scales of Betula cf.		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

INTERPRETATION

For the identification of fossil catkin scales of *Betula* species, the study of Biarobrzeska and Truchanowicz6wna (1960) was used. We are not absolutely sure of our identifications (not which were based on measurements, but only on their shape and size). We refer to the above-mentioned study for the morphological characterisation of the species

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	375		
Letter	C		
Category	Plantae (female catkin scales of Betula cf		
Taxonomical identification	<i>Betula pubescens</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Magnoliophyta	Shape	--
Class	Magnoliopsida		
Order	Fagales		
Family	Betulaceae		
Gender	<i>Betula</i>	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

INTERPRETATION

For the identification of fossil catkin scales of *Betula* species, the study of Biarobrzeska and Truchanowicz6wna (1960) was used. We are not absolutely sure of our identifications (not which were based on measurements, but only on their shape and size). We refer to the above-mentioned study for the morphological characterisation of the species

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 383

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

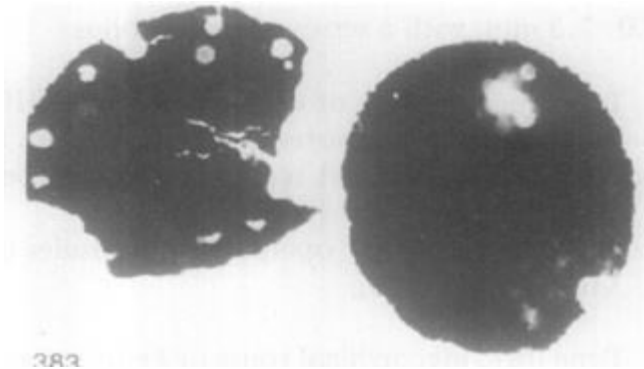
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Greatest diameter c. 1.0-1.3 μm

Shape Flat macrofossil, circular or slightly oblong in outline

Wall/surface With a series of perforations

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	384		
Letter	--		
Category	Algae (oospore)		
Taxonomical identification	<i>Characeae</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae	Shape	--
Phylum	Charophyta		
Class	Charophyceae		
Order	Charales		
Family	Characeae		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Descriptions of oospores are given by Horn af Rantzien (1963). The oospores in the Borchert section could only be identified to the genus

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 385

Letter --

Category Plantae

**Taxonomical
identification** *Sphagnum*

TAXONOMY

Kingdom Plantae

Phylum Bryophyta

Class Sphagnopsida

Order Sphagnales

Family Sphagnaceae

Gender *Sphagnum*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 386

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Podospora*

TAXONOMY

Kingdom --

Phylum --

Class --

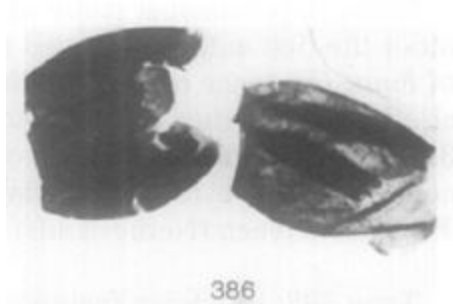
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 39-48x16-23 μm in size

Shape One-celled, ellipsoidal

Wall/surface Smooth

Apertures With one protruding pore 2 μm in diameter, directly below the apex. The pore is surrounded by an annulus and the basal end is bluntly conical

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles Van Geel 2003

INTERPRETATION

Spores of the *Podospora*-type (coprophilous Sordariales; see Ref. [29]) are of regular occurrence in samples from archaeological sites [3,13,14]

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	387		
Letter	--		
Category	Plantae (mycorrhizal roots)		
Taxonomical identification	<i>Pinus sylvestris</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Pinophyta	Shape	--
Class	Pinopsida		
Order	Pinales		
Family	Pinaceae		
Gender	<i>Pinus</i>	Wall/surface	--
Species	<i>sylvestris</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

INTERPRETATION

During a provisional study of a Holocene section from the Wietmarscher Moor the first author observed that a relatively short phase with local stands of *Pinus* (presence of needles, maximum of *Pinus* pollen) was characterised also by the presence of coralloid structures of bluntly ending roots (Type 387). The supposition that mycorrhizal roots of *Pinus* were concerned was confirmed, since roots of living *Pinus* trees from the raised bog Fochteloo~rveen (Netherlands) show a similar morphology

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	388		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	Greatest diameter c. 1 µm
TAXONOMY			
Kingdom	--	Shape	Flat structure
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Possibly a suberized leaf base, or a leaf scar

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	389		
Letter	B		
Category	Plantae (bud-scales)		
Taxonomical identification	<i>Betula</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Magnoliophyta	Shape	--
Class	Magnoliopsida		
Order	Fagales		
Family	Betulaceae		
Gender	<i>Betula</i>	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 390

Letter A

Category Animalia (statoblast)

Taxonomical identification *Plumatella repens*

TAXONOMY

Kingdom Animalia

Phylum Ectoprocta

Class Phylactolaemata

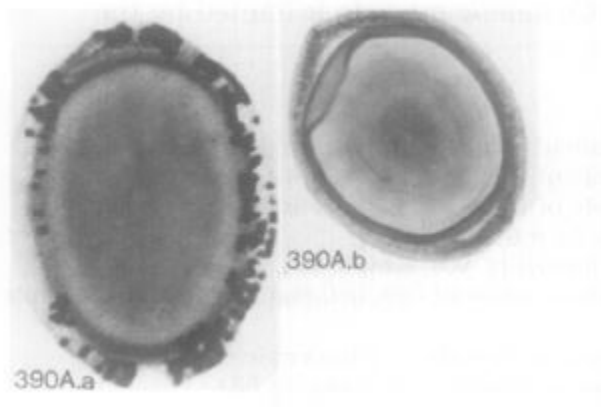
Order Plumatellida

Family Plumatellidae

Gender *Plumatella*

Species *repens*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 391

Letter --

Category Plantae (epidermis with stomata of Pinus

Taxonomical identification *Pinus sylvestris*

TAXONOMY

Kingdom Plantae

Phylum Pinophyta

Class Pinopsida

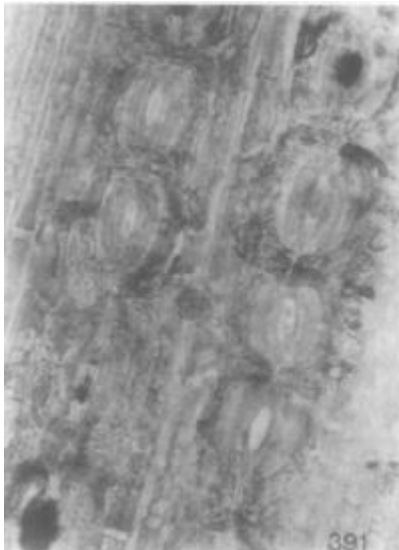
Order Pinales

Family Pinaceae

Gender *Pinus*

Species *sylvestris*

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

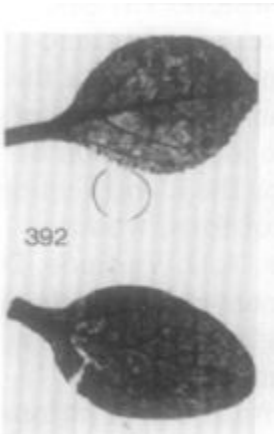
IDENTIFICATION

Acronym HdV
Number 392
Letter --
Category Plantae? (leaves)
Taxonomical identification --

TAXONOMY

Kingdom --
Phylum --
Class --
Order --
Family --
Gender --
Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV
Number 393
Letter --
Category Plantae (leaves)
Taxonomical identification --

TAXONOMY

Kingdom --
Phylum --
Class --
Order --
Family --
Gender --
Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	394		
Letter	--		
Category	Plantae? (leaves)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

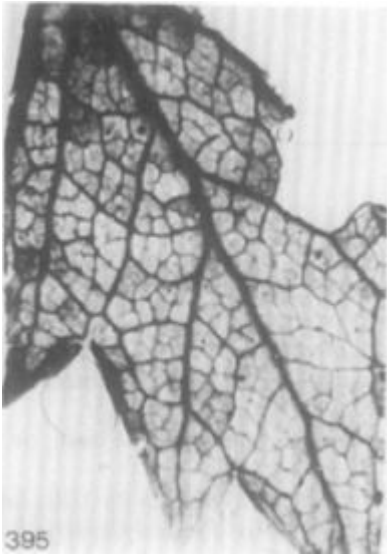
IDENTIFICATION

Acronym HdV
Number 395
Letter --
Category Plantae (leaves)
Taxonomical identification --

TAXONOMY

Kingdom --
Phylum --
Class --
Order --
Family --
Gender --
Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 396

Letter --

Category Animalia

**Taxonomical
identification** *Acari, Oribatei*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Acari

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to HdV-36

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input checked="" type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Van Geel 1981 refers to Type 36

BIBLIOGRAPHY

First published in Van Geel 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 397

Letter --

Category Animalia (mandible)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

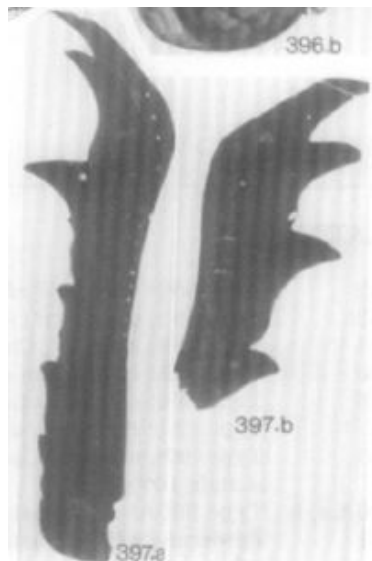
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	398		
Letter	A		
Category	Plantae (bud-scales)		
Taxonomical identification	<i>Betula nana</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Magnoliophyta	Shape	--
Class	Magnoliopsida		
Order	Fagales		
Family	Betulaceae		
Gender	<i>Betula</i>	Wall/surface	--
Species	<i>nana</i>		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	399		
Letter	--		
Category	Plantae (seeds)		
Taxonomical identification	<i>Juncus</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae	Shape	--
Phylum	Magnoliophyta		
Class	Liliopsida		
Order	Poales		
Family	Juncaceae	Wall/surface	--
Gender	<i>Juncus</i>		
Species	--	Apertures	--
Image			
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	400		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	401		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	402		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	403		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	404		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	405		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Monoseptate
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	406		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	5-septate
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	407		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	408		
Letter	--		
Category	Fungi (conidia)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	409		
Letter	--		
Category	Unknown (cluster of cells)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	410		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	411		
Letter	--		
Category	Fungi (hypha)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	412		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	413		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	425		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	Diameter: 8x9 µm
TAXONOMY			
Kingdom	--	Shape	Round to ovoid
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	c. 1 µm thick, no smooth surface
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ahrens 1996

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	426		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.54x44µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Round to ellipsoid
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Not smooth, the wall varies in thickness, 2-4µm
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ahrens 1996

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	427		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	c.22x8µm
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	c. 1µm thick
Species	--		
Image		Apertures	2-septate, with a hole in the flat endings, septum c. 3µm
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ahrens 1996

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Hyaline
Number	414		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.129 x 17 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Elongated, with and a constriction at the base
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Faintly striate surface
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

INTERPRETATION

It was found in low frequencies in the mesotrophic pond phase (zone C) at the Beauval site. Substrate was predominantly gyttja. It could represent a leaf-spine of an undetermined aquatic macrophyte

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 415

Letter --

Category Algae (cysts)

Taxonomical identification *Chrysophyceae stomatocysts*

TAXONOMY

Kingdom Protista

Phylum Ochrophyta

Class Chrysophyceae

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

INTERPRETATION

Siliceous cysts of these freshwater algae are abundantly found in the lower sections of both the Beauval and Gypsumville cores, associated especially with sandy gyttja and sandy clay substrates. The use of this group of fossils as indicators of past lake water chemistry is discussed in Stool (1990)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	416		
Letter	--		
Category	Diatom (frustules)		
Taxonomical identification	<i>Diatomeae</i>	Dimensions	--
TAXONOMY			
Kingdom	--	Shape	--
Phylum	Ochrophyta		
Class	Bacillariophyceae		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

INTERPRETATION

A rich fossil assemblage of diatoms was found in the lower part of the Beauval core, especially local phase B corresponding to eutrophic open water with sandy gyttja substrate. Large taxa in a preliminary survey included: *Cymbella* cf. *cuspidata*, *C. lanceolata*, *Denticula* cf. *tenuis*, *Gomphonema constrictum*, *Gomphonema* sp., *Eunotia* sp., *Navicula bacillum*, *N. cuspidata*, *N. pupila*, *N. cf. radiosa*, *Neidium iridus*, *N. productum*, *Pinnularia* spp., *Staroneis acuta*, *S. phoenicentrum* and *Synedra ulna*. Most of these taxa are either benthic or epiphytic. A few diatoms were also encountered in the lower strata of the Gypsumville core. The use of this group of fossils as indicators of past lake water chemistry is discussed in Smol (1990).

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	417		
Letter	--		
Category	Algae (spores)		
Taxonomical identification	<i>Spirogyra</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Charophyta	Shape	--
Class	Conjugatophyceae		
Order	Zygnematales		
Family	Zygnemataceae		
Gender	<i>Spirogyra</i>	Wall/surface	Psilate, reticulate, striate
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

INTERPRETATION

It is a heterogeneous group that indicates stagnant, shallow, open water, at least during the spring season. Similar Types are described in Pals et al. (1980; Types 130 and 132), and Van Geel et al. (1989; Types 210 to 212). Other reference: Garneau (1996)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Hyaline
Number	418		
Letter	--		
Category	Algae (zygospores)		
Taxonomical identification	<i>Mougeotia</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Charophyta	Shape	--
Class	Conjugatophyceae		
Order	Zygnematales		
Family	Zygnemataceae		
Gender	<i>Mougeotia</i>	Wall/surface	Surfaces smooth, pitted or with an irregular pattern of ridges
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

INTERPRETATION

These algal microfossils found in low quantities in the lower portions of both the Beauval and Gypsumville cores are indicative of stagnant, shallow, open water, at least during the spring season. Similar Types are described in Pals et al. (1980; Types 133 to 136), and Van Geel et al. (1981; Type 313)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Hyaline
Number	419		
Letter	--		
Category	Algae (spores)		
Taxonomical identification	<i>Zygnema</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Charophyta	Shape	Spheroidal
Class	Zygnematophyceae		
Order	Zygnematales		
Family	Zygnemataceae		
Gender	<i>Zygnema</i>	Wall/surface	Pitted surfaces
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

INTERPRETATION

These algal spores are indicative of stagnant, shallow waters. A singular occurrence of this Type in zone E of the Beauval core, just above a wood layer is explained by the fact that a fallen tree trunk caused an in situ depression in the peat surface where water could accumulate at least during springtime. Similar Types are described in Van Geel (1978; Types 58 and 62), and Van Geel et al. (1981; Type 314)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	420		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	16-18 x 10-11 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoidal, with a truncated base c. 5 µm in diameter
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Apical pore c.1 µm wide
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

These spores were probably produced by a representative of the Sordariaceae. They are found in the lower half of the Beauval core, corresponding to eutrophic to mesotrophic conditions

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Brown
Number	421		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	27-39× 14-16 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	2-septate, sometimes monoseptate or 3-septate, each septum and the basal cell with a pore c. 1 µm wide
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This fungal Type is most prominent at the transition from mesotrophic to oligotrophic conditions at Beauval

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Brown
Number	422		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	12-17 x 7-8 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Bean-shaped
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This fungal Type is most prominent in the ombrotrophic zones E and F at Beauval and the ombrotrophic zone D at Gypsumville

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Pale brown
Number	423		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	42-47 x 12-13 µm
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Walls thinning towards the ends and sometimes corroded
Species	--		
Image		Apertures	3-septate spores, with a pore in each septum and at both ends
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 424

Letter --

Category Sponge (spicules)

Taxonomical identification *Spongillidae*

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to Spicules similar to Type 424 were described as Type 220 in Van Geel et al. (1989)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

INTERPRETATION

Spicules of freshwater sponges are abundant in zones B and C at the Beauval site and zones O and A at the Gypsumville site, corresponding with the presence of eutrophic to mesotrophic open waters. In the Beauval core, spicules were differentiated into four groups. See also Harrison and Warner (1986), and Harrison (1990)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 390

Letter B

Category Animalia

**Taxonomical
identification** *Cristatella mucedo*

TAXONOMY

Kingdom Animalia

Phylum Bryozoa

Class Phylactolaemata

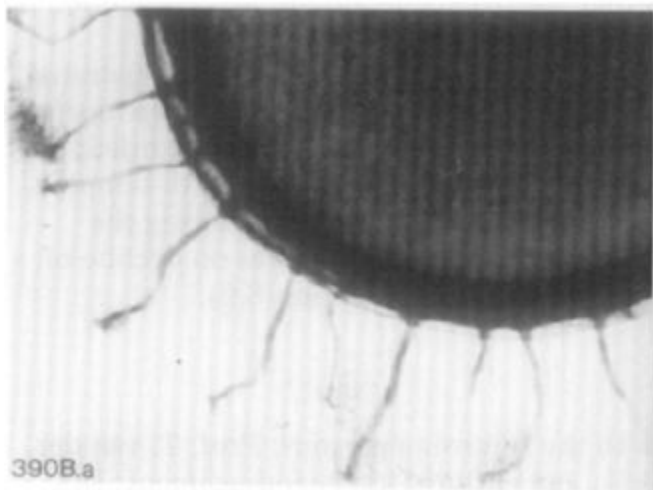
Order --

Family Cristallidae

Gender *Cristatella*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

INTERPRETATION

In northern Europe the range of *Cristatella mucedo* is limited by the northern timber-line (Lacourt, 1968). Its presence during the Rammelbeek phase is an additional indication that the decline of *Betula* was not caused by a decline of the mean July temperature

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 390

Letter C

Category Animalia

Taxonomical identification *Hyalinella punctata*

TAXONOMY

Kingdom Animalia

Phylum Bryozoa

Class Phlactolaemata

Order Plumatellida

Family Plumatellidae

Gender *Hyalinella*

Species --

Image

DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1980

Other articles --

INTERPRETATION

Present in zone B and more frequently found in zone C (Drepanocladus peat formed during the Rammelbeek phase). Not consistently recorded; only in "even" sample numbers. *Hyalinella punctata* lives in water with temperatures ranging from 18 to 25°C (Lacourt, 1968). Its presence during the Rammelbeek phase is an additional indication that there was no decline of the mean July temperature during that period

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 461

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown to black

Dimensions 25-26 X 21- 22 μm

Shape Ellipsoidal, one-celled

Wall/surface --

Apertures With a slightly protruding apical pore about 1.5 μm wide.

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 461 is restricted to the humic sand layer at the base of the section and is especially found in subzone Ia

BIBLIOGRAPHY

First published in Kuhry 1985

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 462

Letter --

Category Fungi (spores)

Taxonomical identification *Brachysporium phragmoconidia*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

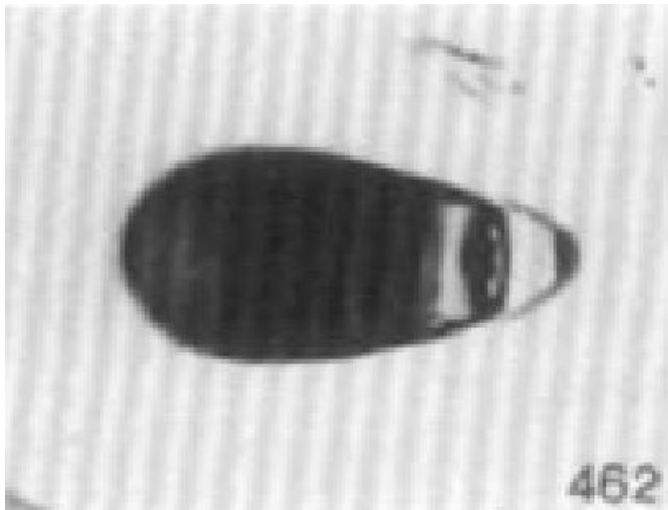
Order Trichosphaeriales

Family Trichosphaeriaceae

Gender *Brachysporium*

Species --

Image



DESCRIPTION

Colour Top cell brown to dark brown, basal cell hyaline

Dimensions 25-28 μm long and in the apical cell 13 μm broad

Shape --

Wall/surface --

Apertures 3-septate, provided with a pore. Septa with a pore $<1\mu\text{m}$

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1985

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 463

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

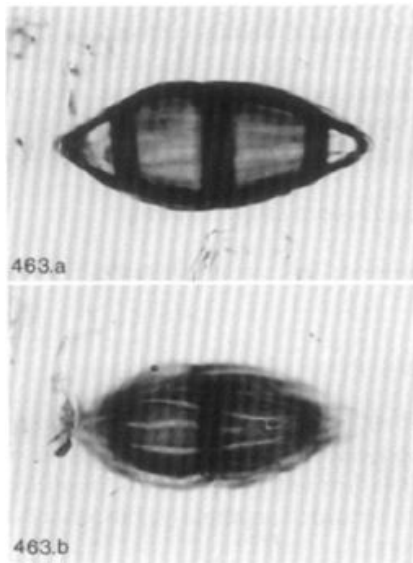
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 41-48 X 18-19 μm

Shape Terminal cells with slightly protruding, sharp tips.

Wall/surface With about 18 longitudinal grooves not extending over the whole spore length

Apertures 3-septate. In each septum a pore $<1\mu\text{m}$ wide

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Prof. W. Gams (personal communication, 1984) suggested that it could be a *Stuartella* species

BIBLIOGRAPHY

First published in Kuhry 1985

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 464

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions 32-38 μm in diameter

Shape Globose

Wall/surface 2.5-3.5 μm long protuberances interconnected by reticulate ridges forming meshes of 3-5 μm

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 464 is restricted to the humic sand layer and is especially found at the beginning of subzone Ib

BIBLIOGRAPHY

First published in Kuhry 1985

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 465

Letter --

Category Fungi (chlamydospores?)

Taxonomical identification *Trichocladium opacum*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

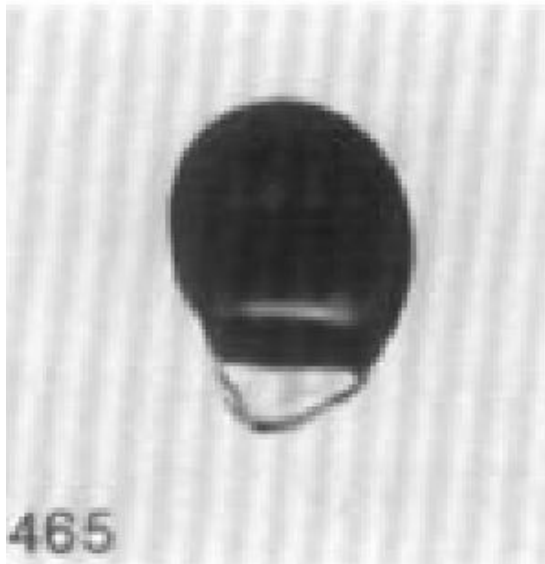
Order Sordariales

Family Chaetomiaceae

Gender *Trichocladium*

Species *opacum*

Image



DESCRIPTION

Colour Top cells dark brown to black, basal cell hyaline

Dimensions 22-28 µm long, 13-17 µm broad in the apical cell.

Shape Basal cell with a truncate end corresponding with the place of mycelial attachment.

Wall/surface --

Apertures 2-septate, sometimes 3-4-septate. Septa with a <1µm wide pore

Other --

Similar to The latter is broader than in Type 11

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Kuhry 1985

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 466

Letter --

Category Fungi (ascospores)

Taxonomical identification *Podospora/Zopfiella*

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 29 µm X 13-15 pm

Shape Elongated, asymmetrical, convex, with a truncate tip about 5-6 µm wide.

Wall/surface --

Apertures The other end acute with an apical pore of c. 1.5 µm in diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Representatives of the sordariaceous genera *Podospora* and *Zopfiella* are coprophilous

BIBLIOGRAPHY

First published in Kuhry 1985

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 470

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Light orange to brown

Dimensions 83-40x29-43µm

Shape Spindle

Wall/surface Psilate

Apertures At one side a protruding pore of 3-4 µm diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Haaster 1984

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 471

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Orange-brown

Dimensions 57-62x12-15 µm

Shape Spindle, the last segment is more open and lighter coloured

Wall/surface Sometimes granulate

Apertures With at both ends 1 or 2 septa

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Haaster 1984

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	472		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in --

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Light yellow
Number	473		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	82-88 µm
TAXONOMY			
Kingdom	--	Shape	Globose
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Exist of folded and plit layers
Species	----		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Haaster 1984

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 480

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

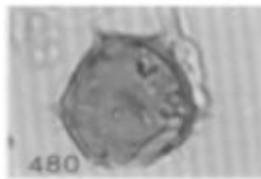
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 16.5-13.5 μm in diameter

Shape More or less isodiametric microfossil

Wall/surface c. 8-13 appendages with a length of 3-7 μm

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Brinkkemper 1987

Other articles --

INTERPRETATION

Type 480 is scarcely found in zones I - III and V, so it is likely to represent an aquatic taxon, but the presence of permanently open water in zone IV is avoided

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 481

Letter --

Category Animalia (Arthropoda?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 550-630 µm in length

Shape Macro-fossil with a labium-like appearance, showing one middletooth and four paired side-teeth, the second and the third ones fused

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Brinkkemper 1987

INTERPRETATION

This type occurs in zones II and IV, so it is likely to be a remnant of an as yet unidentified aquatic arthropod

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 483

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

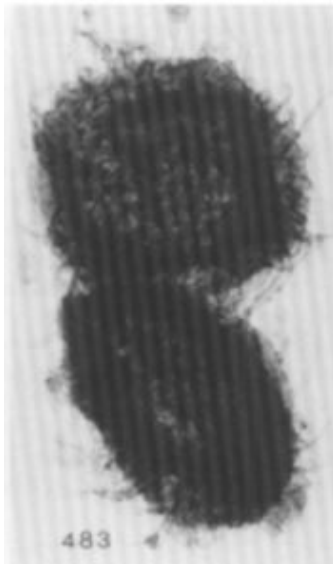
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 200-250 µm long

Shape Slightly ellipsoidal

Wall/surface Massive appendages over the whole surface, up to 60 µm in length

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Brinkkemper 1987

Other articles --

INTERPRETATION

Two or three of these macrofossils attached to each other were found apart from single ones. This type was found in zones II-IV, so probably it can not occur in an environment which is very poor in nitrogen components. Its occurrence is correlated with the presence of *Bryozoa* and Chironomidae, so it is likely to represent an aquatic taxon

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 484

Letter --

Category Animalia (mandible)

**Taxonomical
identification** *Trichoptera larvae*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Insecta

Order Trichoptera

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape Dark hinge-like appendage and two teeth

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Brinkkemper 1987

Other articles --

INTERPRETATION

Trichoptera larvae occur mostly in water, but since no further identification is available, no further ecological information could be obtained. These mandibles were found in zones III and IV, which represent aquatic conditions

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 486

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

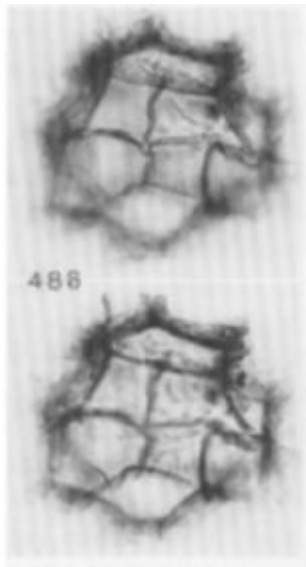
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 180-260 μm in diameter

Shape Globose

Wall/surface Ridges with a height of about 50 μm are present all over the fossil

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This occurrence shows no distinct correlation with an environmental factor

BIBLIOGRAPHY

First published in Brinkkemper 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 487

Letter --

Category Animalia

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

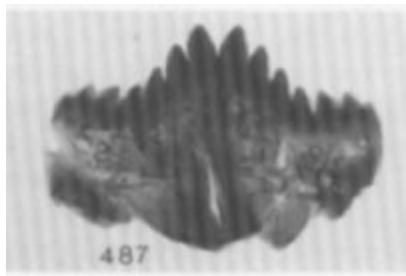
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 375-500 µm long

Shape Labium-like macrofossil, showing seven pairs of teeth

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Brinkkemper 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 488

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

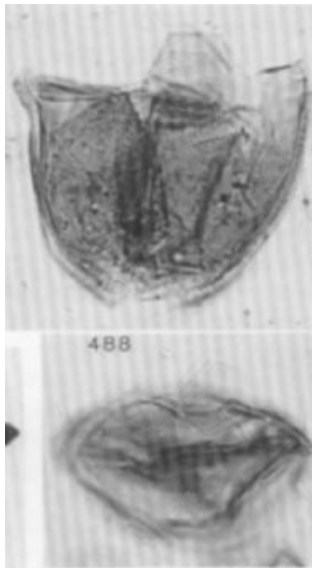
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 49-68 μm

Shape Globose. The multi-layered wall breaks up in regular hexagonal pieces

Wall/surface Scabrate

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Brinkkemper 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 489

Letter --

Category Animalia

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

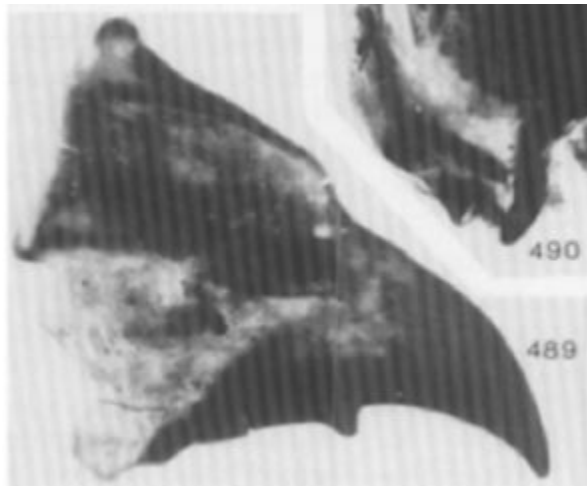
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 750-900 µm

Shape Mandible-like remnant with a knob-formed, hinge-like projection and two teeth

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It shows a distinct correlation with the bryozoan *Hyalinella punctata*, so it is likely to represent an aquatic taxon

BIBLIOGRAPHY

First published in Brinkkemper 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 490

Letter --

Category Animalia

**Taxonomical
identification** *Arthropoda*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class --

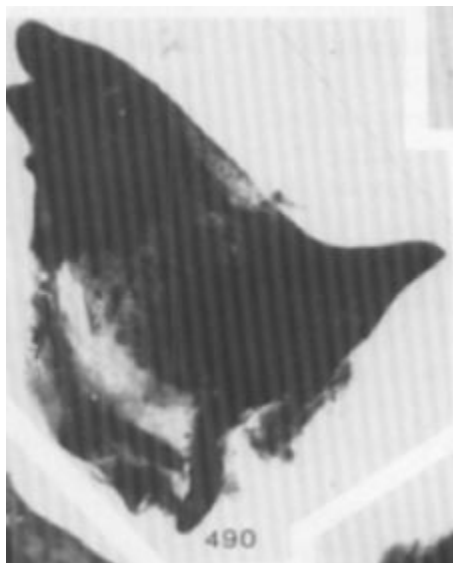
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions The size of this type is 385-560 μm

Shape More or less triangular arthropod-remnant with a bowl-shaped hinge-point. Four obtuse teeth present, three increasing in size, the fourth much smaller than the third. On the third angle is sharply pointed projection is present

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

This type is found in zones III and IV, it seems to be an aquatic taxon

BIBLIOGRAPHY

First published in Brinkkemper 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 491

Letter --

Category Animalia

**Taxonomical
identification** *Insecta*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Insecta

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 315-505 µm

Shape Five teeth are present, the one in the middle is the largest, sizes decrease regularly. An ellipsoidal open part of 145- 245 x 84-126 µm is present in the middle of this macrofossil

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It shows an aquatic preference

BIBLIOGRAPHY

First published in Brinkkemper 1987

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 492

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Hyaline

Dimensions 24 µm in diameter

Shape Globose

Wall/surface Evenly distributed protuberances, c. 2 µm apart. The solid protuberances are more or less circular at the bottom and 3.7-4.4 µm in diameter, and 3 µm high with a rounded top

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Smeerdijk 1989

INTERPRETATION

Type 492 is rather rare in the present section and has mainly been observed in strongly decomposed peats (in zones A and C)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 493

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

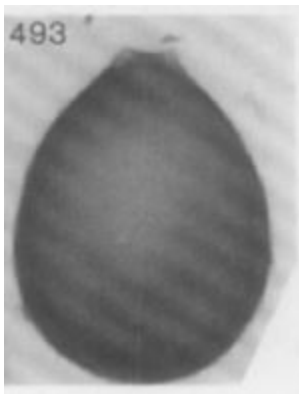
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions 35-39 x 26-29 μm

Shape Broadly pear-shaped,

Wall/surface Smooth, Wall c. 2 μm thick

Apertures A slightly protruding pore at the apical side, 5-6 μm in outer diameter, c. 2 μm inner diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Smeerdijk 1989

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 494

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

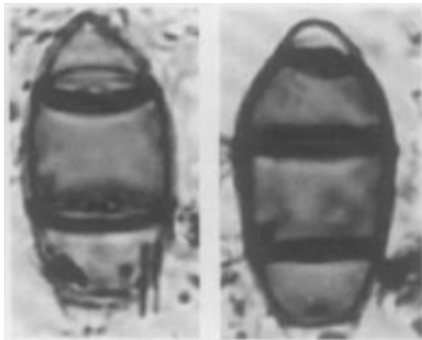
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour The central cell, and often the two bordering cells are brown. If present, the top cells are hyaline

Dimensions 24-33 μm x 14-18 μm

Shape The three-celled form is the most common. The size of the cells decreases from the middle to the tops

Wall/surface --

Apertures 2-4 septate. The septa of the central cell with a pore of c. 1.2 μm .

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Smeerdijk 1989

INTERPRETATION

Type 494 only occurs in rather large amounts of subzone B1, where roots of monocots (cf. *Molinia*) and *Molinia* epidermal remains are found. Type 494 is thought to represent a fungus associated with *Molinia* tussocks

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 495

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

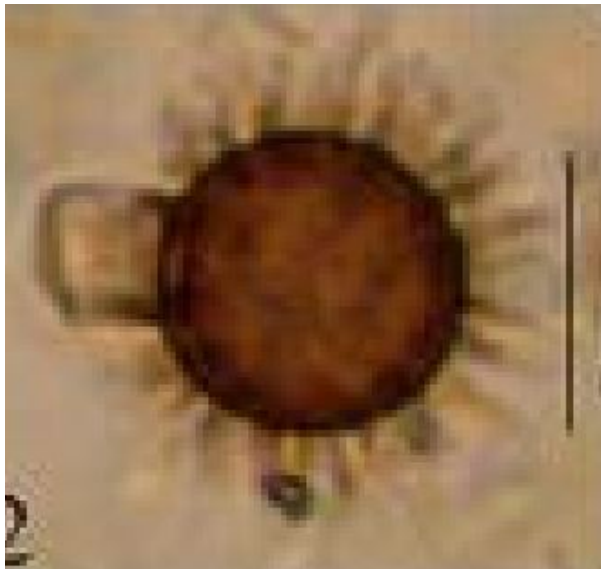
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 6-10 μm in diameter

Shape Globose. Around the pore a hyaline raised cell (3 μm wide), open at the outside

Wall/surface Evenly distributed, 1 μm long spines, the latter c. 0.6 μm apart

Apertures One large pore c. 2-3 μm , with an annular thickening

Other Mostly occurring solely, sometimes in small clusters

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

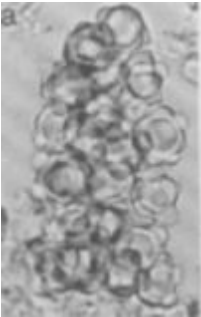
First published in Van Smeerdijk 1985

INTERPRETATION

Type 495 is only found in appreciable numbers in subzone B1 and in the top of zone C, and seems to be associated with epidermal remains of Molinia

Other articles Van Smeerdijk 1989, Montoya 2010

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	496		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	14-16 µm in diameter. The solid protuberances, are very close at their circular base 6 µm diameter and 2-3 µm high with a rounded top
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Evenly distributed protuberances
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Smeerdijk 1989

Other articles --

INTERPRETATION

Type 496 is only found in rather large amounts in subzone B1, where roots of monocots (cf. *Molinia*) and *Molinia* epidermal remains are found. Type 496 is thought to be a fungus associated with *Molinia* tussocks. These fungal spores had earlier been observed in the section Assendelft O/R (H.J.L. Witte, pers. commun.)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 497

Letter --

Category Algae (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

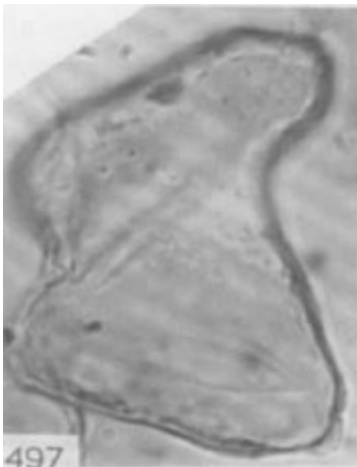
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 37-47 x 32-39 μm

Shape Tetragonal

Wall/surface Wall densely pitted, pits c. 0.7 μm wide and 1.5-3 μm apart. Wall 1-1.3 μm thick, thickened (2 μm) at the corners

Apertures --

Other --

Similar to These algal spores are rather similar to the Type 356 spores described by Van Geel et al. (1980, 1981)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Smeerdijk 1989

INTERPRETATION

Type 497 occurs in subzones B1 and B2, and particular at the transition of these subzones,co-occurring with fruits of *Rhynchospora alba*.This type 497 is indicative of wetter local conditions in the peat

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 498

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

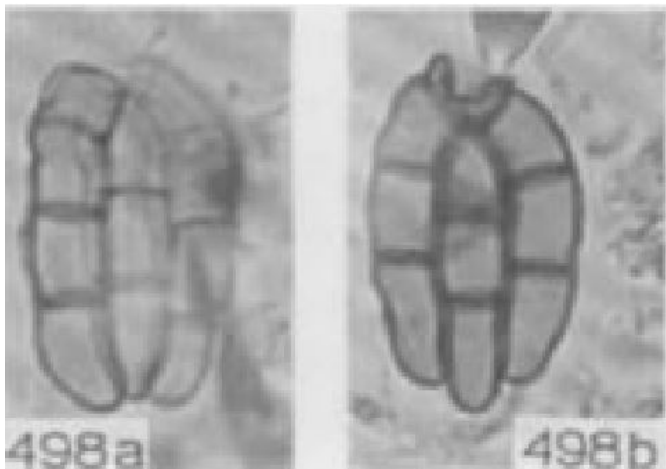
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 26 x 15 μm ; cells 3-4 x 5.5-8 μm . Rows of more or less the same length, up to 25 μm long. Cap cell of the same size as the other cells

Shape Conidia, flattened in one plane

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Smeerdijk 1985

Other articles Van Smeerdijk 1989

INTERPRETATION

This type of coniditun occurs in the genus *Dictyosporium* of the dematiaceous *Hyphomycetes* (Ellis, 1971), but too few conidia became available to enable a reliable identification. *Dictyosporium* species occur on dead and decaying wood and dead herbaceous stems. In the present section Type 498 is not frequently found, and only in the raised bog peat

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 501

Letter --

Category Fungi (spores)

Taxonomical identification *Zopfiella lundqvisti*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

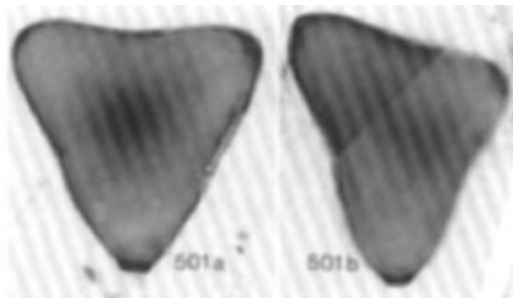
Order Sordariales

Family Lasiosphaeriaceae

Gender *Zopfiella*

Species --

Image



DESCRIPTION

Colour --

Dimensions Diameter c. 37 µm

Shape Three-lobate, flattened fungal spore.

Wall/surface --

Apertures A pore, c. 2 µm wide, with annulus, at one lobe. A second lobe with a c. 1µm wide pore and the third lobe without a pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1986

Other articles Van Geel 2006A

INTERPRETATION

According to Guarro et al. (1991), the species is known from a series of collections from swamps in Illinois and from paddy field soil in Japan

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 502

Letter --

Category Fungi (conidia)

**Taxonomical
identification** *Bactrodesmium*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

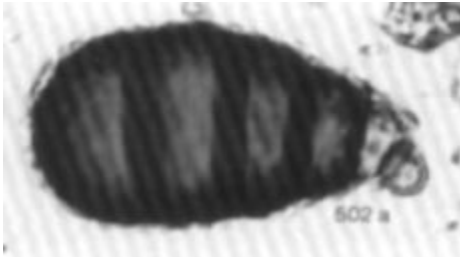
Order Incertae sedis

Family --

Gender *Bactrodesmium*

Species --

Image



DESCRIPTION

Colour Basal cells paler

Dimensions C. 55 µm long and 20-28 µm wide

Shape Not constricted at septa or hardly so

Wall/surface --

Apertures Transversally 5-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1986

INTERPRETATION

This Type is heterogeneous, with at least two taxa: *Bactrodesmium* cf. *obovatum* (Oudem.) M.B. Ellis and *B.* cf. *moenitum* Palm and Stewart. Ellis (1971) mentions *B. obovatum* on wood and bark of deciduous trees including *Alnus*, *Fraxinus*, *Fagus*, *Betula*, *Ulmus* and *Quercus*

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 503

Letter --

Category Fungi (conidia)

Taxonomical identification *Drechlera, state of Cochliobolus specifer*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Pleosporaceae

Gender --

Species *Drechlera*

Image



DESCRIPTION

Colour --

Dimensions c. 45 X 15 µm, hilum 2-3 µm wide

Shape --

Wall/surface --

Apertures 3-pseudoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

According to Ellis (1971) a very common cosmopolitan species

BIBLIOGRAPHY

First published in Van Geel 1986

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 504

Letter --

Category Plantae (wood fragments)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

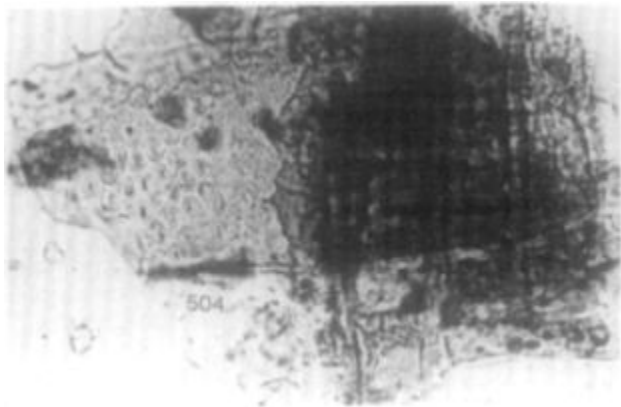
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1986

INTERPRETATION

No attempts were made to identify the various fragments because pollen, fruits and seeds yielded adequate information about the taxa that played a role as forest elements

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 505

Letter --

Category Plantae (stomata)

**Taxonomical
identification** *Coniferae*

TAXONOMY

Kingdom Plantae

Phylum Pinophyta

Class Pinopsida

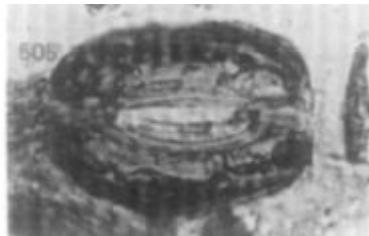
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1986

INTERPRETATION

These stomata occur in the upper part of zone E5 and in zone E6 (Picea phase) and are identical with the stomata observed in Picea needle fragments found as macrofossils in the same deposit

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 506

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

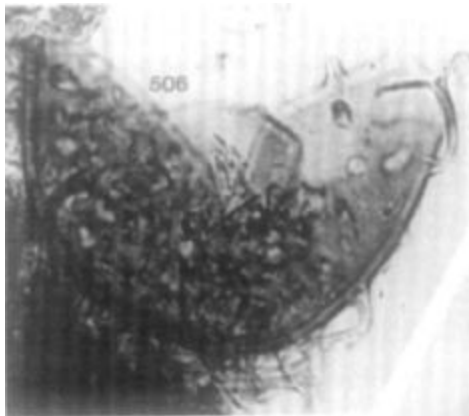
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 50 μm in diameter

Shape Originally globose

Wall/surface Thick-walled, 15 μm long and c.1.5 μm thick, bifurcating appendages

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1986

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 507

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

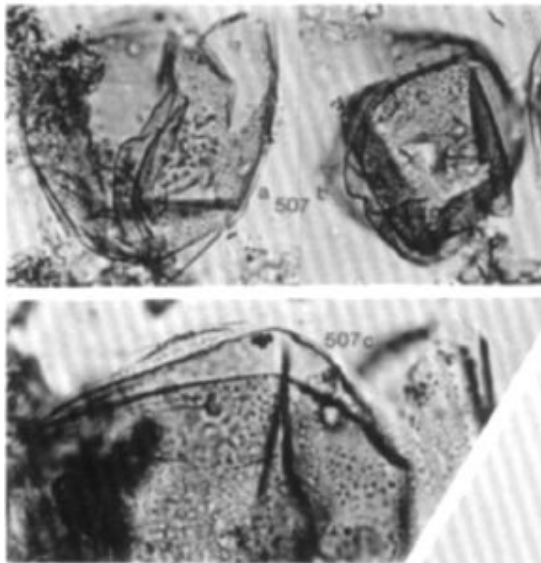
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Originally c. 57-72 μm in diameter

Shape Globose spores, mostly torn and folded

Wall/surface Wall c. 0.5 μm thick with a scabrate pattern of irregularly placed projections, 0.5-1.0 μm in diameter

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1986

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 508

Letter --

Category Plantae (stalks)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 4 μm long

Shape Proximal part consisting of several (partly detached) "stalks", covered at the distal end by a flat "scale". Cell walls between adjacent cells showing many thickenings. The "stalks" show a pattern of rows of parallel cells. alternating with areas showing intercrossing groups of

Wall/surface The "scale" shows a radial cell pattern

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 508 is possibly part of an as yet unidentified inflorescence

BIBLIOGRAPHY

First published in Van Geel 1986

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	509		
Letter	--		
Category	Animalia (armament of pupal tergite)		
Taxonomical identification	<i>Glyptotendipes</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia		
Phylum	Arthropoda	Shape	--
Class	Insecta		
Order	Diptera		
Family	Chironomidae		
Gender	<i>Glyptotendipes</i>	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1986

INTERPRETATION

The frequency of larval head capsules of chironomids is shown. The most abundant are those of *G. gr. pallens*. Pupae of this taxon show a characteristic armament which also became fossilized in the deposit

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	510		
Letter	--		
Category	Plantae (epidermis)		
Taxonomical identification	<i>Dicotyledonae</i>	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	Showing irregularly placed paracytic stomata
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1986)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Brown
Number	511		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	18.5-41.6µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoidal, one-celled
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	With an apical pore c. 3 µm wide
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Brown
Number	512		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	(25.4) 34.7-41.6 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoidal
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	Monoseptate spore, with one apical pore c.3µm wide
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	513		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Globose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	514		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Globose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	515		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Globose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	516		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Globose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	517		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Globose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	518		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Globose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	519		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Globose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	520		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Globose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	521		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Globose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	522		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Globose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

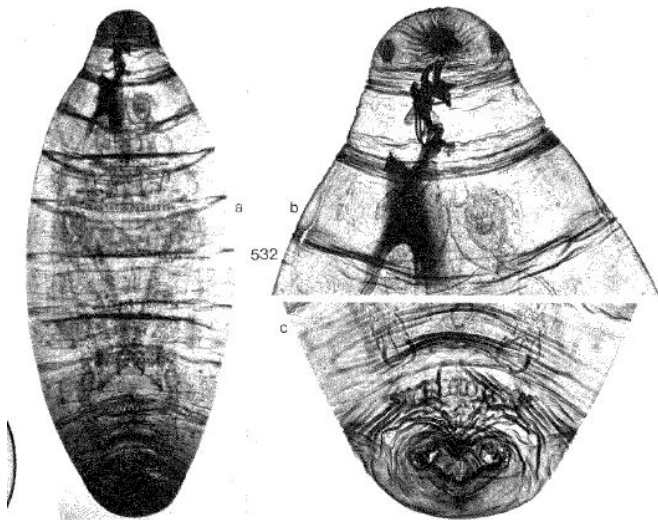
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BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour --	
Number	523		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions --	
TAXONOMY			
Kingdom	--		
Phylum	--	Shape Globose	
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface --	
Species	--		
Image			Apertures --
		Other --	
		Similar to --	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	524		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Globose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	525		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Globose
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ran 1990

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	526		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Hove 1998

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 527

Letter --

Category Fungi (ectorrhiza)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to light-yellow

Dimensions 12.1-18.4 x 7.8-12.6 μm

Shape Ellipsoidal, one-celled

Wall/surface Wall about 1 μm thick; most spores ornamented all over with helical superficial striae; some spores, however, more or less smooth

Apertures Often somewhat protruding, apical, about 1 μm wide pore

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles Montoya 2010

INTERPRETATION

Type 527 (an alga?) occurred abundantly in samples representing the pure clay sedimentation environment · In samples without clay, this spore appeared to be absent. Although not yet identified, this spore type can apparently be used as an indicator for the clay sedimentation environment, and the occurrence in relatively low percentages in the samples 1, 2, 3, and 12 may be indicative for a clay ompommt in these samples

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	528		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	<i>Gelasinospora calospora</i>	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Ascospores of this coprophilous fungus were very common in the dung sample (no. 8). In addition, fruit-bodies were found in the macrofossil fraction

BIBLIOGRAPHY

First published in Van Geel 1983A

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	529		
Letter			
Category	Fungi (teleuspores)		
Taxonomical identification	<i>Puccinia magnusiana</i>	Dimensions	--
TAXONOMY			
Kingdom	Fungi	Shape	--
Phylum	Basidiomycota		
Class	Pucciniomycetes		
Order	Pucciniales		
Family	Pucciniaceae		
Gender	<i>Puccinia</i>	Wall/surface	--
Species			
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983A

Other articles Montoya 2010

INTERPRETATION

The morphology of the teleutospores points to the species *P. magnusiana*,³⁰ which has mainly Phragmites (uredospores, teleutospores) as its host plant. *Spermogonia* and aecidia occur on *Ranunculus flammula*, *R. bulbosus*, *R. lingua* and *R. repens*.³¹ One teleutostorus in sample 8. Many of the species in this genus are plant pathogens

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 530

Letter

Category Rhizopod

**Taxonomical
identification** *Centropyxis ecornis*

TAXONOMY

Kingdom Protista

Phylum Amoebozoa

Class Tubulinea

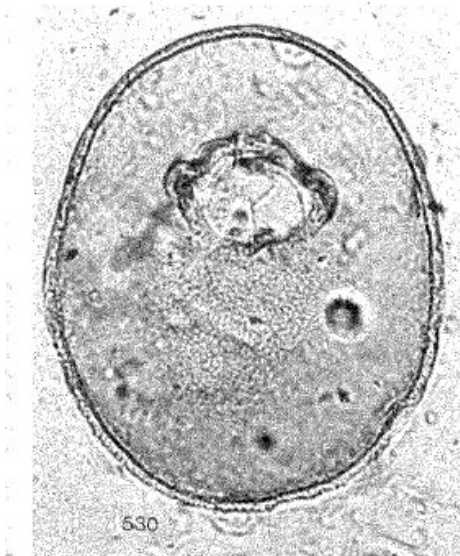
Order Arcellinida

Family Centropyxidae

Gender *Centropyxis*

Species

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983A

Other articles --

INTERPRETATION

The known habitat of this rhizopod is water and mosses growing in extremely wet conditions. In the present study it occurred abundantly in sample 11. Some other open water indicators in this sample are statoblasts of Bryozoa and remains of Cladocera. In view of the high stratigraphic position of sample 1 I, these open water indicators could not have grown on the site, but must have arrived with heightening material

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 531

Letter

Category Animalia

**Taxonomical
identification** *Trichuris*

TAXONOMY

Kingdom Animalia

Phylum Nematoda

Class Adenophorea

Order Trichurida

Family Trichuridae

Gender *Trichuris*

Species

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983A

INTERPRETATION

The chitineous egg cuticles of these parasitic Nematodes regularly occur in samples from archaeological sites. One specimen observed in the dung sample 8. The length is c. 45 Jlm; this is within the size range of *T. suis* (parasite of pig) or *T. trichiura* (man), cf. Thienpont et al. 1979

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	532		
Letter			
Category	Animalia (larvae, puparia)		
Taxonomical identification	<i>Sphaeroceridae, diptera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia		
Phylum	Arthropoda	Shape	--
Class	Insecta		
Order	Diptera		
Family	Sphaeroceridae		
Gender		Wall/surface	--
Species			
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983A

INTERPRETATION

In the two dung samples 8 and 12 several types of small fly larvae and puparia were present. Three types were identified by Dr P. Oosterbroek³³ as representatives of the family Sphaeroceridae; these are common in organic refuse such as dung. There are about 70 species known in the Netherlands. Phipps (1983) studied puparia from archaeological sites and mentioned Sphaeroceridae from medieval York

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Colorless
Number	545		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c.15x21mm in diameter
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoidal
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Wall thickness 1mm, smooth
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van der Harst 1984

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 546

Letter --

Category Fungi (ascospores)

Taxonomical identification *Trichodelitschia*

TAXONOMY

Kingdom --

Phylum --

Class --

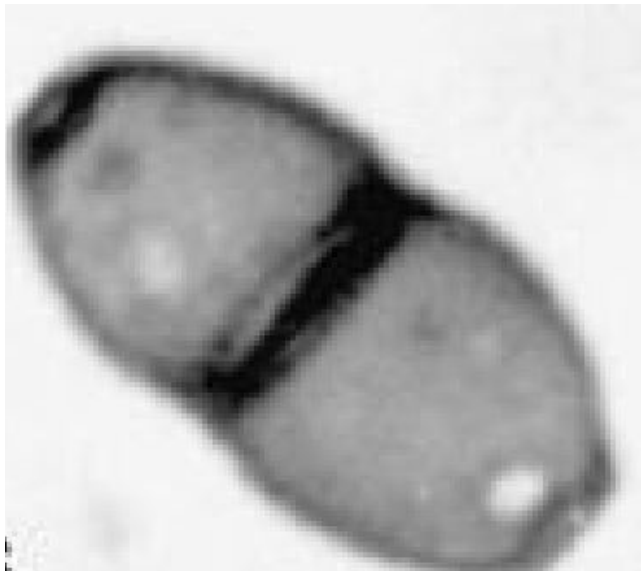
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 10.5x31mm (per part 10.5x15.5mm)

Shape Consist of two parts, which can be found separately

Wall/surface Smooth

Apertures At the smallest side a pore c. 6 mm in diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Hofwegen 1983

Other articles Marinova 2006; Cugny 2010

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	547	
Letter	--	
Category	Fungi	
Taxonomical identification	--	Dimensions 42-48µm in diameter, cells are 4 µm
TAXONOMY		
Kingdom	--	
Phylum	--	Shape Ovoid, empty in the middle
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface Wall thickness c. 1µm
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Yellow
Number	548		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	Muri of c. 1.5 µm in diameter, c. 208-263 µm
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Reticulate with muri
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Hofwegen 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 549

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Variable

Dimensions Lenght: 12-18.6 µm, diameter 12-18.6µm, middle cell 9.3-14µm and outer cells 4.7-9.3µm

Shape Sometimes at the endings hyaline, orange protuberances, probably remains of outer cells;

Wall/surface --

Apertures 3-septate, separated by two septa with a pore in the middle. Taking into account cell remains, than the whole ascospore would be 5 celled and 4-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Looze 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	550		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	c.36x16 µm
TAXONOMY			
Kingdom	--	Shape	Slightly curved, each cell with somewhat constricted ventral side
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Surface marked with a small dots
Species	--		
Image		Apertures	5-septate
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van der Molen 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	551		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	19-20x12-13 µm
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Thick, undulating episore, regularly attached to the spore wall, pigmented
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van der Molen 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Pigmented
Number	552		
Letter	--		
Category	Fungi (ascospores)		
Taxonomical identification	--	Dimensions	(20-)26x9-10 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Constricted at the septum
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Ornamented by a pattern of longitudinal grooves
Species	--		
Image		Apertures	Monoseptate
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van der Molen 1988

Other articles Willemsen 1996

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	553		
Letter	--		
Category	Unknown (spores)		
Taxonomical identification	--	Dimensions	24-29 x 14µm
TAXONOMY			
Kingdom	--	Shape	Ellipsoidal
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Longitudinal groove extending from one pole to the other
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van der Molen 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	554		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	c. 0.85x0.60 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Flat multicellular macrofossil, one end showing a former place of attachment
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Dam 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	555		
Letter	--		
Category	Animalia (membranes of pupal cases)		
Taxonomical identification	<i>Trichoptera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Insecta		
Order	Trichoptera		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Dam 1988

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 560

Letter --

Category Animalia?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Light colored

Dimensions 201-287x195-231µm

Shape Ellipsoidal

Wall/surface Protuberances c. 11.5-16.6 µm

Apertures At both ends a pore c. 26.5-43 µm in diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Spaargaren 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	561		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	267-363 x 261-300 µm
TAXONOMY			
Kingdom	--	Shape	Globose to ellipsoidal
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth, folded wall
Species	--		
Image		Apertures	Pore 29.9-36.3 µm, with an annulus c. 3.3-5.9 µm thick
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Spaargaren 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Dark
Number	562		
Letter	--		
Category	Animalia?		
Taxonomical identification	--	Dimensions	335-455x292-438µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoidal, at both endings a thickening
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Smooth, 2.5-6.5µm thick
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Spaargaren 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	563	
Letter	--	
Category	Unknown	
Taxonomical identification	--	Dimensions 211-304 x 181-297 µm
TAXONOMY		
Kingdom	--	
Phylum	--	
Class	--	Shape Globose to ellipsoidal, mostly torn, tentacles thickened at the base of c. 200 mm in leght; above the basis c. 6.5-13 µm thick, before the top c. 3.5-5 µm; the thickening at the top shows different morpholgy
Order	--	
Family	--	
Gender	--	Wall/surface Wall c. 6.5-10 µm thick
Species	--	
Image		
		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Spaargaren 1988

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Brown
Number	564		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	13-18.2x7.3-10.4µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoidal
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	With two apical, pore shaped structures
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Broerse 1991

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	565		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	18.2-24.6 x 7.8-12.5 µm
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Ellipsoidal
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Protruding pore
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Broerse 1991

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Brown
Number	566		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	17.5-(22.11)-24.5µm; the middle of the spore is 7.65-(10.51)-12.75µm; to the end the spore gets amaller, ending in a pore of c. 0.5µm
TAXONOMY			
Kingdom	--	Shape	One-cellular, ventricose shaped
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Psilate
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Bennekom 1992

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Wall grey-transparent
Number	567		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	25-30 µm in diameter
TAXONOMY			
Kingdom	--	Shape	Spheric, often split
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	1 mm thick with small spines 0.5 µm long
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in de Vries 1992

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	568		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	Lenght c. 30µm
TAXONOMY			
Kingdom	--	Shape	Cells equal in size, with obtuse ends;
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	c. 13µm small flat spines c. 1µm in diameter
Species	--		
Image		Apertures	2-septate
		Other	Some specimens have a small mycelium-fold on the side, which may indicate germination
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in de Vries 1992

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 569

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions With lenghts c. 4:1; the large is 2-3 times long as breath, the small even long as breath; total lenght c. 23µm, max breath c. 5µm, lenght large cell 18µm, a small cell c. 5µm

Shape Spore with a large and a small cell. Grouped 2-10 individuals, small cells touching each other. Some small cells connect to a mycelium, sometimes c. 5 small cells form a rectangle, so it seems that they filled a plant cell

Wall/surface --

Apertures 2-septate

Other --

Similar to TM-11

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in de Vries 1992

Other articles Cugny 2010

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	570	
Letter	--	
Category	--	
Taxonomical identification	--	Dimensions 16.5-21.3µm in diameter
TAXONOMY		
Kingdom	--	
Phylum	--	Shape Globose to egg-shaped
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface Walls 2-2.9µm thick, sometimes with verrucae 1mm in diameter
Species	--	
Image		Apertures (3-)4-5 pores that is 1.2-1.0µm in diameter
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in de Vries 1992

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Yellow-greenish/hyaline
Number	573		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	22.4-17.6x12.3-9.6µm
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Longitudinal superficial striae
Species	--		
Image		Apertures	--
		Other	--
		Similar to	HdV-527 (helicae striae)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Slopsma 1997

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 574

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour Brown to hyaline

Dimensions 17.6-13.1x9.1-7.2µm

Shape 1-celled, one side of the spores flattened

Wall/surface Smooth

Apertures Both ends showing a pore

Other --

Similar to HdV-206 (slightly smaller)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Slopsma 1997

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 571

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

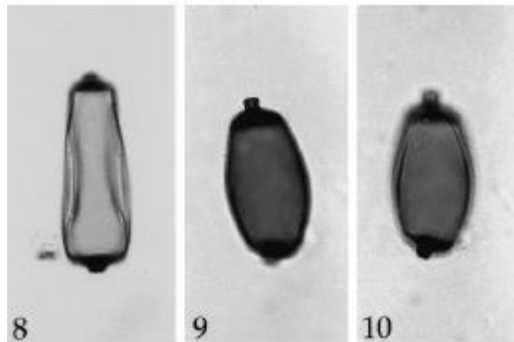
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 19.1–26.6 x 3 6.6–9.1 μm

Shape Spindle-shaped, at both ends the walls are thickened, showing appendages of about 1.5 μm in diameter

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Speranza 2000

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 572

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

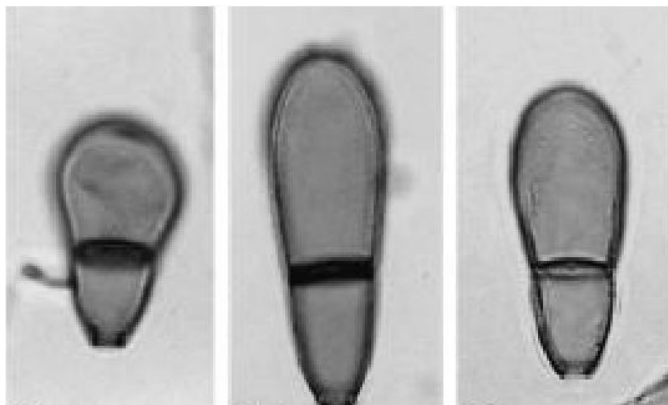
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 20.8–35.7 3 9.1–12.5 μm

Shape The distal cell ends blunty, longer and wider than the proximal cell.

Wall/surface The wall near the pore is thickened

Apertures Monoseptate. An approximately 2 μm wide pore is present on the proximal cell. The septum shows an approximately 1mm wide pore.

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Speranza 2000

Other articles Menozzi 2010

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 575

Letter --

Category Fungi (ascospores)

Taxonomical identification *Bombardioidea*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Lasiosphaeriaceae

Gender *Bombardioidea*

Species --

Image



DESCRIPTION

Colour Dark-brown

Dimensions (51–)58–69(–79) 33–41 µm

Shape Ellipsoidal. One end shows the remains of an originally cellular, or gelatinous (not fossilised), eccentrically placed appendage. The base of this appendage is about 12 µm in diameter, with a small central pore

Wall/surface --

Apertures 5-6 subapical pores in a pseudocircle

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bos et al 2005

Other articles --

INTERPRETATION

The ascospores of the *Bombardioidea* type occur regularly (always in low frequencies) in Lateglacial and Early Holocene deposits from the Netherlands, but until now it has not been observed in younger deposits. The spores differ from all known species in the genus *Bombardioidea* by their relatively large dimensions. All *Bombardioidea* species are dung inhabiting. The species *B. anartia* occurs on dung of European Elk (*Alces alces*) (Krug and Scott 1994). The fossil spores might be an example of an extinct fungal species, because the dung producing animal (*Alces alces*?) became extinct in the Netherlands

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Dark brown
Number	580		
Letter	--		
Category	Fungi (isthmospores)		
Taxonomical identification	<i>Isthmospora spinosa</i>	Dimensions	19.0–23.5×13.6–17.3 μm. Hughes (1953) mentioned somewhat smaller conidia: 15–21×12–17 μm
TAXONOMY			
Kingdom	--	Shape	Complex, lobed, sarciniform
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Echinulate: (1.0–) 1.5–1.9 (–2.9) long spines
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 2006b

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 581

Letter --

Category Fungi (cells)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

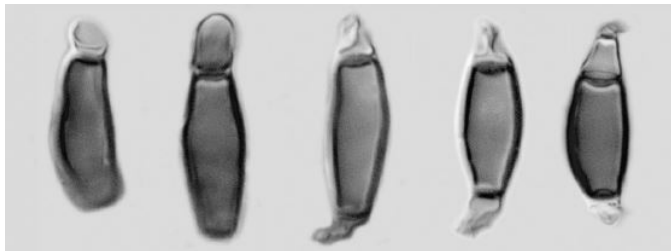
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark (swollen cell) to hyaline (top cell)

Dimensions (10-)14–18(–20)×5–7(–9) μm

Shape Swollen cell, straight or slightly curved, adjacent cell remains. Top cell is hemispherical to elongated (often damaged). Basal mycelium cell (c. 3 μm wide), often damaged and thus of variable length; well-preserved specimens sometimes broken off below a septum with

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Yeloff 2007

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 582

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

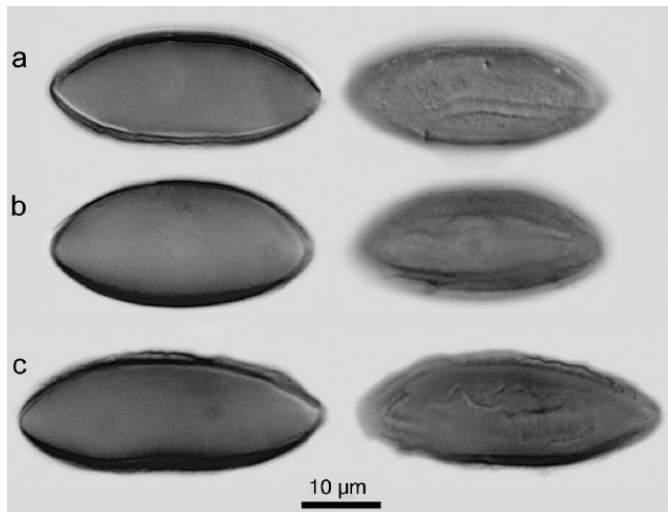
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light brown

Dimensions 26–40×12.5–15 μm

Shape Fusiform, non-septate

Wall/surface Faint longitudinal undulations (velum?). Apices thin walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Yeloff 2007

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 600

Letter --

Category Cyanobacteria (Akinetes spore)

Taxonomical identification *Aphanizomenon gracile*

TAXONOMY

Kingdom Eubacteria

Phylum Cyanobacteria

Class Cyanophyceae

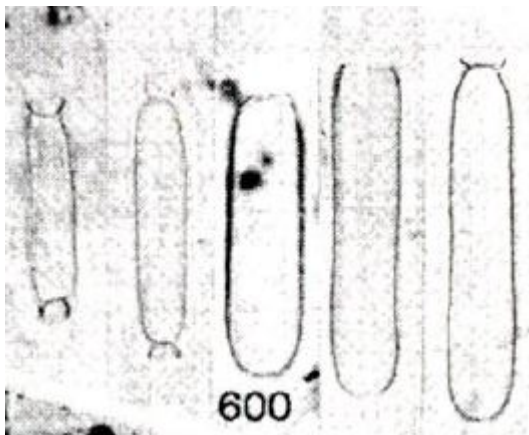
Order Nostocales

Family Aphanizomenonaceae

Gender *Aphanizomenon*

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions (15 5-)19-33(-58) x 4 7 μm

Shape Tube-shaped

Wall/surface Not always preserved 2.7-3.1 μm broad and 1.9-4.9 μm deep, cup-shaped appendages at the rounded ends of the spores

Apertures --

Other Spores often broken off at one end

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Ralska-Jasiewiczova 1992a

Other articles Van Geel 1994

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 601

Letter --

Category Cyanobacteria (Akinetes spore)

**Taxonomical
identification** *Anabaena*

TAXONOMY

Kingdom Bacteria

Phylum Cyanobacteria

Class Cyanophyceae

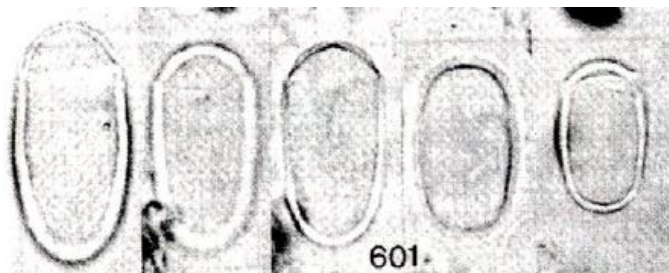
Order Nostocales

Family Nostocaceae

Gender *Anabaena*

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions (14)21 26(-39)×9 12 (18.0) µm

Shape Tube-shaped, with rounded ends

Wall/surface --

Apertures --

Other Most spores showing a suture (broken, but stdl attached) at one end or both ends. Often pores visible at both ends of the spores

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1994

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 700

Letter --

Category Foraminifera

**Taxonomical
identification** *Foraminifera*

TAXONOMY

Kingdom --

Phylum Retaria

Class --

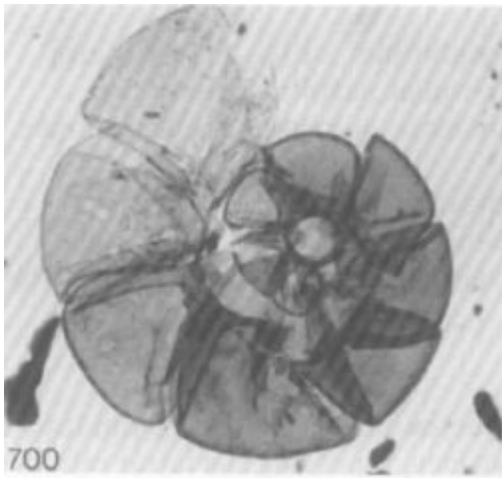
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Up to c. 220 μm in diameter

Shape There are 6--8 chambers in one convolution, which is coiled in a planispiral

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982; Van Geel 1983a; Kholeif
2010

INTERPRETATION

The most common form in the microscopic slides had chambers projecting centripetally over one side of the macrosphere. A macroscopic analysis of the foraminiferids present in sample 0-5 was done by J.A. Manuputty, University of Amsterdam. The major part of the present benthic species consisted of *Protelphidium anglicum* Murray, *Elphidium articulatum* (d'Orbigny) and *Ammonia beccari* (Linn~). These species characterise hyposaline lagoons and estuaries, and may also be found in intertidal and shallow water in coastal areas (Murray, 1971)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 701

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

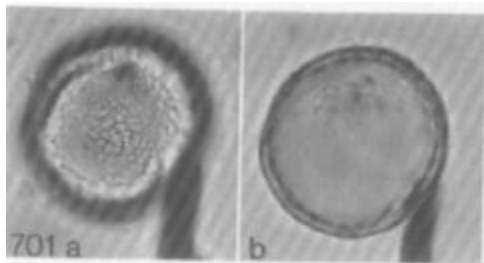
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions (17-)21-28 μm in diameter

Shape Globose. Orbicular apertures are about 3 μm , and slit-shaped ones about 1 X 5 μm large.

Wall/surface Surface with reticulate sculpturing, meshes decreasing in size towards an area lacking the network and where an aperture of variable size and form can be discerned

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

They may be associated with the development of salt-marsh vegetation

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 702

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

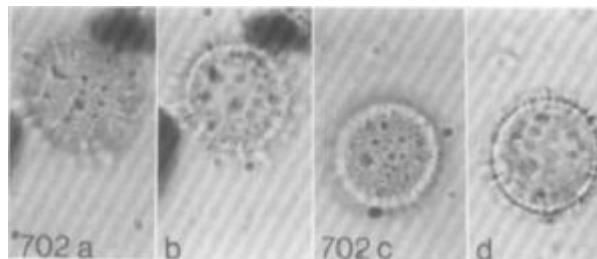
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 10-20 μm in diameter

Shape --

Wall/surface 1-1.5 μm high spines, which cover the surface in an irregular pattern. The smaller spines, ten to fifteen on one hemisphere, are more numerous than the larger ones

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982

INTERPRETATION

Type 702 is mainly found in the clay deposits of phase B and may be indicative of marine influences, but its presence in phase C (a eutrophic *Phragmites-Typha* helophyte marsh with varying water tables) may point to a somewhat Wider ecological range

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 703

Letter A

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

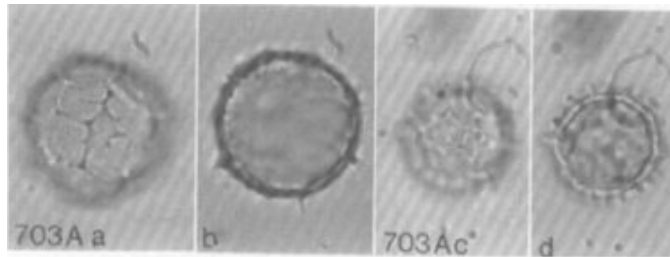
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 10-25 μm in diameter

Shape --

Wall/surface 1-2.5 μm long spines with interconnecting ridges on the surface, rendering the latter reticulate. The smaller spines are interconnected by inconspicuous "muri"

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982

INTERPRETATION

The general morphology of Type 703, in particular that of Type 703C, shows characteristics suggestive of cysts of Dinoflagellatae (Hystriospheres). Types 703A, B and C are clearly indicators of a marine influence, and superficial sampling in recent salt marsh vegetation might prove useful for a better cognisance of their ecological preference

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 704

Letter A

Category Algae (cysts)

Taxonomical identification *Operculodinium centrocarpum*

TAXONOMY

Kingdom Chromista

Phylum Myzozoa

Class Dinoflagellata incertae sedis

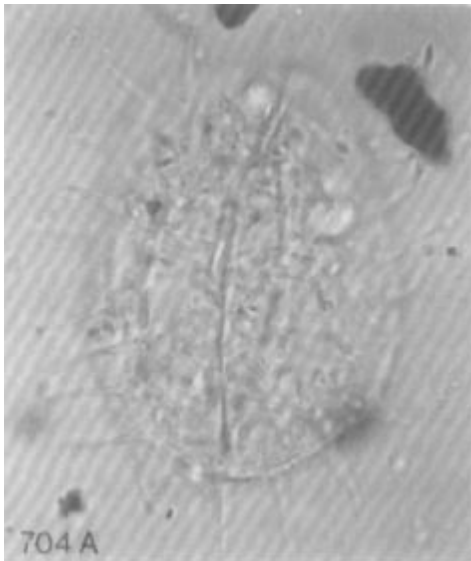
Order --

Family --

Gender *Operculodinium*

Species --

Image



DESCRIPTION

Colour --

Dimensions 40-65 X 40-50 µm

Shape Ellipsoidal

Wall/surface c. 5-10 µm long processes with bifurcated tip. Surface often folded and with an indistinct aperture

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&Smeerdijk, 1981

Other articles Bakker&Van Smeerdijk 1982

INTERPRETATION

Since their taxonomy is still in an explorative phase, especially where extant species are concerned (cf. Dale, 1976), the authors consider it to be beyond the scope of this study to identify the many forms of microfossils possibly related to the Dinophyceae. As it is reported that many species are rather sensitive to preparation methods for which acid chemicals are used (as in acetolysis for pollen preparation), quantitative records may also be unreliable. Dinophyceae remains have been found in other post-Pleistocene sediments (Harland, 1968) and also in recent ones (Dale, 1976). Although Dinophyceae are for the major part organisms of marine environments, Churchill and Sargeant (1963) report their presence in southwest Australian peats, which they consider to be relatively undisturbed. In the Ilperveld study, Type 704 is without doubt an indicator of marine influences

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 704

Letter B

Category Algae (cysts)

**Taxonomical
identification** *Dinophyceae*

TAXONOMY

Kingdom Protista

Phylum Dinoflagellata

Class Dinophyceae

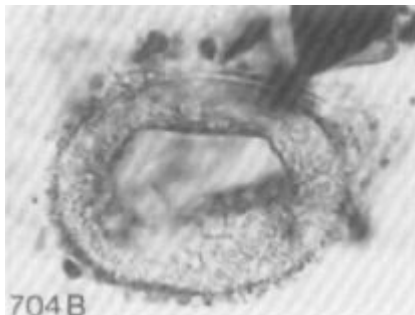
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 35--40 X 25--35 µm

Shape Ellipsoidal. A large aperture is often observed.

Wall/surface 1--3 µm long protuberances covering the surface in a reticuloid pattern

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&Smeerdijk, 1981

Other articles Bakker&Van Smeerdijk 1982

INTERPRETATION

Since their taxonomy is still in an explorative phase, especially where extant species are concerned (cf. Dale, 1976), the authors consider it to be beyond the scope of this study to identify the many forms of microfossils possibly related to the Dinophyceae. As it is reported that many species are rather sensitive to preparation methods for which acid chemicals are used (as in acetolysis for pollen preparation), quantitative records may also be unreliable. Dinophyceae remains have been found in other post-Pleistocene sediments (Harland, 1968) and also in recent ones (Dale, 1976). Although Dinophyceae are for the major part organisms of marine environments, Churchill and Sargeant (1963) report their presence in southwest Australian peats, which they consider to be relatively undisturbed. In the Ilperveld study, Type 704 is without doubt an indicator of marine influences

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 704

Letter C

Category Algae (cysts)

**Taxonomical
identification** *Hystrichospera*

TAXONOMY

Kingdom --

Phylum --

Class --

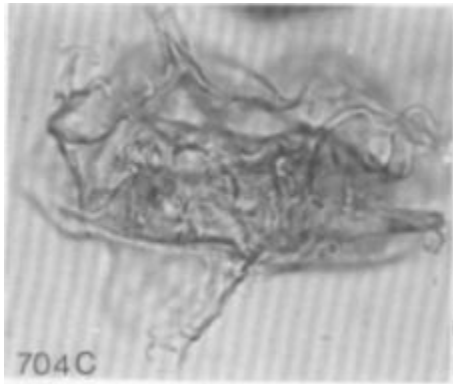
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 50-75 X 40- 60 μ m

Shape --

Wall/surface 10-18 μ m long protuberances with intricately bifurcating tip and widening base

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&Smeerdijk, 1981

Other articles Bakker&Van Smeerdijk 1982

INTERPRETATION

Since their taxonomy is still in an explorative phase, especially where extant species are concerned (cf. Dale, 1976), the authors consider it to be beyond the scope of this study to identify the many forms of microfossils possibly related to the Dinophyceae. As it is reported that many species are rather sensitive to preparation methods for which acid chemicals are used (as in acetolysis for pollen preparation), quantitative records may also be unreliable. Dinophyceae remains have been found in other post-Pleistocene sediments (Harland, 1968) and also in recent ones (Dale, 1976). Although Dinophyceae are for the major part organisms of marine environments, Churchill and Sargeant (1963) report their presence in southwest Australian peats, which they consider to be relatively undisturbed. In the Ilperveld study, Type 704 is without doubt an indicator of marine influences

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 705

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

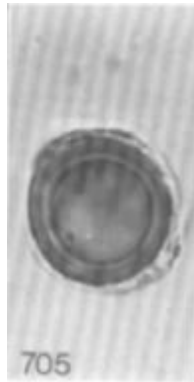
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 10-20 μm in diameter

Shape Globose to ovoid microfossil

Wall/surface Wall 2-5 μm thick, without superficial sculpture

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 705 is found in the clay and sandy clay deposits of marine origin in the section

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 706

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 10-20 μm in diameter

Shape Globose to ovoid

Wall/surface 0.6-1.5 μm thick wall, without superficial sculpture

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 706 is exclusively found in the marine clay deposits of the lower part of the section

BIBLIOGRAPHY

First published in Bakker&Van smeerdijk 1982

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 708

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

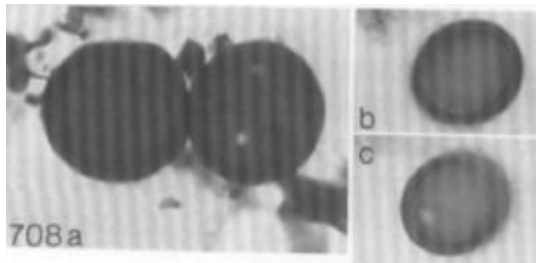
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 10-15 μm in diameter

Shape Globose often found in pairs or as larger groups

Wall/surface Wall c. 2 μm thick

Apertures With two pores of c. 2 μm in diameter in a characteristic position

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It reaches maxima in the phases with eu- to mesotrophic helophytes marshes

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk, 1981

Other articles Bakker&VanSmeerdijk, 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 709

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

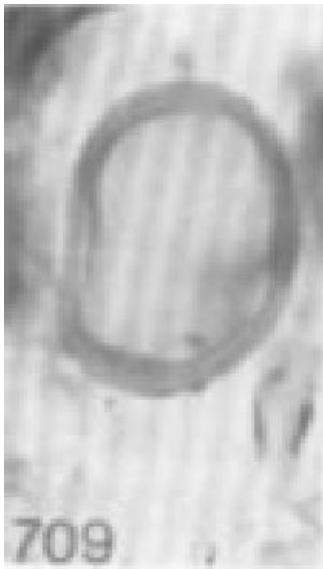
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 16-20 × 9-15 µm

Shape Ovoid to pyriform

Wall/surface Their walls c. 1-1.5 µm thick, with a mostly smooth surface, but sometimes with small spinules c. 0.3 µm long or shorter

Apertures In a belt parallel to the equatorial plane there are 2-4 pores, and one pore lies in one of the poles; all pores c. 1--1.5 µm wide

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk, 1981

Other articles Bakker&VanSmeerdijk, 1982

INTERPRETATION

Type 709 shows a positive association with monolete *Dryopteris* spores in the Ilperveld section.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 710

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

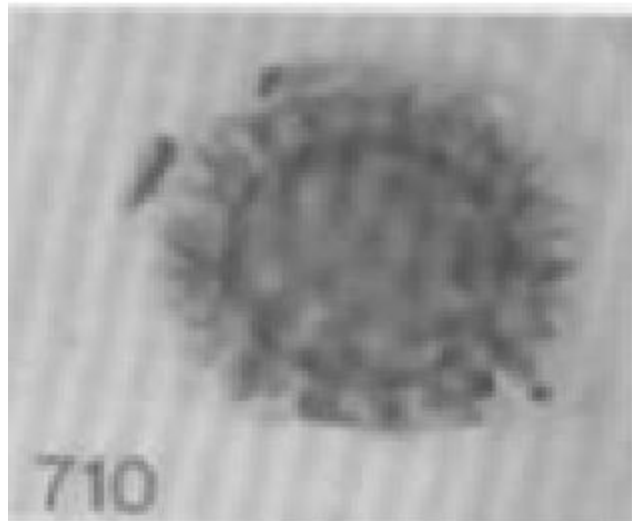
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Cell wall bright yellow and resembling sporopollenin

Dimensions 18-31 μm in diameter

Shape Globose. One specimen found with an indistinct trilete scar. Sometimes forms occur with the tips of the protuberances bent

Wall/surface 3-4 μm long echinate protuberances

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 710 showed highest percentages in phase C, with eutrophic conditions and varying water tables

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk, 1981

Other articles Bakker&VanSmeerdijk, 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 711

Letter --

Category Algae (zygospores)

**Taxonomical
identification** *Mougeotia*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

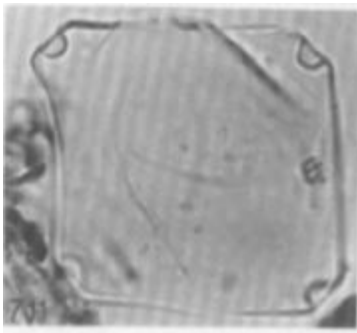
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image



DESCRIPTION

Colour --

Dimensions 30--36 µm long and broad

Shape Quadratic, with straight or slightly concave sides. Retuse angles 3--4 µm wide, maximum depression 2--2.5 µm.

Wall/surface Walls without any visible sculpturing (smooth or with small pits). Spores show a longitudinal furrow which often encircles almost the whole spore.

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input checked="" type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk, 1982

Other articles Chmura 2006; Chambers 2010

INTERPRETATION

The hyaline spores of *Mougeotia*, *Spirogyra* and *Zygnema*-type are produced by filamentous green algae inhabiting shallow, stagnant, oxygen-rich freshwater pools.

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 712

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

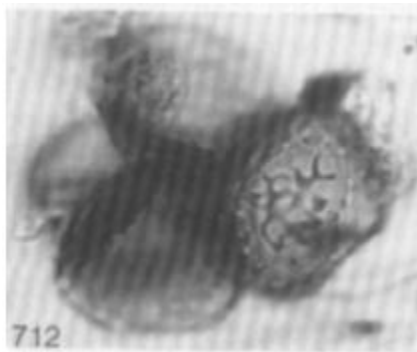
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 16-26 μm in diameter

Shape Irregularly shaped to globose microfossils, somewhat elongated, often aggregated in small groups of 3--6 units

Wall/surface Surface reticuloid, meshes 1.5-4 μm in diameter, "muri" 0.3 μm long

Apertures --

Other --

Similar to The morphology suggests a possible relation to Type 38 (Van Geel, 1972)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

ecological preference obscure

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 703

Letter B

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

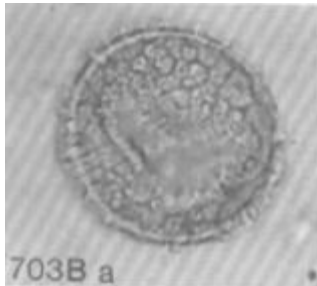
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 10-25 µm in diameter

Shape Globose

Wall/surface 1-1.5 µm long spines of uniform size, interconnected by a dense, reticulate pattern of surface ridges

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
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| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982

INTERPRETATION

The general morphology of Type 703, in particular that of Type 703C, shows characteristics suggestive of cysts of Dinoflagellatae (Hystriospheres). Types 703A, B and C are clearly indicators of a marine influence, and superficial sampling in recent salt marsh vegetation might prove useful for a better cognisance of their ecological preference

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 703

Letter C

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

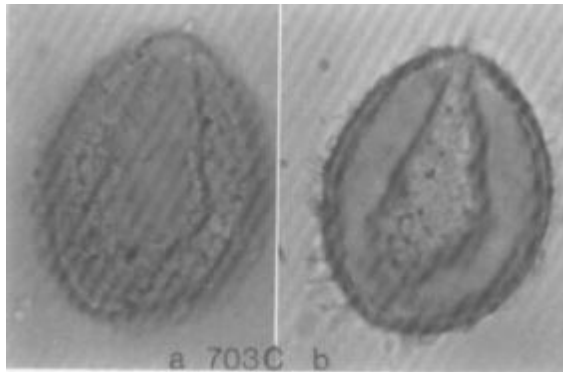
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 20-30 μm in diameter

Shape Globose

Wall/surface 2-5 μm long protuberances irregularly interconnected by reticulate ridges

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982

INTERPRETATION

The general morphology of Type 703, in particular that of Type 703C, shows characteristics suggestive of cysts of Dinoflagellatae (Hystriospheres). Types 703A, B and C are clearly indicators of a marine influence, and superficial sampling in recent salt marsh vegetation might prove useful for a better cognisance of their ecological preference

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 707

Letter --

Category Fungi (conidia)

Taxonomical identification *Culcitalna achraspora*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

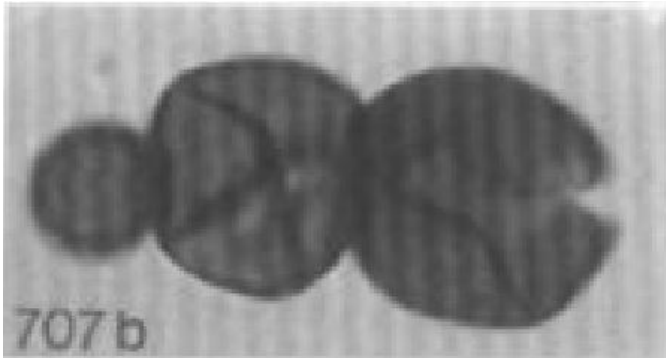
Order Sordariales

Family Chaetomiaceae

Gender *Trichocladium*

Species *achrasporum*

Image



DESCRIPTION

Colour Terminal cell: darkest brown

Basal cell: paler

Dimensions 17-62 X 12-22 µm

Shape Terminal cell, the largest; basal cell small

Wall/surface Clavate

Apertures 1-6-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 713

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

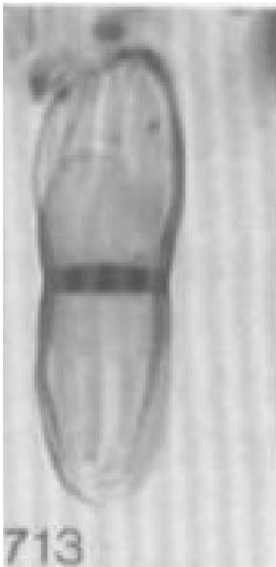
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 20-30 × 6-10 µm

Shape Ellipsoid, slightly constricted at the septum

Wall/surface Surface smooth with three or four longitudinal grooves in the c. 0.4 µm thick wall

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
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INTERPRETATION

Type 713 is found in phases C, D and N, with eu- to mesotrophic conditions

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 714

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

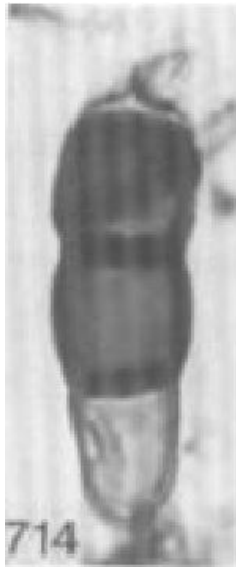
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Terminal cells pale; central cells dark

Dimensions c. 36-41 × 8-12 μm

Shape Microfossils slightly constricted at the septa, terminal cells elongated; central cells polyhedral. Terminal cells often bent or folded, sometimes absent

Wall/surface --

Apertures 3-septate. In each septum a central pore of c. 0.5 μm in diameter.

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982

INTERPRETATION

Type 714 is only found in the upper part of phase C, where also the *Vicia*-type pollen curve reaches a maximum of representation, and the conditions of varying water tables are thought to have become stabilized

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 715

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

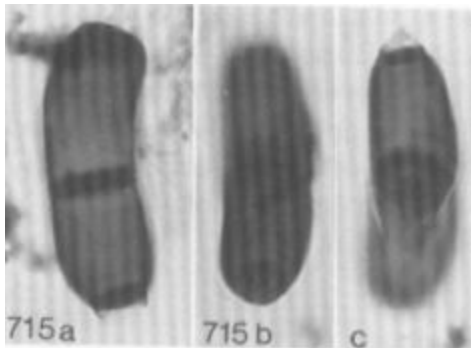
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Terminal cells hyaline

Dimensions c. 26-30 × 6-12 µm (central cells only)

Shape Microfossils, somewhat curved, slightly constricted at the septa

Wall/surface Wall smooth or with inconspicuous spinules not over 0.3 µm in height

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982

INTERPRETATION

Highest value in reed fen. Indicates open vegetation under very wet conditions. It is known from peat layers that formed under eu- to mesotrophic helophyte marsh conditions. In present study only in very wet open sites, scarce to abundant

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 716

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

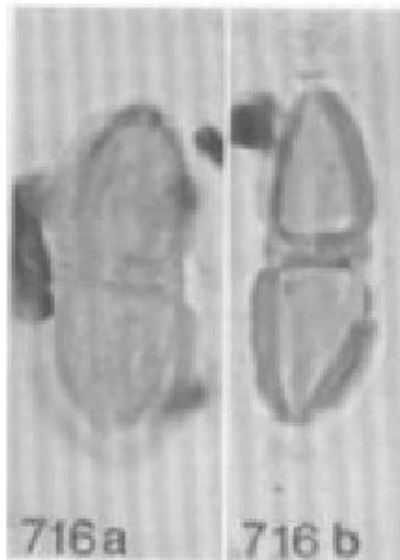
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c.24 × 7 μm

Shape Constricted at the septa, the central cell making up only a fraction of the total volume

Wall/surface Wall c. 1 μm thick, with longitudinal thickenings

Apertures 2-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 716 is found in phase C and D (helophyte marshes with varying water tables and eu- to mesotrophic conditions)

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 717

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

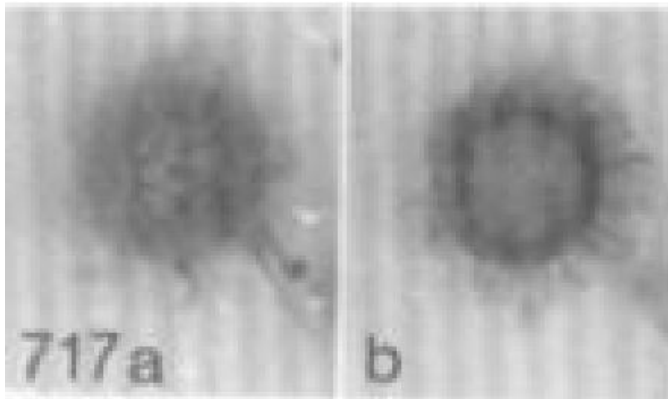
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 6-8 μm in diameter

Shape Globose, occurring as small groups and as individual cells

Wall/surface Enveloped in a c. 1-5 μm lhigh reticuloid perisporium

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

Type 717 is found in phases D, M and N, with highest values in N. This suggests a preference for mesotrophic conditions with a moderately variable ground-water table

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 718

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

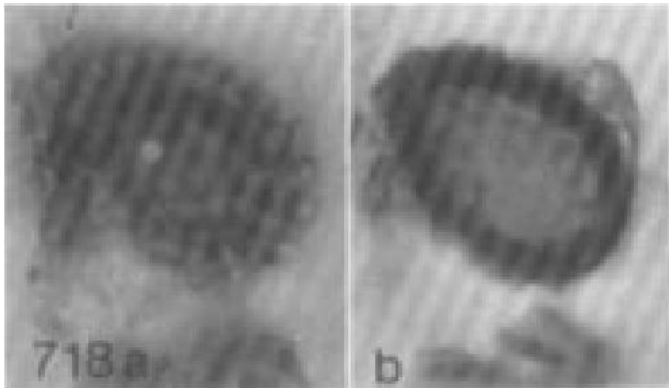
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 18 × 10 μm

Shape Ovoid to pyriform microfossils

Wall/surface Wall 1-2 μm thick, surface covered by small spines, c. 0.5 μm broad and high and c. 2 μm apart

Apertures In a belt parallel to the equatorial plane there are 0-4 pores, and there is one conspicuous pore in one of the poles; pores all c. 1-1.5 μm in diameter

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 718 was found mainly in phase D (the mesotrophic lower helophyte marsh with moderately variable water tables)

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 719

Letter A

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

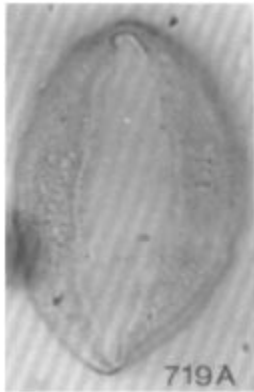
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 30 × 45 µm

Shape Ellipsoid, ending the cell boat-shaped

Wall/surface --

Apertures A fissure of at least half the length of the cell outline

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 720

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

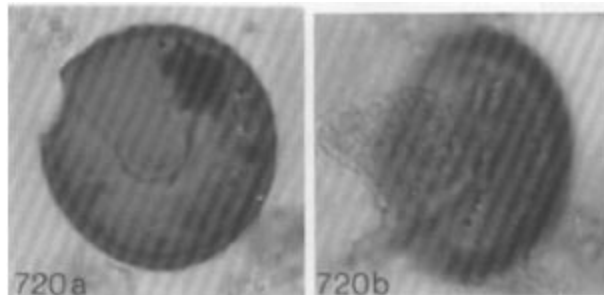
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 20-27 μm long

Shape Ovoid to globose

Wall/surface Cell wall thin, often ruptured, and covered with a striate-rugulate sculpturing in parallel ridges

Apertures Rupture sometimes "poroid", 5-8 μm broad

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 720 is found in ombrotrophic peat, and possibly prefers habitats with some form of disturbance

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 721

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

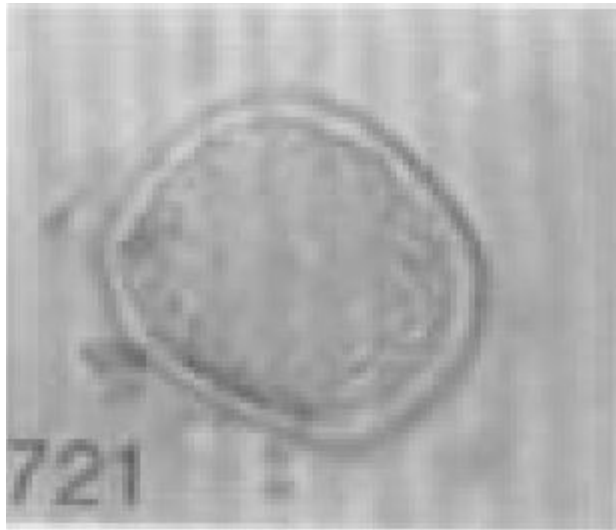
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions c.12-15 μm in diameter

Shape Globose

Wall/surface Surface with many small pits c. 0.3 μm in diameter

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

Type 721 may prefer somewhat wetter conditions, which would be in agreement with an algal origin as expected from its morphology, although no direct evidence of its affinity is available

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 722

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

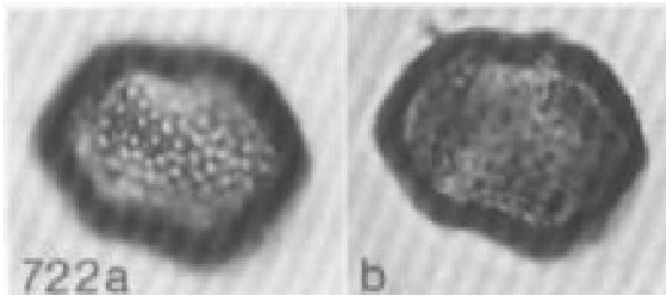
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 10-23 μm long

Shape Polyhedral to elongated

Wall/surface Surface with small pits or irregularly spaced short grooves 0.5-1 μm broad and usually 0.5-2 μm apart

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

Type 722 is found at various levels in the bog section, reaching maxima in the ombrotrophic part, and seems to be an indicator of relatively wetter condition in oligo- to ombrotrophic bogs

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 723

Letter --

Category Algae

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

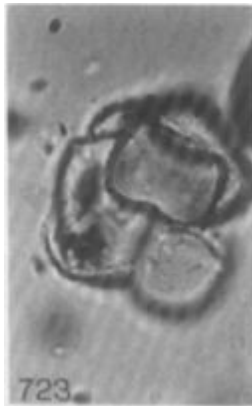
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape Always observed in groups

Wall/surface --

Apertures --

Other --

Similar to A further discussion of Type 723 is given under Type 371

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 724

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

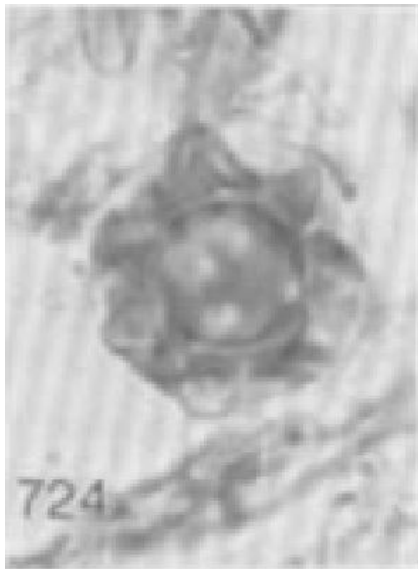
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 15-22 μm in diameter

Shape Globose

Wall/surface The 3-4 μm high massive protuberances rounded at their tips and giving the cell a "fenestrated" appearance

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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INTERPRETATION

Type 724 seems to prefer conditions of open water in pools, as does Type 28 (Copepoda} or Type 72 (Alona)

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 725

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

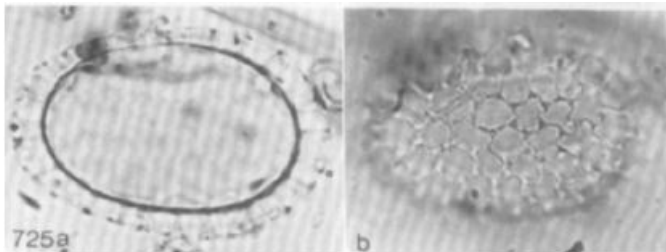
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions c. 40 X 60 μm

Shape Ellipsoid

Wall/surface Characteristic network of c. 5 μm high with meshes of 4-6 μm

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
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INTERPRETATION

Type 725 was found only occasionally, so that so far no ecological preference is manifest

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 726

Letter --

Category Algae?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

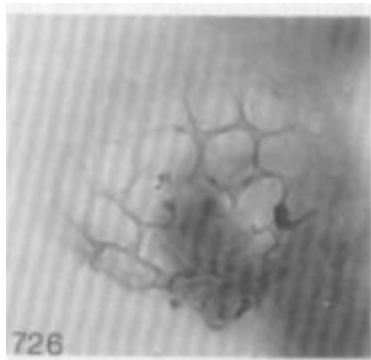
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 15--25 X 25--35 μm

Shape Irregular shape

Wall/surface Three-dimensional network, with rounded brochi of 3-5 μm , and muri of 0.5-1 μm thick

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

Type 726 was positively correlated with *Pediastrum*, *Botryococcus* and *Tetraedron* (Type 371), and is, therefore, thought to represent an aquatic organism

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Dark brown
Number	727		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	4--6 µm long
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Groups of 30-70 units with a typical shape: cylindrical body
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	3 or more flagella-like protuberances of c. 6 µm long
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

Type 727 was found in the clayey deposits of phase J, deposited as a result of disturbing fresh water activity in an oligotrophic peat bog

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 728

Letter --

Category Fungi (spores)

**Taxonomical
identification** *Usteginales?*

TAXONOMY

Kingdom Fungi

Phylum Basidiomycota

Class Ustilaginomycetes

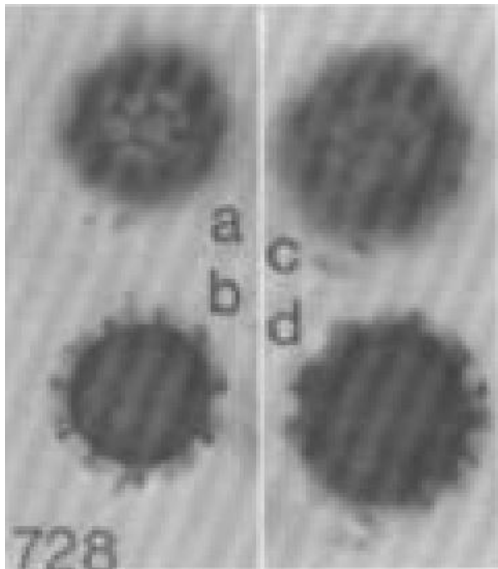
Order Usteginales

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 7-12 μm in diameter

Shape Globose

Wall/surface c. 1 μm high reticulum with meshes of c. 2-4 μm each with a darker spot in the centre

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

Type 728 is present at various levels of the section, but reaches maximal representation in phase L, where oligotrophic conditions are replaced by meso- to eutrophic ones

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 729

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Central cells c. 17 μm in diameter, terminal cells c. 10 μm in diameter

Shape Microfossils in curved rows of 8--19 cells

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

INTERPRETATION

Type 729 is found from phase I onward and its curve tends to follow a pattern similar to the *Juncus* seeds curve, but there is no evidence for a direct relationship

Other articles Bakker&VanSmeerdijk 1982; Van Geel 1983

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 730

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Zopfia*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

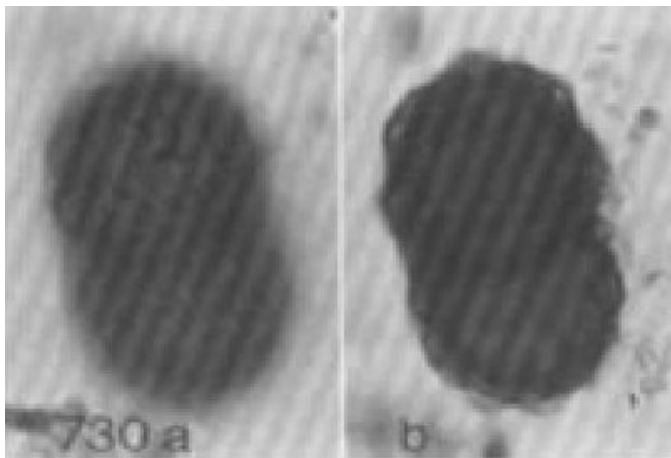
Order Pleosporales

Family Zopfiaceae

Gender *Zopfia*

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 26 X 16 μm

Shape Constricted at the septum, but this is sometimes obscured by the perisporium

Wall/surface Lobed perisporium up to 2.5 μm high, at the places of attachment to the cell surface with a pattern of small granules of c. 0.3 μm

Apertures Monoseptate

Other --

Similar to Type 730 shows characteristics that suggest a relationship to the pleosporaceous genus *Zopfia*, specially to *Z. terrestris* (Bizzozero) Hawksworth et Booth and *Z. variospora* (Boudier) Arnaud. However, in the revision of genus *Zopfia* by Hawksworth and Booth (1974).

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

At the present stage of our knowledge it seems likely that Type 730 represents a still undescribed species of *Zopfia*. The genus *Zopfia* is cosmopolitan and lives on roots and in the soil (Hawksworth and Booth, 1974)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 731

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

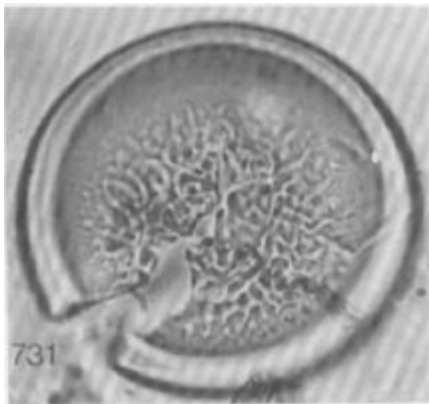
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Bright yellow edge

Dimensions 25-35 μm in diameter

Shape Convex disk. The crumbled area in the centre of the flat side (731b) is a protruding part of the wall, c. 12 μm in diameter and 4-6 μm high (731e). The wall at the transition between the flat and the convex sides is thinner and forms a fissure extending across. at least half the

Wall/surface Crumbled central area

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 731 probably is an indicator of wet meso-to eutrophic conditions, as already suggested by Bakker and Van Smeerdijk (1982)

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982; VanSmeerdijk 1989

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 732

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

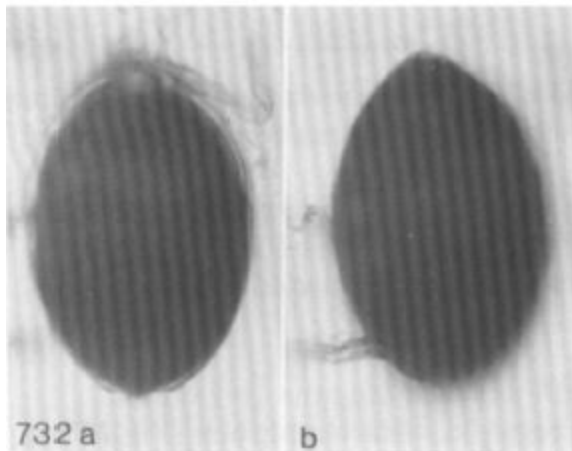
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Very dark brown, hyaline perisporium

Dimensions c. 28-39 X 16-23 μm

Shape Ovoid. At one end a tuber cel with an inconspicuous pore of c. 1.5 μm in diameter, and at the opposite end another poroid area

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

Type 732 is found in the upper part of the section only, always in low numbers, and seems to be limited to mesotrophic marsh vegetation with a dominance of Gramineae (Phragmites)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 733

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

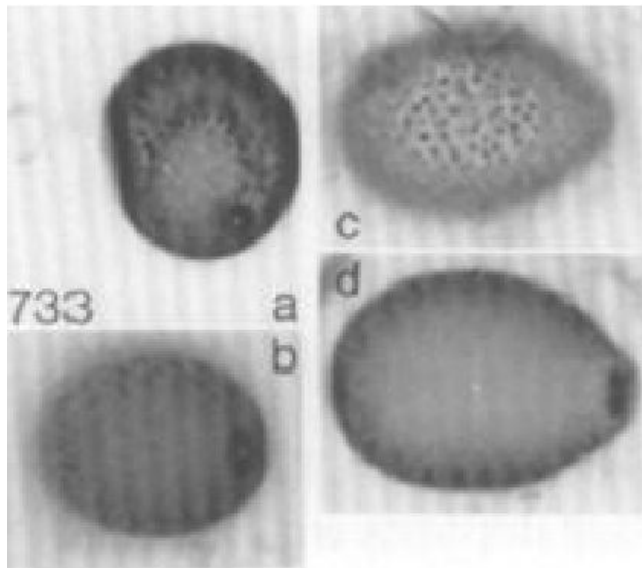
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 15-18 μm in diameter

Shape Globose to ovoid

Wall/surface Inner surface covered with numerous granules of c. 0.3 μm in diameter, 0.2-1.0 μm apart. Outer surface smooth

Apertures One pore (c. 0.5-1 μm in diameter) with an annulus c. 1 μm thick

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

INTERPRETATION

Type 733 is found in the upper part of the section only, when mesotrophic conditions prevailed in a helophyte marsh dominated by Phragmites

Other articles Bakker&VanSmeerdijk 1982; Montoya 2010

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 734

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

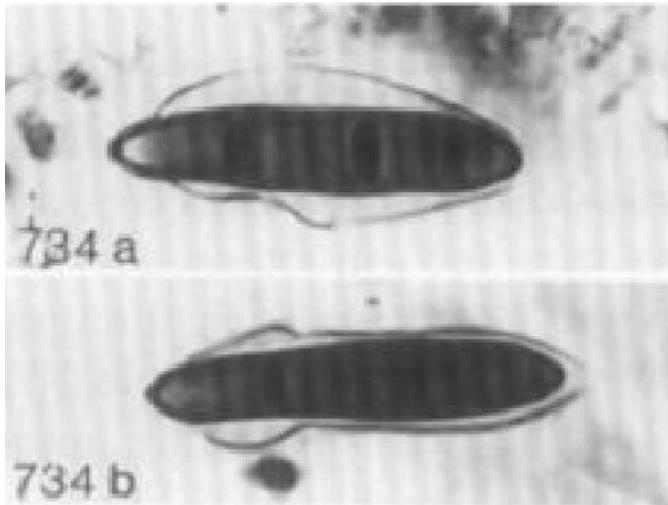
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline perisporium

Dimensions c. 21--29 X 4--6 μ m

Shape --

Wall/surface Perisporium, which always covers the cells, a terminal area containing a raised pore of c. 0.5 μ m excepted

Apertures Mono to 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

Type 734 is found in the upper part of the section in low numbers, but increases to 140% in sample 301.5 at the terminal of phase L characterized by local growth of various Juncus species indicating a period of disturbance

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 735

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

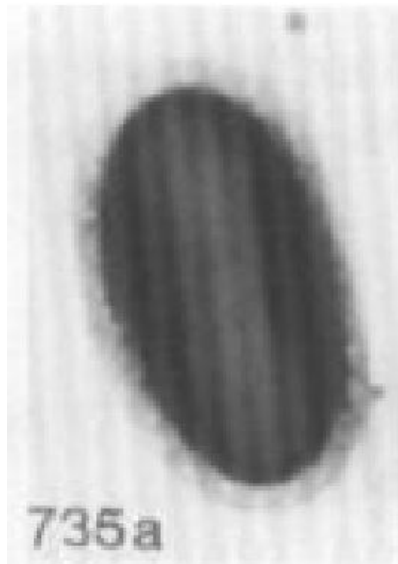
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline covering

Dimensions 18-24 X 14-17 μm

Shape Ellipsoid

Wall/surface 1-2.5 μm thick hyaline covering, the latter with a ruguloid surface sculpture. Wall thickness c. 0.7 μm

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

Type 735 is found mainly in phase M when presumably relatively wet conditions obtained in a mesotrophic Phragmites--*Typha latifolia* helophyte marsh

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 736

Letter --

Category Animalia

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

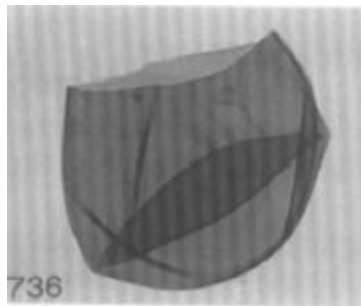
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 300-400 X 140 µm

Shape Urceolate, chitinous

Wall/surface No cell wall structures discernible

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

Type 736 is present in the section from the top of phase G till the middle of phase K (which is the oligotrophic part of the bog deposits with generally somewhat wetter conditions)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 737

Letter A

Category Animalia

Taxonomical identification *Plumatella fungosa*

TAXONOMY

Kingdom Animalia

Phylum Ectoprocta

Class Phylactolaemata

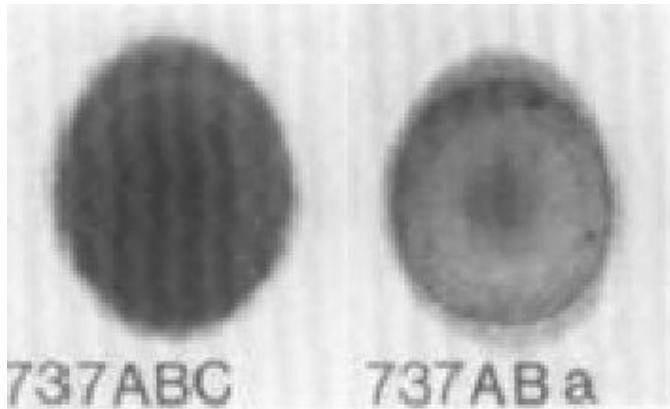
Order Plumatellida

Family Plumatellidae

Gender *Plumatella*

Species *fungosa*

Image



DESCRIPTION

Colour Pale brownish

Dimensions c. 255--265 X 286--336 µm

Shape Disc

Wall/surface 5.5 µm thick wall showing (when visible) a quadri- to sexangular cell pattern

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY


First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

It prefers not very turbulent, eutrophic bodies of fresh water (Streble and Krauter, 1976}. In the Ilperveld section, Type 737 is found in the clay which was deposited in the bog by eutrophic fresh water (phase J). Floatoblasts, a bryozoic type of survival structure, are very resistant and readily dispersed by water and by wind (Meglitsch, 1967)

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	738	
Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

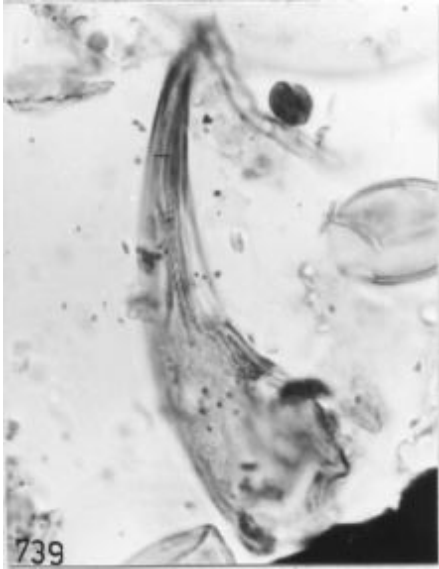
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	739	
Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	740		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Nanhermannia nanus</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia		
Phylum	Arthropoda	Shape	Adult oribatid mite, identified by L. van der Hammen (pers. comm.)
Class	Arachnida		
Order	Oribatida		
Family	Nanhermannidae		
Gender	<i>Nanhermannia</i>	Wall/surface	--
Species	<i>nana</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

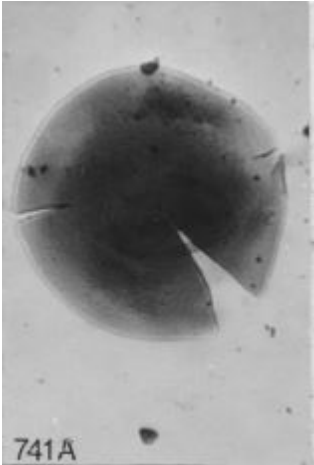
First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

Type 740 was mainly found in samples where *Rhysotritia* (Type 106) was also present in great numbers, in an environment which was interpreted as a mesotrophic helophyte~phagnum marsh. This is in agreement with what is known about the ecological preference of the species in recent times (Strenzke, 1953)

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	741	
Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 742

Letter --

Category --

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

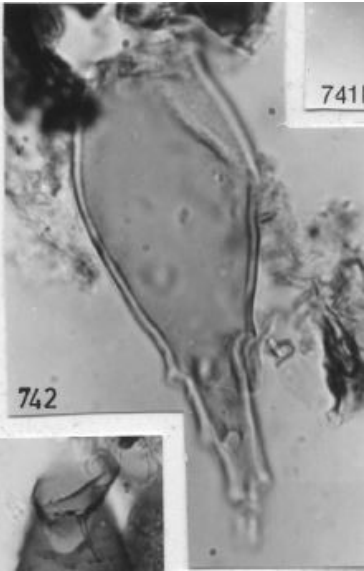
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 743

Letter --

Category --

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	744	
Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 745

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

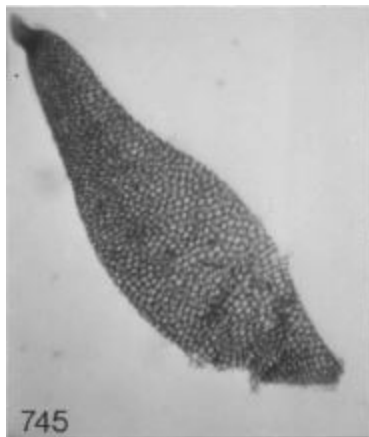
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 746

Letter --

Category --

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

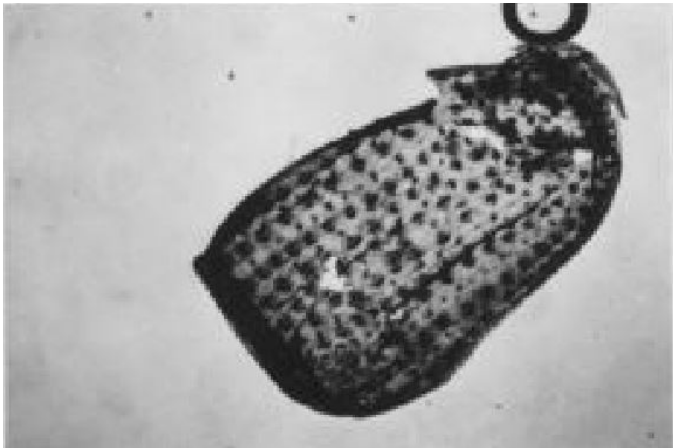
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	747		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

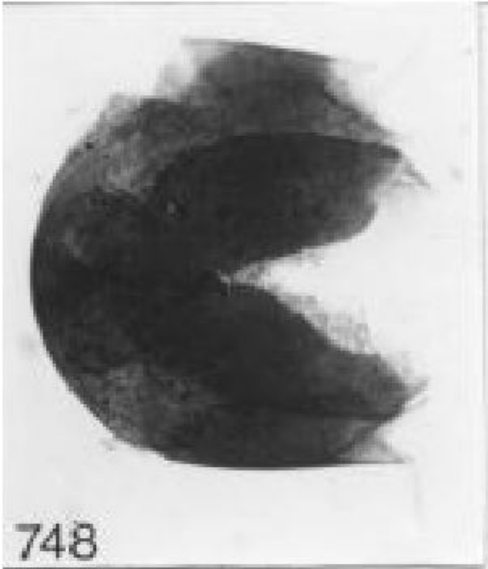
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	748	
Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 749

Letter --

Category --

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
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INTERPRETATION

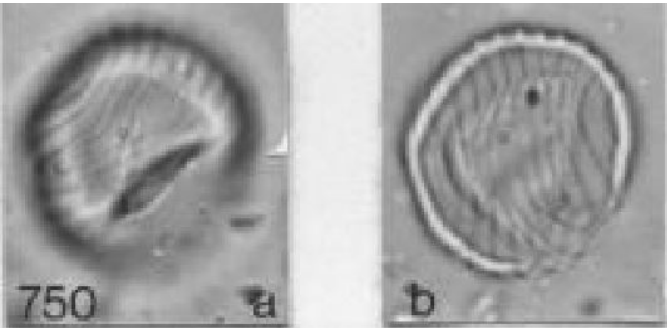
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

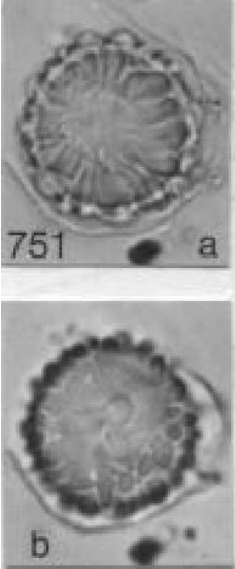
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
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INTERPRETATION

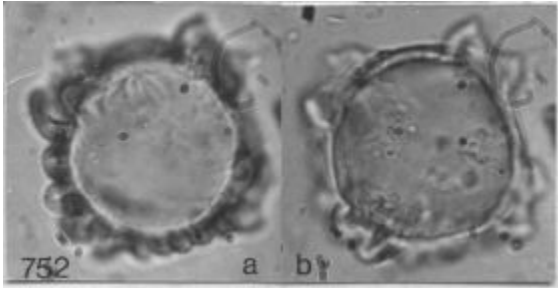
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		
		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 753

Letter --

Category --

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

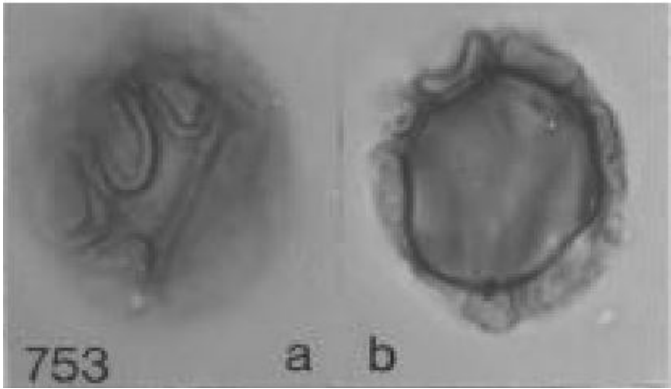
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
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INTERPRETATION

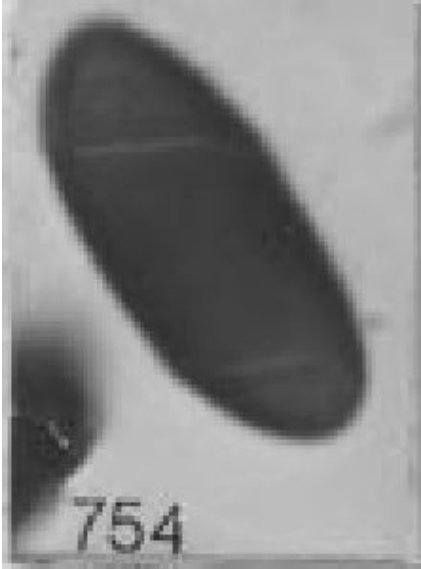
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
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INTERPRETATION

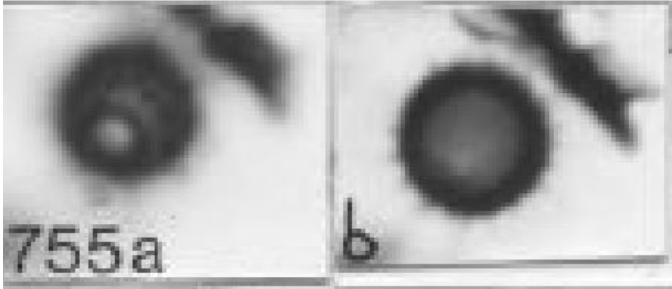
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Acronym	HdV	Colour --
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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		
		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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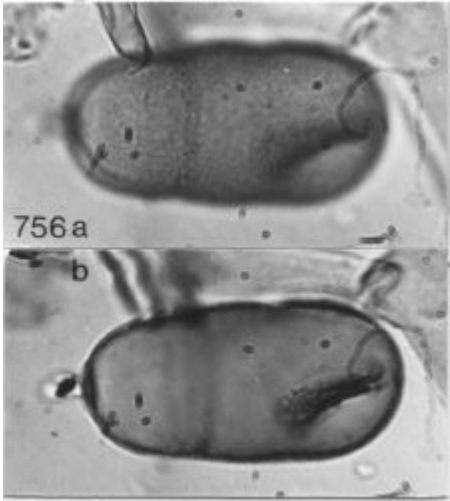
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
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INTERPRETATION

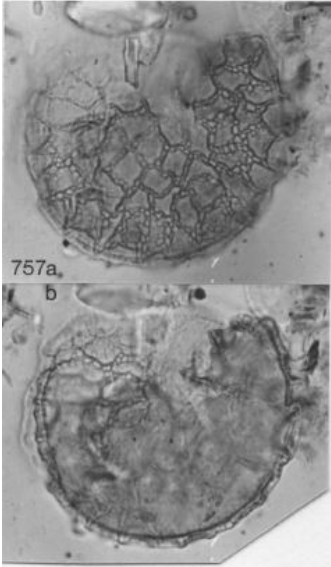
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

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Acronym	HdV	Colour --
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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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INTERPRETATION

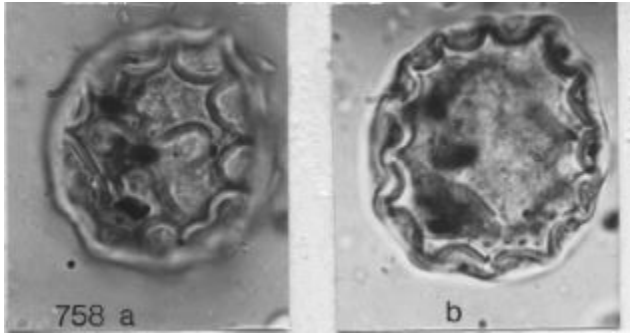
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION

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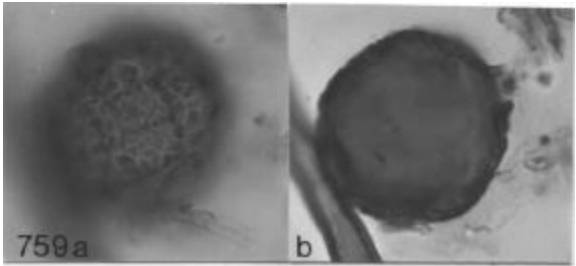
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First published in Bakker&VanSmeerdijk 1981

Other articles --

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Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--



NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
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INTERPRETATION

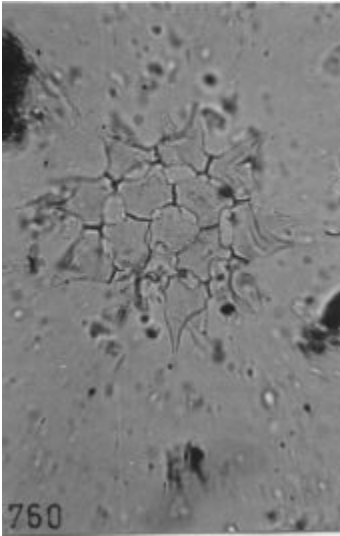
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
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Number	761		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

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|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

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|---|--|--|
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INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Number	763		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

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|---|--|--|
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INTERPRETATION

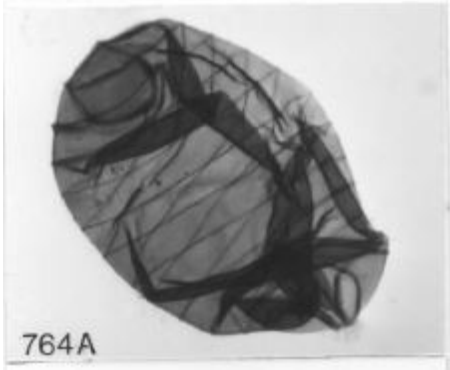
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		
		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 765

Letter --

Category --

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

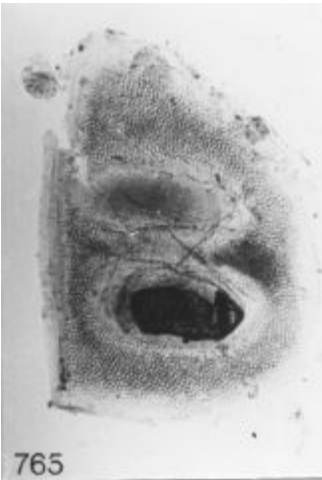
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 766

Letter --

Category Algae

**Taxonomical
identification** *Botryococcus sp.*

TAXONOMY

Kingdom Plantae

Phylum Chlorophyta

Class Trebouxiophyceae

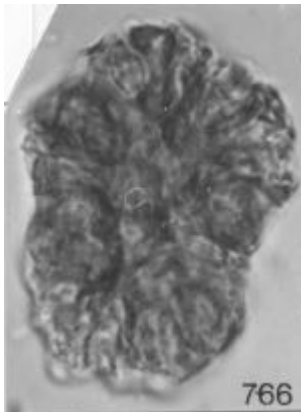
Order Incertae sedis

Family Botryococcaceae

Gender *Botryococcus*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


Distribution in the environments of elevated salinity of lagoons and salt and brackish-water marshes. Variable frequency

BIBLIOGRAPHY

First published in Bakker et al 1981

Other articles Medeanic 2008; Hermann 2010; Miola 2010

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	767	
Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 768

Letter --

Category --

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	769		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	770	
Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		
		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	771		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 719

Letter B

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

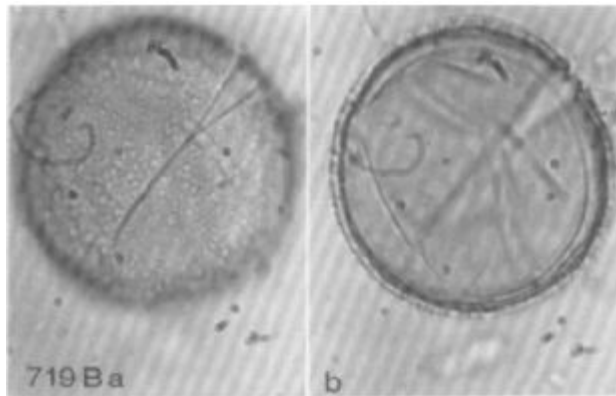
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 30--45 μm

Shape Ellipsoid to globose

Wall/surface --

Apertures A usually narrow fissure of more than half the length of the cell renders the cell sometimes boatshaped

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&Van Smeerdijk 1982

INTERPRETATION

it cannot be identified with any certainty as the spore of *Polytrichum commune*, which grows at the sampling site, although some resemblance was noted. A somewhat smaller "bud-like" form (Type 719Bc) was noticed in some cases

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 737

Letter B

Category Animalia

Taxonomical identification *Plumatella fungosa*

TAXONOMY

Kingdom Animalia

Phylum Ectoprocta

Class Phylactolaemata

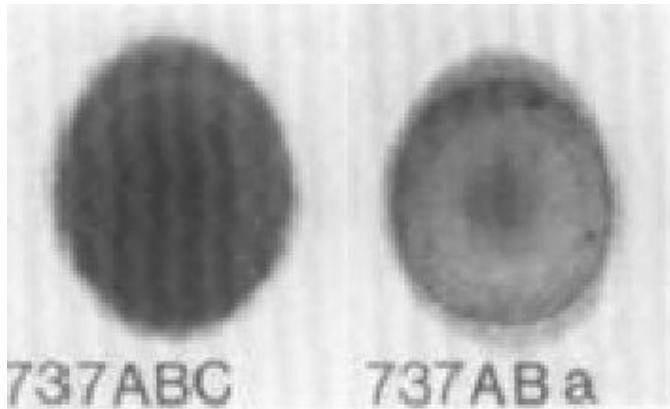
Order Plumatellida

Family Plumatellidae

Gender *Plumatella*

Species *fungosa*

Image



DESCRIPTION

Colour --

Dimensions c. 296--357 X 367--438 µm

Shape Floating body with 6-7 cells in linear arrangement on the pole and 4-5 rows of cells along its edge

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

It prefers not very turbulent, eutrophic bodies of fresh water (Streble and Krauter, 1976}. In the Ilperveld section, Type 737 is found in the clay which was deposited in the bog by eutrophic fresh water (phase J). Floatoblasts, a bryozoic type of survival structure, are very resistant and readily dispersed by water and by wind (Meglitsch, 1967)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 737

Letter C

Category Animalia

Taxonomical identification *Plumatella fungosa*

TAXONOMY

Kingdom Animalia

Phylum Ectoprocta

Class Phylactolaemata

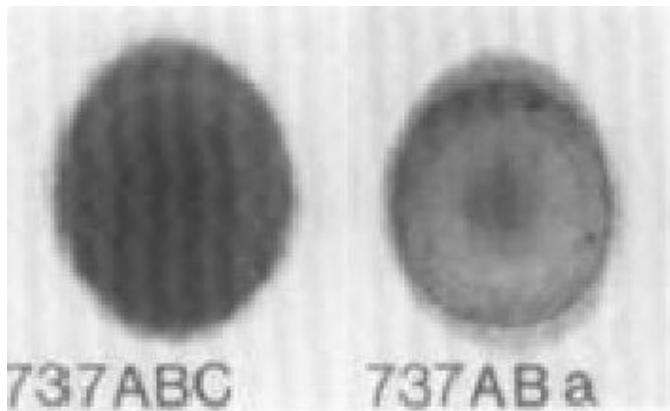
Order Plumatellida

Family Plumatellidae

Gender *Plumatella*

Species *fungosa*

Image



DESCRIPTION

Colour --

Dimensions Size similar to Type 737B

Shape Floating body, c. 10 rows of cells on the pole and 7 cell rows along the edge

Wall/surface Type 737B and 737C have cells with conspicuous papillae, which are most conspicuous on the central parts

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

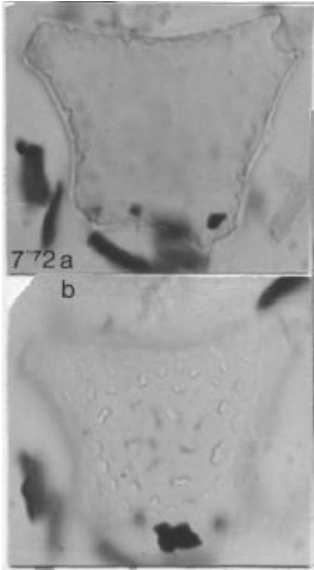
First published in Bakker&VanSmeerdijk 1981

Other articles Bakker&VanSmeerdijk 1982

INTERPRETATION

It prefers not very turbulent, eutrophic bodies of fresh water (Streble and Krauter, 1976}. In the Ilperveld section, Type 737 is found in the clay which was deposited in the bog by eutrophic fresh water (phase J). Floatoblasts, a bryozoic type of survival structure, are very resistant and readily dispersed by water and by wind (Meglitsch, 1967)

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	772	
Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

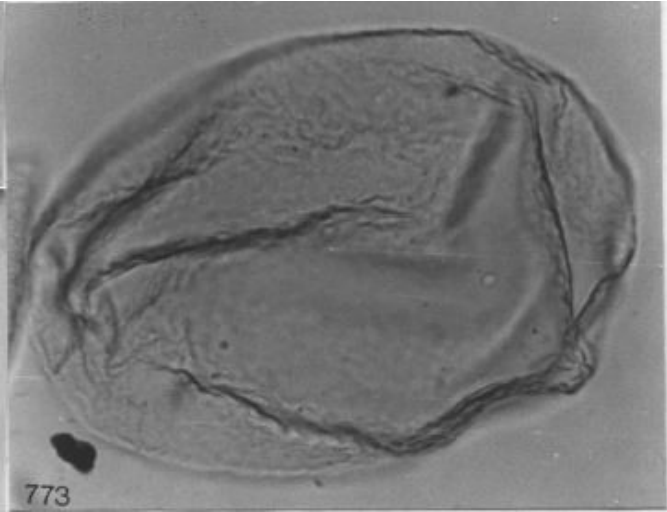
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	773		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 774

Letter --

Category --

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

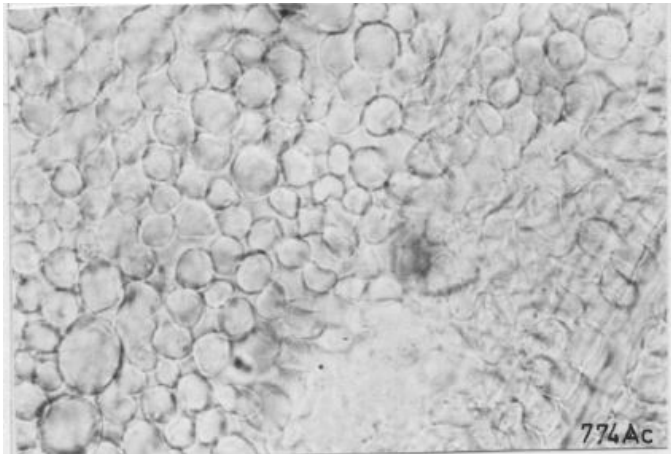
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

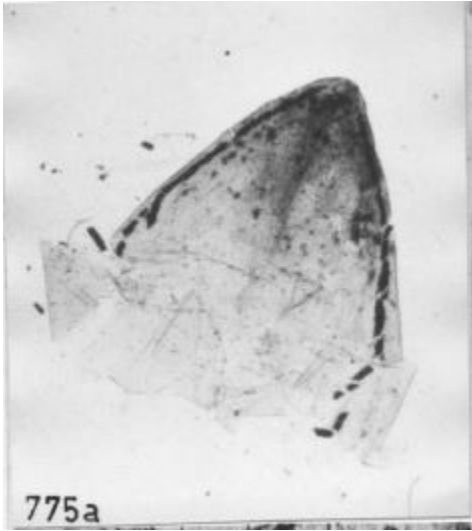
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	775		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 776

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

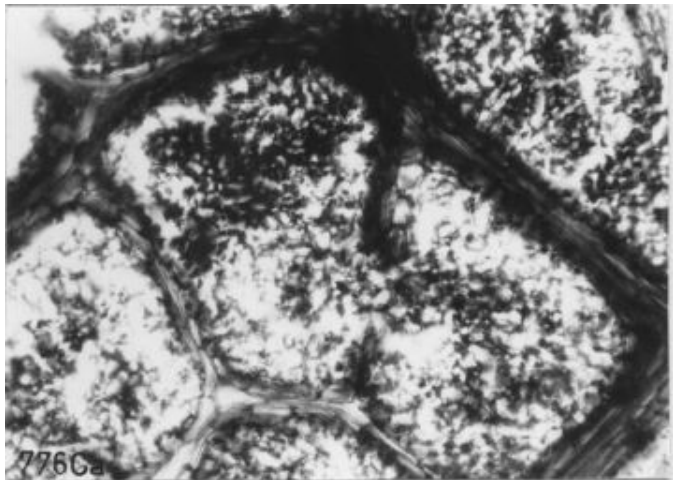
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 777

Letter --

Category --

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 778

Letter --

Category --

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

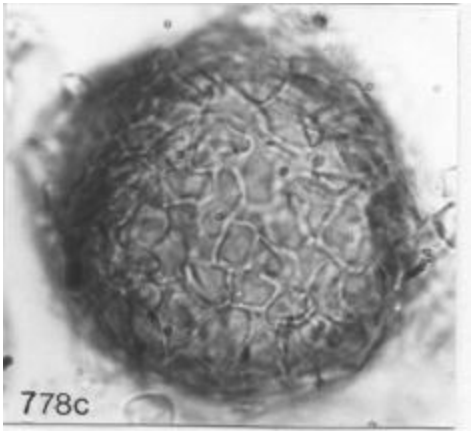
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
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INTERPRETATION

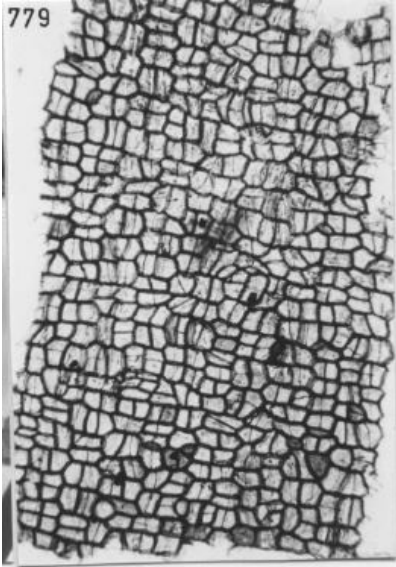
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	779	
Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

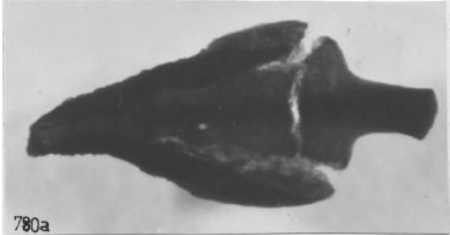
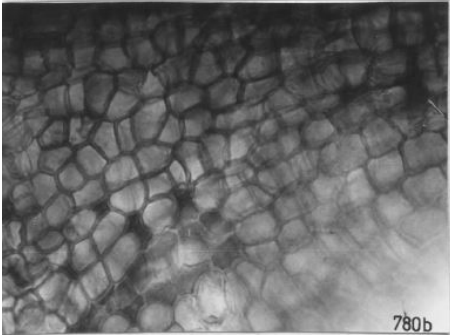
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image	<div> 780a</div> <div> 780b</div>	Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

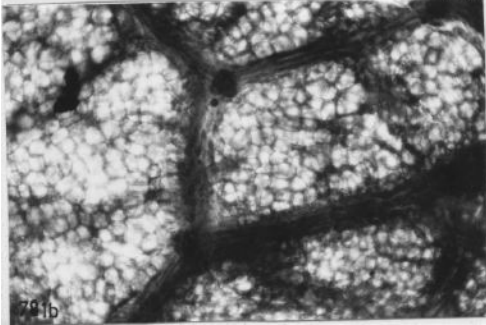
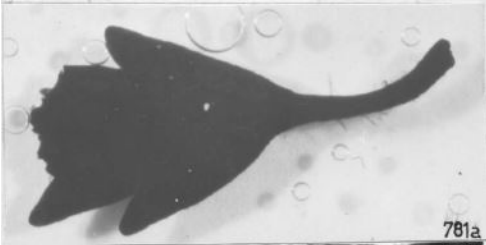
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	781	
Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image	<div></div>	Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
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INTERPRETATION

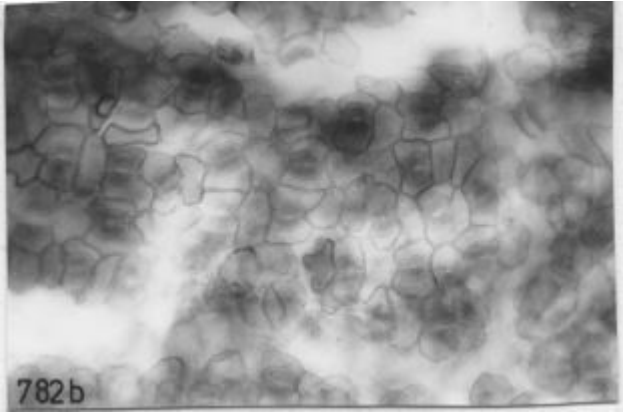
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	782		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 783

Letter --

Category --

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION


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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
Number	784	
Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

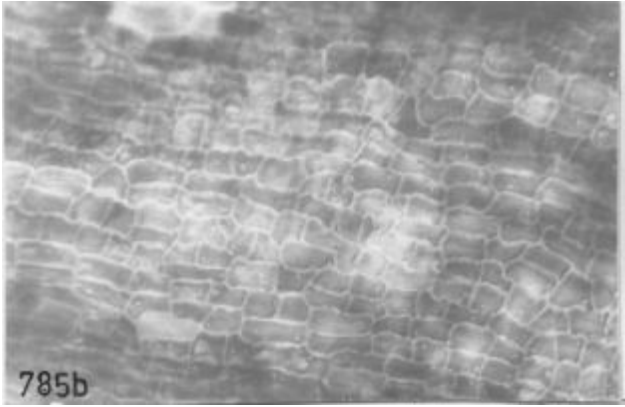
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

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Acronym	HdV	Colour	--
Number	785		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

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INTERPRETATION

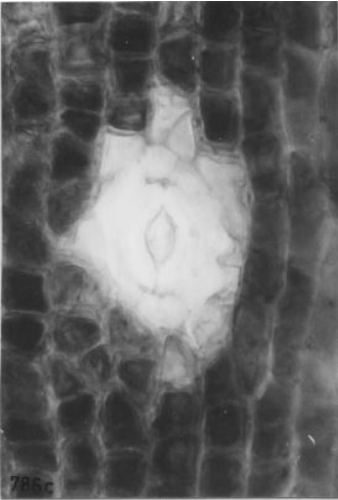
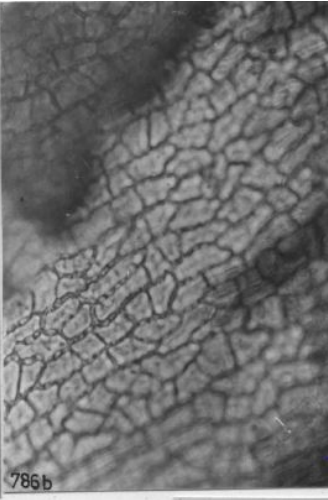
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
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Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION

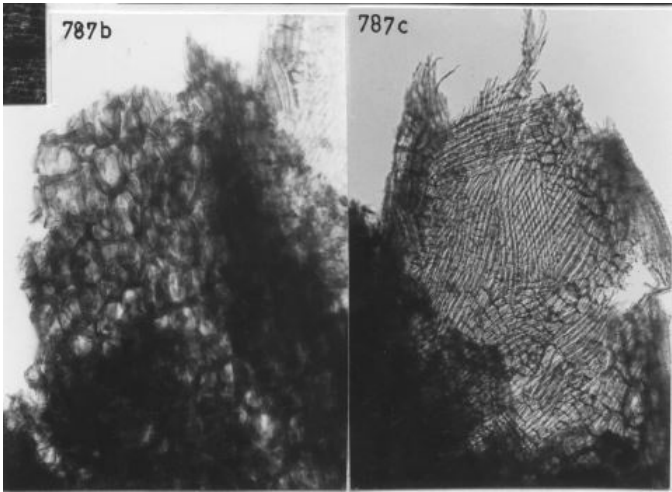
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		
		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

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|---|--|--|
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INTERPRETATION


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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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IDENTIFICATION		DESCRIPTION
Acronym	HdV	Colour --
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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

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|---|--|--|
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INTERPRETATION

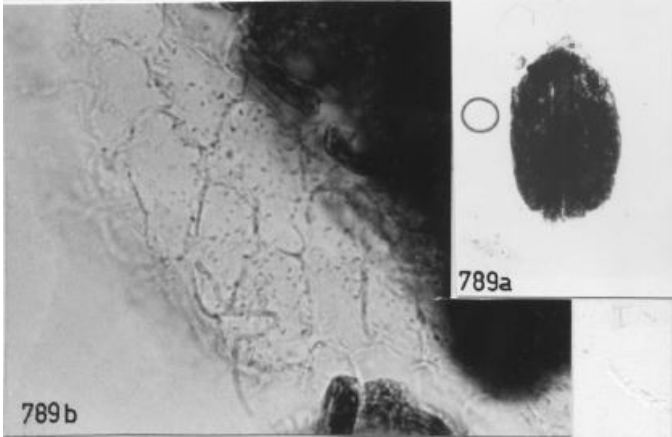
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
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Number	789		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

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Acronym HdV

Number 790

Letter --

Category --

**Taxonomical
identification** --

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Kingdom --

Phylum --

Class --

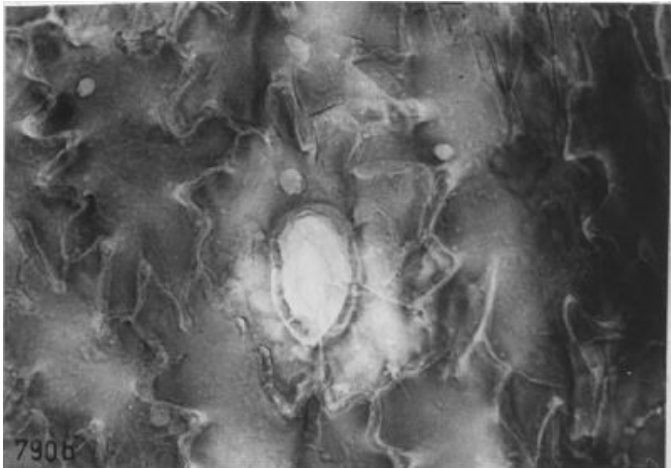
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

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Letter --

Category --

**Taxonomical
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Kingdom --

Phylum --

Class --

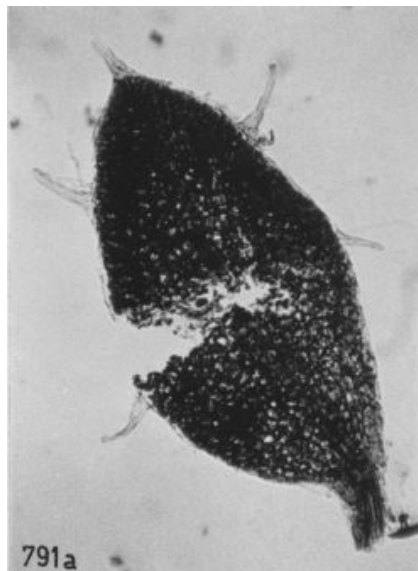
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
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INTERPRETATION


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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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IDENTIFICATION		DESCRIPTION
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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION


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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

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|---|--|--|
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INTERPRETATION

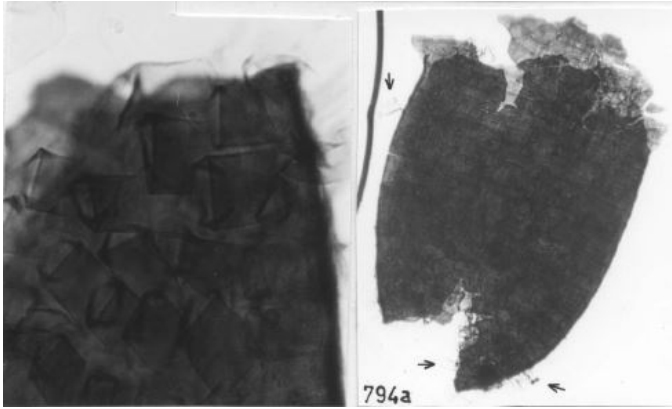
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		
		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

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INTERPRETATION

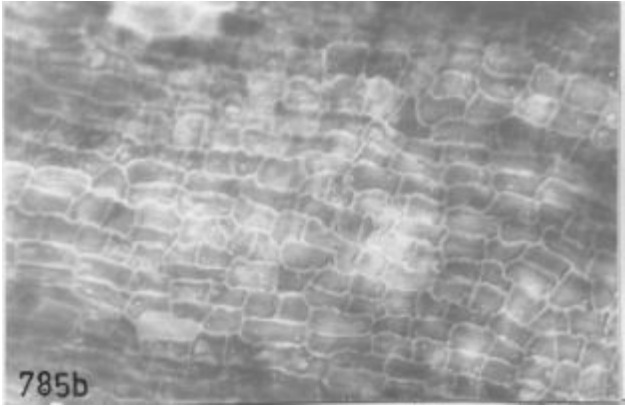
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

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|---|--|--|
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INTERPRETATION

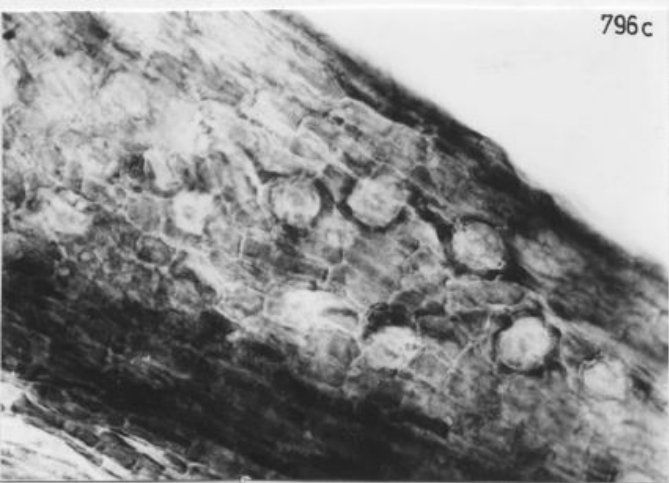
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

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INTERPRETATION

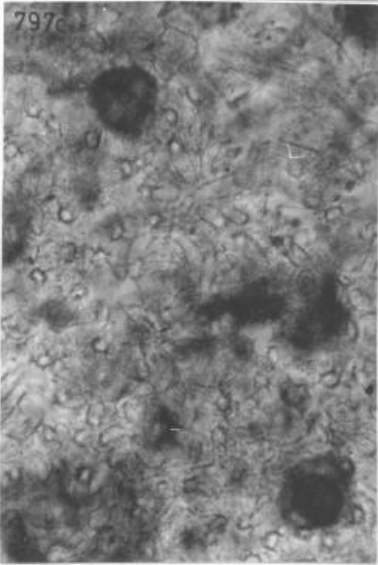
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Category	--	
Taxonomical identification	--	Dimensions --
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Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

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INTERPRETATION

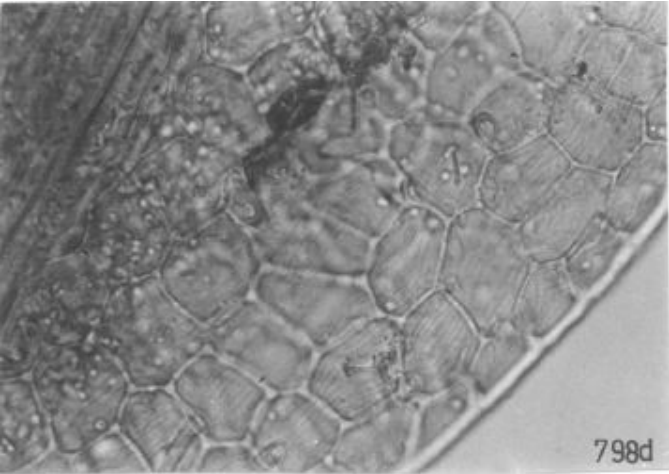
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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
			

NPP DATABASE

ECOLOGY

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INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 799

Letter --

Category --

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION


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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

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Letter	--	
Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
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INTERPRETATION


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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

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Category	--	
Taxonomical identification	--	Dimensions --
TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

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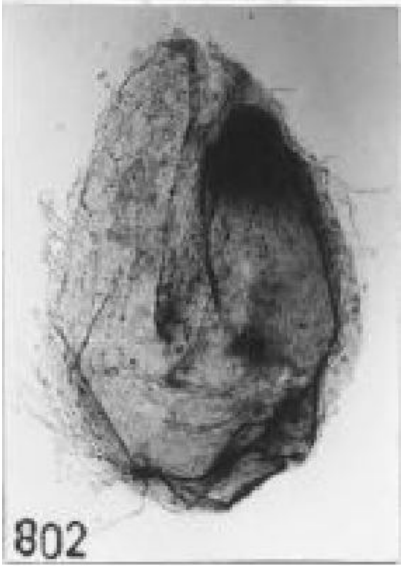
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First published in Bakker&VanSmeerdijk 1981

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Letter	--	
Category	--	
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TAXONOMY		
Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION


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First published in Bakker&VanSmeerdijk 1981

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Letter	--	
Category	--	
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Kingdom	--	
Phylum	--	Shape --
Class	--	
Order	--	
Family	--	
Gender	--	Wall/surface --
Species	--	
Image		Apertures --
		Other --
		Similar to --

NPP DATABASE

ECOLOGY

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INTERPRETATION

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First published in Bakker&VanSmeerdijk 1981

Other articles --

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IDENTIFICATION

Acronym HdV

Number 804

Letter --

Category --

Taxonomical
identification --

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Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

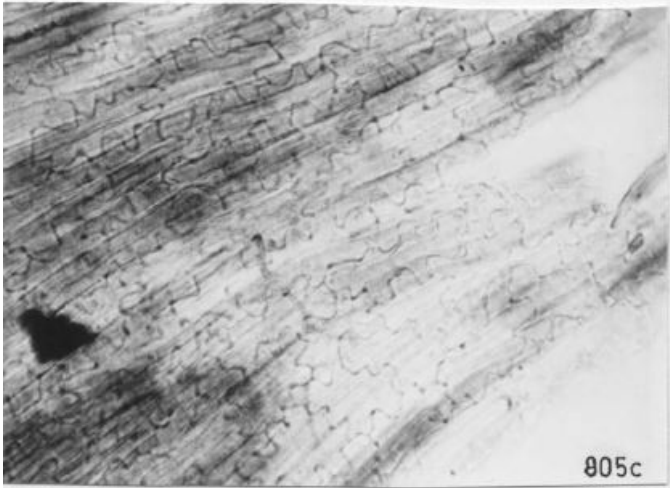
--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	805		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 806

Letter --

Category --

Taxonomical
identification --

TAXONOMY

Kingdom --

Phylum --

Class --

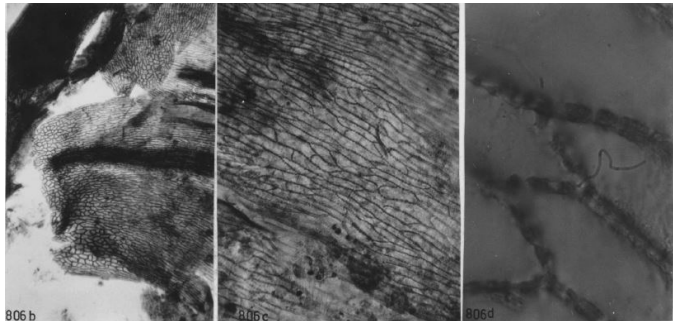
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	807		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	808		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	809		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&VanSmeerdijk 1981

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 810

Letter --

Category Unknown (ascospore or trilete spore?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

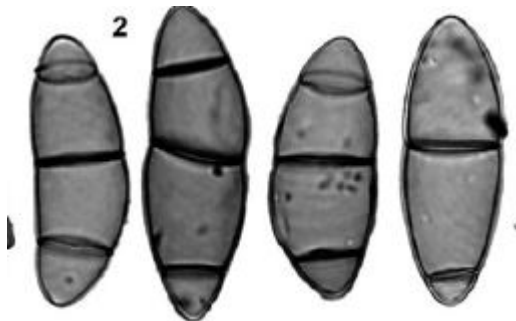
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions (44-) 49-59 x 16-20 μm . 150-200 μm in diameter (only broken fruit bodies were observed in pollen slides)

Shape Inequilateral (one side almost straight or even concave), slightly constricted at the septa. Fruit bodies globose

Wall/surface --

Apertures 3-septate. Each septum showing a c. 0.5- μm -wide pore. 2-septate and 4-septate spores also occur, but these are rare.

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker
&Van Smeerdijk 1981

Other articles Mauquoy 2004

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 811

Letter --

Category Fungi?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

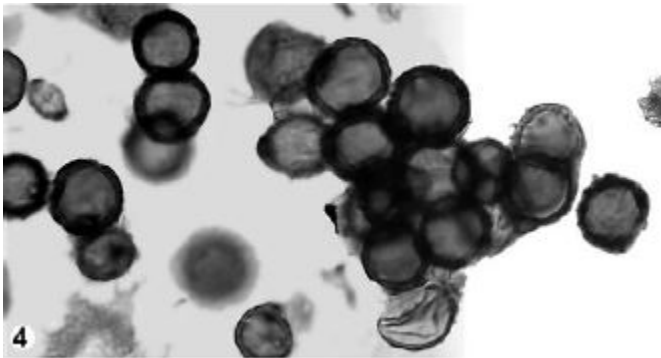
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 10–18 (–23) μm in diameter

Shape Globose

Wall/surface Roughly textured walls

Apertures --

Other Often groups of clustered spores were found in the microfossil slides

Similar to It closely resembles Type 38 (van Geel, 1972), which occurs in NW European raised bog deposits

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

No conclusions could be drawn from the record of Type 38 in those deposits (van Geel, 1978)

BIBLIOGRAPHY

First published in Bakker
&Van Smeerdijk 1981

Other articles Mauquoy 2004

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 812

Letter --

Category Fungi (conidia)

Taxonomical identification *Humicola alopallonella*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

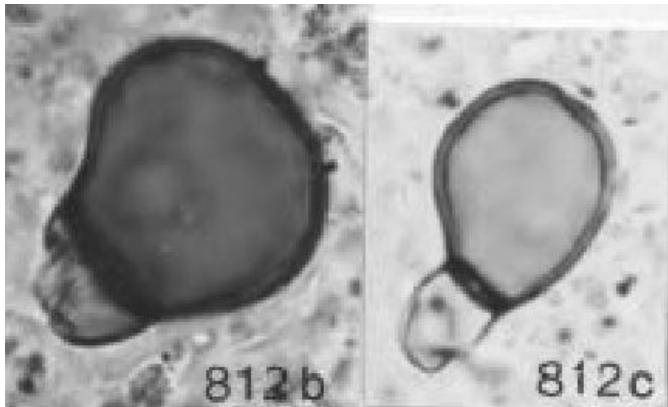
Order Sordariales

Family Chaetomiaceae

Gender *Humicola*

Species *alopallonella*

Image



DESCRIPTION

Colour --

Dimensions (3–) 6– 10 (–16) septate, (50–) 120–200 (–250) μm long and 5– 8 μm wide

Shape Conidia or chlamydospores transversely, formed at the ends of septate ca 2.5- μm -wide hyphae

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker
&Van Smeerdijk 1981

Other articles Mauquoy 2004

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 813

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

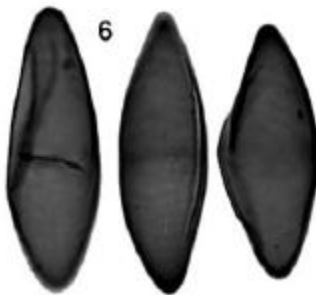
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 46–52 x 17–20 µm

Shape Septum often no longer attached to the spore wall

Wall/surface --

Apertures Monoseptate. Non-septate spores were also observed

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Conidia de *Cirrenalia* spec? (Bakker&Van Smeerdijk 1981)

BIBLIOGRAPHY

First published in Bakker
&Van Smeerdijk 1981

Other articles Mauquoy 2004

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 814

Letter --

Category Fungi (conidia or chlamydospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions (25–) 31–38 μm long and 13–17 μm wide

Shape Conidia or chlamydospores

Wall/surface --

Apertures Transversely 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Marine fungi conidia (Bakker&Van Smeerdijk 1981)

BIBLIOGRAPHY

First published in Bakker
&Van Smeerdijk 1981

Other articles Mauquoy 2004

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 815

Letter --

Category Fungi (conidia or spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Pezizomycotina

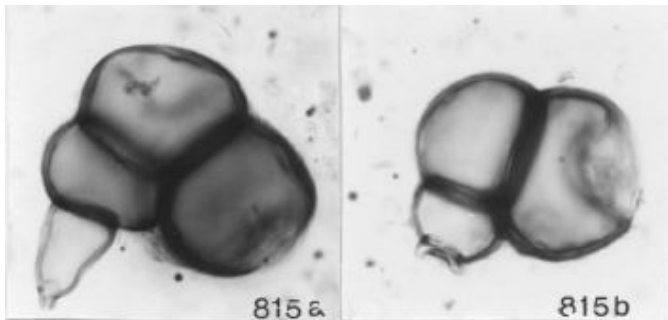
Order Sordariomycetes

Family Halosphaeriaceae

Gender *Cirrenalia*

Species *macrocephalea*

Image



DESCRIPTION

Colour --

Dimensions Each cell 10-25 μm in length and 5-12 μm in width

Shape 2-celled fungal spores, some spores have cells that vary in proportion from one another

Wall/surface --

Apertures The spores often show two germ slits running parallel along the axis of each cell

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Yeloff 2007b

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 816

Letter --

Category Fungi (conidia or spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Pezizomycotina

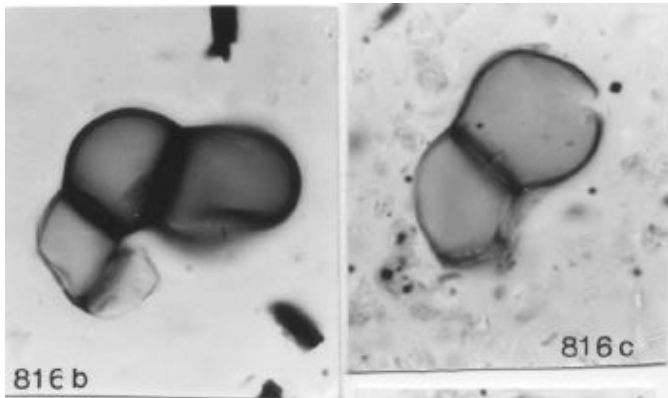
Order Sordariomycetes

Family Halosphaeriaceae

Gender *Cirrenalia*???

Species --

Image



DESCRIPTION

Colour --

Dimensions 15-33 μm in length and 5-8 μm in width

Shape Elongate fungal spores. Septa are often barely visible and are spaced out evenly along the long axis

Wall/surface --

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Bakker&Van Smeerdijk 1981

Other articles Yeloff 2007b

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	817		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	About 20µm in length and about 7.5µm in wide
TAXONOMY			
Kingdom	--	Shape	--
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	Often show a germ slit along the axis
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Yeloff 2007b

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	818		
Letter	--		
Category	Fungi (hypha)		
Taxonomical identification	--	Dimensions	58-220 µm in length and 16-30 µm in width
TAXONOMY			
Kingdom	--	Shape	Irregular and angular
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Possibly plant cells infested with fungal hyphae

BIBLIOGRAPHY

First published in Yeloff 2007b

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 819

Letter --

Category Animalia

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions About 68µm in diameter

Shape Winged, center often filled with dark material, frequently smaller globose objects. Wings quite fragile, more often than not found in a broken state, with two components: 1) the two wings joined together, about 55mm in length and about 33um in width and 2) the double-

Wall/surface Center composed of a doubled walled globose object. Wings relatively thin walled compared to the center

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Yeloff 2007b

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Hyaline, green/white ridges
Number	820		
Letter	--		
Category	Animalia (spore, eggs)		
Taxonomical identification	<i>Tardigrada</i>	Dimensions	28-36µm
TAXONOMY			
Kingdom	Animalia	Shape	
Phylum	Tardigrada		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Covered with small hyaline ridges, sometimes folded
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Yeloff 2007b

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	821		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	15-23 µm in length and 8-13 µm in width
TAXONOMY			
Kingdom	--	Shape	Egg-shaped objects
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Pits on surface at varying depths
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Yeloff 2007b

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	823		
Letter	--		
Category	Fungi (spores)		
Taxonomical identification	--	Dimensions	20-24µm in length and 7.5-12µm in width
TAXONOMY			
Kingdom	--	Shape	Composed of four cells, two central cells are relatively large, terminal cells are relatively large. Terminal cells are relatively small and almost hyaline
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Yeloff 2007b

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	900		
Letter	--		
Category	Algae (colonies)		
Taxonomical identification	<i>Pediastrum</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae	Shape	--
Phylum	Chlorophyta		
Class	Chlorophyceae		
Order	Sphaeropleales		
Family	Hydrodictyaceae		
Gender	<i>Pediastrum</i>	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

The colonies of this planktonic alga are common in zones A to C at the Beauval site, corresponding with eutrophic to mesotrophic aquatic conditions. Description in Garneau (1996). Other reference: Stool (1990)

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	901		
Letter	--		
Category	Algae (colonies)		
Taxonomical identification	<i>Botryococcus</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Chlorophyta	Shape	--
Class	Trebouxiophyceae		
Order	Trebouxiales		
Family	Botryococcoaceae		
Gender	<i>Botryococcus</i>	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Kuhry 1997

Other articles --

INTERPRETATION

This freshwater alga is characteristic of eutrophic to mesotrophic waters. It was especially found in zones O to C at the Beauval site, and in zone O at the Gypsumville site. Description in Garneau (1996)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	902		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Tardigrada</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia		
Phylum	Tardigrada	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	903		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Scoledonte</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia		
Phylum	Annelida	Shape	--
Class	Polychaeta		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	904		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Hydrozoa</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Cnidaria		
Class	Hydrozoa		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	905		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Trichoptera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Insecta		
Order	Trichoptera		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	906		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Cladocera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia		
Phylum	Arthropoda	Shape	--
Class	Branchiopoda		
Order	Diplostraca		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	907		
Letter	A		
Category	Animalia (larvae)		
Taxonomical identification	<i>Chironomidae</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Insecta		
Order	Diptera		
Family	Chironomidae		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	908		
Letter	--		
Category	Animalia (pupe)		
Taxonomical identification	<i>Coleoptera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Insecta		
Order	Coleoptera		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	909		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Hemiptera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Insecta		
Order	Hemiptera		
Family	--	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	910		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Diptera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Insecta		
Order	Diptera		
Family	--	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	911		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Ephemeroptera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Insecta		
Order	Ephemeroptera		
Family	--	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	912		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Lepidoptera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Insecta		
Order	Lepidoptera		
Family	--	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	913		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Hymenoptera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Insecta		
Order	Hymenoptera		
Family	--	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	914		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Homoptera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Insecta		
Order	Homoptera		
Family	--	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	915		
Letter	--		
Category	Animalia		
Taxonomical identification	<i>Pseudoscorpiones</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Arachnida		
Order	Pseudoscorpiones		
Family	--	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	916		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	917		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	918		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	919		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	920		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	921		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	922		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	923		
Letter	--		
Category	Fungi?		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	924		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	925		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	926		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	927		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	928		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	929		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	930		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	931		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	932		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	933		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	934		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	935		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	936		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	937		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	938		
Letter	--		
Category	Fungi		
Taxonomical identification	<i>Sordariaceae</i>	Dimensions	--
TAXONOMY			
Kingdom	Fungi	Shape	--
Phylum	Ascomycota		
Class	Sordariomycetes		
Order	Sordariales		
Family	Sordariaceae	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	939		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	940		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	941		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	942		
Letter	A		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	943		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	944		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	945		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	946		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

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First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	947		
Letter	--		
Category	Fungi		
Taxonomical identification	<i>Sordariaceae</i>	Dimensions	--
TAXONOMY			
Kingdom	Fungi	Shape	--
Phylum	Ascomycota		
Class	Sordariomycetes		
Order	Sordariales		
Family	Sordariaceae	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	948		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	949		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	950		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	951		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	952		
Letter	--		
Category	--		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	953		
Letter	--		
Category	Fungi		
Taxonomical identification	<i>Sordariaceae</i>	Dimensions	--
TAXONOMY			
Kingdom	Fungi	Shape	--
Phylum	Ascomycota		
Class	Sordariomycetes		
Order	Sordariales		
Family	Sordariaceae	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	Pale brown, hyaline
Number	954		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	42-47 x 12-13 µm
TAXONOMY			
Kingdom	--	Shape	Ellipsoidal
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Walls thinning towards the ends and sometimes corroded. Reticulate appearance created by anastomosing triangular processes
Species	--		
Image		Apertures	3-septate, with a pore in each septum and at both ends
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Garneau 1993

Other articles Kuhry 1997

INTERPRETATION

This Type occurs at only one level in *Sphagnum fuscum* peat of the Beauval core (at 6 cm) and the Gypsumville core (at 76 cm). Description in Garneau (1996).

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	955		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	Monoseptate spores, with a pore in the septum and at each end
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Garneau 1993

INTERPRETATION

This fungal type is exclusively found at the transition from mesotrophic to oligotrophic conditions at Beauval (zone D).
Description in Garneau (1996)

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	956		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	957		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	958		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	959		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	960		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	961		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	962		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	963		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	964		
Letter	--		
Category	Cyanobacteria		
Taxonomical identification	<i>Rivulariaceae</i>	Dimensions	--
TAXONOMY			
Kingdom	Bacteria		
Phylum	Cyanobacteria	Shape	--
Class	Cyanophyceae		
Order	Nostocales		
Family	Rivulariaceae		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	965		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	966		
Letter	--		
Category	Chromista (Acritarch)		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	967		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	968		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	HdV-726

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	969		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	970		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	971		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	972		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	973		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	974		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	975		
Letter	--		
Category	Fungi		
Taxonomical identification	<i>Sordariaceae</i>	Dimensions	--
TAXONOMY			
Kingdom	Fungi	Shape	--
Phylum	Ascomycota		
Class	Sordariomycetes		
Order	Sordariales		
Family	Sordariaceae	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	HdV-112B

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	976		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	HdV-184

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	977		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	978		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	979		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	980		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	HdV-128B

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Garneau 1993

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 981

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

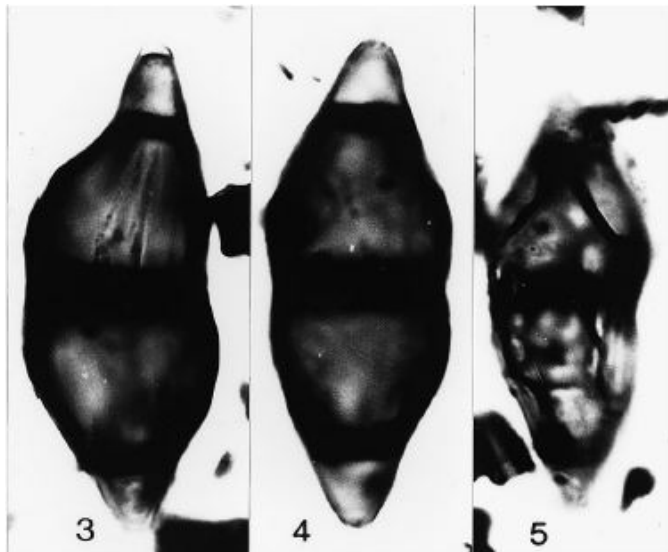
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark-brown

Dimensions (39–54)x(13–20) μm

Shape Elliptic to ventricose.

Wall/surface Infra-reticulate spore wall

Apertures 3-septate with a major median transverse septum and two minor distal septa.

Other --

Similar to A similar spore morphology including infra-sculpture has been observed in the pyrenomycete *Gnomonia dryadis* Averswald (Diaporthaceae) (Barr, 1959). Other resembling spores occur in *Herpotrichia diffusa* Fuckel. *H. rubi* Fuckel (Sivanesan, 1984). and

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Carrión 1999

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 982

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

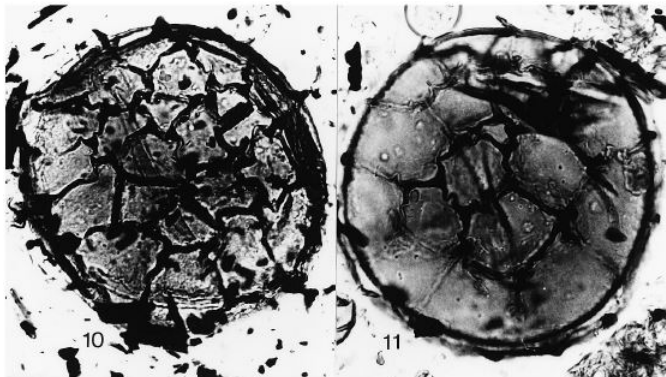
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 85–100 µm in diameter

Shape Subglobose

Wall/surface Irregular reticulate sculpture, meshes of the reticulum variable but up to 25–30 µm in size, muri showing subtriangular thickenings

Apertures --

Other --

Similar to Possibly oospores of species of *Oedogonium* (Algae) such as *O. pseudo-cleveanum* Gauthier-Lie`vre (Mrozinska, 1985). The same sculpture pattern occurs in other species such as *O. sphaerocephalum* Gauthier-Lie`vre. *O. ibadanense* Gauthier-Lie`vre.

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Carrión 1999

INTERPRETATION

Although all the *Oedogonium* species occur in fresh water environments, their ecological requirements are diverse and cannot be generalised

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 983

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

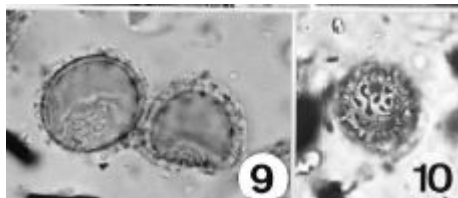
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to light brown

Dimensions 12–16 µm in diameter

Shape Globose

Wall/surface Sculpture of often anastomosing, bifurcate and seemingly palmate processes

Apertures --

Other --

Similar to Similar to Type 181 (Van Geel et al., 1983b)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input checked="" type="checkbox"/> Other |

INTERPRETATION

Probably the encystment phase of some algae (Strother, 1996).
Some desmids, mainly of the genus *Staurostrum*, have similar zygospores (*S. polytrichum*, *S. teliferum*, *S. asperum*, *S. hirsutum*, *S. pilosum*) (West, 1971). shallow freshwater

BIBLIOGRAPHY

First published in Carrión 1999

Other articles Carrión&Navarro 2002

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 984

Letter --

Category Algae?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

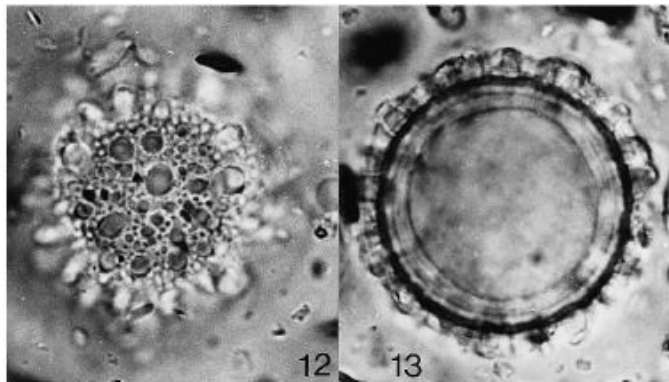
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 26–41 μm in diameter

Shape Globose

Wall/surface Ornamented with numerous, densely arranged bluntly rounded processes, which are more or less circular in surface view. Size of processes variable, up to 5 μm

Apertures --

Other --

Similar to This type resembles zygospores of some species of the desmid genus *Euastrum* such as *E. ansatum* Ralfs and *E. oblongum* (Grev.) Ralfs (West, 1971)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Carrión 1999

Other articles Carrión&Navarro 2002

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 985

Letter --

Category Algae? (zygospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

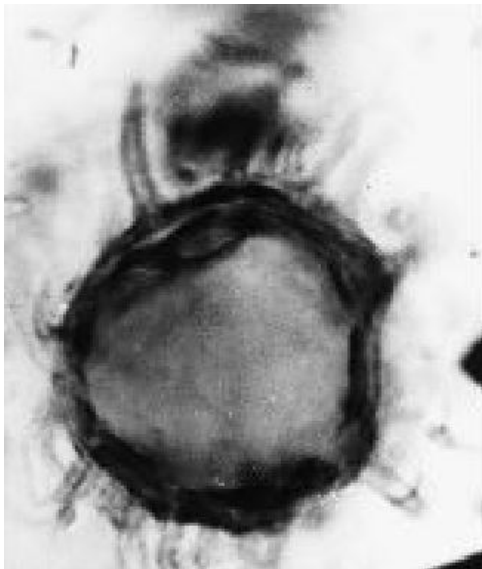
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline to light-brown

Dimensions 20–29 μm in diameter

Shape Subglobose

Wall/surface Numerous up to 16 μm long spines, most of which are curved and only rarely furcated

Apertures --

Other --

Similar to The most similar spore type found among extant algae is the zygospore of *Euastrum bidentatum* Nag, but that spore is larger in diameter (40–42 μm) (West, 1971)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Carrión 1999

Other articles Carrión&Navarro 2002

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 986

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

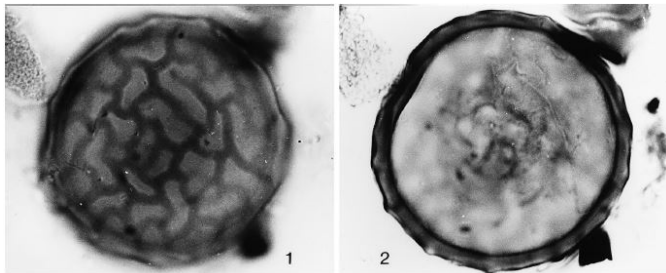
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark-brown

Dimensions 48–60 μm in diameter

Shape Subcircular to polygonal in outline

Wall/surface Infra-reticulate, lumina variable in size and shape, but up to 18 μm in diameter. Wall up to 4–5 μm thick

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Carrión 1999

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 987

Letter --

Category Algae?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

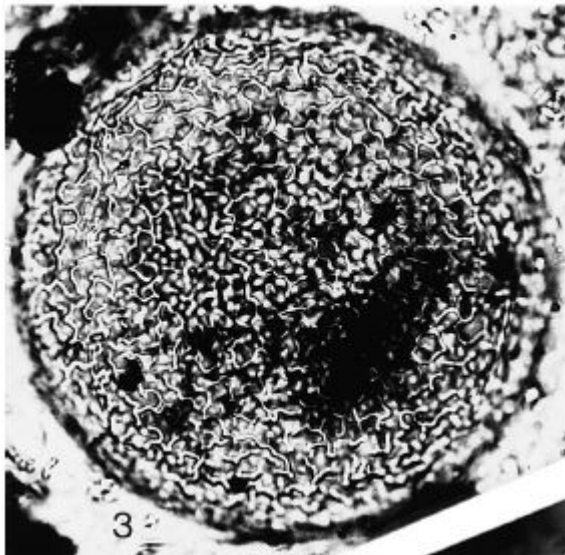
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 50–55 μm in diameter

Shape Globose

Wall/surface Reticulate with very thin muri. Lumina 0.2–4 μm

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Carrión 1999

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 988

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

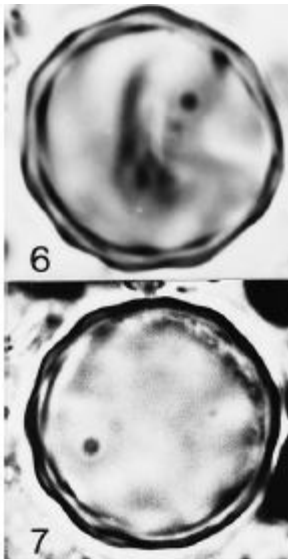
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 19–25 μm in diameter

Shape Globose

Wall/surface Psilate, wavy to subpolygonal in outline

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Carrión 1999

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 989

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

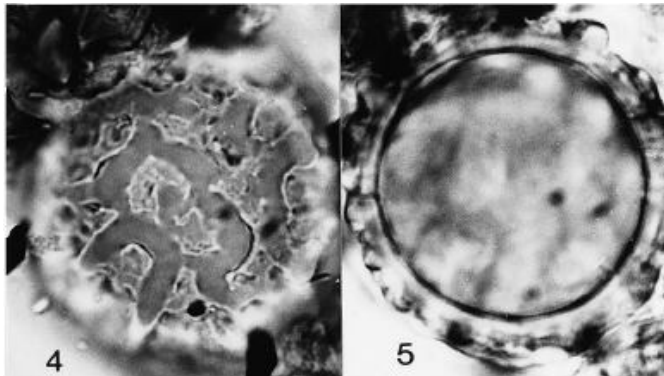
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 29–57 μm in diameter

Shape Globose

Wall/surface Ornamented with numerous, densely arranged, anastomosing processes

Apertures --

Other --

Similar to Similar to Type 984, apart from the anastomosis, which does not occur in Type 984

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Carrión 1999

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 990

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

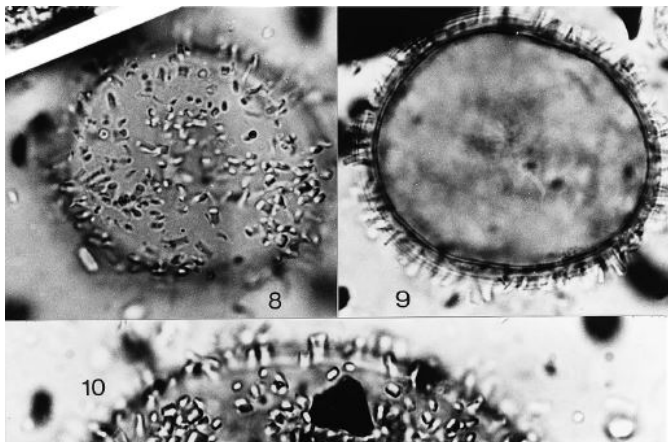
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 86–120 μm

Shape Globose

Wall/surface Ornamented with sparsely arranged, truncated, c. 2–4 μm long processes

Apertures --

Other --

Similar to Similar to the spores of some *Euastrum* species (West, 1971)

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Carrión 1999

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1001

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Caryosporaceae

Gender *Caryospora*

Species --

Image



DESCRIPTION

Colour Light to dark brown

Dimensions c. 50×28 µm

Shape Apiculate

Wall/surface --

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

Caryospora species occur on dead plant material (Barr, 1979). Only one specimen was found in the Challa record (in the full-Glacial section)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1002

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Chaetosphaeriales

Family Chaetosphaeriaceae

Gender --

Species --

Image



DESCRIPTION

Colour Central cells pale to dark brown; end cells paler

Dimensions 50–61×12–14 µm

Shape Cylindrical with flattened ends. central cells, almost of equal size; end cells, short, discoid or somewhat truncate, flattened or slightly rounded at free ends (often absent).

Wall/surface smooth, thick-walled

Apertures Unequally and subsymmetrically 3-5-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input checked="" type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

These conidia probably belong to *Sporoschisma saccardoi*. Specimens of which the end cells are missing, are possibly fragmented conidia of the same species (due to decay) or 3-septate conidia of other *Sporoschisma* species (e.g., *S. juvenile* Boud., *S. mirabile* Berk. & Broome). *Sporoschisma saccardoi* is distributed in tropical (e.g., Indonesia, Taiwan, Ecuador, and South Africa) and more temperate regions (e.g., Europe). It is mainly found on submerged wood in freshwater habitats (Goh et al., 1997).

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1004

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 24–31×10 µm

Shape Cylindrical with rounded end cells. Small pore in end cells

Wall/surface --

Apertures 3–5-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Rare in the Challa record; all 4 specimens were found in the full-Glacial section

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1005

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

Order --

Family --

Gender *Brachydesmiella*

Species --

Image



DESCRIPTION

Colour Pale brown to brown

Dimensions 30–47×13–18 µm

Shape Lemon-shaped, unequally and symmetrically 3-celled, central cell larger (20–37×13–18 µm) and darker than end cells (5×7 µm), which are broadly trapezoidal

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

INTERPRETATION

See also van Geel et al. (in press, 2011-this issue). *Brachydesmiella biseptata* has previously been reported from temperate regions (e.g. France, Japan, Canada, United Kingdom), but three *Brachydesmiella* (sub)species (*Brachydesmiella anthostomelloidea* Goh & K.D. Hyde, *B. biseptata* var. *orientalis* V. Rao & de Hoog and *B. caudata* V. Rao & de Hoog) are particularly known from submerged wood in tropical freshwater environments (Sivichai et al., 1998). Based on spore characters, this East African morphotype may refer to *B. anthostomelloidea* or *B. biseptata* var. *orientalis*

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1006

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

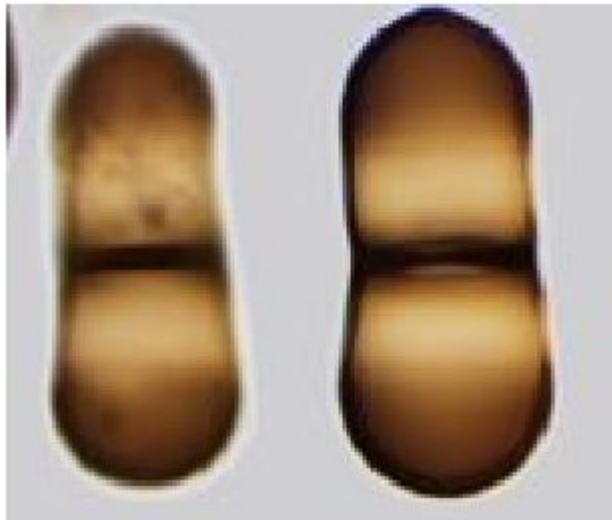
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 25×10 µm

Shape Elliptic-cylindrical, one cell slightly broader than the other one

Wall/surface Apices have thicker walls, darker than central part

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Rare in the Challa record (5 specimens total); present only in Glacial-period deposits

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1007

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

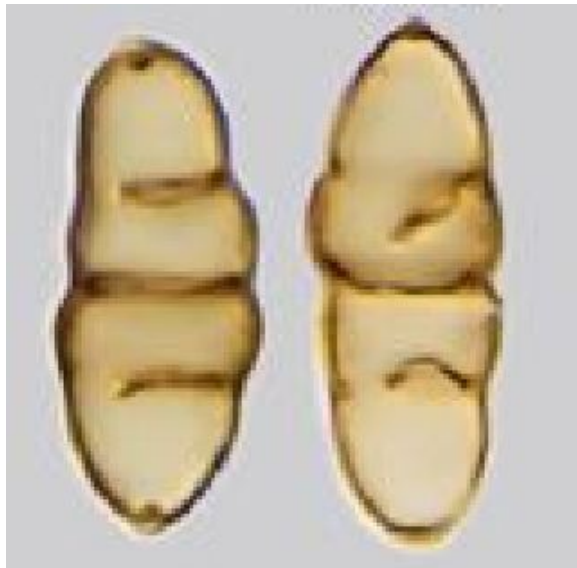
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 24–30×8–10 µm

Shape Constriction at central septum well developed, the other two septa not closed, with less constriction. Apical cells showing hilum

Wall/surface --

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

Type HdV-1007 spores were only recorded in the Glacial and Late-Glacial sections of the Challa record, disappearing from ca. 11,000 cal.yr BP

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1008

Letter --

Category Fungi (ascospores)

Taxonomical identification *cf. Valsaria sp.*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

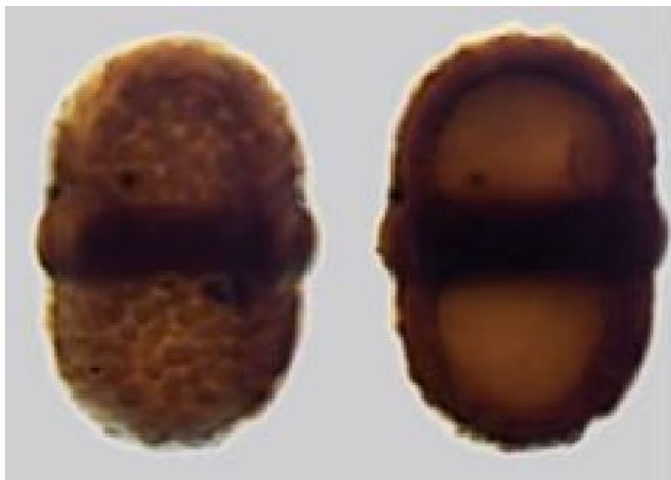
Order Diaporthales

Family incertae sedis

Gender *Valsaria*

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 30×20 µm

Shape Septum very pronounced and slightly protruding

Wall/surface Thick verrucose wall

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

Fossil *Valsaria* type ascospores were recorded by van Geel et al. (2003) in soil samples from a Roman Period settlement site in The Netherlands. In the Challa record type 1008 spores are relatively rare, but with a distinct Glacial and Late-Glacial distribution: 14 specimens were found in 7 intervals older than 11,100 cal.yr BP

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1009

Letter --

Category Fungi (ascospores)

Taxonomical identification *Chaetomium sp.*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Chaetomiaceae

Gender *Chaetomium*

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 8–10×7–8 µm

Shape Lemon-shaped, bilaterally flattened with apical pores

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

INTERPRETATION

Chaetomium species are cellulose-decomposing fungi occurring on plant remains and dung. Apart from the occurrence of their fossil ascospores in deposits from natural habitats (Type HdV-7A; van Geel, 1978; van Geel et al., 1989), fossil *Chaetomium* spores also appeared to be linked to archaeological sites (Buurman et al., 1995; van Geel et al., 2003). In the Challa record *Chaetomium* spores are very rare; we recovered 5 specimens in sediments dated between 18,200 and 7700 cal.yr BP

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1010

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 32×11 µm

Shape Uniseptate, fusiform

Wall/surface --

Apertures Pore at one end

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

Type HdV-1010 spores regularly occur in the Glacial and Late-Glacial sections of the Challa record but are largely absent in the Holocene, with the exception of a few finds at ca. 1300 and 400– 300 cal.yr BP

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1011

Letter --

Category Fungi (conidia)

Taxonomical identification *Epicoccum purpurascens* Ehrenb

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

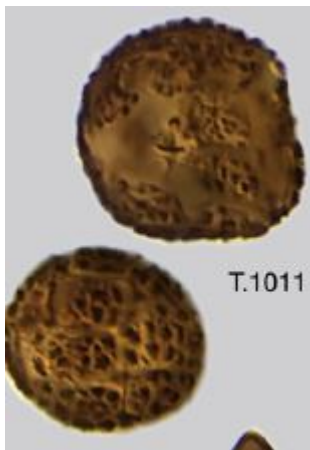
Order Pleosporales

Family Pleosporaceae

Gender *Epicoccum*

Species --

Image



DESCRIPTION

Colour --

Dimensions 15–28 µm in diameter

Shape Globose

Wall/surface Verrucose, with multiple transverse and vertical septa and a funnel-shaped smooth base with attachment scar

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

INTERPRETATION

E. purpurascens is a ubiquitous saprophytic fungus found on a variety of substrates. It is an extremely common cosmopolitan invader of dead plant material (Ellis, 1971), but is also known from soil, litter, wheat, potato, sugar beet, hay, bird nests, pulp, paper, cotton and wood (Domsch et al., 1980). Spores of *Epicoccum* are common in the Glacial, Late-Glacial and earliest Holocene sections of the Challa record, but become less frequent after 10,000 cal.yr BP

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1012

Letter --

Category Fungi (ascospores)

Taxonomical identification *cf. Sordaria sp.*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

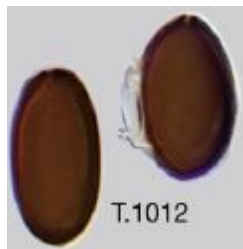
Order Sordariales

Family Sordariaceae

Gender *Sordaria*

Species --

Image



DESCRIPTION

Colour --

Dimensions 17–24×10–12 µm

Shape Ellipsoidal, with one pronounced apical pore and a much smaller pore at the other end

Wall/surface --

Apertures --

Other --

Similar to Type HdV-1012 spores are similar to *Sordaria*-like ascospores recorded in samples from European archaeological sites (Bakker and van Smeerdijk, 1982; Buurman et al., 1995; van Geel et al., 1981, 1983a.b. 2003). often in combination with ascospores of other

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

Sordaria species are not obligatory coprophilous (Munk, 1957). These spores are uncommon in the Challa record but found more or less throughout the sequence

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1013

Letter --

Category Fungi (ascospores)

Taxonomical identification *Cercophora type*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

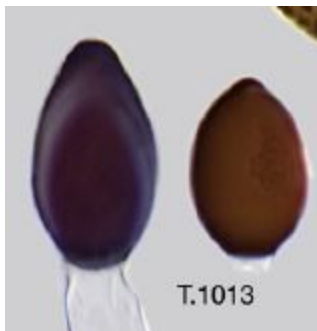
Order Sordariales

Family Lasiosphaeriaceae

Gender *Cercophora*

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 15–30×10–15 µm

Shape Ellipsoid, inequilaterally one-celled, tapering at one end but truncate at the other, often with one less convex side; pore often in a subpolar position and slightly protruding

Wall/surface Smooth and thick-walled

Apertures --

Other This morphotype differs from *Apiosordaria* type (Type UG-1171) by its more ellipsoid and often asymmetrically oblong form

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

INTERPRETATION

This type probably represents different species which may be attributed to different genera such as *Cercophora*, *Podospora*, *Triangularia*, *Tripterospora* and *Zopfiella*. All of these genera are difficult to distinguish by their single ascospores (Bell, 1983; Khan and Krug, 1989b). The fossil record of similar ascospores (TypeHdV -112) in European sites in relation to independent archaeological information (Buurman et al., 1995; van Geel et al., 1981, 1983a, 2003) indicates that *Cercophora* type spores often can be used as an indication for animal dung in the vicinity of the sample site

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1014

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Rosellinia type*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Xylariales

Family Xylariaceae

Gender *Rosellinia*

Species --

Image



DESCRIPTION

Colour --

Dimensions c.28×10 µm

Shape Fusiform

Wall/surface Long, oblique germ split

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

The species is reported to grow either on herbaceous or woody substrates, in alpine and subalpine regions of Europe and North America (Petrini and Petrini, 1989). Uncommon in the Challa record but found more or less throughout the sequence

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1015

Letter A

Category Fungi (conidia)

Taxonomical identification *Dictyoarthrinium cf. sacchari*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

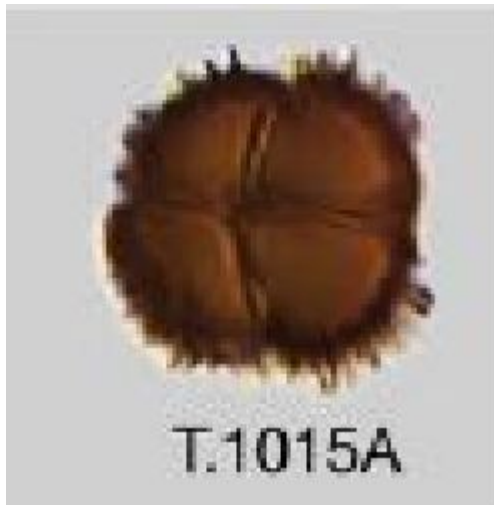
Order --

Family --

Gender *Dictyoarthrinium*

Species *sacchari*

Image



DESCRIPTION

Colour --

Dimensions 10–16 µm in diameter

Shape Square, cruciately septate, flattened in one plane

Wall/surface Verruculose

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

INTERPRETATION

The three Types, differing in the number of appendages, were in first instance recorded separately, but later grouped together and represented by one curve. *Dictyoarthrinium sacchari* is reported from a variety of tropical plants (Ellis, 1971). In the Challa record these conidia are rare in the Glacial and Late-Glacial sections, becoming more common during the Holocene

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1015

Letter B

Category Fungi (conidia)

Taxonomical identification *Dictyoarthrinium cf. sacchar*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

Order --

Family --

Gender *Dictyoarthrinium*

Species *sacchari*

Image



DESCRIPTION

Colour --

Dimensions 10–16 µm in diameter

Shape Square, cruciately septate, flattened in one plane

Wall/surface Verruculose

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

INTERPRETATION

The three Types, differing in the number of appendages, were in first instance recorded separately, but later grouped together and represented by one curve. *Dictyoarthrinium sacchari* is reported from a variety of tropical plants (Ellis, 1971). In the Challa record these conidia are rare in the Glacial and Late-Glacial sections, becoming more common during the Holocene

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1015

Letter C

Category Fungi (conidia)

Taxonomical identification *Dictyoarthrinium cf. sacchar*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

Order --

Family --

Gender *Dictyoarthrinium*

Species *sacchari*

Image



DESCRIPTION

Colour --

Dimensions 10–16 μm in diameter

Shape Square, cruciately septate, flattened in one plane

Wall/surface Verruculose

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

INTERPRETATION

The three Types, differing in the number of appendages, were in first instance recorded separately, but later grouped together and represented by one curve. *Dictyoarthrinium sacchari* is reported from a variety of tropical plants (Ellis, 1971). In the Challa record these conidia are rare in the Glacial and Late-Glacial sections, becoming more common during the Holocene

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1018

Letter A

Category Fungi (conidia)

Taxonomical identification *Spegazzinia tessartha*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Didymosphaeriaceae

Gender *Spegazzinia*

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 10–16 µm in diameter

Shape Cruciatly (cross-shaped) septate, equally and symmetrically 4-celled

Wall/surface Echinate (spines up to 3 µm long), thick-walled.

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

INTERPRETATION

Spegazzinia tessarthra is widespread in tropical and subtropical regions. It is particularly common on dead leaves and stems of various monocotyledonous plants, such as maize, grasses and Andropogon (Ellis, 1971; Subramanian, 1971)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1018

Letter B

Category Fungi (conidia)

Taxonomical identification *Spegazzinia tessartha*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Didymosphaeriaceae

Gender *Spegazzinia*

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 14–18 µm in diameter

Shape Cruciately septate, equally and symmetrically 4-celled

Wall/surface Smooth, thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

Spegazzinia tessarthra is widespread in tropical and subtropical regions. It is particularly common on dead leaves and stems of various monocotyledonous plants, such as maize, grasses and Andropogon (Ellis, 1971; Subramanian, 1971)

Other articles Van Geel 2011

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1020

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Apices darker than central part

Dimensions 24–28×16–18 µm

Shape Ellipsoidal

Wall/surface Apices have thicker walls

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

Rare in the Challa record (9 specimens), and except for a single find dated to ca. AD 1900, occur only in Glacial and Late-Glacial sections before 13,800 cal.yr BP

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1023

Letter --

Category Fungi (conidia)

Taxonomical identification *Spegazzinia intermedia*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

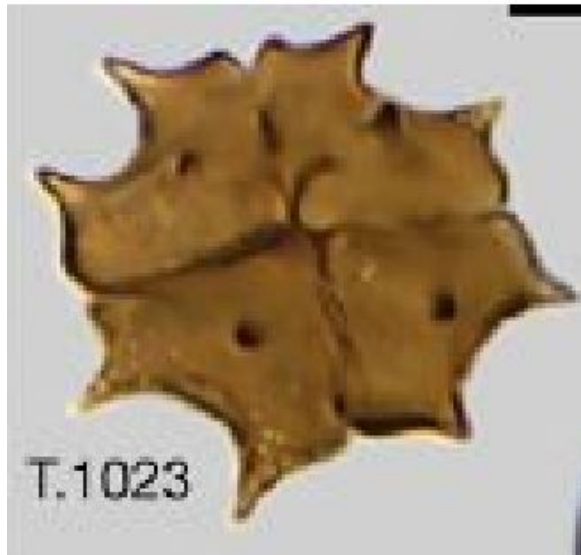
Order Pleosporales

Family Didymosphaeriaceae

Gender *Spegazzinia*

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 28 µm in diameter

Shape Disc-shaped, flattened, dentate at the margin, cruciately septate

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

INTERPRETATION

This fungus has been isolated from soil and from *Hibiscus* in Tanzania and from tobacco in the USA (Ellis, 1976). Jarzen and Elsik (1986) described and illustrated *Spegazzinia*-like spores from river deposits in Zambia. These conidia are rare in the Challa record (9 specimens), being restricted to Holocene and Late-Glacial sediments younger than 14,700 cal.yr BP

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1024

Letter --

Category Fungi (conidia)

Taxonomical identification *Brachysporium cf. pulchrum*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

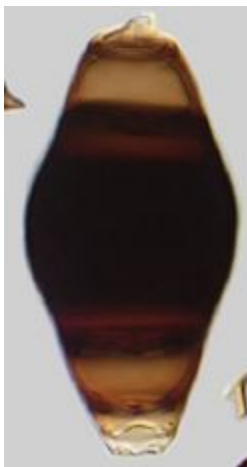
Order Trichosphaeriales

Family Trichosphaeriaceae

Gender *Brachysporium*

Species --

Image



DESCRIPTION

Colour Dark to pale brown

Dimensions 41–50×20–25 µm

Shape Central cell very large, others smaller

Wall/surface --

Apertures Mostly 4-septate

Other --

Similar to This type should not be confused with Type UG-1099 (Gelorini et al., 2011), which as suggested by size differences includes several other *Brachysporium* species apart from *B. pulchrum*

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

Brachysporium pulchrum has been found on *Phyllica* (Rhamnaceae) on Tristan da Cunha (Ellis, 1971). Rare in the Challa record (11 specimens), mainly recovered from mid- and late Holocene sediments

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1025

Letter --

Category Fungi (conidia)

Taxonomical identification *Diplocladiella cf. scalaroides*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

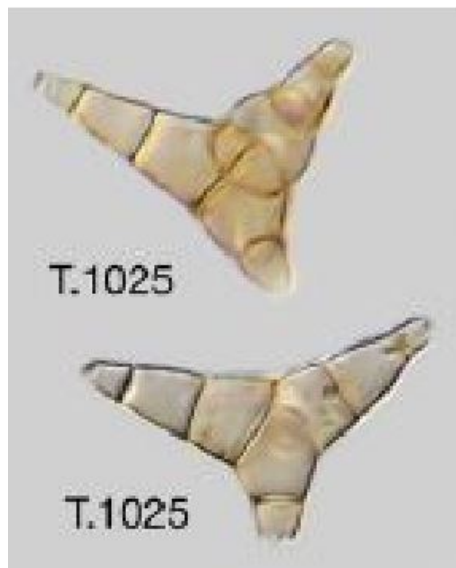
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 25 µm wide from horn tip to horn tip

Shape Triangular, 2-horned

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

The species was observed on dead wood in Europe (Ellis, 1976). Fossil spores were recorded by Barthelmes et al. (2006) in a Holocene deposit in Germany. Rare in the Challa record (8 specimens), with sporadic distribution

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1026

Letter --

Category Fungi (ascospores)

Taxonomical identification *Peziza/Scutellinia*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Pezizomycetes

Order Pezizales

Family Pezizaceae/Pyronemataceae

Gender *Peziza/Scutellinia*

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 23×9 μm

Shape Elliptical but slightly asymmetrical, covered with fine warts

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Spores of this type are common throughout the Challa record, and particularly abundant in the early Holocene section

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1027

Letter --

Category Fungi (ascospores)

Taxonomical identification *Munkovalsaria donacina*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Didymosphaeriaceae

Gender *Munkovalsaria*

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 19×7 µm

Shape Elliptical, constricted at septum, one cell wider and pointed, the other cell longer and rounded (Aptroot, 1995)

Wall/surface Thick-walled

Apertures 1-septate near in the middle

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

This species has been found on a variety of plants. In the Challa record it is most common in the full Glacial period (20,500–18,500 cal. yr BP) and the mid-Holocene (7000–4000 cal. yr BP), but also recorded in other periods

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1029

Letter A

Category Fungi (conidia)

**Taxonomical
identification** *Curvularia* spp.

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Pleosporaceae

Gender *Curvularia*

Species --

Image



DESCRIPTION

Colour Central cells darker than end cells

Dimensions 29–35×13–18 µm

Shape Curved, symmetrical

Wall/surface --

Apertures Transversally 3-septate (or more)

Other

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

These Types are identified with reference to Ellis (1971, 1976). These conidia regularly occur in the Glacial and Late-Glacial sections of the Challa record, but are most common during the early and middle Holocene. *Curvularia* intermedia, an anamorphic state of *Cochliobolus*, has been reported from Australia, Papua-New Guinea, Tanzania and the USA, and occurs on *Triticum*, *Zea*, *Oryza* and *Cynodon* (Ellis, 1971)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1029

Letter B

Category Fungi (conidia)

**Taxonomical
identification** *Curvularia* spp.

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Pleosporaceae

Gender *Curvularia*

Species --

Image



DESCRIPTION

Colour Central cells darker than end cells

Dimensions 29–35×13–18 µm

Shape Curved

Wall/surface --

Apertures Transversally 3-septate (or more)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

These Types are identified with reference to Ellis (1971, 1976). These conidia regularly occur in the Glacial and Late-Glacial sections of the Challa record, but are most common during the early and middle Holocene. *Curvularia* intermedia, an anamorphic state of *Cochliobolus*, has been reported from Australia, Papua-New Guinea, Tanzania and the USA, and occurs on *Triticum*, *Zea*, *Oryza* and *Cynodon* (Ellis, 1971).

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1030

Letter --

Category Fungi (ascospores)

Taxonomical identification *Byssothecium sp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Dacampiaceae

Gender *Byssothecium*

Species --

Image



DESCRIPTION

Colour Pale yellow

Dimensions c.60×13 µm

Shape Oblong and slightly curved, unequally and asymmetrically 4-celled, constricted at the middle septum; one central cell more elongated and slightly broader than the other

Wall/surface Smooth, central cells with thickened walls; end cells thinner wall

Apertures 3-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

INTERPRETATION

See also van Geel et al. (in press, 2011-this issue). *Byssothecium* can be found on (submerged) wood (Crane et al., 1992)

Other articles Van Geel 2011

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1031

Letter --

Category Fungi (conidia)

**Taxonomical
identification** *Acrodictys* sp

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

Order --

Family --

Gender *Acrodictys*

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 30–33×20 µm

Shape Ellipsoidal, basal cell truncate, c. 3 µm wide

Wall/surface Muriform

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles --

INTERPRETATION

This type is identified with reference to Ellis (1971, 1976). These conidia are rare in full Glacial Lake Challa sediments, but become frequent from 17,000 cal.yr BP onwards and are particularly common during the Holocene

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1032

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions 20×14 µm/ca. 15×10 µm

Shape Ellipsoid, one-celled

Wall/surface Wall pitted/microreticulate, slightly thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type HdV-1032 spores are rare in sediments of the full Glacial and Late-Glacial periods but become common during the Holocene

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1033

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 37×15 µm

Shape Constricted at the septum, one cell somewhat broader than the other

Wall/surface Spore surface finely warted

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

These spores are very rare in full Glacial and Late-Glacial Lake Challa sediments but become common during the Holocene

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	1037		
Letter	--		
Category	Fungi (conidia)		
Taxonomical identification	<i>cf. Helminthosporium sp.</i>	Dimensions	70–260 µm long
TAXONOMY			
Kingdom	Fungi		
Phylum	Ascomycota	Shape	Pseudoseptate, with a dark narrow scar at the base
Class	Dothideomycetes		
Order	Pleosporales		
Family	Massarinaceae		
Gender	<i>Helminthosporium sp</i>	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

These conidia are rare in sediments of the full Glacial and early Late-Glacial periods, and occur more frequently, though always in low numbers, from 12,500 cal.yr BP and through the Holocene

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1038

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Arecophila* sp.

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Xylariales

Family --

Gender *Arecophila*

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 20×8 µm

Shape Slightly constricted at the septum, showing a number of longitudinal slits (Hyde, 1996)

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

These spores rarely occur in the early (11,500–9500 cal.yr BP) and late Holocene (from 5000 cal.yr BP onwards) Lake Challa sediments

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1040

Letter --

Category Fungi (conidia)

Taxonomical identification *Isthmospora spinosa*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Microthyriales

Family Microthyriaceae

Gender *Isthmospora*

Species *spinosa*

Image



DESCRIPTION

Colour --

Dimensions c. 23×18 µm

Shape Complex, lobed, sarciniform

Wall/surface Echinulate: 1–2 µm long spines

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

INTERPRETATION

In the tropics, *Isthmospora spinosa* is a hyperparasite on various genera and species of the fungal family Meliolaceae (Hughes, 1953; Ellis, 1971). It is known from Central and South America including the Caribbean, tropical Africa and tropical East Asia, and can be locally abundant. Its teleomorph, *Trichothyrium asterophorum* (Berk. and Br.) Höhn., is rarely found but equally restricted to the same host and distribution range. Outside the tropics fossil conidia of *I. spinosa*, together with remains of its host ascomycete *Meliola ellisii*, which itself parasitized the heath plant *Calluna vulgaris*, have been recorded and illustrated by van Geel et al. (2006) in a Holocene raised bog deposit from northern England. In Lake Challa sediments the spores of *I. spinosa* are rare, the few specimens being found mostly in Late-Glacial and Holocene sediments. Spores of Meliolaceae fungi, their presumed host, were not found

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1041

Letter --

Category Fungi (conidia)

Taxonomical identification *Spegazzinia deightonii*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Didymosphaeriaceae

Gender *Spegazzinia*

Species --

Image



DESCRIPTION

Colour --

Dimensions c.12–16 µm in diameter

Shape --

Wall/surface 5 µm long spines

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

Spegazzinia deightonii occurs on a variety of plants (Ellis, 1971). In Lake Challa these conidia regularly, but uncommonly, occur in the late Late- Glacial to early Holocene (~13,000–10,000 cal. yr BP) section and again in the mid-Holocene (~6000–2500 cal.yr BP)

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1042

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Montagnula sp.*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Didymosphaeriaceae

Gender *Montagnula*

Species --

Image



DESCRIPTION

Colour --

Dimensions 27–29×12–14 µm

Shape Constricted at septum, one cell wider and pointed, the other cell longer and rounded

Wall/surface Thick-walled. Wall 'double-layered' (Aptroot, 1995)

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

INTERPRETATION

The lower spore seems to have fossilized remnants of the original thick gelatinous sheath, which is now secondarily contracted to form apiculae. These spores are common in the early Holocene deposits of Lake Challa (~10,500–7000 cal.yr BP), but also for a brief period around 3000 cal.yr BP

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1043

Letter --

Category Fungi (ascospores)

Taxonomical identification *Lasiodiplodia theobromae*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Botryosphaeriales

Family Botryosphaeriaceae

Gender *Lasiodiplodia*

Species --

Image



DESCRIPTION

Colour Reddish brown

Dimensions c. 27×14 µm

Shape Ellipsoid, subequally and subsymmetrically 2-celled

Wall/surface Slightly thick-walled, not constricted at the septum, with longitudinal ridges (3–4 on surface view)

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

INTERPRETATION

It is not always clear that it concerns conidia because the point of attachment can be indistinct due to unfavourable orientation. This morphotype strongly resembles *Lasiodiplodia theobromae*. It also resembles *Cainia desmazieri* C.Moreau & E. Müll. (syn. *Cainia incarcerata* (Desm.) E.Müll. & Arx), but *C. desmazieri* ascospores are smaller (22×7 µm), clearly constricted at the septum and not strictly ellipsoid (Moreau andMüller, 1963). Furthermore, the latter species is restricted to more temperate regions (Krug, 1978), whereas *Lasiodiplodia theobromae* has a worldwide distribution in tropical and subtropical regions. It has a very wide range of host plants, mainlywoody plants including fruits and tree crops such as mango, peach, avocado, cacao and *Eucalyptus* (Mohali et al., 2005; Mbenoun et al., 2008)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1044

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 32–38×12 µm

Shape Fusiform, about eight weakly developed transverse septa; slightly constricted at central septum

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Rare in Lake Challa and only recorded in the Holocene deposits

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1045

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark

Dimensions c.33×18 µm

Shape Curved

Wall/surface Middle part of the central cell thick-walled

Apertures 2-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Rare in Lake Challa and only recorded in its Holocene deposits

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1046

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 24–40×7–10 µm

Shape Slightly curved

Wall/surface --

Apertures Many transverse and a few longitudinal septa

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1022

Letter --

Category Fungi (conidia)

Taxonomical identification *Clasterosporium* sp

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order --

Family Sordariomycetidae

Gender *Clasterosporium*

Species --

Image



DESCRIPTION

Colour Brown to subhyaline (end cell)

Dimensions c. 40–75×8–9 µm (length dependent on the number of septa)

Shape Straight, curved or inversely club-shaped to beaklike; conico-truncate and protuberant at the base, unequally and asymmetrically 5- or more celled, cells decreasing in size towards apical cell

Wall/surface Striate, thick-walled

Apertures 4-septate (or more)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input checked="" type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

INTERPRETATION

See also van Geel et al. (in press, 2011-this issue). *Clasterosporium* can be found on different plants, of which some are frequently subjected to periodic flooding, such as sedges (Ellis, 1971, Ellis and Ellis, 1985)

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	1028		
Letter	--		
Category	Fungi		
Taxonomical identification	--	Dimensions	c. 10–12×8–10 μm in diameter
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	Rows of globose fungal cells, constrictions at the septa
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

INTERPRETATION

The observed variability suggests that this is probably a heterogeneous type, including different taxa. Type HdV-1028 fungal remains occur throughout the Challa record, but most commonly in the Holocene part

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1034

Letter --

Category Fungi (conidia)

Taxonomical identification *cf. Alternaria sp.*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Pleosporaceae

Gender *Alternaria*

Species --

Image



DESCRIPTION

Colour --

Dimensions 45–50×12–18 µm

Shape Tapering gradually to a beak, swollen at the tip, with transverse and longitudinal septa

Wall/surface Obclavate, verrucose

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Jarzen and Elsik (1986) described and illustrated Alternaria-like spores from river deposits in Zambia. This type is identified with reference to Ellis (1971). These conidia regularly occur in the Holocene sediments of Lake Challa

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1035

Letter A

Category Fungi (ascospores)

Taxonomical identification *Paraphaeosphaeria cf. michotii*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Didymosphaeriaceae

Gender *Paraphaeosphaeria*

Species *michotii*

Image



DESCRIPTION

Colour --

Dimensions 22–27×7–8 µm

Shape Constricted at the septum, one cell much shorter than the other.
Longer cell pinched in the middle

Wall/surface Surface verrucose

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

Paraphaeosphaeria michotii has been found mostly on Poaceae, Cyperaceae and Juncaceae (Shoemaker and Babcock, 1985). In Lake Challa sediments these spores occur at low densities from 22,000 to 18,000 cal.yr BP, and then commonly in most Holocene samples with a distinct peak from 10,000 to 8500 cal.yr BP

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1035

Letter B

Category Fungi (ascospores)

Taxonomical identification *Paraphaeosphaeria cf. michotii*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family Didymosphaeriaceae

Gender *Paraphaeosphaeria*

Species *michotii*

Image



DESCRIPTION

Colour --

Dimensions 22–27×7–8 µm

Shape Constricted at the septum, one cell much shorter than the other.
Longer cell pinched in the middle

Wall/surface Surface verrucose

Apertures Monoseptate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

Paraphaeosphaeria michotii has been found mostly on Poaceae, Cyperaceae and Juncaceae (Shoemaker and Babcock, 1985). In Lake Challa sediments these spores occur at low densities from 22,000 to 18,000 cal.yr BP, and then commonly in most Holocene samples with a distinct peak from 10,000 to 8500 cal.yr BP

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1036

Letter --

Category Fungi (conidia)

Taxonomical identification *cf. Brachysporium sp*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Trichosphaeriales

Family Trichosphaeriaceae

Gender *Brachysporium*

Species --

Image



DESCRIPTION

Colour Dark brown to hyaline

Dimensions 22–28×11–13 µm

Shape Apical cell elongated, connected with a smaller pale-brown central cell, basal cell small and hyaline, originally forming the connection with the mycelium

Wall/surface --

Apertures 2-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1046

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 24–40×7–10 µm

Shape Slightly curved, with many transverse and a few longitudinal septa

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Rare in Lake Challa and only recorded in its Holocene deposits

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1047

Letter --

Category Fungi (ascospores)

Taxonomical identification *Rhytidospora tetraspora*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Hypocreales

Family Ceratostomaceae

Gender *Rhytidospora*

Species --

Image



DESCRIPTION

Colour Brown to hyaline

Dimensions 16–20×18–19 µm

Shape Ellipsoid, one-celled

Wall/surface 2 µm wide, undulate hyaline episporium

Apertures Two apical pores c. 1 µm in diameter

Other --

Similar to Similar, but slightly smaller ascospores with the characteristic ornamentation probably referable to *Rhytidospora tetraspora* (Jeng and Cain, 1977) were found at a Bronze Age archaeological site in The Netherlands (Buurman et al., 1995)

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

INTERPRETATION

The number of ascospores per ascus, reported to be a valid species-level character in this genus, could not be assessed, leaving some doubt about the species identification. All known species of this genus inhabit dung (van Geel and Aptroot, 2006). This type is rare in the Challa record: only 3 specimens were found throughout the record

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1048

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

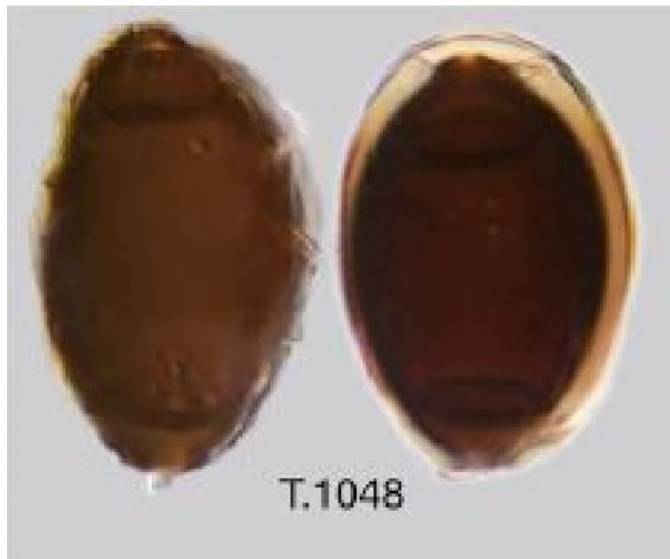
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Hyaline outer wall and inner dark brown wall.

Dimensions 29–34×19–21 µm, central cell larger (22–24(48)×15– 19(22) µm) than end cells (4×8 µm)

Shape End cells paler and conical to tapering

Wall/surface Smooth, thick-walled, surrounded by a hyaline sheath

Apertures 2-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1049

Letter --

Category Fungi (conidia)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

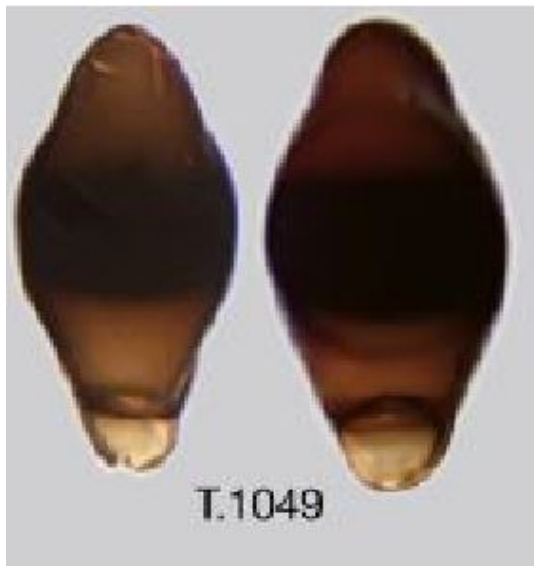
Order Englerulaceae

Family Englerulaceae

Gender *Mitteriella*

Species --

Image



DESCRIPTION

Colour Dark brown to subhyaline

Dimensions 28–34×14–16 µm

Shape Club-shaped, unequally and asymmetrically 3-celled, with two pale to dark brown larger cells and one more subhyaline smaller and narrower basal cell, 27×13 µm, central zone very dark, septum only visible with overexposure to light. other (parts of) cells paler

Wall/surface Smooth, very thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

INTERPRETATION

See also van Geel et al. (in press, 2011-this issue). The genus *Mitteriella*, the anamorphic state of *Schiffnerula*, is parasitic on different species of *Ziziphus*, a genus of spiny shrubs and small trees in th family of Rhamnaceae (Tandon, 1935).

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1051

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom Fungi

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 24–28×11–13 μm

Shape Ellipsoidal, with eight short longitudinal furrows

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Very rare (4 specimens) in Lake Challa; only present in Holocene deposits

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1052

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Xylariaceae*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

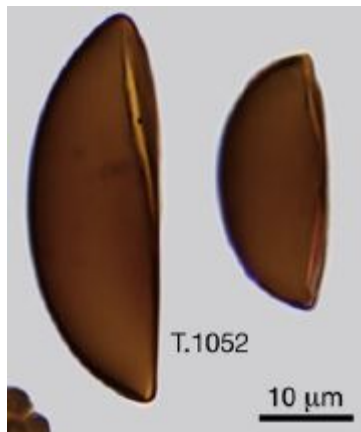
Order Xylariales

Family Xylariaceae

Gender --

Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions 37–40×13–16 μm

Shape Ellipsoid to subfusiform, inequilaterally one-celled, with tapering ends

Wall/surface Smooth, thick-walled

Apertures Germ slit nearly straight and running over the entire spore-length near the flattened side

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

INTERPRETATION

See also van Geel et al. (in press, 2011-this issue). This morphotype belongs to the family Xylariaceae, but further identification at the genus and species level is currently difficult because of possible affiliation with different genera (such as *Rosellinia* and *Hypoxylon*) or tropical species, which are still unknown. Xylariaceae are widely spread in temperate and tropical regions throughout the world. Apart from their endophytic existence, they are best known as saprotrophic wood-rotting fungi, as inhabitants of dung or litter and pathogens of a range of plants (Whalley, 1993)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1053

Letter --

Category Fungi (conidia)

Taxonomical identification *Dictyosporium cf. heptasporum*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

Order Pleosporales

Family --

Gender *Dictyosporium*

Species *heptasporum*

Image



DESCRIPTION

Colour Pale yellow

Dimensions 42–71×21–25 µm

Shape Broadly ellipsoid, composed of c. 7 rows of cells, slightly constricted at the septa

Wall/surface Smooth, slightly thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input checked="" type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

INTERPRETATION

See also van Geel et al. (in press, 2011-this issue). Contrary to other *Dictyosporium* species, the conidia of *Dictyosporium heptasporum* are not flattened in one plane. *Dictyosporium heptasporum* has been observed on decaying and submerged wood and stems in Europe, India and North America (Ellis, 1971)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1054

Letter --

Category Fungi (ascospores)

Taxonomical identification *Rosellinia cf. valdiviensis*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Xylariales

Family Xylariaceae

Gender *Rosellinia*

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 28×11 µm

Shape Cylindrical and rounded at the ends

Wall/surface --

Apertures With a long, oblique germ split over the whole length of the spore (Petrini, 1993)

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

INTERPRETATION

Barthelmes et al. (2006) reported similar spores as cf. *Helicoon* (of which some species have *Rosellinia* as a synonym). One single specimen was found in the Lake Challa sediments, dated to ca. 2500 cal.yr BP

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1055

Letter --

Category Fungi (spores)

**Taxonomical
identification** *Ustilago sp*

TAXONOMY

Kingdom Fungi

Phylum Basidiomycota

Class Ustilaginomycetes

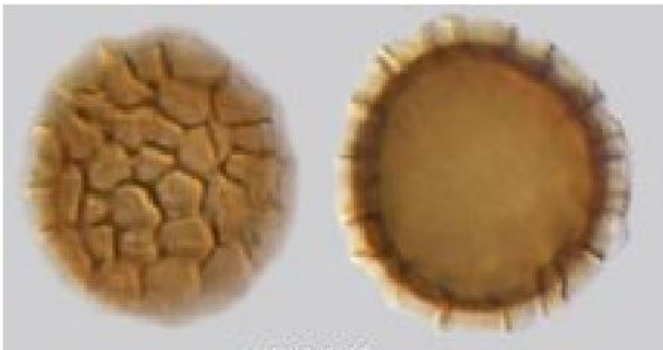
Order Ustilaginales

Family Ustilaginaceae

Gender *Ustilago*

Species --

Image



DESCRIPTION

Colour --

Dimensions 16–24 µm in diameter

Shape Globose

Wall/surface Reticulate with verruculose meshes

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

For an overview of Ustilaginales spores see Vánky (1994). In Lake Challa these spores (6 specimens in total) were recorded only in late Holocene sediments younger than 2300 cal.yr BP

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1056

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 25–30×19–22 µm

Shape Elliptical

Wall/surface Thick-walled with verrucae

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
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BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

In Lake Challa these spores (6 specimens in total) were recorded only in late Holocene sediments younger than 2200 cal.yr BP

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1057

Letter --

Category Fungi (ascospores)

Taxonomical identification *cf. Anthostomella vestita* Speg

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Xylariales

Family Xylariaceae

Gender *Anthostomella*

Species *vestita*

Image



DESCRIPTION

Colour --

Dimensions c. 10–13×8 µm

Shape Ellipsoidal

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

INTERPRETATION

These spores were very common both in the Glacial and Late- Glacial sections of the Lake Challa record, and during the first half of the Holocene; after 7000 cal.yr BP this type declines to very low numbers through to the present

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1058

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Yellowish brown

Dimensions 12 µm in diameter

Shape Globose to subglobose, equilaterally one-celled

Wall/surface Coarsely echinate (spines ~1–2 µm), thickwalled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

INTERPRETATION

These spores occur throughout the Lake Challa sequence except much of the Younger Dryas chronozone (13,500–12,000 cal. yr BP) and a brief episode around 7000 cal.yr BP; it is most common during the early Holocene

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1059

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

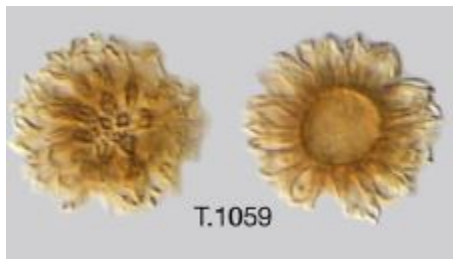
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 22 μm in diameter

Shape Globose

Wall/surface 6–7 μm long appendages

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION

These spores are rare but found more or less throughout the Challa sediment core

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1061

Letter --

Category Fungi (spores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 13–18 μm in diameter

Shape Globose

Wall/surface The irregularly placed c. 0.5 μm high warts

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In Lake Challa, these spores are almost entirely restricted to the Holocene sediments

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1062

Letter --

Category Animalia?

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

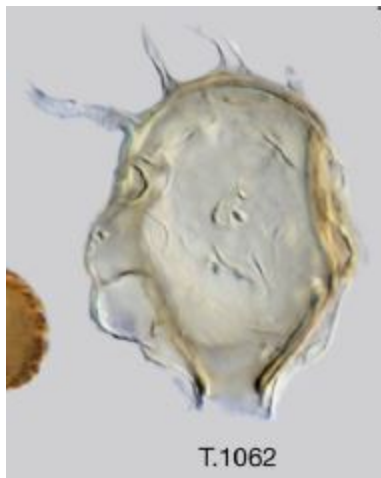
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 31–40×22–28 µm

Shape Ellipsoidal

Wall/surface Series of irregular appendages up to about 6–12 µm long

Apertures One protruding pore of c. 7 µm wide on the opposite side

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION

These peculiar microfossils were only recorded in late Holocene Lake Challa sediments, from ~4000 cal.yr BP onwards.

BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1064

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

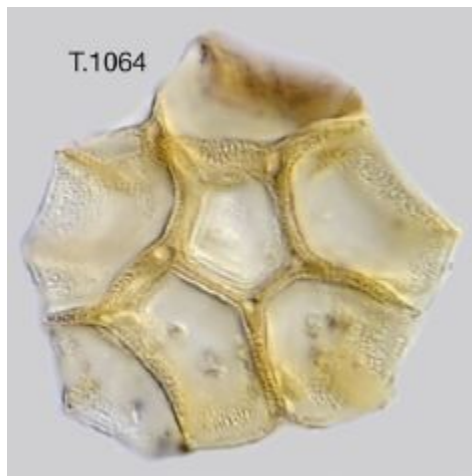
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions c. 43 μm in diameter and 4 μm high

Shape Globose

Wall/surface Reticulate with meshes 10–17 μm wide

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
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BIBLIOGRAPHY

First published in Van Geel 2011

INTERPRETATION

This type was very rare in Lake Challa (7 specimens), found only in late Holocene samples younger than 2500 cal. yr BP

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1093

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Dark brown

Dimensions c. 35×25 µm

Shape Ellipsoidal, to subglobose, equilaterally one-celled,

Wall/surface Thick-walled, ornamented with 1 µm wide, hyaline pits

Apertures One or two slightly protruding pores, concentrated near both ends

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

INTERPRETATION

Gelasinospora is widely reported from both coprophilous and soil habitats. Judging from the available records it is more widely distributed in tropical and subtropical regions than in temperate climate zones (Krug et al., 1994). Based on morphological features (size, form, surface pattern), this type may possibly belong to *Gelasinospora cratophora*, found on herbivore dung in Tanzania (Khan and Krug, 1989a)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1103

Letter --

Category Fungi (chlamydospores)

**Taxonomical
identification** *Glomus sp.*

TAXONOMY

Kingdom Fungi

Phylum Glomeromycota

Class Glomeromycetes

Order Glomerales

Family Glomeraceae

Gender *Glomus*

Species --

Image

DESCRIPTION

Colour Yellow

Dimensions c. 55×50 µm

Shape Globose to subglobose, subequilaterally onecelled, mostly with hyphate attachment

Wall/surface Smooth and thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

INTERPRETATION

Glomus species are endomycorrhizal fungi living in arbuscular vesiculae on a variety of host plants. Anderson et al. (1984) identified *G. fasciculatum* in post-glacial lake sediments in Maine (USA), where it became established with tundra vegetation on newly developing soils soon after icecap retreat. It was postulated that high soil erosion accounted for the abundance of *Glomus* in Late-Glacial sediments, and that reduced abundance in Holocene sediments was due to the establishment of trees. In the Lake Challa sediments few of these chlamydospores were found (3 specimens), and only in late-Holocene sediments up to 4500 years old

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1245

Letter --

Category Fungi (ascospores)

**Taxonomical
identification** *Diporotheca sp.*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class --

Order --

Family Diporothecaceae

Gender --

Species --

Image



DESCRIPTION

Colour Pale brown to dark brown

Dimensions 34–45×24–30 µm

Shape Broadly fusiform, equilaterally one-celled, tapering ends with pores

Wall/surface Thick anastomosing ribs that are often broadly reticulate, very thick-walled

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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BIBLIOGRAPHY

First published in Gelorini 2011

Other articles Van Geel 2011

INTERPRETATION

It is previously known from European palaeoecological studies that a single *Diporotheca* fruitbody may include ascospores which are morphologically very divers (van Geel et al., 1986). This is also true for the East African *Diporotheca* findings, in which small morphological differences between specimens hamper solid classification of species. Contrary to the *Diporotheca* specimens found in the fossil record of lake Challa (see van Geel et al., in press, 2011-this issue), most ascospores reported from the Ugandan lake surface sediments are characterized by the absence of two (pale) septa. In temperate regions this parasitic genus of Meliolaceae regularly occurs in Holocene deposits formed in eutrophic to mesotrophic moist conditions (van Geel et al., 1986)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1351

Letter --

Category Fungi (ascospores)

Taxonomical identification *Gelasinospora cf. dictyophora* R.S. Khan & J.

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Sordariomycetes

Order Sordariales

Family Sordariaceae

Gender *Gelasinospora*

Species *dictyosphora*

Image



DESCRIPTION

Colour Dark brown surface, ornamented with 3–4 µm wide hyaline pits

Dimensions c. 32×22 µm

Shape Ellipsoidal

Wall/surface --

Apertures Non-septate

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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BIBLIOGRAPHY

First published in Van Geel 2011

Other articles --

INTERPRETATION

This *Gelasinospora* species is similar to *G. retispora*. The ascospores of *Gelasinospora dictyophora* differ from it in their ornamentation, with large, more rounded pits forming a network pattern in the spore wall (Khan and Krug, 1989). In Lake Challa sediments these spores are very rare (1 specimen)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1400

Letter --

Category Fungi (ascospores?)

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 45-46 × 10-12 μm

Shape Spindle-shaped, unequally oneseptate

Wall/surface Ornamented by a dense pattern of longitudinal ridges

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION

Type HdV-1400 spores are of regular occurrence in zone 1 and the lower part of zone 2

BIBLIOGRAPHY

First published in Van Geel 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1401

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

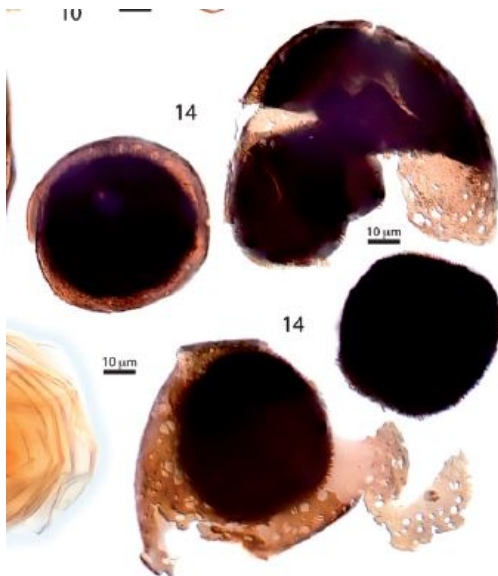
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Light (outer wall) to dark (outer wall) brown

Dimensions Most specimens with broken outer wall, but intact microfossils 50-63 µm in diameter. Diameter of inner spore 40-57 µm

Shape Double wall

Wall/surface Outer wall thin, inner wall thick, closely covered with up to 2 µm high appendages

Apertures With many irregularly formed, from 4 µm up to 12 µm wide holes.

Other --

Similar to --

NPP DATABASE

ECOLOGY

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|---|--|--|
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BIBLIOGRAPHY

First published in Van Geel 2010

INTERPRETATION

The biological origin of the Type HdV-1401 microfossils is unknown. They only occur in the sandy base of the peat layer (zone 1), together with, a.o. taxa, *Cenococcum sclerotia*, *Sordaria*-type ascospores, *Scorpidium revolvens* and *Calliergonella cuspidata*

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 1402

Letter --

Category Unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

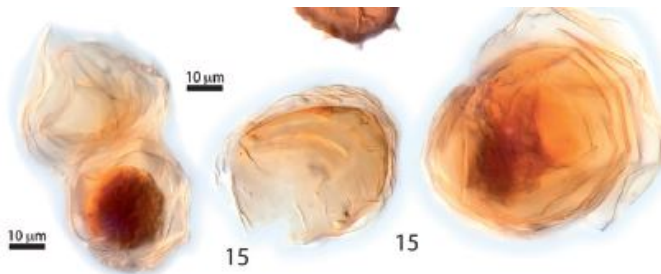
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 48-75 µm in diameter

Shape Globose

Wall/surface Lamellate walls, consisting of up to c. 8 very thin, loosely arranged layers

Apertures --

Other --

Similar to From a morphological point of view, Type HdV-1402 has much in common with Type HdV-91 (in Holocene raised bog deposits; Van Geel, 1978) and/or Type HdV-819 (Sub-arctic Marion Island; Yeloff et al., 2007)

NPP DATABASE

ECOLOGY

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|---|--|--|
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BIBLIOGRAPHY

First published in Van Geel 2010

INTERPRETATION

Type HdV-1402 microfossils are common in the peat layer of zone 2 and become of rare occurrence in the lake deposit of zone 3

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number A

Letter --

Category Algae (zygospores)

Taxonomical identification *Mougeotia cf. punctata*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image

DESCRIPTION

Colour --

Dimensions (31-) 34-42 (-44) µm each way

Shape Quadrate, with sides normally concave. In some zygospores the sides may be observed to be straight or even convex, but this does not seem to be the original condition. The retuse angles (the former points of attachment of the vegetative cells) are (6-) 8-10 (-11) µm in

Wall/surface The zygospore walls are densely covered with small pits (0.4 µm in diameter) over their whole surface. Some of the zygospores observed seemed to have furrows, but these could be artificial contraction ridges of the chitinous wall resulting from the preparatory treatment

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1976

INTERPRETATION

After consulting the literature it became apparent that the Type A zygospores correspond most closely with *M. punctata*. Type A zygospores were common in most of the ditch samples

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number B

Letter --

Category Algae (zygospores)

Taxonomical identification *Mougeotia sp.*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

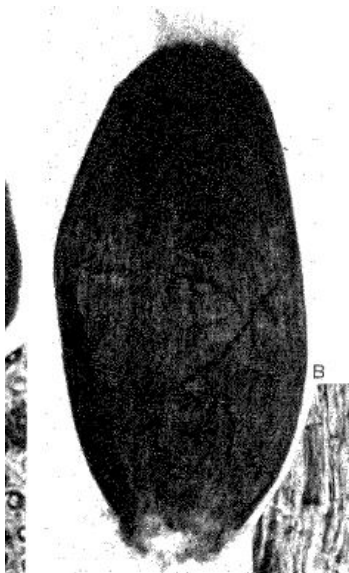
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image



DESCRIPTION

Colour --

Dimensions Measuring 20 μm each way

Shape Quadrate, sides more or less straight. The retuse angles are about 3.5 μm in diameter: the depression in the centre of each angle is 1.8 μm in diameter and 2.2 μm deep

Wall/surface Small pits, about 0.8 μm in diameter, are present over the whole surface of the zygospore at a distance of about 2.5 μm from one another

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
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INTERPRETATION

Type B zygospores were very rare in the ditch samples

BIBLIOGRAPHY

First published in Van Geel 1976

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number C

Letter --

Category Fungi (sclerotia)

Taxonomical identification *Cenococcum geophilum*

TAXONOMY

Kingdom Fungi

Phylum Ascomycota

Class Dothideomycetes

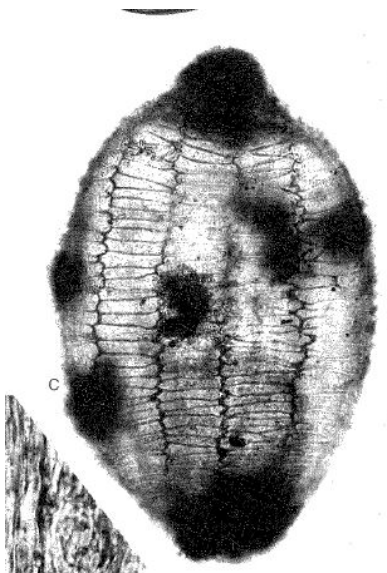
Order

Family

Gender *Cenococcum*

Species *geophilum*

Image



DESCRIPTION

Colour Black

Dimensions Varying in size from 0.2 to 1 μm

Shape The smaller ones spherical, the larger ones more irregularly shaped

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

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|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1976

Other articles --

INTERPRETATION

The distribution of the sclerotia in the section Wietmarscher Moor III indicates that it may occur in raised bogs but only under relatively dry conditions. In the sandy subsoil (samples 6, 7 and 8), unidentified root fragments with a mycorrhiza mantle of *C. geophilum* were observed. *C. geophilum* grows under various ecological conditions (Ferdinandsen and Winge, 1925) and is frequently fossilised. It is known to be a common (facultative) mycorrhiza former on a variety of tree species and in very different soils (Mikola, 1948; Trappe, 1964). Type D: (see Van Geel, 1972) *Eriophorum vaginatum*, sclerenchymatic bodies. For a description see Grosse-Brauckmann (1972)

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number D

Letter --

Category Algae (zygospores, aplanospores?)

**Taxonomical
identification** *Spirogyra*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

Order Zygnematales

Family Zygnemataceae

Gender *Spirogyra*

Species --

Image

DESCRIPTION

Colour --

Dimensions Measuring 85-112 X47-55 µm

Shape Ellipsoidal. Longitudinal furrows were observed

Wall/surface Reticulate (reticulum in a meridional striate pattern)

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type D spores were rare in the ditch samples

BIBLIOGRAPHY

First published in Van Geel 1976

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number E

Letter --

Category Algae (zygospores)

Taxonomical identification *Zygnemataceae*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

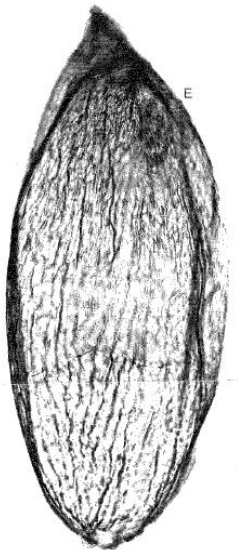
Order Zygnematales

Family Zygnemataceae

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions Measuring 36-44 × 29-36 µm in diameter

Shape Oblately spheroidal

Wall/surface Small pits, 1.2-2 µm deep and 1.2-4 µm in diameter, were observed over the whole surface of the spores, at a distance of 1.5-3 µm from one another

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1976

INTERPRETATION

Identification of Type E spores to genus or species level was not possible, since they do not exhibit sufficiently distinguishing features. Type E spores were common in most of the ditch samples

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	X		
Letter	--		
Category	Unknown		
Taxonomical identification	--	Dimensions	--
TAXONOMY			
Kingdom	--		
Phylum	--	Shape	--
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	--
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

It has been found in Colombian Andes sediments and tentatively related to *Hyalosphenia* sp. (Testate Amoebae). Both in Venezuelan (the present study) and Colombian Andes it was found in very low frequencies

BIBLIOGRAPHY

First published in Montoya 2010

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym EMA

Number 126

Letter B

Category Fungi (fragments of the same unknown

**Taxonomical
identification** --

TAXONOMY

Kingdom --

Phylum --

Class --

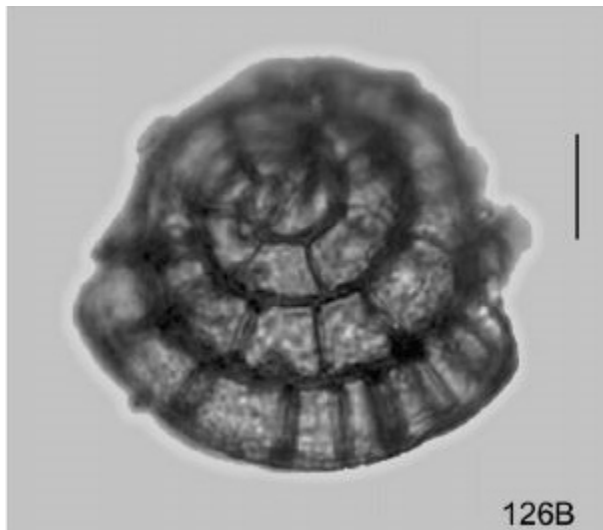
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour Brown

Dimensions Filament 10 μm in diameter; cells 5–9 μm long. septate, cells 5–9 μm long

Shape Fragment of the convex base/lid, filament tapering towards centre, septate, cells 5–9 μm long

Wall/surface Scabrate

Apertures Septate

Other --

Similar to Similar to conidia of *Helicoon fuscosporum* Lindner (Ellis and Ellis, 1997), which has the filaments=coils only 3–4 μm , whole spore-body only 25–30 μm in diameter, and fewer septa per coil plane; known from wet stems of *Rubus idaeus*. Also similar to conidia of

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

In present study EMA-126A and B are similarly distributed: occasional in alder carr, scarce. Indicator for alder carr (also roots?)

BIBLIOGRAPHY

First published in Prager 2012

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	72		
Letter	B		
Category	Animalia (postabdomina)		
Taxonomical identification	<i>Alona rustica</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia		
Phylum	Arthropoda	Shape	--
Class	Branchiopoda		
Order	Diplostraca		
Family	Chydoridae		
Gender	<i>Alona</i>	Wall/surface	--
Species	<i>rustica</i>		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

INTERPRETATION

The rare occurrence of the male postabdomina is explained by the fact that during the greater part of the summer no males occur in cladoceran populations and the female animals produce eggs parthenogenetically. Towards the end of the warm season or under adverse conditions males begin to appear in the population. Some of the females produce eggs fertilised by the males which sink to the bottom as overwintering resting stages (ephippia). The males are, therefore, not nearly as common as the females (P.W. Beals, pers. comm.). *Aloha rustica* is a chydorid usually favouring sites of low pH. Its presence implies the existence of pools on the bog surface. FISssner and Frey (1970) describe this animal as a stenotopic species confined to acid, soft and relatively unproductive waters. Frey (1960) has discussed the ecological significance of cladoceran remains in sediments

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	72		
Letter	C		
Category	Animalia		
Taxonomical identification	<i>undifferentiated Cladocera</i>	Dimensions	--
TAXONOMY			
Kingdom	Animalia	Shape	--
Phylum	Arthropoda		
Class	Branchiopoda		
Order	Diplostraca		
Family	--	Wall/surface	--
Gender	--		
Species	--		
Image		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Some very characteristic claws and fragments of postabdomina, present in the samples of local zone II were recorded as Type 72D

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 72

Letter D

Category Animalia (postabdominal claw)

Taxonomical identification *Eurycercus cf. lamellatus*

TAXONOMY

Kingdom Animalia

Phylum Arthropoda

Class Branchiopoda

Order Diplostraca

Family Chydoridae

Gender *Eurycercus*

Species *lamellatus*

Image

DESCRIPTION

Colour Hyaline

Dimensions Claw: 105-268 µm long, with two rows of short hairs and two basal appendages, the proximal one 15-35 µm, and the distal one 21-75 µm long

Postabdomina: 88-155 X 62-80 µm: dorsal margin ending in a

Shape Dorsal margin ending in a characteristic row of 10-15 µm long wedge-shaped denticles, 3-6µm broad at the base

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1983

Other articles Van Geel 1989

INTERPRETATION

Type 72D is possibly either *E. lamellatus* (O.F. Mfiller) or *E. glacialis* Lilljeborg. The separation of *Eurycercus* species is mainly based on morphological differences in the antennules (not found in our material) and in the number of wedge-shaped denticles on the postabdomen (often more than 100 in *E. lamellatus* and fewer than 100 in *E. glacialis*, see Smirnov, 1974). Unfortunately, no complete postabdomina were observed. *E. glacialis* is considered to be a glacial relict in the Netherlands and it does not occur in eutrophic environments. Because of the eutrophic conditions deducible from the spectrum of the micro- and macrofossils (see p. 299) in the local zone II, we assume that *Eurycercus lamellatus* was present. Freyer (1963) studied the functional morphology and feeding mechanism of this species. It is a benthic species, up to 4 mm long, successful in habitats where rooted vegetation is plentiful. It spends much of its time resting on, or attached to, plants. For progression through tangled vegetation postabdominal pushing is important; this may explain the development of the row of denticles. It collects mainly algal food (which was plentiful, at least temporarily, in local zone II of the Enkhuizen dike section), but detritus is also eaten. The identification of Type 72D was confirmed by Prof. N.N. Smirnov (Moscow). Information concerning the identification of fossil Cladocera is given by Frey (1979)

NPP DATABASE

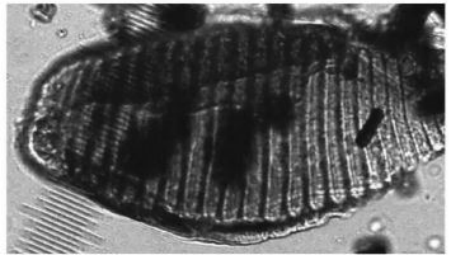
IDENTIFICATION

Acronym --
Number --
Letter --
Category Plantae, (wood, bark vascular cells)
Taxonomical --
identification

TAXONOMY

Kingdom --
Phylum --
Class --
Order --
Family --
Gender --
Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Chichinadze 2014

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	HdV	Colour	--
Number	398		
Letter	B		
Category	Plantae (bud-scales)		
Taxonomical identification	<i>Betula</i>	Dimensions	--
TAXONOMY			
Kingdom	Plantae		
Phylum	Magnoliophyta	Shape	--
Class	Magnoliopsida		
Order	Fagales		
Family	Betulaceae		
Gender	<i>Betula</i>	Wall/surface	--
Species	--		
Image			
		Apertures	--
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1989

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type	Colour	--
Number	1		
Letter	A		
Category	Oocyte		
Taxonomical identification	<i>Micodalyellia armigera Schmidt</i>		
TAXONOMY		Dimensions	Width range: 70-120 µm, total length range (main body incl. polar operculum): 100-210 µm (Luther, 1963; Harmsworth, 1968; Heitkamp, 1982; and own measurements)
Kingdom	--	Shape	Elliptical
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	No microsculpture on outer oocyte wall
Species	--		
Image		Apertures	Fine operculum suture
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Haas 1996

Other articles --

INTERPRETATION

The taxon *Microdalyellia armigera* probably consists of a large cluster of formae and subspecies, at present not well described and differentiated. This type may therefore include other *Microdalyellia* species and some *Castrada* and *Gieysztorina* species, with a highly diverse microsculpture, as represented by Types I-A, I-B, I-C, I-D and I-E (Harmsworth, 1968; Bauchhenss, 1971; Heitkamp, 1982; Pennak, 1989). Further distinction of oocytes to species-, subspecies- or formae-level is unfortunately not possible at present, due to taxonomical problems

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type	Colour	--
Number	1		
Letter	B		
Category	Oocyte		
Taxonomical identification	<i>Micodalyellia armigera Schmidt</i>		
TAXONOMY		Dimensions	Width range: 70-120 µm, total length range (main body incl. polar operculum): 100-210 µm (Luther, 1963; Harmsworth, 1968; Heitkamp, 1982; and own measurements)
Kingdom	--	Shape	Elliptical
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Outer oocyte wall striate
Species	--		
Image		Apertures	Fine operculum suture
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Haas 1996

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type	Colour	--
Number	1		
Letter	C		
Category	Oocyte		
Taxonomical identification	<i>Micodalyellia armigera Schmidt</i>		
TAXONOMY		Dimensions	Width range: 70-120 µm, total length range (main body incl. polar operculum): 100-210 µm (Luther, 1963; Harmsworth, 1968; Heitkamp, 1982; and own measurements)
Kingdom	--	Shape	Elliptical
Phylum	--		
Class	--		
Order	--		
Family	--		
Gender	--	Wall/surface	Outer oocyte wall finely psilate
Species	--		
Image		Apertures	Fine operculum suture
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Haas 1996

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type

Number 1

Letter D

Category Oocyte

Taxonomical identification *Micodalyellia armigera Schmidt*

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions Width range: 70-120µm, total length range (main body incl. polar operculum): 100-210 µm (Luther, 1963; Harmsworth, 1968; Heitkamp, 1982; and own measurements)

Shape Elliptical

Wall/surface Outer oocyte wall coarsely reticulate (lacunae > 3.5 gm)

Apertures Fine operculum suture

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Haas 1996

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym Type

Number 1

Letter E

Category Oocyte

Taxonomical identification *Micodalyellia armigera Schmidt*

TAXONOMY

Kingdom --

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image

DESCRIPTION

Colour --

Dimensions Width range: 70-120 lxm, total length range (main body incl. polar operculum): 100-210 gm (Luther, 1963; Harmsworth, 1968; Heitkamp, 1982; and own measurements)

Shape Elliptical

Wall/surface Outer oocyte wall finely reticulate (lacunae < 1.5 µm)

Apertures Fine operculum suture

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Haas 1996

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym	Type	Colour	--
Number	1		
Letter	B		
Category	Animalia		
Taxonomical identification	<i>Strongylostoma radiatum</i>	Dimensions	Diameter 125-300 µm
TAXONOMY			
Kingdom	Animalia	Shape	Round, bi-convex
Phylum	Platyhelminthes		
Class	Turbellaria		
Order	Neorhabdozoa		
Family	Typhloplanidae		
Gender	<i>Stronggylostoma</i>	Wall/surface	Outer oocyte wall finely psilate
Species	<i>radiatum</i>		
Image		Apertures	Main body with polar operculum. With fine operculum suture
		Other	--
		Similar to	--

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Haas 1996

Other articles --

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 313

Letter B

Category Algae (zygospores)

Taxonomical identification *Mougeotia* sp.

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

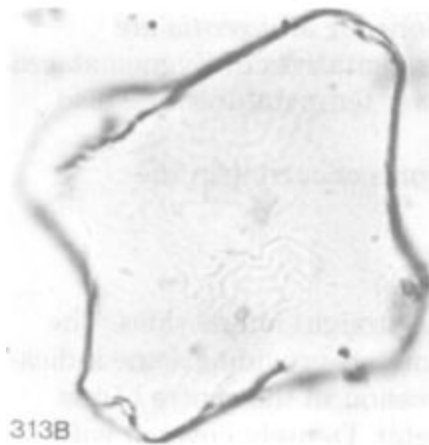
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions c.51 X 47 µm (only a single observation),

Shape Square, laterally concave. The broad ends of the retuse angles about 10 µm in diameter. Depression in the centre of the angles about 2 µm in diameter.

Wall/surface Surface layer of the zygospore wall with a characteristic, irregular pattern of ridges.

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1981

Other articles Van der Wiel 1982; Van Geel 1983, 1989; Granfell 1995; Medeanic 2006b

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 313

Letter C

Category Algae (zygospores)

**Taxonomical
identification** *Mougeotia* sp.

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

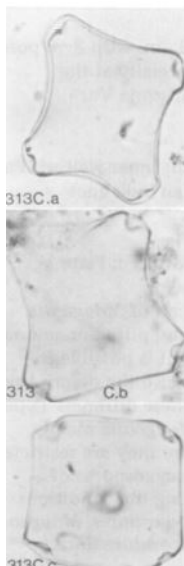
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 34-36 X 32-35 µm

Shape Square, laterally concave. The broad ends of the retuse angles about 5-6 µm in diameter. Depressions in the centre of the angles about 3-4 µm in diameter and 2-2.5 µm deep

Wall/surface Smooth

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Van Geel 1981

Other articles Van der Wiel 1982; Van Geel 1983, 1989; Granfell 1995; Medeanic 2006b

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 313

Letter D

Category Algae (zygospores)

**Taxonomical
identification** *Mougeotia* sp.

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

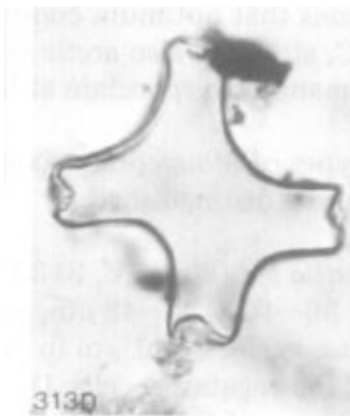
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 29-35 X 27-30 µm

Shape Square, laterally deeply concave; the broad ends of the retuse angles about 7 µm in diameter. Depression in the centre of the angles about 5 µm in diameter and 3 µm deep.

Wall/surface Smooth

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Van Geel 1981

Other articles Van der Wiel 1982; Van Geel 1983, 1989; Granfell 1995; Medeanic 2006b

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 313

Letter E

Category Algae (zygospores)

**Taxonomical
identification** *Mougeotia sp.*

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

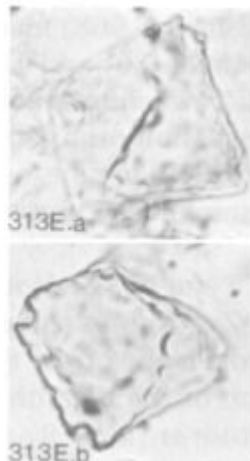
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape Retuse

Wall/surface Covered with 0.5-1.0 μm wide pits

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

--

BIBLIOGRAPHY

First published in Van Geel 1981

Other articles Van der Wiel 1982; Van Geel 1983, 1989; Granfell 1995; Medeanic 2006b

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 313

Letter F

Category Algae (zygospores)

**Taxonomical
identification** *Mougeotia* sp.

TAXONOMY

Kingdom Plantae

Phylum Charophyta

Class Conjugatophyceae

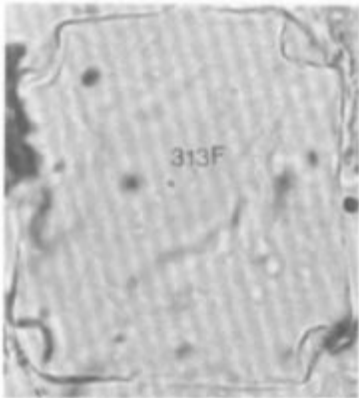
Order Zygnematales

Family Zygnemataceae

Gender *Mougeotia*

Species --

Image



DESCRIPTION

Colour Hyaline

Dimensions 25-27 x 28 x 30 µm

Shape Retuse, squarish. Depressions in the centre of the angles c. 1.5 µm deep and c. 3 µm in diameter

Wall/surface Psilate, smooth

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

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BIBLIOGRAPHY

First published in Van Geel 1981

Other articles Van der Wiel 1982; Van Geel 1983, 1989; Granfell 1995; Medeanic 2006b

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 106

Letter B

Category Animalia (Acari)

**Taxonomical
identification** *Rhisotritia ardua*

TAXONOMY

Kingdom --

Phylum --

Class --

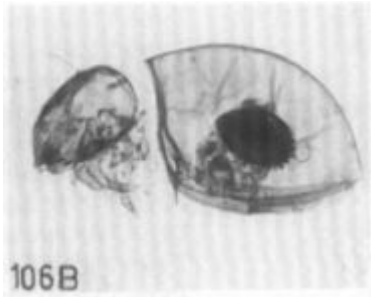
Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions --

Shape --

Wall/surface --

Apertures --

Other --

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles Bakker&Smeerdijk 1982

INTERPRETATION

Type 106B was found in eu- to mesotrophic reedmarsh vegetation and not in meso- to oligotrophic hummock types in which Van Geel (1978) found greater numbers of Type 106A. Since *Rhysotritia* species are known to feed on fungal hyphae, the fungi-rich meso- to eutrophic environment seems to be the most suitable habitat. The taxonomy of this species has been discussed by Mirkel and Meyer (1959).

NPP DATABASE

IDENTIFICATION

Acronym HdV

Number 106

Letter --

Category Plantae (fruit/seed)

**Taxonomical
identification** --

TAXONOMY

Kingdom Plantae

Phylum --

Class --

Order --

Family --

Gender --

Species --

Image



DESCRIPTION

Colour --

Dimensions 235-240 × 150 µm. Epidermis cells about 25-30 × 10-15µm

Shape Ellipsoidal

Wall/surface Undulating walls

Apertures --

Other Proximal end with point of attachment (hilum). Epidermis cells covered with appendices of increasing length from about the equator of the seed to the more rounded distal end, attaining 15 µm at the distal end.

Similar to --

NPP DATABASE

ECOLOGY

- | | | |
|---|---|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input checked="" type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

Type 106 seeds occur in horizons of meso-oligotrophic hummock vegetation types.

BIBLIOGRAPHY

First published in Van Geel 1978

Other articles --

NPP DATABASE

IDENTIFICATION		DESCRIPTION	
Acronym		Colour	
Number			
Letter			
Category			
Taxonomical identification		Dimensions	
TAXONOMY			
Kingdom		Shape	
Phylum			
Class			
Order			
Family			
Gender		Wall/surface	
Species			
Image		Apertures	
		Other	
		Similar to	

NPP DATABASE

ECOLOGY

- | | | |
|---|--|--|
| <input type="checkbox"/> Coprophilous | <input type="checkbox"/> Carbonicolous | <input type="checkbox"/> Animal remains |
| <input type="checkbox"/> Humidity/Water | <input type="checkbox"/> Nutrients | <input type="checkbox"/> Parasite/Pathogen |
| <input type="checkbox"/> Dryness | <input type="checkbox"/> Erosion | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> Lignicolous | <input type="checkbox"/> Vegetation type | <input type="checkbox"/> Other |

INTERPRETATION

BIBLIOGRAPHY

First published in

Other articles