



The bryozoan collection of Prof. Dr Ehrhard Voigt (1905–2004)
at the Senckenberg Institute in Frankfurt.

Part 3 - Ascophoran Cheilostomata and bibliography

Silviu O. MARTHA^{1, 2}

Kei MATSUYAMA³

Joachim SCHOLZ^{1, 4}

Paul D. TAYLOR⁵

Gero HILLMER⁶

Abstract: The bryozoan collection of Prof. Dr Ehrhard VOIGT (1905–2004) at the Senckenberg Research Institute in Frankfurt am Main, Germany is a world-renowned collection of great scientific value. It is the world's largest collection of fossil bryozoans from the Upper Cretaceous and Paleocene and a unique archive documenting the evolution of this phylum of marine invertebrates during this time interval in the Boreal Chalk Sea that extended from the British Isles to the Aral Sea in Central Asia. The VOIGT Collection contains over 300,000 specimens and was relocated to the Senckenberg Institute in 2005 according to the bequest of Ehrhard VOIGT. As a result of a DFG-funded project, we present here a three-part type catalogue of the holotypes and neotypes of 256 bryozoan species in the VOIGT Collection, of which this is Part 3. In total over the three parts, 247 species are re-illustrated but the name-bearing type specimens of 20 species are missing and no material could be found for 9 species. Two species, described as ctenostome bryozoans by Ehrhard VOIGT, are questionable, while a further three 'ctenostome' species and one 'ctenostome' genus are considered as ichnotaxa.

Key-words:

- Bryozoa;
- Cheilostomata;
- Cyclostomata;
- Ctenostomata;
- ichnofossils;
- type catalogue;
- palaeontological collections;
- Cretaceous

Citation : MARTHA S.O., MATSUYAMA K., SCHOLZ J., TAYLOR P.M. & HILLMER G. (2019).- The bryozoan collection of Prof. Dr Ehrhard VOIGT (1905–2004) at the Senckenberg Institute in Frankfurt. Part 3 - Ascophoran Cheilostomata and bibliography.- *Carnets Geol.*, Madrid, vol. 19, no. 17, p. 369-419.

Résumé : La collection de bryozoaires du Prof. Dr Ehrhard VOIGT (1905–2004) conservée à l'Institut Senckenberg de Francfort. 3e partie - Cheilostomates Ascophores et bibliographie.-

La collection de bryozoaires du Prof. Dr Ehrhard VOIGT (1905–2004) conservée à l'Institut de recherche Senckenberg de Francfort-sur-le-Main (Allemagne) est une collection de renommée mondiale et de grande valeur scientifique. C'est la plus grande collection au monde de bryozoaires fossiles du Crétacé supérieur et du Paléocène. Elle constitue un patrimoine unique documentant l'évolution de ce phylum d'invertébrés marins au cours de cette période dans la mer de la Craie Boréale qui s'étendait des îles

¹ Senckenberg Forschungsinstitute und Naturmuseen, Sektion Marine Evertebraten III (Bryozoologie), Senckenberg-anlage 25, 60325 Frankfurt am Main (Germany)

² silviu.martha@senckenberg.de

³ Former address: Senckenberg am Meer, Abteilung Meeresforschung, Südstrand 40, 26382 Wilhelmshaven (Germany)

matsuyamak@gmail.com

⁴ joachim.scholz@senckenberg.de

⁵ Departments of Earth and Life Sciences, Natural History Museum, Cromwell Road, London SW7 5BD (UK)
p.taylor@nhm.ac.uk

⁶ Institut für Geologie, Universität Hamburg, Bundesstr. 55, 20146 Hamburg (Germany)
gero_hillmer@web.de





britanniques à la mer d'Aral en Asie centrale.

La collection VOIGT qui compte plus de 300.000 spécimens a été transférée en 2005 à l'Institut Senckenberg grâce à un leg testamentaire d'Ehrhard VOIGT. À l'issue d'un programme financé par la DFG, nous présentons ici en trois parties un catalogue des holotypes ou néotypes de quelques 256 espèces de bryozoaires de la collection VOIGT, catalogue dont la présente contribution est la dernière des trois. 247 espèces sont illustrées ici à nouveau, tandis qu'aucun matériel n'a pu être retrouvé pour neuf d'entre elles. Les spécimens-types porte-noms de vingt espèces n'ont pas été retrouvés. Deux espèces, décrites comme des bryozoaires cténostomes par Ehrhard VOIGT, sont douteuses, tandis que trois autres espèces "cténostomes" et un genre "cténostome" sont considérés comme des ichnotaxa.

Mots-clefs :

- Bryozoa ;
- Cheilostomata ;
- Cyclostomata ;
- Ctenostomata ;
- ichnofossiles ;
- catalogue des types ;
- collections de paléontologie ;
- Crétacé

3. Systematic palaeontology (continuation)

Phylum Bryozoa EHRENBURG, 1831

Class Stenolaemata BORG, 1926

Order Cheilostomata BUSK, 1852

Suborder Ascophora LEVINSEN, 1909

Infraorder Acanthostega LEVINSEN, 1902

Superfamily Bifaxarioidea BUSK, 1884

Family Platyglenidae MARSSON, 1887

Genus *Pnictoporopsis* VOIGT, 1975

Pnictoporopsis pontifera VOIGT, 1975

(Fig. 66e-f)

- *# 1975a *Pnictoporopsis pontifera* n.g. n.sp. –
VOIGT, p. 257, Pl. 2, figs. 14–22, Pl. 3, fig. 7.
1983 *Pnictoporopsis pontifera* VOIGT – VOIGT,
Pl. 4, figs. 14–15.
1996 *Pnictoporopsis pontifera* VOIGT – GORDON
& VOIGT, Fig. 4C–D.

Holotype: SMF 24568 (VOIGT, 1975a, Pl. 2,
figs. 16–18).

Original label: VOIGT collection number 7406.

Locus typicus: Chalk pit of the cement factory
Alsen-Breitenburg near Lägerdorf, Schleswig-Hol-
stein, Germany.

Stratum typicum: White chalk of early late
Campanian age.

Further distribution: Santonian to late Cam-
panian, Lägerdorf, Schleswig-Holstein, Germany.
Early Campanian, Hannover-Misburg and Lah-
stedt-Oberg, Lower Saxony, Germany.

Stratigraphical range: Santonian (*Micraster ro-*
galae echinoid Zone to *Marsupites testudinarius*
crinoid Zone) to late Campanian.

Remarks: *Pnictoporopsis pontifera* is the type
species of *Pnictoporopsis* VOIGT, 1975. Small,
roundish pores along the lateral margins (areolar
pores?) are only present in specimens from Han-
nover-Misburg (VOIGT, 1975a, Pl. 2, figs. 14–15).
GORDON and VOIGT (1996) described faint sutures
on the underside of the frontal shield in one spe-
cimen indicating a field of four costae.

Superfamily Cibrilinoidea HINCKS, 1879

Family Cibrilinidae HINCKS, 1879

Genus *Abdomenopora* VOIGT, 1995

Abdomenopora schumacheri

VOIGT, 1995

(Fig. 67a–b)

- *# 1995c *Abdomenopora schumacheri* n.g. n.sp. –
VOIGT, p. 226, Figs. 1–2, Pl. 1, figs. 1–3, Pl. 2. figs.
1–4, Pl. 3, figs. 1–2.

Holotype: SMF 26151 (VOIGT, 1995c, Pl. 1,
figs. 1–2, Pl. 2. figs. 1–4, Pl. 3, fig. 2).

Original label: VOIGT collection number 13132.

Locus typicus: Abandoned chalk pit in Lüne-
burg-Zeltberg, Lower Saxony, Germany.

Stratum typicum: *Belemnella obtusa* belemnite
Zone of the early Maastrichtian.

Stratigraphical range: Early Maastrichtian.

Remarks: *Abdomenopora schumacheri* is the
type species of *Abdomenopora* VOIGT, 1995. D.
SCHUMACHER collected the type material and gave
it to VOIGT. Although a very primitive cribrimorph
genus, *Abdomenopora* combines many different
characters not observed together in any other
genus.

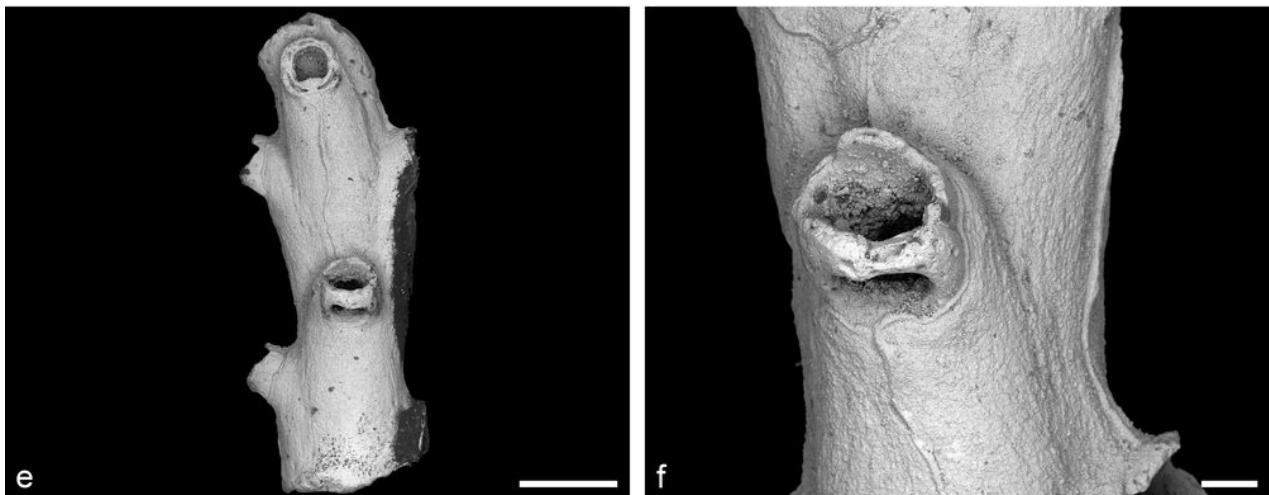


Figure 66 (continuation): e-f *Pniptoporopsis pontifera* VOIGT, 1975, holotype, SMF 24568, late Campanian, chalk pit of the cement factory Alsen-Breitenburg near Lägerdorf, Schleswig-Holstein, Germany.
Scale bars: e 500 µm; f 100 µm.

Genus *Anornithopora* LANG, 1916

Anornithopora responsa TAYLOR & MCKINNEY, 2006 (Fig. 67c-d)

*# 2006 *Anornithopora responsa* n.sp. – TAYLOR & MCKINNEY, p. 139, Pl. 99, fig. 1a–e.

Holotype: SMF 26572 (TAYLOR & MCKINNEY, 2006, Pl. 99, fig. 1a–e).

Original label: VOIGT collection number 13962.

Locus typicus: Macon, Mississippi, United States of America.

Stratum typicum: Demopolis Chalk; encrusting a shell.

Stratigraphical range: Campanian.

Remarks: The holotype is the only reported specimen of this species.

Genus *Asccestor* VOIGT & GORDON, 1995 *Asccestor bretoni* VOIGT & GORDON, 1995 (Fig. 67e-f)

*# 1995 *Asccestor bretoni* sp. nov. – VOIGT & GORDON, p. 16, Figs. 1–9.

1996 *Asccestor bretoni* VOIGT & GORDON – GORDON & VOIGT, Fig. 3A–F.

Holotype: SMF 26137 (VOIGT & GORDON, 1995, Figs. 4, 7).

Original label: VOIGT collection number 12975.

Locus typicus: Étretat, Normandy, France.

Stratum typicum: White chalk of early Coniacian age.

Stratigraphical range: Early Coniacian.

Remarks: *Asccestor bretoni* is the type species of *Asccestor* VOIGT & GORDON, 1995. G. BRETON collected the holotype and gave it to VOIGT.

Genus *Castanopora* LANG, 1916

Subgenus *Castanoporina* VOIGT, 1993 *Castanopora (Castanoporina) wunderi* VOIGT, 1993 (Fig. 68a-b)

*# 1993b *Castanopora (Castanoporina) wunderi* n.sp. – VOIGT, p. 147, Pl. 6, figs. 1–4.

2005 *Castanopora (Castanoporina) wunderi* VOIGT, 1993 – HINZ-SCHALLREUTER & SCHALLREUTER, p. 534.

Holotype: SMF 25995 (VOIGT, 1993b, Pl. 6, figs. 1–4).

Original label: VOIGT collection number 12850.

Locus typicus: Wunder gravel pit in Schwanheide-Zweedorf, Mecklenburg-Vorpommern, Germany.

Stratum typicum: Glacial drift containing White chalk of early Maastrichtian age.

Stratigraphical range: Early Maastrichtian.

Remarks: *Castanoporina* VOIGT, 1993, was described as a subgenus of *Castanopora* LANG, 1916, differing from the latter by the spine-like projections of the pelmata.

Genus *Confusocella* VOIGT & GORDON, 1995 *Confusocella dendroidea* VOIGT & GORDON, 1995 (Fig. 68c-d)

*# 1995 *Confusocella dendroidea* sp. nov. – VOIGT & GORDON, p. 17, Figs. 10–21.

1996 *Confusocella dendroidea* VOIGT & GORDON – GORDON & VOIGT, Fig. 4A–B.

Holotype: SMF 26140 (VOIGT & GORDON, 1995, Fig. 10).

Original label: VOIGT collection number 11512A.

Locus typicus: Épernon, Centre-Val de Loire, France.

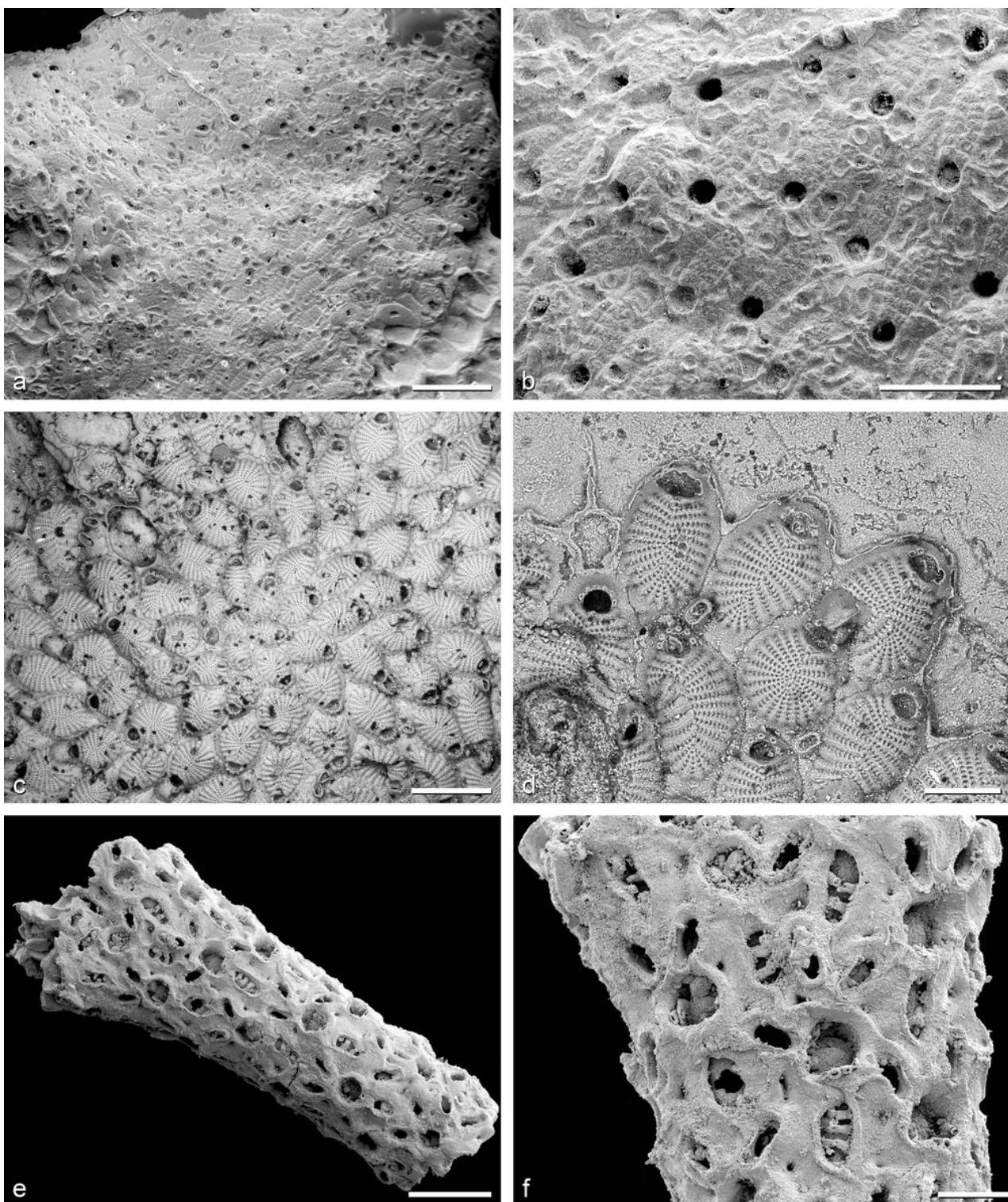


Figure 67: a-b *Abdomenopora schumacheri* VOIGT, 1995, holotype, SMF 26151, early Maastrichtian (*Belemnella obtusa* belemnite Zone), abandoned chalk pit in Lüneburg-Zeltberg, Lower Saxony, Germany. c-d *Anornithopora responsa* TAYLOR & MCKINNEY, 2006, holotype, SMF 26572, Campanian, Macon, Mississippi, United States of America. e-f *Asccestor bretoni* VOIGT & GORDON, 1995, holotype, SMF 26137, early Coniacian, Étretat, Normandy, France. Scale bars: a 1 mm; b-c, e 500 µm; d, f 250 µm.

Stratum typicum: Earliest Campanian.
Further distribution: Santonian, La Pipe near Étalondes, Normandy, France. Earliest Campanian, Hanches, Centre-Val de Loire, France.

Stratigraphical range: Santonian to early Campanian.

Remarks: *Confusocella dendroidea* is the type species of *Confusocella* VOIGT & GORDON, 1995. G. BRETON collected the holotype and gave it to VOIGT. The holotype is mounted on an SEM stub with four other samples depicted by VOIGT and GORDON (1995).

**Genus *Craticulacella* VOIGT, 1994*****Craticulacella schneemilchae*
VOIGT, 1994
(Fig. 68e-f)**

*# 1994a *Craticulacella schneemilchae* n.g. n.sp. – VOIGT, p. 12, Pl. 5, figs. 1–4, Pl. 6, figs. 1–5.

Holotype: SMF 26041 (VOIGT, 1994a, Pl. 5, figs. 3–4).

Original label: VOIGT collection number 11113B (= VOIGT collection number 12956).

Locus typicus: Schinkel pit of the cement factory Alsen-Breitenburg near Lägerdorf, Schleswig-Holstein, Germany.

Stratum typicum: *Offaster pilula* echinoid Zone of early Campanian age.

Further distribution: Middle Santonian, Lägerdorf, Schleswig-Holstein, Germany. Early Campanian, Alemannia quarry near Sehnde-Höver, Lower Saxony, Germany.

Stratigraphical range: Middle Santonian to early Campanian.

Remarks: *Craticulacella schneemilchae* is the type species of *Craticulacella* VOIGT, 1994. U. SCHNEEMILCH collected the type material and gave it to Prof. Dr E. VOIGT. Both in the species description and in the figure captions, 12956 is indicated as the VOIGT collection number of the holotype. However, no specimen with this number could be found in the VOIGT collection. The holotype imaged by VOIGT (1994a, Pl. 5, fig. 5) was found on an SEM stub given the VOIGT collection number 11113A.

Genus *Distansescharella* ORBIGNY, 1853***Distansescharella fallax* VOIGT, 1949
(Fig. 69a-b)**

*# 1949 *Distansescharella fallax* n.sp. – VOIGT, p. 38, Pl. 10, figs. 6–7.

Holotype: SMF 26297 (VOIGT, 1949, Pl. 10, figs. 6–7).

Original label: VOIGT collection number 140.

Locus typicus: Marl pit near Lahstedt-Oberg, Lower Saxony, Germany.

Stratum typicum: White chalk marl of the *Gonioeuthis quadrata* belemnite Zone.

Stratigraphical range: Early Campanian.

Remarks: The holotype is the only reported specimen of this species.

***Distansescharella familiaris*
(HAGENOW, 1839)
(Fig. 69c-d)**

*# 1839 *Cellepora familiaris* nob. – HAGENOW, p. 274.

1853 *Distansescharella familiaris*, de HAGENOW, 1839 – ORBIGNY, p. 463.

1900 *Cribriolina* (*Distansescharella*) *familiaris* HAG. – CANU, p. 452.

- # 1909 *Cribriolina ostreicola* nov. – BRYDONE, p. 399, Pl. XXIII, figs. 1–2.
- # 1916b *Pliophloea* [*Cribriolina*] *ostreicola* (BRYDONE), 1909 – LANG, p. 392.
- # 1921 *Distansescharella familiaris* (von HAGENOW) – LANG, p. 138.
- # 1921 *Pliophloea ostreicola* (Brydone) – LANG, p. 185, Fig. 86, Pl. VI, fig. 1.
- # 1930 *Pliophloea ostreicola* Brydone – VOIGT, p. 500, Pl. 28, fig. 1.
- # 1953 *Distansescharella familiaris* (HAG., 1839) – BASSLER, p. G217, Fig. 143.6.
- # 1959a *Distansescharella familiaris* (v. HAGENOW), 1839 – VOIGT, p. 24, Pl. VIII, fig. 4.
- # 1989 *Distansescharella familiaris* – HARMELIN et al., p. 492, Pl. 2, figs. 2–4 (in fig. 4 as *P. ostreicola*).

Holotype: The originals of the HAGENOW collection in the Stettiner Museum were lost during World War II.

Locus typicus: Island of Rügen, Mecklenburg-Vorpommern, Germany.

Stratum typicum: White chalk of early Maastrichtian age.

Neotype: SMF 26414 (VOIGT, 1959a, Pl. VIII, fig. 4).

Original label: VOIGT collection number 417.

Locus neotypicus: Island of Rügen, Mecklenburg-Vorpommern, Germany.

Stratum neotypicum: White chalk of early Maastrichtian age.

Further distribution: Late Campanian, Norfolk, England, United Kingdom. Early Maastrichtian, Trimingham, Norfolk, England, United Kingdom.

Stratigraphical range: Late Campanian to early Maastrichtian.

Remarks: *Distansescharella familiaris* is the type species of *Distansescharella* ORBIGNY, 1853. Although the species was not figured by HAGENOW (1839), nor by any subsequent author, LANG (1916b) designated it as the type species of *Distansescharella*.

Distansescharella?* *squamulosa

(HAGENOW, 1839)

(Fig. 69e-f)

- *# 1839 *Cellepora squamulosa* nob. – HAGENOW, p. 270.
- # 1959a *Membraniporella squamulosa* v. HAGENOW, 1839 – VOIGT, p. 16, Pl. IV, fig. 3.
- # 1962 *Membraniporella squamulosa* (v. HAGENOW) – BERTHESEN, p. 162, Pl. 18, fig. 3.

Holotype: The originals of the HAGENOW collection in the Stettiner Museum were lost during World War II.

Locus typicus: Island of Rügen, Mecklenburg-Vorpommern, Germany.

Stratum typicum: White chalk of early Maastrichtian age.

Neotype: SMF 26397 (VOIGT, 1959a, Pl. IV, fig. 3).

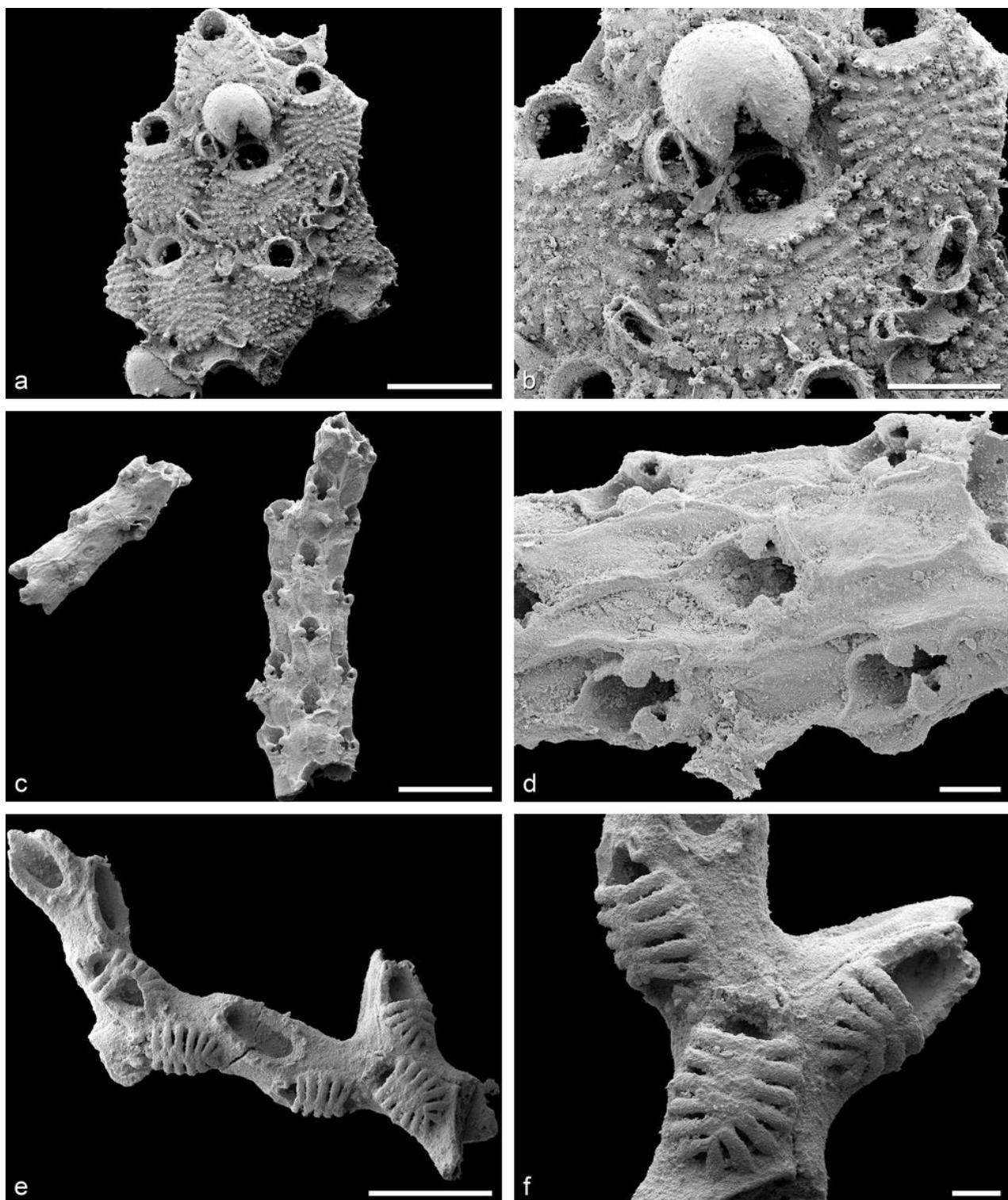


Figure 68: a-b *Castanopora (Castanoporina) wunderi* VOIGT, 1993, holotype, SMF 25995, early Maastrichtian, Wunder gravel pit in Schwanheide-Zweedorf, Mecklenburg-Vorpommern, Germany. c-d *Confusocella dendroidea* VOIGT & GORDON, 1995, holotype, SMF 26140, earliest Campanian, Épernon, Centre-Val de Loire, France. e-f *Craticulacella schneemilchae* VOIGT, 1994, holotype, SMF 26041, early Campanian (*Offaster pilula* echinoid Zone), Schinkel pit of the cement factory Alsen-Breitenburg near Lägerdorf, Schleswig-Holstein, Germany.

Scale bars: a, c, e 500 µm; b 250 µm; d, f 100 µm.

Original label: VOIGT collection number 394.
Locus neotypicus: Island of Rügen, Mecklenburg-Vorpommern, Germany.

Stratum neotypicum: White chalk of early Maastrichtian age.

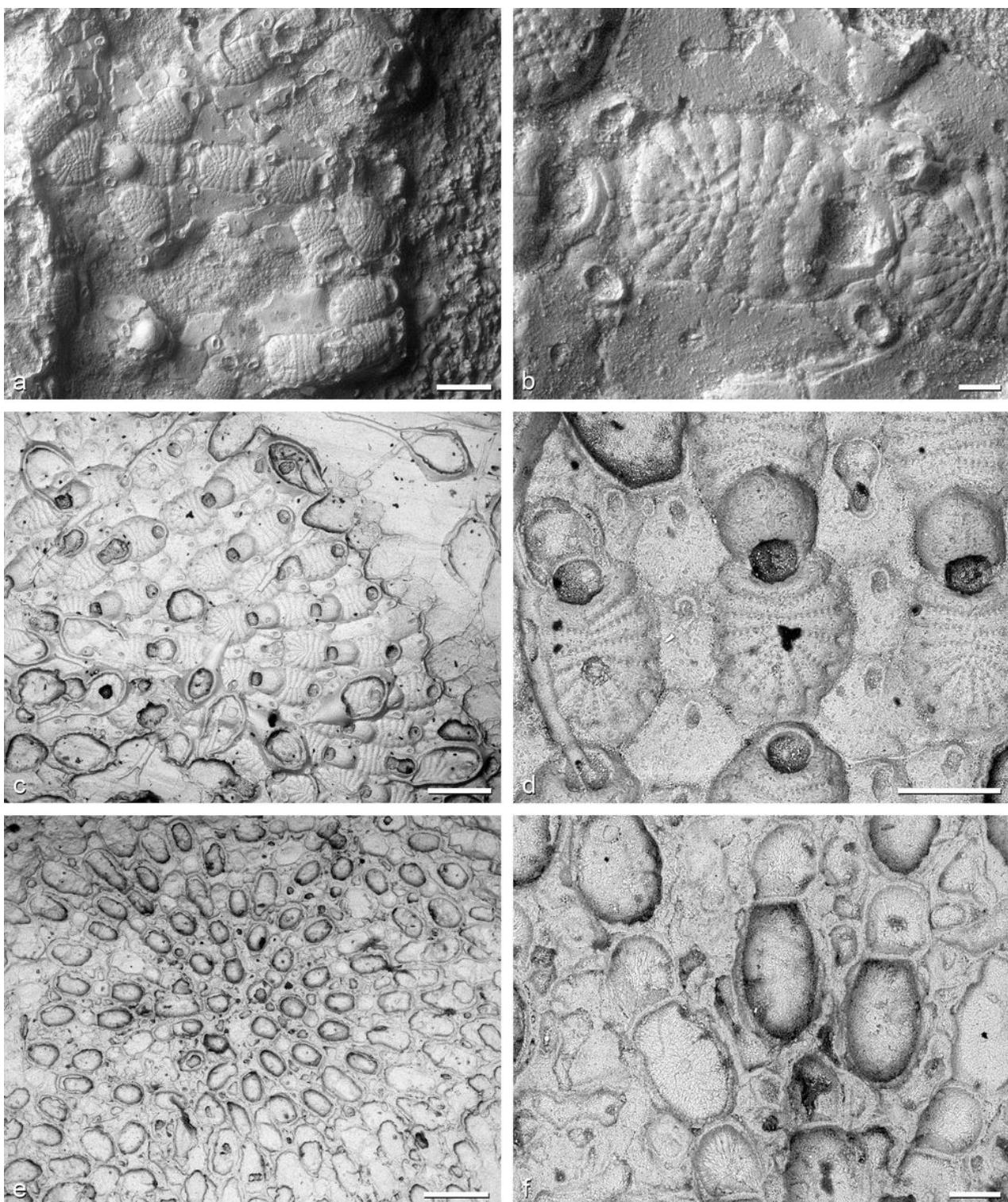


Figure 69: a-b *Distansescharella fallax* VOIGT, 1949, holotype, SMF 26297, early Campanian (*Gonioteuthis quadrata* belemnite Zone), marl pit near Lahstedt-Oberg, Lower Saxony, Germany. c-d *Distansescharella familiaris* (HAGENOW, 1839), neotype, SMF 26414, early Maastrichtian, Island of Rügen, Mecklenburg-Vorpommern, Germany. e-f *Distansescharella* ? *squamulosa* (HAGENOW, 1839), neotype, SMF 26397, early Maastrichtian, Island of Rügen, Mecklenburg-Vorpommern, Germany.

Scale bars: e 1 mm; c 500 µm; a, d 250 µm; f 100 µm; b 50 µm.

Further distribution: Danian, Voldum, Favrvskov Kommune, Denmark; Grenå; Rigtrup, Randers Kommune (all Midtjylland Region, Denmark); Faxe quarries; Herfølge, Køge Kommune; Kastrup, Solrød Kommune; Stevns Klint in the

Stevns Kommune (all Zealand Region, Denmark); Klintholm, Funen Island, South Denmark Region, Denmark; Saltholm Island, Capital Region, Denmark.

Stratigraphical range: Maastrichtian to Danian.



Remarks: *Membraniporella nitida* (JOHNSTON, 1838), the type species of *Membraniporella* SMITT, 1873, has adventitious avicularia and oral spine bases (see redescription in HAYWARD & RYLAND, 1998), two features which exclude *squamulosa* from *Membraniporella*.

***Distansescharella stuehmeri*
VOIGT, 1991**

*# 1991c *Distansescharella stuehmeri* n.sp. -
VOIGT, p. 192, Pl. 11, figs. 1-5.

Holotype: Not found (VOIGT, 1991c, Pl. 11, figs. 1-4).

Original label: VOIGT collection number 9668.

Locus typicus: Submarine outcrop near the island of Düne (Archipelago of Heligoland), Schleswig-Holstein, Germany.

Stratum typicum: Campanian or Maastrichtian.

Stratigraphical range: Probably Campanian or Maastrichtian.

Remarks: H.H. STÜHMER found the type material and gave it to VOIGT. All material described in VOIGT (1991c) should have been given as a permanent loan to the VOIGT Collection. However, the material was never sent to VOIGT (personal communication with STÜHMER in 2013). At the Museum of Heligoland, the material could not be found (personal communication with P. SCHUMACHER in 2013).

Genus *Hexacanthopora* LANG, 1916

Hexacanthopora viginticostata

VOIGT, 1930

(Fig. 70a-b)

- *# 1930 *Hexacanthopora viginticostata* n.sp. -
VOIGT, p. 495, Pl. 26, fig. 13.
1949 *Hexacanthopora viginticostata* VOIGT -
VOIGT, p. 37, Pl. 9, figs. 1-2.
1962 *Hexacanthopora viginticostata* VOIGT -
LARWOOD, p. 102.

Holotype: This material belonged to the first VOIGT Collection that was destroyed in a fire at the *Geologisches Staatsinstitut Hamburg* in 1943.

Locus typicus: Abandoned chalk pit near Peine-Schwicheldt, Lower Saxony, Germany.

Stratum typicum: White chalk of the *Gonioeuthis quadrata* and *Belemnitella mucronata* belemnite zones.

Neotype: SMF 26292 (VOIGT, 1949, Pl. 9, fig. 2).

Original label: VOIGT collection number 142.

Locus neotypicus: Lägerdorf, Schleswig-Holstein, Germany.

Stratum neotypicum: White chalk of the *Gonioeuthis quadrata* belemnite Zone.

Further distribution: Early Campanian (*Gonioeuthis quadrata* belemnite Zone), Hannover-Misburg, Lüneburg-Zeltberg and marl pit near Lahstedt-Oberg, Lower Saxony, Germany. Early

Campanian (*Belemnitella mucronata* belemnite Zone), Lägerdorf, Schleswig-Holstein; Hannover-Misburg, Lower Saxony, Germany.

Stratigraphical range: Early Campanian.

Genus *Holostegopora* LANG, 1916

Holostegopora? prona

VOIGT & SCHNEEMILCH, 1986

(Fig. 70c-d)

- *# 1986 *Holostegopora prona* n.sp. - VOIGT & SCHNEEMILCH, p. 121, Pl. 5, figs. 3-6.

Holotype: SMF 25911 (VOIGT & SCHNEEMILCH, 1986, Pl. 5, figs. 3-5).

Original label: VOIGT collection number 10935A.

Locus typicus: Alemannia quarry near Sehnde-Höver, Lower Saxony, Germany.

Stratum typicum: Chalk marl of early Campanian age.

Stratigraphical range: Early Campanian.

Remarks: The holotype, VOIGT collection number 10935A, is placed on an SEM stub together with 10935B, which is considered to be a fragment of 10935A (VOIGT & SCHNEEMILCH, 1986). No further specimens of this species are reported. The assignment to Cribelinidae and *Holostegopora* LANG, 1916, are both very questionable. VOIGT and SCHNEEMILCH (1986, Pl. 5, fig. 5) observed imprints and spine-like projections interpreted as traces of costae, but these were not be found during our study of the material.

Genus *Keratostoma* VOIGT, 1987

***Keratostoma niemeyeri* VOIGT, 1987**

(Fig. 70e-f)

- # 1930 *Stichocados cf. moenensis* LANG - VOIGT, p. 510, Pl. 30, figs. 15-16.
*# 1987c *Keratostoma niemeyeri* n. gen. n.sp. -
VOIGT, p. 150, Pl. 1, figs. 1-5, Pl. 2, figs. 1-7, Pl. 3, figs. 1-8.

Holotype: SMF 25499 (VOIGT, 1987c, Pl. 1, figs. 1-3, Pl. 2, fig. 4, Pl. 3, fig. 8).

Original label: VOIGT collection number 9930.

Locus typicus: Stevns Klint in the Stevns Kommune, Zealand Region, Denmark.

Stratum typicum: White chalk of late Maastrichtian age (*Belemnella casimirovensis* belemnite Zone) containing *Thalassinoides* burrows.

Further distribution: Early Maastrichtian, Saturn pit near Kronsmoor, Schleswig-Holstein, Germany. Late Maastrichtian, white chalk of Mariager, Mariagerfjord Municipality, Nordjylland Region, Denmark; Hasselø By near Nykøbing Falster, Guldborgsund Municipality, Zealand Region, Denmark; sandy tills in the "Blaue Berge" near Dessau-Roßlau, Saxony-Anhalt, Germany; glacial drift deposits with white chalk, Neu Wulmstorf-Daerstorf, Lower Saxony, Germany; Hamburg-Hummelsbüttel, Hamburg, Germany.

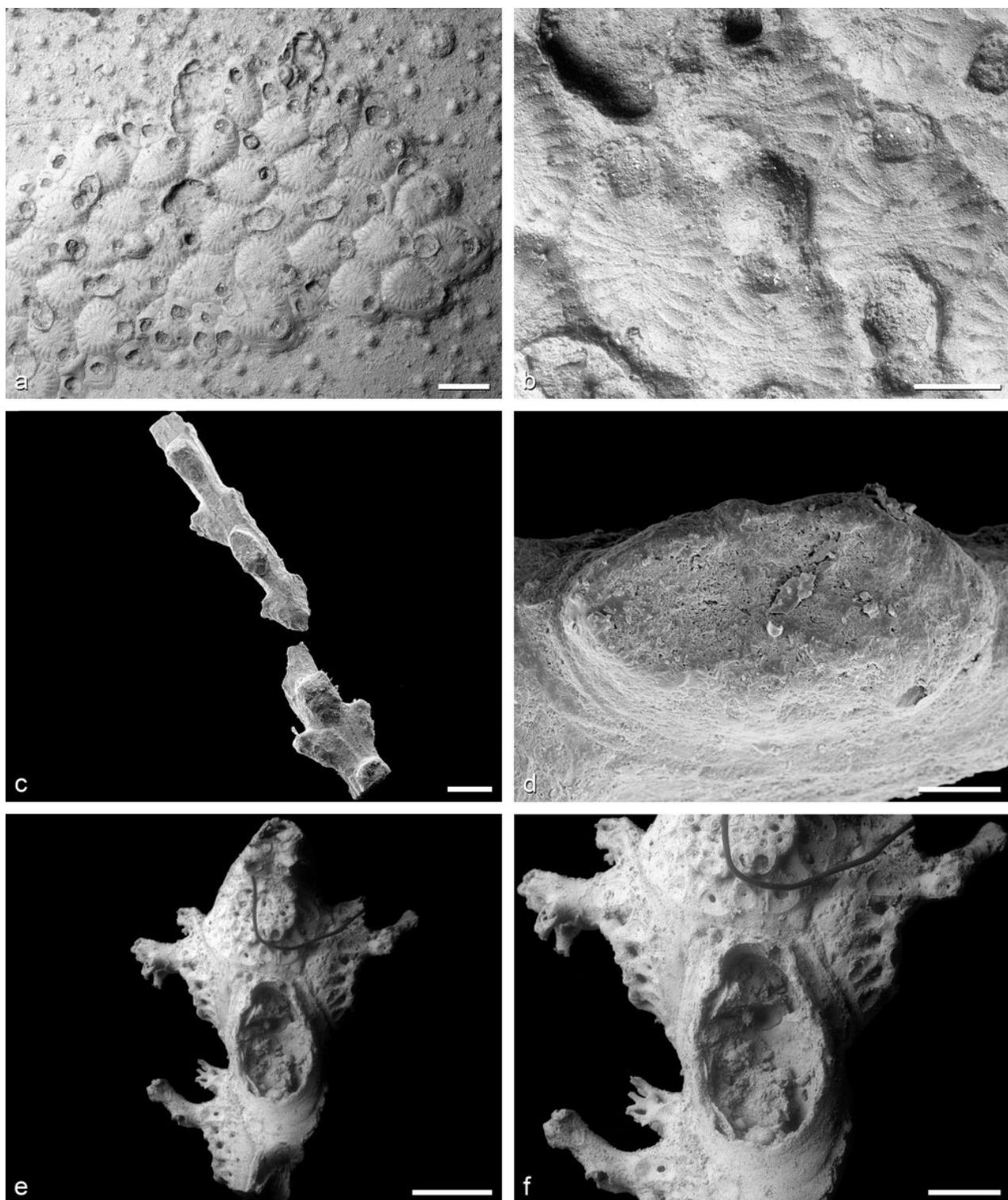


Figure 70: a-b *Hexacanthopora viginticostata* VOIGT, 1930, neotype, SMF 26292, early Campanian (*Gonioeuthis quadrata* belemnite Zone), Lägerdorf, Schleswig-Holstein, Germany. c-d *Holostegopora* ? *prona* VOIGT & SCHNEEMILCH, 1986, holotype, SMF 25911, early Campanian, Alemannia quarry near Sehnde-Höver, Lower Saxony, Germany. e-f *Keratostoma niemeyeri* VOIGT, 1987, holotype, SMF 25499, late Maastrichtian (*Belemnella casimirovensis* belemnite Zone), Stevns Klint in the Stevns Kommune, Zealand Region, Denmark.

Scale bars: a, e 500 µm; b-c, f 250 µm; d 50 µm.

Stratigraphical range: Early to late Maastrichtian.

Remarks: *Keratostoma niemeyeri* is the type species of *Keratostoma* VOIGT, 1987. Specimens

assigned to *K. niemeyeri* show a broad range of variability, but intermediate stages occur.

**Genus *Murinopsis* JULLIEN, 1886*****Murinopsis raniceps*
VOIGT & SCHNEEMILCH, 1986**
(Fig. 71a-b)

- *# 1986 *Murinopsis raniceps* n.sp. – VOIGT, p. 123, Pl. 4, figs. 1–5, Pl. 5, figs. 1–2, Pl. 6, fig. 1, Pl. 7, figs. 1–3.

Holotype: SMF 25908 (VOIGT & SCHNEEMILCH, 1986, Pl. 4, fig. 3, Pl. 5, fig. 2, Pl. 6, fig. 1).

Original label: VOIGT collection number 10779.

Locus typicus: Chalk pit of the cement factory Alsen-Breitenburg near Lägerdorf, Schleswig-Holstein, Germany.

Stratum typicum: White chalk of late Campanian age (*Bostrychoceras polyplocum* ammonite Zone).

Further distribution: Early Campanian, Alemannia quarry near Sehnde-Höver, Lower Saxony, Germany; chalk pit of the cement factory Alsen-Breitenburg near Lägerdorf, Schleswig-Holstein, Germany.

Stratigraphical range: Early to late Campanian.

Remarks: One zooid of the holotype colony is broken.

Genus *Pachydera* MARSSON, 1887***Pachydera lagingi* VOIGT, 1993**
(Fig. 71c-d)

- *# 1993b *Pachydera lagingi* n.sp. – VOIGT, p. 139, Pl. 1, figs. 1–4, Pl. 2, figs. 1–5, Pl. 3, figs. 1–5.
2005 *Pachydera lagingi* VOIGT, 1993 – HINZ-SCHALLREUTER & SCHALLREUTER, p. 546.

Holotype: SMF 25994 (VOIGT, 1993b, Pl. 1, fig. 1).

Original label: VOIGT collection number 12856.

Locus typicus: Wunder gravel pit, Schwanheide-Zweedorf, Mecklenburg-Vorpommern, Germany.

Stratum typicum: Glacial drift containing white chalk of Maastrichtian age.

Further distribution: Early Maastrichtian, Island of Rügen, Mecklenburg-Vorpommern, Germany; Hemmoor, Lüneburg and in glacial drift deposits near Neu Wulmstorf-Daerstorf (all Lower Saxony, Germany); Saturn pit near Kronsmoor, Schleswig-Holstein, Germany.

Stratigraphical range: Late early Maastrichtian.

***Pachydera moenensis* (LANG, 1916)**
(Fig. 71e-f)

- *# 1916a *Stichocados möenensis*, sp. n. – LANG, p. 99.
1916a *Stichocados ordinatus*, sp. n. – LANG, p. 99.
1922 *Stichocados ordinatus*, LANG – LANG, p. 177, Fig. 56, Pl. 4, fig. 2.
1922 *Stichocados moenensis*, LANG – LANG, p.

180.
1925 *Pachydera angulata* n.sp. – LEVINSEN, p. 394, Pl. VIII, fig. 10.
non# 1930 *Stichocados ordinatus* LANG – VOIGT, p. 510, Pl. 30, fig. 14.
non# 1930 *Stichocados* cf. *moenensis* LANG – VOIGT, p. 510, Pl. 30, figs. 15–16.
1987c *Stichocados moenensis* LANG, 1916 = *Pachydera angulata* LEVINSEN, 1925 – VOIGT, p. 161, Fig. 2A–E, Pl. 4, figs. 1–6.

Holotype: Unnumbered specimen in the CANU Collection, Musée National d'Histoire Naturelle, Paris. The holotype had been taken as a loan before World War II by P.A. GAILLARD to Royan and was probably destroyed during air raids.

Locus typicus: Island of Møn, Zealand Region, Denmark.

Stratum typicum: Early Maastrichtian.

Neotype: SMF 25459 (VOIGT, 1987c, Pl. 4, figs. 1–2).

Locus neotypicus: Island of Møn, Zealand Region, Denmark.

Stratum neotypicum: White chalk of early Maastrichtian age.

Original label: VOIGT collection number 10904. In VOIGT (1987c, p. 164), the VOIGT collection number 10887 is given by mistake, the latter being the number of the specimen imaged in Pl. 4, figs. 5–6.

Further distribution: Early Maastrichtian, Rørdal in Aalborg, Region Nordjylland, Denmark; Island of Rügen, Mecklenburg-Vorpommern, Germany. Late Maastrichtian, Stevns Klint in the Stevns Kommune, Zealand Region, Denmark.

Stratigraphical range: Early to late Maastrichtian.

Remarks: LANG (1916a) indicated that the holotype is from the Danian of Møn. Since no Danian outcrops on Møn, VOIGT (1987c) corrected the stratigraphical age to early Maastrichtian. VOIGT (1987c) selected a neotype for *S. moenensis* but this is superfluous as the holotype of *S. ordinatus* from the island of Rügen is present in the collections of the Natural History Museum, London and has never been lost.

Genus *Pliophloea* GABB & HORN, 1862***Pliophloea densistriata* VOIGT, 1949**
(Fig. 72a-b)

- *# 1949 *Pliophloea densistriata* n.sp. – VOIGT, p. 39, Pl. 9, figs. 3–4.

Holotype: SMF 26293 (VOIGT, 1949, Pl. 9, figs. 3–4).

Original label: VOIGT collection number 139.

Locus typicus: Marl pit near Lahstedt-Oberg, Lower Saxony, Germany.

Stratum typicum: White chalk marl of the *Gonioteuthis quadrata* belemnite Zone.

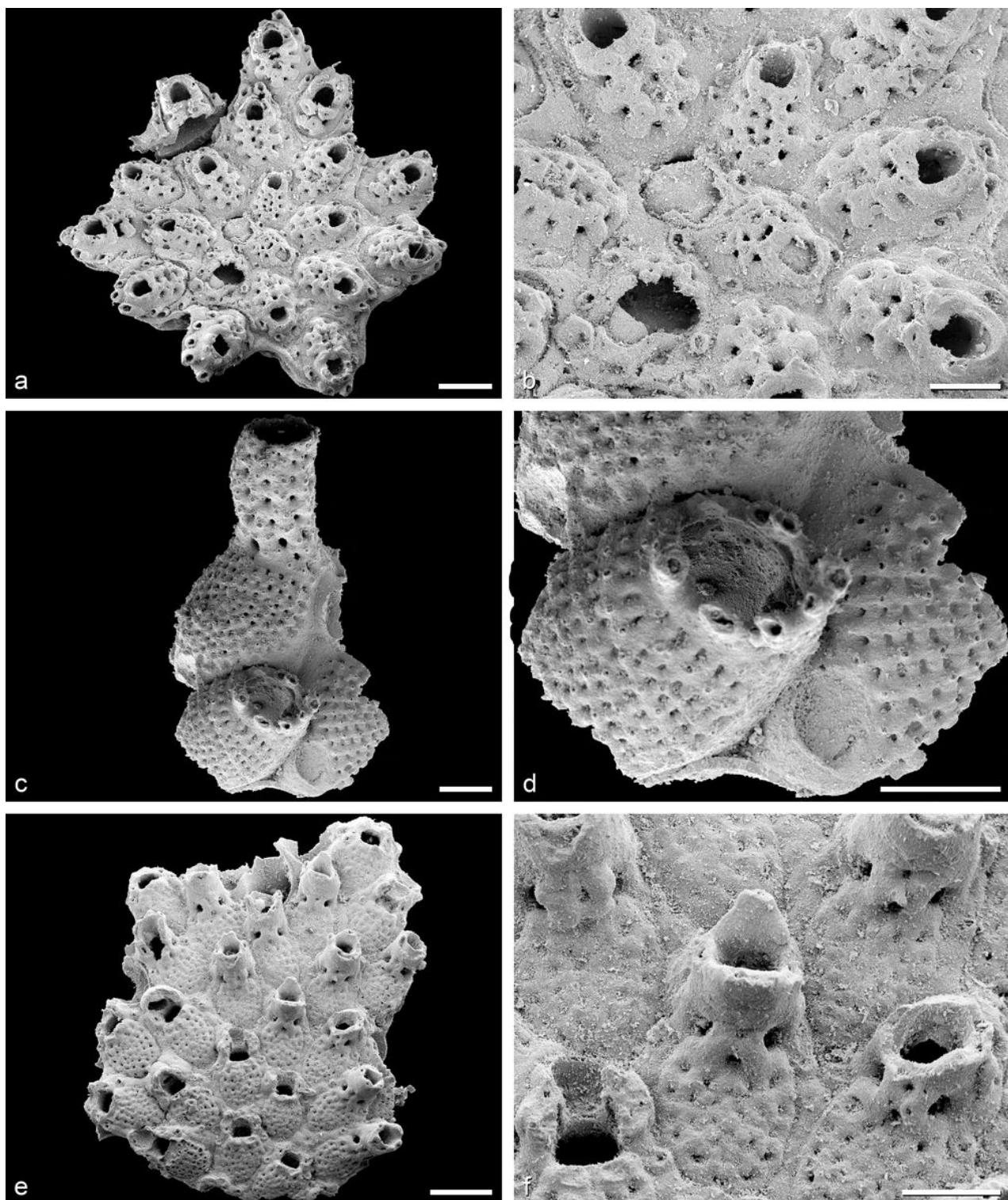


Figure 71: a-b *Murinopsis raniceps* VOIGT & SCHNEEMILCH, 1986, holotype, SMF 25908, late Campanian (*Bostrychoceras polyplacum* ammonite Zone), chalk pit of the cement factory Alsen-Breitenburg near Lägerdorf, Schleswig-Holstein, Germany. c-d *Pachydera lagingi* VOIGT, 1993, holotype, SMF 25994, early Maastrichtian, Wunder gravel pit in Schwanheide-Zweedorf, Mecklenburg-Vorpommern, Germany. e-f *Pachydera moenensis* (LANG, 1916), neotype, SMF 25459, early Maastrichtian, Island of Møn, Zealand Region, Denmark.

Scale bars: a, e 500 µm; b-d, f 250 µm.

Stratigraphical range: Early Campanian.

Remarks: The holotype is the only reported sample of this species.

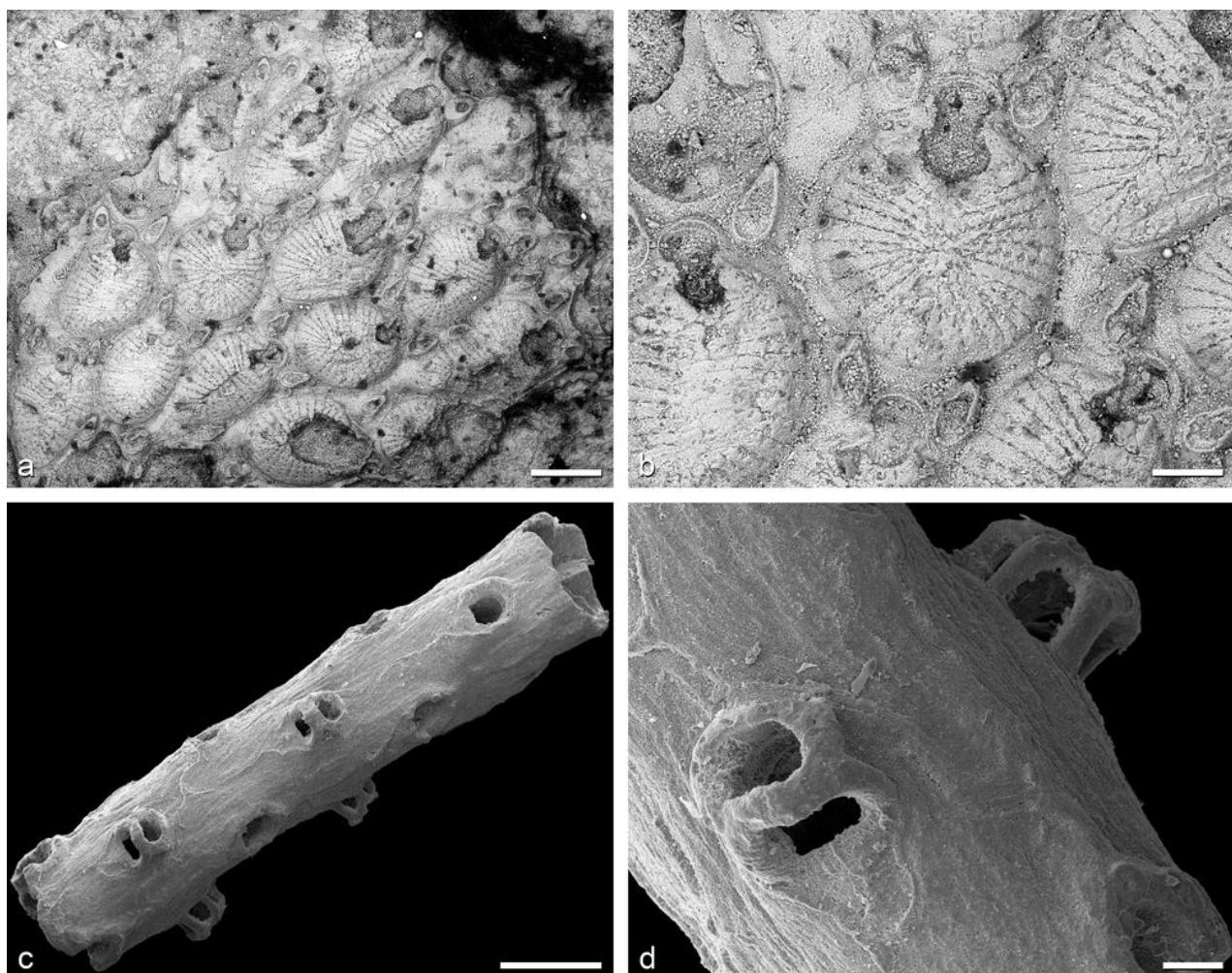


Figure 72: a-b *Pliophloea densistriata* VOIGT, 1949, holotype, SMF 26293, early Campanian (*Gonioteuthis quadrata* belemnite Zone), marl pit near Lahstedt-Oberg, Lower Saxony, Germany. c-d *Pnictopora balavoinei* FLOR, 1968, holotype, SMF 26437, Santonian (*Micraster coranguinum* echinoid Zone), Aulnay-sur-Iton, Normandy, France. Scale bars: c 500 µm; a 250 µm; b, d 100 µm.

Genus *Pnictopora* LANG, 1916

Pnictopora balavoinei FLOR, 1968 (Fig. 72c-d)

- *# 1968 *Pnictopora balavoinei* n.sp. – FLOR, p. 95, Pl. 26, figs. 1–7, 9, 11.
- # 1972 *Pnictopora balavoinei* FLOR, 1968 – FLOR, Pl. 2, fig. 29.
- # 1975a *Pnictopora balavoinei* FLOR – VOIGT, Pl. 3, figs. 8–9.

Holotype: SMF 26437 (FLOR, 1968, Pl. 26, figs. 1–7, 9, 11).

Original label: VOIGT collection number 5299.

Locus typicus: Aulnay-sur-Iton, Eure, Normandy, France.

Stratum typicum: Probably Santonian (*Micraster coranguinum* echinoid Zone), Craie Saibleuse en poches.

Stratigraphical range: Santonian.

Remarks: Pierre BALAVOINE collected the holotype and gave it to VOIGT. Traces of costae on the intraterminal frontal wall of this species are faintly visible if specimens are coloured.

Stratigraphical range: Early Campanian.

Remarks: The holotype is the only reported sample of this species.

Genus *Pnictopora* LANG, 1916

Pnictopora balavoinei FLOR, 1968 (Fig. 72c-d)

- *# 1968 *Pnictopora balavoinei* n.sp. – FLOR, p. 95, Pl. 26, figs. 1–7, 9, 11.
- # 1972 *Pnictopora balavoinei* FLOR, 1968 – FLOR, Pl. 2, fig. 29.
- # 1975a *Pnictopora balavoinei* FLOR – VOIGT, Pl. 3, figs. 8–9.

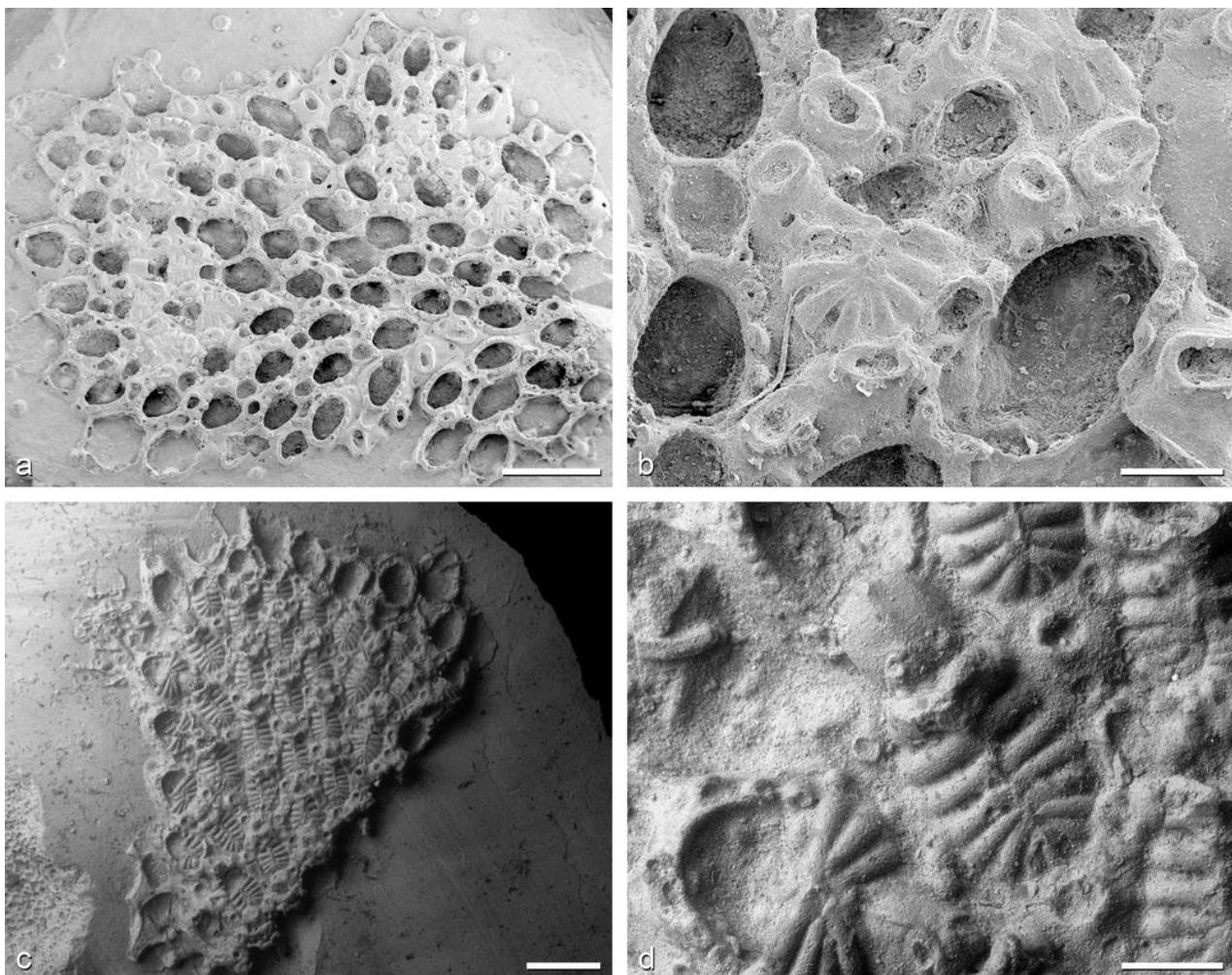


Figure 73: a-b *Taractopora ernsti* VOIGT & SCHNEEMILCH, 1986, holotype, SMF 25913, early Campanian, chalk pit of the cement factory Alsen-Breitenburg near Lägerdorf, Schleswig-Holstein, Germany. c-d *Tricephalopora vermicularis* (HAGENOW, 1846), neotype, SMF 26415, early Maastrichtian, Island of Rügen, Mecklenburg-Vorpommern, Germany. Scale bars: a, c 1 mm; b, d 250 µm.

Holotype: SMF 26437 (FLOR, 1968, Pl. 26, figs. 1-7, 9, 11).

Original label: VOIGT collection number 5299.

Locus typicus: Aulnay-sur-Iton, Eure, Normandy, France.

Stratum typicum: Probably Santonian (*Micraster coranguinum* echinoid Zone), Craie Saibleuse en poches.

Stratigraphical range: Santonian.

Remarks: Pierre BALAVOINE collected the holotype and gave it to VOIGT. Traces of costae on the intraterminal frontal wall of this species are faintly visible if specimens are coloured.

Genus *Taractopora* LANG, 1916

Taractopora ernsti

VOIGT & SCHNEEMILCH, 1986

(Fig. 73a-b)

*# 1986 *Taractopora ernsti* n.sp. - VOIGT & SCHNEEMILCH, p. 119, Pl. 8, figs. 1-4, Pl. 9, figs. 1-3.

Holotype: SMF 25913 (VOIGT & SCHNEEMILCH, 1986, Pl. 8, figs. 1-4, Pl. 9, figs. 1-3).

Original label: VOIGT collection number 11083.

Locus typicus: Chalk pit of the cement factory Alsen-Breitenburg near Lägerdorf, Schleswig-Holstein, Germany.

Stratum typicum: White chalk of early Campanian age; colony encrusting a fragment of echinoid.

Stratigraphical range: Early Campanian.

Genus *Tricephalopora* LANG, 1916

Tricephalopora vermicularis

(HAGENOW, 1846)

(Fig. 73c-d)

*# 1846 *Cellepora vermicularis* v. HAG. - HAGENOW, p. 613, Pl. XXIII.b., fig. 35.

1916a *Tricephalopora* [Cellepora] *vermicularis* (GEINITZ), 1846 [sic] - LANG, p. 87.

1922 *Tricephalopora vermicularis* (GEINITZ) - LANG, p. 60.

1930 *Tricephalopora vermicularis* v. HAGENOW - VOIGT, p. 505, Pl. 29, fig. 13.



- # 1959a *Tricephalopora vermicularis* (v. HAGENOW), 1846 – VOIGT, p. 54, Pl. VIII, fig. 5.

Holotype: The originals of the HAGENOW collection in the Stettiner Museum were lost during World War II.

Locus typicus: Island of Rügen, Mecklenburg-Vorpommern, Germany.

Stratum typicum: White chalk of early Maastrichtian age.

Neotype: SMF 26415 (VOIGT, 1959a, Pl. VIII, fig. 5).

Original label: VOIGT collection number 418.

Locus neotypicus: Island of Rügen, Mecklenburg-Vorpommern, Germany.

Stratum neotypicum: White chalk of early Maastrichtian age.

Stratigraphical range: Early Maastrichtian.

Superfamily Scorioporoidea GORDON, 2002

Family Scorioporidae GORDON, 2002

Genus *Bathystomella* STRAND, 1928

Bathystomella cordiformis (HAGENOW, 1846) (Fig. 74a–b)

- # 1846 *Eschara lenticiformis* v. HAG. – HAGENOW, p. 605, Pl. XXIII.b, fig. 24.
- *# 1846 *Eschara cordiformis* v. HAG. – HAGENOW, p. 606.
- non# 1852 *Escharifora lenticiformis*, d'ORB., 1851 [sic] – ORBIGNY, p. 461, Pl. 715, figs. 13–16.
- # 1887 *Bathystoma cordiforme* v. HAGENOW sp. – MARSSON, p. 88, Pl. IX, fig. 1.
- # 1930 *Bathystoma cordiforme* v. HAGENOW – VOIGT, p. 536, Pl. 37, fig. 11.
- # 1942 *Bathystoma cordiforme* MARSSON – BRYDONE, p. 63.
- # 1953 *Bathystomella cordiformis* (HAG., 1846) – BASSLER, p. G217, Fig. 164.9.
- # 1959a *Bathystomella cordiformis* (v. HAGENOW), 1846 – VOIGT, p. 52–53, Pl. X, figs. 1–2.
- # 1972 *Bathystomella cordiformis* (von HAGENOW) – TAVENER-SMITH & WILLIAMS, Pl. 17, fig. 84.

Syntypes: The originals of the HAGENOW collection in the Stettiner Museum were lost during World War II.

Locus typicus: Island of Rügen, Mecklenburg-Vorpommern, Germany.

Stratum typicum: White chalk of early Maastrichtian age.

Neotype: SMF 24150 (VOIGT, 1959a, Pl. X, fig. 1).

Original label: VOIGT collection number 2440.

Locus neotypicus: Dronningestolen on the island of Møn, Zealand Region, Denmark.

Stratum neotypicum: White chalk of early Maastrichtian age.

Further distribution: Early Maastrichtian, Island of Rügen, Mecklenburg-Vorpommern, Ger-

many.

Stratigraphical range: Early Maastrichtian.

Remarks: MARSSON (1887) designated *Eschara cordiformis* as the type species of *Bathystoma* MARSSON, 1887, which was renamed by STRAND (1928) into *Bathystomella* as *Bathystoma* was preoccupied by a genus of fish, the latter being now considered a *nomen nudum*.

Genus *Beisselinopsis* VOIGT, 1951

Beisselinopsis dietzi VOIGT, 1951

(Fig. 74c–d)

- # 1930 *Beisselina solandri* v. HAGENOW – VOIGT, p. 525, Pl. 34, fig. 10.
- # 1930 *Beisselina* (?) *detrita* v. HAGENOW – VOIGT, p. 526, Pl. 34, fig. 12.
- ?# 1951 *Beisselinopsis hiltermanni* n.g. n.sp. – VOIGT, p. 66, Fig. 13, Pl. 10, figs. 11–12.
- *# 1951 *Beisselinopsis dietzi* n.g. n.sp. – VOIGT, p. 67, Pl. 10, figs. 9–10.

Holotype: SMF 26365 (VOIGT, 1951, Pl. 10, fig. 9).

Original label: VOIGT collection number 317.

Locus typicus: Sehnde-Ilten, Lower Saxony, Germany.

Stratum typicum: Bryozoan-rich rubbly limestone in the Belemnitella junior belemnite Zone.

Further distribution: Late Maastrichtian (*Belemnitella junior* belemnite Zone), Tuffeau de Maastricht near Maastricht, Limburg, Netherlands.

Stratigraphical range: Late Maastrichtian.

Remarks: This species probably represents only poorly preserved specimens of *Beisselinopsis hiltermanni* VOIGT, 1951, according to VOIGT (1964, p. 452) and VOIGT (1987a, p. 91).

Beisselinopsis hiltermanni VOIGT, 1951 (Fig. 74e–f)

- ?# 1930 *Beisselina solandri* v. HAGENOW – VOIGT, p. 525, Pl. 34, fig. 10.
- ?# 1930 *Beisselina* (?) *detrita* v. HAGENOW – VOIGT, p. 526, Pl. 34, fig. 12.
- *# 1951 *Beisselinopsis hiltermanni* n.g. n.sp. – VOIGT, p. 66, Fig. 13, Pl. 10, figs. 11–12.
- ?# 1951 *Beisselinopsis dietzi* n.g. n.sp. – VOIGT, p. 67, Pl. 10, figs. 9–10.
- ?# 1964 *Beisselinopsis* cf. *hiltermanni* VOIGT, 1951 – VOIGT, p. 452, Pl. IX, figs. 9–10.
- ?# 1969 *Beisselinopsis hiltermanni* VOIGT, 1951 – MARYŃSKA, p. 118, Pl. XII, figs. 5–6.
- # 1987a *Beisselinopsis hiltermanni* VOIGT, 1951 – VOIGT, p. 91, Pl. 23, figs. 1–3.

Holotype: SMF 26367 (VOIGT, 1951, Pl. 10, fig. 11).

Original label: VOIGT collection number 317.

Locus typicus: Aachen, North Rhine-Westphalia, Germany.

Stratum typicum: (Probably) chalk marl containing flint.

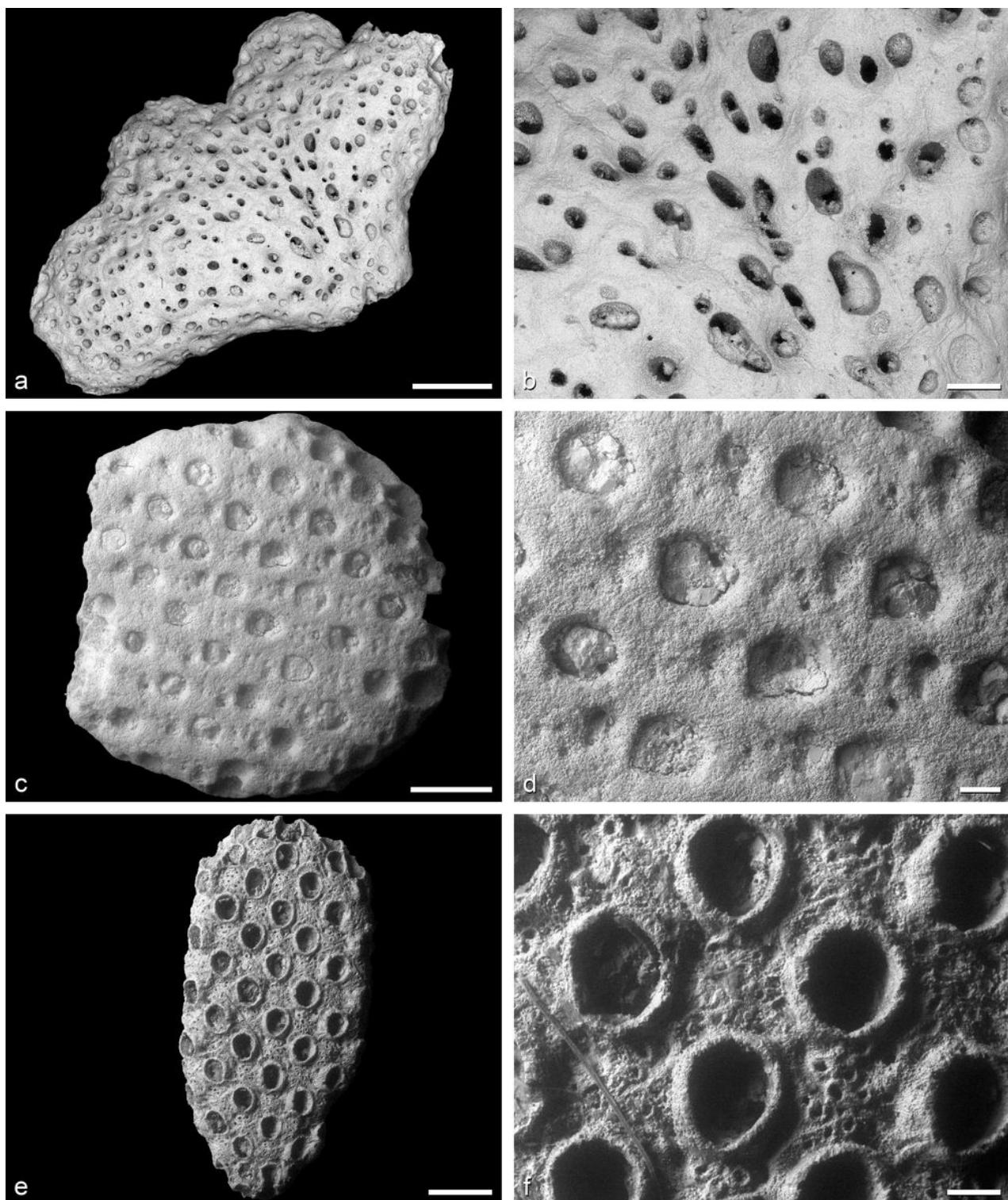


Figure 74: a-b *Bathystomella cordiformis* (HAGENOW, 1846), neotype, SMF 24150, early Maastrichtian, Dronningestolen on the island of Møn, Zealand Region, Denmark. c-d *Beisselinopsis dietzi* VOIGT, 1951, holotype, SMF 26365, late Maastrichtian (*Belemnitella junior* belemnite Zone), Sehnde-Ilten, Lower Saxony, Germany. e-f *Beisselinopsis hiltermanni* VOIGT, 1951, holotype, SMF 26367, early Maastrichtian, Aachen, North Rhine-Westphalia, Germany.

Scale bars: a 1 mm; c, e 500 µm; b 250 µm; d, f 100 µm.

Further distribution: Late Maastrichtian, Sehnde-Ilten, Lower Saxony, Germany; Maastricht, Limburg, Netherlands. Danian, F.P. Mons drilling and Ciply in the municipality of Mons, Wallonia, Belgium; Albert Canal near Riemst-Vroenhoven, Flanders, Belgium; Curfs Quarry near Berg, Val-

kenburg aan de Geul municipality; Beatrix drilling near Neer, municipality of Leudal (both Limburg, Netherlands); "Siwak" near Nasiłów, Gmina Janowiec, Lublin Voivodeship, Poland; Boryszew drilling near Boryszew, Gmina Wiązowna, Masovian Voivodeship, Poland. Baltic Danian in Den-



mark and southern Sweden and several glacial drifts of Danian age in northern Germany.

Stratigraphical range: Early Maastrichtian to Danian.

Remarks: *Beisselinopsis hiltermanni* is the type species of *Beisselinopsis* VOIGT, 1951. Dr H. HILTERMANN collected the holotype and gave it to VOIGT for description. The original collection number was B 2 (6944).

Genus *Columnotheca* MARSSON, 1887

Columnotheca cribrosa MARSSON, 1887

(Fig. 75a–b)

- # 1840 *Ceriopora* (?) *echinata* nob. – HAGENOW, p. 647.
- ?# 1852 *Eschara cricoporacea* v. HGW. – KADE, p. 29.
- # 1881 *Pustulipora circulata* – QUENSTEDT, p. 335, Pl. 155, fig. 17c, C.
- # 1886 *Spiropora vertebralis*, STOLICZKA – PERGENS & MEUNIER, p. 210, Pl. XI, fig. 2.
- *# 1887 *Columnotheca cribrosa* n.sp. – MARSSON, p. 82, Pl. VIII, fig. 1.
- # 1892 *Columnotheca cribrosa* MARSS. – HENNIG, p. 42.
- ?# 1894 *Spiropora vertebralis*, STOLICZKA sp. – HENNIG, p. 18.
- # 1925 *Monoporella cribrosa* (MARSSON) – LEVINSEN, p. 405, Pl. VII, fig. 82a–b.
- # 1930 *Columnotheca cribrosa* MARSSON – VOIGT, p. 519, Pl. 33, fig. 13a–b.
- # 1953 *Columnotheca cribrosa* MARSSON, 1887 – BASSLER, p. G193, Fig. 145.7.
- # 1959a *Columnotheca cribrosa* MARSSON, 1887 – VOIGT, p. 49.
- non# 1962 *Columnotheca cribrosa* MARSSON – BERTHELSEN, p. 207, Pl. 24, fig. 7.
- # 1963 *Columnotheca cribrosa* MARSSON, 1887 – VEENSTRA, p. 130, Pl. 8, figs. 5–9.
- # 1968c *Columnotheca cribrosa* MARSSON, 1887 – VOIGT, p. 384, Figs. 1A–D, 2A–D, 3A–B, 4A–I, 5A–B.
- # 1969 *Columnotheca cribrosa* MARSSON, 1887 – MARYŃSKA, p. 120.
- # 1971 *Columnotheca cribrosa* MARSSON – CHEETHAM, Pl. 11, figs. 1–4.
- # 1975b *Columnotheca cribrosa* MARSSON – VOIGT, Pl. 3, fig. 9.
- # 1977a *Columnotheca cribrosa* MARSSON – THOMSEN, Fig. 8B.
- # 1977b *Columnotheca cribrosa* MARSSON – THOMSEN, Figs. 4I, 10B, D.
- # 1983 *Columnotheca cribrosa* MARSSON – VOIGT, Pl. 4, fig. 16.
- # 1987a *Columnotheca cribrosa* MARSSON, 1887 – VOIGT, p. 81, Pl. 20, fig. 30.
- # 1995 *Columnotheca cribrosa* MARSSON – THOMSEN & HÅKANSSON, Fig. 2A.
- # 2002 *Columnotheca cribrosa* MARSSON, 1887 – GORDON, p. 115, Figs. 22–24.

Holotype: The material of MARSSON (1887) belonged to the collections of the Preußische Geologische Landesanstalt (Prussian Geological Land Survey) that VOIGT (1982a) reported to have been destroyed during World War II. However, part of the collection survived (MARTHA, 2014).

Locus typicus: Island of Rügen, Mecklenburg-Vorpommern, Germany.

Stratum typicum: White chalk of early Maastrichtian age.

Neotype: SMF 24233 (VOIGT, 1968d, Fig. 1A).

Original label: VOIGT collection number 5366.

Locus neotypicus: Sassnitz, Mecklenburg-Vorpommern, Germany.

Stratum neotypicum: White chalk of early Maastrichtian age.

Further distribution: Early Maastrichtian, Island of Møn, Zealand Region, Denmark; Hemmoor; Lüneburg-Zeltberg (both Lower Saxony, Germany). Late Maastrichtian, Stevns Klint in the Stevns Kommune, Zealand Region, Denmark and other localities in Denmark; Hemmoor; Sehnde-Ilten (both Lower Saxony, Germany); Nasiłów, Gmina Janowiec, Lublin Voivodeship, Poland; Kvarnby, Malmö Husie, Skåne län, Sweden. Danian, Stevns Klint in the Stevns Kommune; Faxe quarries (both Zealand Region, Denmark); Voldum, Favrvskov Kommune and Råsted, Randers Kommune (both Region Midtjylland, Denmark); Løgstør in the Vesthimmerlands Kommune, Region Nordjylland, Denmark and many other localities in Denmark and southern Sweden. Common in drift deposits from northern Germany and the Netherlands.

Stratigraphical range: Maastrichtian and Danian.

Remarks: *Columnotheca cribrosa* is the type species of *Columnotheca* MARSSON, 1887. Study of the holotype of *Pustulipora circulata* QUENSTEDT, 1881, has proved it to be a senior synonym of *C. cribrosa*. However, as *P. circulata* has never been used as a valid name after its first description and the younger name has been commonly used, VOIGT (1968d) considered *P. circulata* as a *nomen oblitum*.

Columnotheca monopora VOIGT, 1968

(Fig. 75c–d)

- # 1962 *Columnotheca cribrosa* MARSSON – BERTHELSEN, p. 207, Pl. 24, fig. 7.
- *# 1968c *Columnotheca monopora* n.sp. – VOIGT, p. 393, Figs. 7A–D, 8A–C.

Holotype: SMF 24228 (VOIGT, 1968d, Fig. 7A).

Original label: VOIGT collection number 5363.

Locus typicus: Bjørndal quarry near Hvidbjerg, Struer Kommune, Midtjylland Region, Denmark.

Stratum typicum: White chalk of late middle Danian age.

Further distribution: Danian, glacial drift deposits near Neu Wulmstorf-Daerstorf, Lower Saxony, Germany; Belbek near Sevastopol and two localities in the Autonomous Republic of Crimea, Russia/Ukraine referred to by VOIGT (1968d) as "Salatschik" and "Mala Sadowaja". Middle

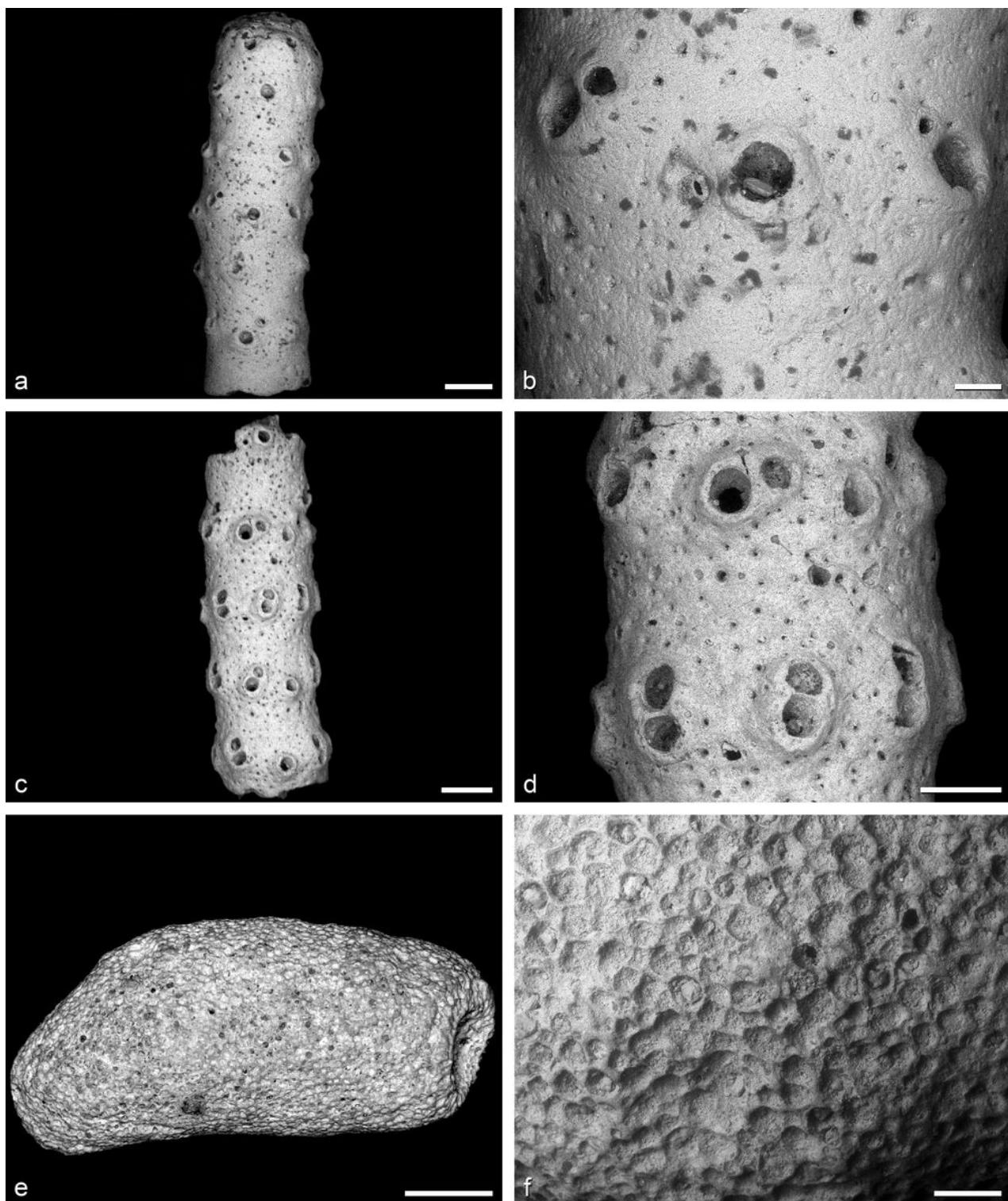


Figure 75: a-b *Columnotheca cribrosa* MARSSON, 1887, neotype, SMF 24233, early Maastrichtian, Sassnitz, Mecklenburg-Vorpommern, Germany. c-d *Columnotheca monopora* VOIGT, 1968, holotype, SMF 24228, late middle Danian, Bjørndal quarry near Hvidbjerg in the Struer Kommune, Region Midtjylland, Denmark. e-f '*Dysnoetopora*' *confusa* VOIGT, 1951, holotype, SMF 26344, late Maastrichtian (*Belemnitella junior* belemnite Zone), Sehnde-Ilten, Lower Saxony, Germany.

Scale bars: e 2.5 mm; a, c, f 500 µm; d 250 µm; b 100 µm.

Danian, Voldum in the Favrskov Kommune, Mid-tjylland Region, Denmark; Faxe quarries, Zealand Region, Denmark. Late Danian, Herfølge, Køge Kommune, Zealand Region, Denmark; Östra Torp near Smygehamn, Trelleborgs Kommune, Skåne

länn, Sweden.

Stratigraphical range: Danian.

Remarks: In the original species description, Faxe is mentioned as the type locality. However,



the holotype is from Bjørndal (Jütland) as indicated in the figure captions and on the original label of the specimen. The image of the holotype is flipped horizontally in VOIGT (1968d).

Infraorder Hippothoomorpha
GORDON, 1989

Superfamily Hippothooidea BUSK, 1859

Family Dysnoetoporidae VOIGT, 1971

Genus *Dysnoetopora*
CANU & BASSLER, 1926

'*Dysnoetopora*' *confusa* VOIGT, 1951

(Fig. 75e-f)

- *# 1951 *Dysnoetopora confusa* n. sp. – VOIGT, p. 57, Fig. 11, Pl. 8, figs. 1–7.
1971 *Dysnoetopora?* *confusa* VOIGT, 1951 – VOIGT, p. 98.

Holotype: SMF 26344 (VOIGT, 1951, Pl. 8, figs. 1, 6).

Original label: VOIGT collection number 294.

Locus typicus: Sehnde-Ilten, Lower Saxony, Germany.

Stratum typicum: Bryozoan-rich rubbly limestone in the *Belemnitella junior* belemnite Zone.

Stratigraphical range: Late Maastrichtian.

Remarks: The assignment of this species to the genus *Dysnoetopora* CANU & BASSLER, 1926, and to the Cheilostomata in general is uncertain as the interior structures of the zooids cannot be examined due to the poor preservation of the specimens, the apertures being almost completely filled with sediment.

Family Hippothoidae BUSK, 1859

Genus *Celleporella* GRAY, 1848

Celleporella felderi
VOIGT & HILLMER, 1983

(Fig. 76a-b)

- *# 1983 *Celleporella felderi* n.sp. – VOIGT & HILLMER, p. 197, Pl. 18, figs. 1–4, Pl. 19, figs. 1–8.

Holotype: SMF 25100 (VOIGT & HILLMER, 1983, Pl. 18, figs. 1–3, Pl. 19, fig. 8).

Original label: VOIGT collection number 9737.

Locus typicus: Blom Quarry near Terblijt in the municipality Valkenburg aan de Geul, Limburg, Netherlands.

Stratum typicum: *Belemnitella junior* belemnite Zone, Tuffeau de Maastricht.

Further distribution: Late Maastrichtian, along the Albert Canal near Riemst-Vroenhoven, Flanders, Belgium.

Stratigraphical range: Late Maastrichtian.

Remarks: *Celleporella felderi* is the only species of *Celleporella* GRAY, 1848, known from the Cretaceous.

Genus *Laterotecatia* VOIGT, 1979

***Laterotecatia pseudamathia* VOIGT, 1979**
(Fig. 76c-d)

- p# 1972 *Amathia immurata* n.sp. – VOIGT, p. 90, Pl. 17, figs. 2–5 (non Pl. 17, fig. 1).
*# 1979a *Laterotecatia pseudamathia* n.g. n.sp. – VOIGT, p. 558, Pl. 8, figs. 1–10.
1983 *Laterotecatia pseudamathia* VOIGT – VOIGT & HILLMER, p. 191, Pl. 14, figs. 1–9.

Holotype: SMF 24796 (VOIGT, 1979a, Pl. 8, figs. 1–4).

Original label: VOIGT collection number 7713.

Locus typicus: Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands.

Stratum typicum: *Belemnitella junior* belemnite Zone, Tuffeau de Maastricht.

Further distribution: Late Maastrichtian, Kunrade beds near Benzenrade, Heerlen municipality; Blom Quarry near Terblijt, Valkenburg aan de Geul municipality (both Limburg, Netherlands).

Stratigraphical range: Late Maastrichtian.

Remarks: *Laterotecatia pseudamathia* is the type species of *Laterotecatia* VOIGT, 1979a. Revised diagnoses of the species and genus were provided by VOIGT and HILLMER (1983). VOIGT (1979a) assigned all paratypes of the supposedly ctenostome bryozoan *Amathia immurata* VOIGT, 1972, to *L. pseudamathia*. The holotype of *L. pseudamathia* consists of sixteen autozooids from a broken colony placed on a gold foil, coated and covered by a protective foil. We did not remove the protective foil in order to avoid damage or loss of this unique specimen.

Family Pasytheidae DAVIS, 1934

Genus *Tecatia* MORRIS, 1980

***Tecatia alternans* VOIGT & HILLMER, 1983**
(Fig. 76e-f)

- *# 1983 *Tecatia alternans* n.sp. – VOIGT & HILLMER, p. 179, Pl. 5, figs. 2–8, Pl. 6, figs. 1–4, Pl. 20, fig. 1.

Holotype: SMF 25105 (VOIGT & HILLMER, 1983, Pl. 6, fig. 2).

Original label: VOIGT collection number 9977.

Locus typicus: Blom Quarry near Terblijt, municipality Valkenburg aan de Geul, Limburg, Netherlands.

Stratum typicum: Hardground above the Caster horizon (at the boundary of layers Ivd and Ive) *Belemnitella junior* belemnite Zone.

Further distribution: Late Maastrichtian, Curfs Quarry near Berg, Valkenburg aan de Geul municipality; Voerendaal-Kunrade (both Limburg, Netherlands).

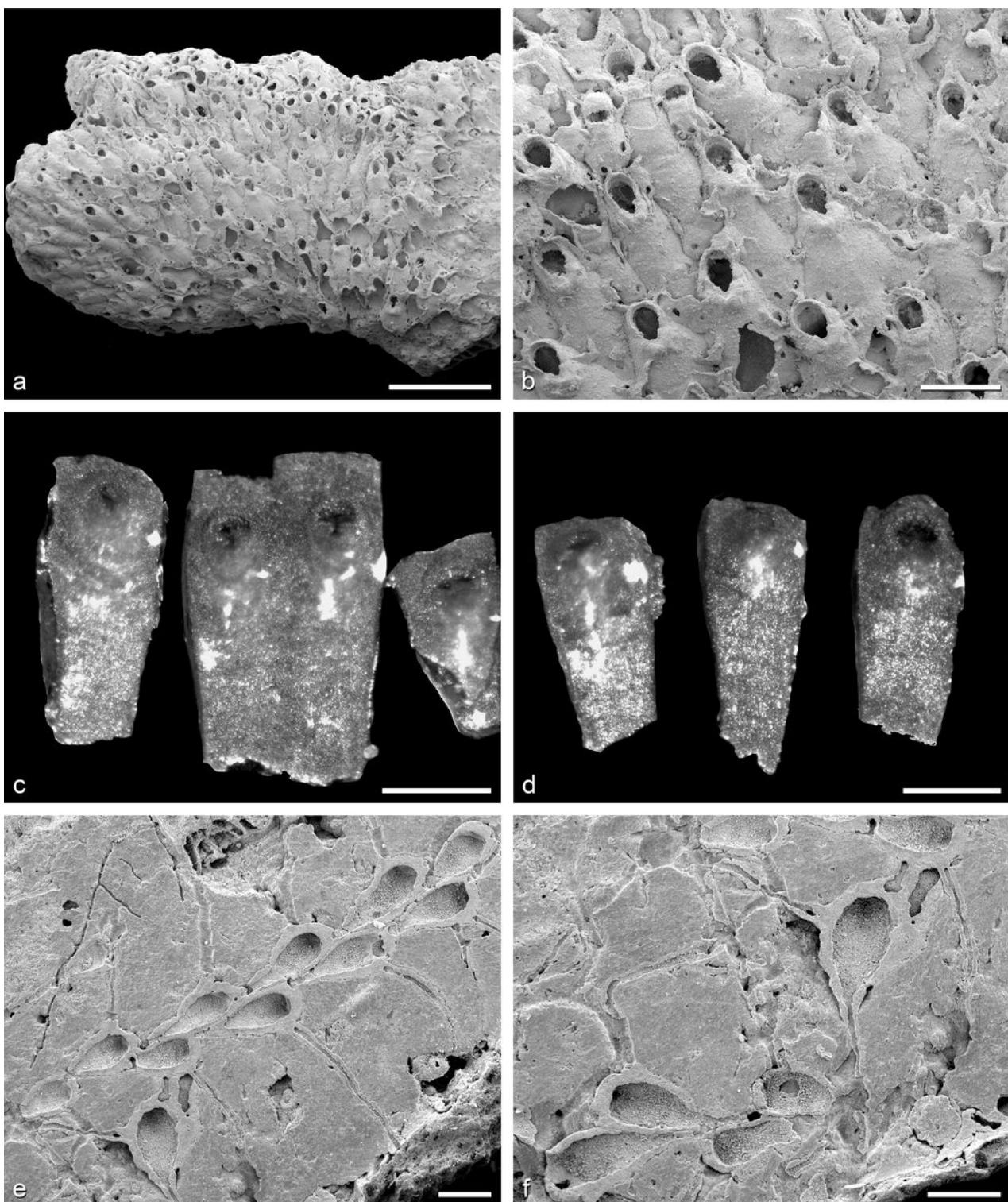


Figure 76: a-b *Celleporella felderri* VOIGT & HILLMER, 1983, holotype, SMF 25100, late Maastrichtian (*Belemnitella junior* belemnite Zone), Blom Quarry near Terblijt in the municipality Valkenburg aan de Geul, Limburg, Netherlands. c-d *Laterotectaria pseudamathia* VOIGT, 1979, holotype, SMF 24796, late Maastrichtian (*Belemnitella junior* belemnite Zone), Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands. e-f *Tecatia alternans* VOIGT & HILLMER, 1983, holotype, SMF 25105, late Maastrichtian (*Belemnitella junior* belemnite Zone), Blom Quarry near Terblijt in the municipality Valkenburg aan de Geul, Limburg, Netherlands.

Scale bars: a 1 mm; b-f 250 µm.

Stratigraphical range: Late Maastrichtian.

Remarks: The holotype colony is an external mould preserved by bioimmuration, while other

colonies of the species are represented by calcified skeletons.



Tecatia arachnoidea
VOIGT & HILLMER, 1983
(Fig. 77a-b)

*# 1983 *Tecatia arachnoidea* n.sp. – VOIGT & HILLMER, p. 182, Pl. 4, figs. 1-3.

Holotype: SMF 25106 (VOIGT & HILLMER, 1983, Pl. 4, figs. 2-3).

Original label: VOIGT collection number 9985.

Locus typicus: Blom Quarry near Terblijt, Valkenburg aan de Geul municipality, Limburg, Netherlands.

Stratum typicum: Hardground above the Caster horizon (at the boundary of layers IVd and IVe) *Belemnitella junior* belemnite Zone.

Stratigraphical range: Late Maastrichtian.

Remarks: Colonies of *Tecatia arachnoidea* are known only as external moulds preserved by bioimmuration. In the species description, VOIGT collection number 9757 is named as the holotype, but this is the holotype of *T. stomatoporoides* VOIGT & HILLMER, 1983, instead. The original label of the specimen and the text of the figure captions show that VOIGT collection number 9985 is the correct number for the holotype of *T. arachnoidea*. Part of the colony is damaged, with the left zooid of VOIGT and HILLMER (1983, Pl. 4, fig. 2) being destroyed.

Tecatia minuta MORRIS, 1980
(Fig. 77c-d)

*# 1980 *Tecatia minuta* new species – MORRIS, p. 11, Fig. 9, Pl. 1, fig. 2, Pl. 7, figs. 1-2.

1983 *Tecatia minuta* MORRIS, 1980 – VOIGT & HILLMER, p. 177, Pl. 3, figs. 1-5.

Holotype: Not found (MORRIS, 1980, Pl. 1, fig. 2, Pl. 7, figs. 1-2).

Original label: VOIGT collection number 7261.

Locus typicus: Albert Canal near Riemst-Vroenhoven, Flanders, Belgium.

Stratum typicum: *Belemnitella junior* belemnite Zone, Tuffeau de Maastricht.

Further distribution: Late Maastrichtian, Curfs Quarry near Berg, and Blom Quarry near Terblijt (both in the Valkenburg aan de Geul municipality); Sint-Pietersberg near Maastricht (all Limburg, Netherlands).

Stratigraphical range: Late Maastrichtian.

Remarks: Both MORRIS (1980) and VOIGT and HILLMER (1983) indicated 7261 as the VOIGT collection number of the holotype. However, the specimen labelled with that number is not identical with the figured specimen, although both colonies come from the same locality and both encrust a specimen of *Castanopora bipunctata* (GOLDFUB, 1826). None of the colonies of *Tecatia minuta* encrusting *C. bipunctata* found in the VOIGT Collection resembles the specimen figured by MORRIS (1980) as the holotype. Here, we ima-

ge specimen SMF 25121 (the 'true' specimen labelled with VOIGT collection number 7261), which has not previously been depicted.

Tecatia stomatoporoides
VOIGT & HILLMER, 1983
(Fig. 77e-f)

*# 1983 *Tecatia stomatoporoides* n.sp. – VOIGT & HILLMER, p. 178, Pl. 3, figs. 7-9, Pl. 4, figs. 5-6, Pl. 5, fig. 1.

Holotype: SMF 25107 (VOIGT & HILLMER, 1983, Pl. 3, figs. 7-8, Pl. 4, fig. 5).

Original label: VOIGT collection number 9757.

Locus typicus: Blom Quarry near Terblijt, municipality of Valkenburg aan de Geul, Limburg, Netherlands.

Stratum typicum: *Belemnitella junior* belemnite Zone, Tuffeau de Maastricht.

Further distribution: Late Maastrichtian, Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands.

Stratigraphical range: Late Maastrichtian.

Remarks: All known colonies of *Tecatia stomatoporoides* are external moulds preserved by bioimmuration.

Family Trypostegidae
GORDON et al. in WINSTON, 2005

Genus Boreas MORRIS, 1980

Boreas kunradensis
VOIGT & HILLMER, 1983
(Fig. 78a-b)

*# 1983 *Boreas kunradensis* n.sp. – VOIGT & HILLMER, p. 185, Pl. 10, figs. 1-7.

Holotype: SMF 25099 (VOIGT & HILLMER, 1983, Pl. 10, figs. 1-2).

Original label: VOIGT collection number 9455.

Locus typicus: Abandoned Schunk Quarry near Voerendaal-Kunrade, Limburg, Netherlands.

Stratum typicum: Kunrade beds of late Maastrichtian age.

Further distribution: Late Maastrichtian, Kunrade beds near Benzenrade, Heerlen municipality, Limburg, Netherlands.

Stratigraphical range: Late Maastrichtian.

Boreas voigti MORRIS, 1980
(Fig. 78c-d)

1930 *Hippothoa fusiformis* CANU – VOIGT, p. 527, Pl. 35, figs. 13-15.

*# 1980 *Boreas voigti* new species – MORRIS, p. 9, Fig. 5, Pl. 3, fig. 5.

1983 *Boreas voigti* MORRIS, 1980 – VOIGT & HILLMER, p. 185, Pl. 9, figs. 1-7.

Holotype: SMF 26479 (MORRIS, 1980, Fig. 5, Pl. 3, fig. 5).

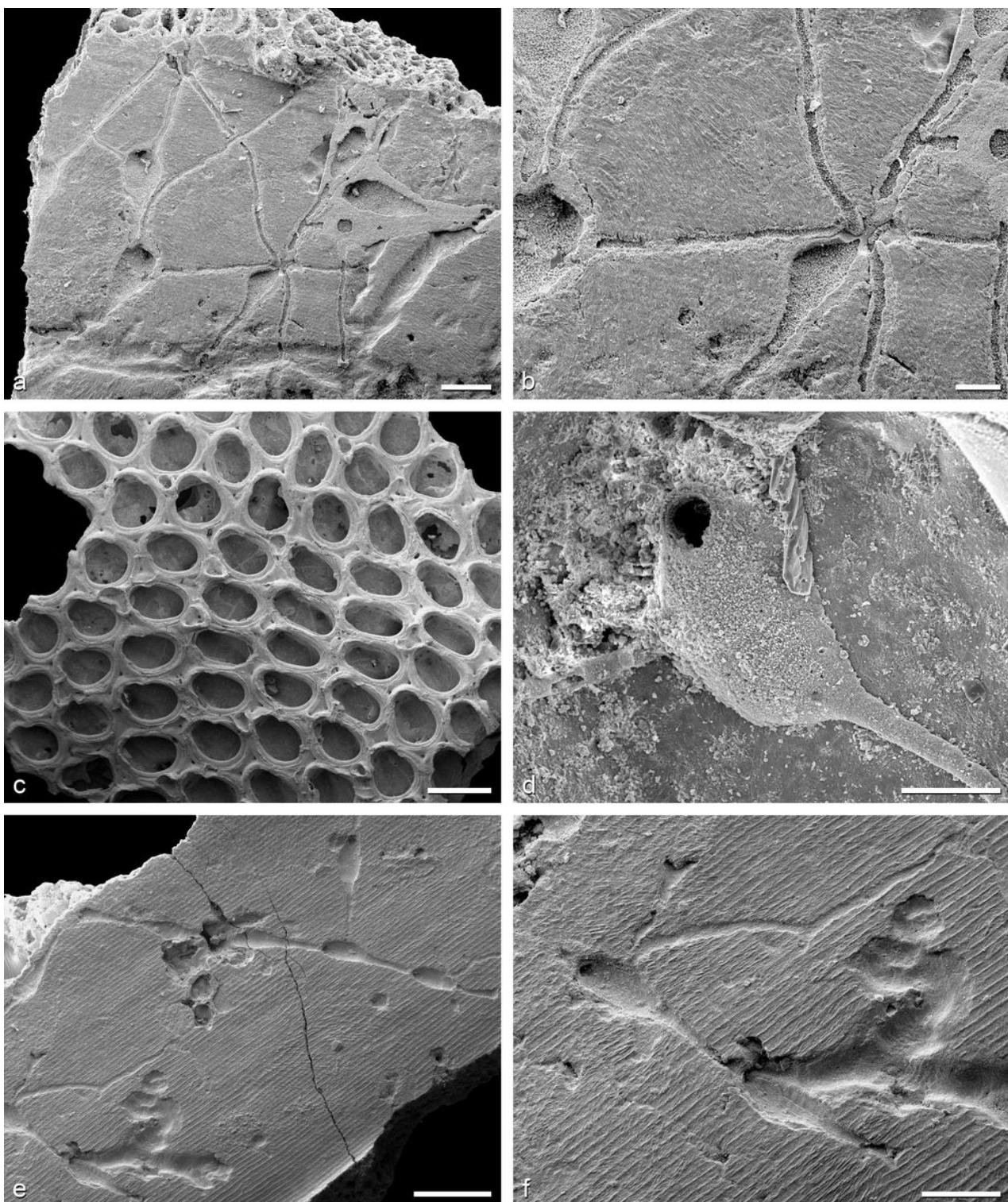


Figure 77: a-b *Tecatia arachnoidea* VOIGT & HILLMER, 1983, holotype, SMF 25106, late Maastrichtian (*Belemnitella junior* belemnite Zone), Blom Quarry near Terblijt in the municipality Valkenburg aan de Geul, Limburg, Netherlands. c-d *Tecatia minuta* MORRIS, 1980, SMF 25121, late Maastrichtian (*Belemnitella junior* belemnite Zone), Albert Canal near Riemst-Vroenhoven, Flanders, Belgium. e-f *Tecatia stomatoporoides* VOIGT & HILLMER, 1983, holotype, SMF 25107, late Maastrichtian (*Belemnitella junior* belemnite Zone), Blom Quarry near Terblijt in the municipality Valkenburg aan de Geul, Limburg, Netherlands.

Scale bars: c 1 mm; e 500 µm; a, f 250 µm; b, d 100 µm.

Original label: VOIGT collection number 7357.

Locus typicus: Hemmingslycke near Kristianstad, Skåne län, Sweden.

Stratum typicum: Rubbly limestone in the *Belemnitella mucronata* belemnite Zone.

Further distribution: Early Campanian, Karl-

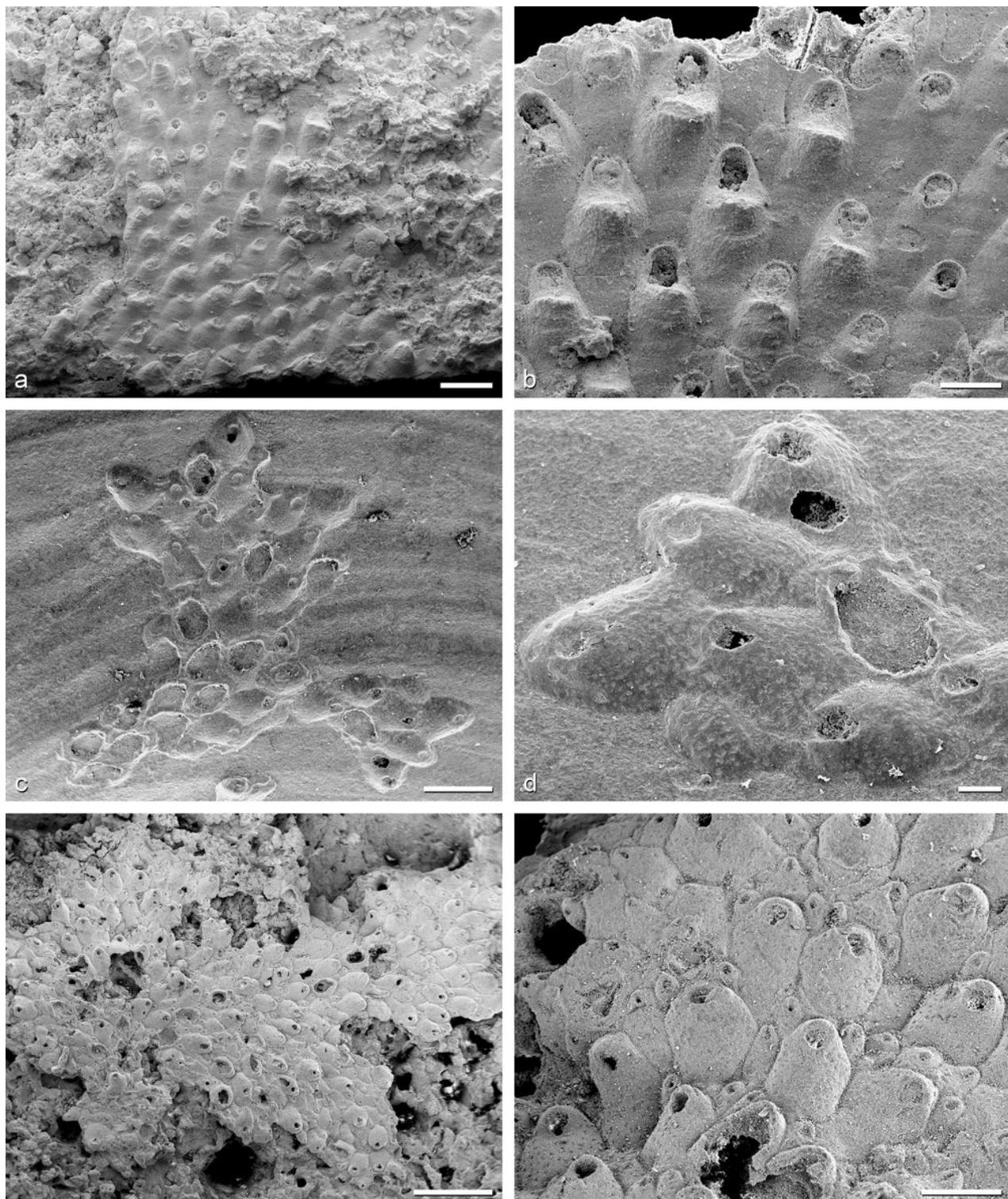


Figure 78: a-b *Boreas kunradensis* VOIGT & HILLMER, 1983, holotype, SMF 25099, late Maastrichtian, Schunk Quarry near Voerendaal-Kunrade, Limburg, Netherlands. c-d *Boreas voigti* MORRIS, 1980, holotype, SMF 26479, early Campanian (*Belemnitella mucronata* belemnite Zone), Hemmingslycke near Kristianstad, Skåne län, Sweden. e-f *Boreasina morrisae* VOIGT & HILLMER, 1983, holotype, SMF 25101, late Maastrichtian (*Belemnitella junior* belemnite Zone), Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands.

Scale bars: e 1 mm; a, c 500 µm; b, f 250 µm; d 100 µm.

shamn, Blekinge län, Sweden; "Ifö" (probably the island Ivön, formerly spelled Ifön near Bromölla, Skåne län, Sweden). Late Campanian, Staver-

svad near Kristianstad-Arkelstorp, Skåne län, Sweden.

Stratigraphical range: Campanian.



Remarks: *Boreas voigti* is the type species of *Boreas* MORRIS, 1980. MORRIS (1980) stated that some specimens labelled as *Hippothoa rugulosa* (REUSS, 1874b) from the Burdigalian in the collections at Lyon are referable to *B. voigti*, which is highly doubtful considering the huge stratigraphical gap. Indeed, this material was excluded from *B. voigti* by VOIGT and HILLMER (1983).

Genus *Boreasina* VOIGT & HILLMER, 1983

Boreasina morrisae VOIGT & HILLMER, 1983 (Fig. 78e-f)

- *# 1983 *Boreas morrisae* n.g. n.sp. – VOIGT & HILLMER, p. 187, Pl. 11, figs. 1–6, Pl. 12, figs. 1–3.

Holotype: SMF 25101 (VOIGT & HILLMER, 1983, Pl. 11, fig. 1).

Original label: VOIGT collection number 9754.

Locus typicus: Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands.

Stratum typicum: *Belemnitella junior* belemnite Zone, Tuffeau de Maastricht.

Further distribution: Late Maastrichtian, Vorenendaal-Kunrade, Limburg, Netherlands.

Stratigraphical range: Late Maastrichtian.

Remarks: *Boreasina morrisae* is the type species of *Boreasina* VOIGT & HILLMER, 1983. Both, in the description of and in the figure captions, 5754 is given as the VOIGT collection number of the holotype. However, the correct VOIGT collection number of the holotype is 9754.

Boreasina nowickii VOIGT, 1991 (Fig. 79a–b)

- *# 1991b *Boreas nowickii* n.sp. – VOIGT, p. 519, Pl. 1, fig. 5.

- # 2000 *Boreasina nowickii* VOIGT – GORDON, Pl. 1, fig. f.

Holotype: SMF 25866 (VOIGT, 1991b, Pl. 1, fig. 5).

Original label: VOIGT collection number 11906.

Locus typicus: Saint-Christophe-sur-le-Nais, Indre-et-Loire, Centre-Val de Loire, France.

Stratum typicum: Coniacian.

Further distribution: According to NOWICKI (1986), several localities in the Aquitaine and Paris basins. Coniacian, Tours, Indre-et-Loire, Centre-Val de Loire, France. Middle Coniacian, near Périgueux, Dordogne, Nouvelle-Aquitaine, France. Santonian, Vendôme, Loir-et-Cher; Ville-dieu-le-Château, Loir-et-Cher (both Centre-Val de Loire, France).

Stratigraphical range: Coniacian to Santonian.

Remarks: The species was first described by NOWICKI (1986) in his unpublished PhD thesis and renamed in honour of its author by VOIGT (1991b) since NOWICKI's unpublished name is invalid.

Genus *Eohippothoa*

VOIGT & HILLMER, 1983

Eohippothoa pustulosa

VOIGT & HILLMER, 1983

(Fig. 79c–d)

- *# 1983 *Eohippothoa pustulosa* n.g. n.sp. – VOIGT & HILLMER, p. 173, Pl. 1, figs. 1–6, Pl. 8, figs. 8–9.

Holotype: SMF 25102 (VOIGT & HILLMER, 1983, Pl. 1, figs. 1–6, Pl. 8, fig. 9).

Original label: VOIGT collection number 9697.

Locus typicus: Hemmingslycke near Kristianstad, Skåne län, Sweden.

Stratum typicum: Rubbly limestone of late Campanian age.

Further distribution: Late Campanian, Staversvad near Kristianstad-Arkelstorp, Skåne län, Sweden.

Stratigraphical range: Late Campanian.

Remarks: *Eohippothoa pustulosa* is the type species of *Eohippothoa* VOIGT & HILLMER, 1983.

Genus *Grammothoa*

VOIGT & HILLMER, 1983

Grammothoa filifera

VOIGT & HILLMER, 1983

(Fig. 79e–f)

- *# 1983 *Grammothoa filifera* n.g. n.sp. – VOIGT & HILLMER, p. 194, Pl. 3, fig. 6, Pl. 16, figs. 1–6, Pl. 17, figs. 1–6.

- # 1987c *Grammothoa filifera* VOIGT & HILLMER – VOIGT, Fig. 2E–G.

- # 1988 *Grammothoa filifera* VOIGT & HILLMER, 1983 – VOIGT, p. 194, Figs. 1–5.

Holotype: SMF 25103 (VOIGT & HILLMER, 1983, Pl. 16, figs. 3, 6, Pl. 17, fig. 3).

Original label: VOIGT collection number 9513.

Locus typicus: Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands.

Stratum typicum: *Belemnitella junior* belemnite Zone, Tuffeau de Maastricht.

Stratigraphical range: Late Maastrichtian.

Remarks: *Grammothoa filifera* is the type species of *Grammothoa* VOIGT & HILLMER, 1983.

Genus *Kronothoa* MORRIS, 1980

Kronothoa dissoluta (VOIGT, 1930)

(Fig. 80a–b)

- *# 1930 *Hippothoa dissoluta* n.sp. – VOIGT, p. 527, Pl. 35, fig. 16.

- # 1980 *Kronothoa dissoluta* (VOIGT) – MORRIS, p. 10, Fig. 7, Pl. 3, figs. 2–4.

- # 1983 *Kronothoa dissoluta* (VOIGT, 1930) – VOIGT & HILLMER, p. 183, Pl. 7, figs. 1–7, Pl. 8, figs. 1–8.

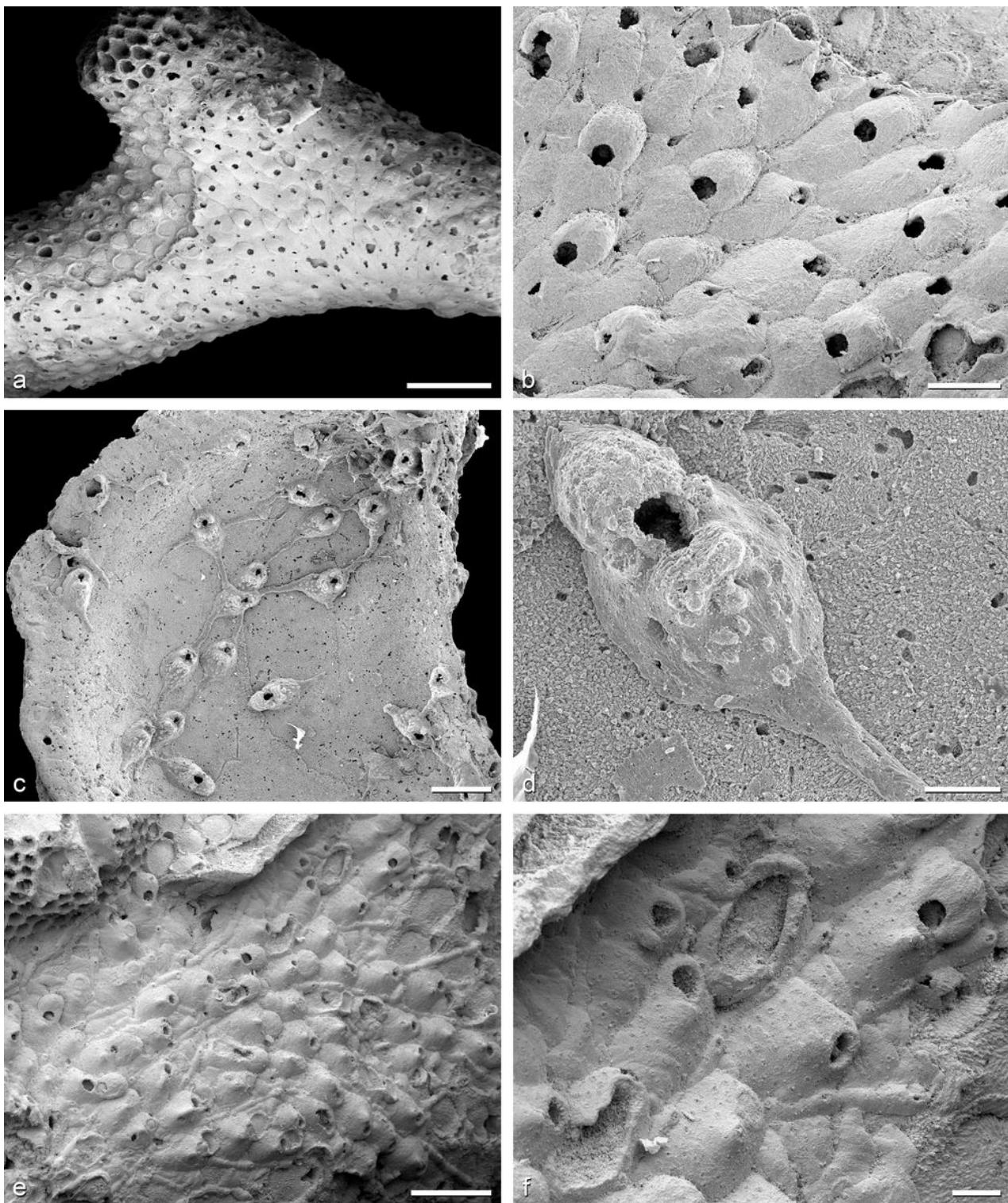


Figure 79: a-b *Boreasina nowickii* VOIGT, 1991, holotype, SMF 25866, Coniacian, Saint-Christophe-sur-le-Nais, Indre-et-Loire, Centre-Val de Loire, France. c-d *Eohippothoa pustulosa* VOIGT & HILLMER, 1983, holotype, SMF 25102, late Campanian, Hemmingslycke near Kristianstad, Skåne län, Sweden. e-f *Grammothoa filifera* VOIGT & HILLMER, 1983, holotype, SMF 25103, late Maastrichtian (*Belemnita junior* belemnite Zone), Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands.

Scale bars: a 1 mm; c, e 500 µm; b 250 µm; d, f 100 µm.

Syntypes: This material belonged to the first VOIGT Collection that was destroyed in a fire at the *Geologisches Staatsinstitut Hamburg* in 1943.

Locus typicus: Hemmingslycke near Kristianstad, Skåne län, Sweden.

Stratum typicum: Rubbly limestone of late Campanian age.

Neotype: SMF 26480 (MORRIS, 1980, Fig. 7, Pl. 3, figs. 2-4).

Original label: VOIGT collection number 7528.



Locus neotypicus: Staversvad near Kristianstad-Arkelstorp, Skåne län, Sweden.

Stratum neotypicum: Rubbly limestone of late Campanian age.

Further distribution: Late Campanian, Hemmingslycke near Kristianstad, Skåne län, Sweden.

Stratigraphical range: Late Campanian.

Remarks: *Kronothoa dissoluta* is the type species of *Kronothoa* MORRIS, 1980. In the figure captions of MORRIS (1980), the species is inadvertently referred to as a new species. Furthermore, the number of the holotype is incorrectly given as 7258 in the VOIGT collection.

Genus *Kunradina* VOIGT, 1981

Kunradina bicincta VOIGT, 1981

(Fig. 80c-d)

*# 1981c *Kunradina bicincta* n.g. n.sp. – VOIGT, p. 294, Figs. 2C, 4A-K, 5A-D.

1983 *Kunradina bicincta* VOIGT, 1981 – VOIGT & HILLMER, p. 193, Pl. 15, figs. 1-8.

Holotype: SMF 24804 (VOIGT, 1981c, Fig. 4B).

Original label: VOIGT collection number 9223.

Locus typicus: Abandoned Schunk Quarry near Voerendaal-Kunrade, Limburg, Netherlands.

Stratum typicum: Kunrade Limestone IV d, *Belemnitella junior* belemnite Zone.

Further distribution: Late Maastrichtian, abandoned Nekami Quarry on the hill Sint-Pietersberg near Maastricht; Blom Quarry near Terbljt, Valkenburg municipality aan de Geul; near Cadier en Keer, Eijsden-Margraten municipality (all Limburg, Netherlands).

Stratigraphical range: Late Maastrichtian.

Remarks: *Kunradina bicincta* is the type species of *Kunradina* VOIGT, 1981.

Genus *Mosathoa* VOIGT & HILLMER, 1983

Mosathoa interrupta VOIGT & HILLMER, 1983

(Fig. 80e-f)

*# 1983 *Mosathoa interrupta* n.g. n.sp. – VOIGT & HILLMER, p. 175, Pl. 2, figs. 1-9.

Holotype: SMF 25104 (VOIGT & HILLMER, 1983, Pl. 2, figs. 1-9).

Original label: VOIGT collection number 9512.

Locus typicus: Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands.

Stratum typicum: *Belemnitella junior* belemnite Zone, Tuffeau de Maastricht.

Stratigraphical range: Late Maastrichtian.

Remarks: *Mosathoa interrupta* is the type species of *Mosathoa* VOIGT & HILLMER, 1983.

Infraorder Umbonulomorpha

GORDON, 1989

Superfamily Arachnopusioidae

BUSK, 1859

Family Arachnopusiidae JULLIEN, 1888

Genus *Ramicosticella*

VOIGT & GORDON, 1998

Ramicosticella erratica

VOIGT & GORDON, 1998

(Fig. 81a-b)

*# 1998 *Ramicosticella erratica* sp. nov. – VOIGT & GORDON, p. 96, Figs. 1-10.

2005 *Ramicosticella erratica* VOIGT & GORDON, 1998 – HINZ-SCHALLREUTER & SCHALLREUTER, p. 550.

Holotype: Not found (VOIGT & GORDON, 1998, Figs. 1, 7-10).

Original label: VOIGT collection number 4470, 4740 or 4770.

Locus typicus: Former brick factory in Oststeinbek-Havighorst, Schleswig-Holstein, Germany.

Stratum typicum: Glacial drift boulder.

Further distribution: Early Danian, Stevns Klint in the Stevns Kommune, Zealand Region, Denmark. Danian, Groß Pampau, Schleswig-Holstein, Germany.

Stratigraphical range: Danian.

Remarks: *Ramicosticella erratica* is the type species of *Ramicosticella* VOIGT & GORDON, 1998. The holotype was listed by EISERHARDT (1998) using the VOIGT collection number 4740. Here, we image specimen SMF 26215 (VOIGT collection number 10056), which was figured by VOIGT and GORDON (1998, Fig. 6).

Superfamily Lepralielloidea

VIGNEAUX, 1949

Family Lepraliellidae VIGNEAUX, 1949

Genus *Frurionella* CANU & BASSLER, 1926

Frurionella europaea VOIGT, 1951

(Fig. 81c-d)

?# 1851 *Eschara gaimardi*, BOSQUET, in litt. – BOSQUET in HAGENOW, p. 82, Pl. XII, fig. 10.

*# 1951 *Frurionella europaea* n.sp. – VOIGT, p. 60, Pl. 9, figs. 1-3.

1963 "Frurionella" *europaea* VOIGT, 1951 – WIESEMANN, Fig. 21.

1968a *Frurionella europaea* (VOIGT) – VOIGT, Pl. 8, fig. 8.

1968c *Frurionella europaea* VOIGT – VOIGT, Pl. 3, fig. 6.

1979b *Frurionella europaea* VOIGT, 1951 – VOIGT, p. 40, Pl. 2, figs. 6-7.

2004 *Frurionella europaea* VOIGT – ZAWISCHA, Fig. 15.

Holotype: SMF 26349 (VOIGT, 1951, Pl. 9, figs. 1-2).

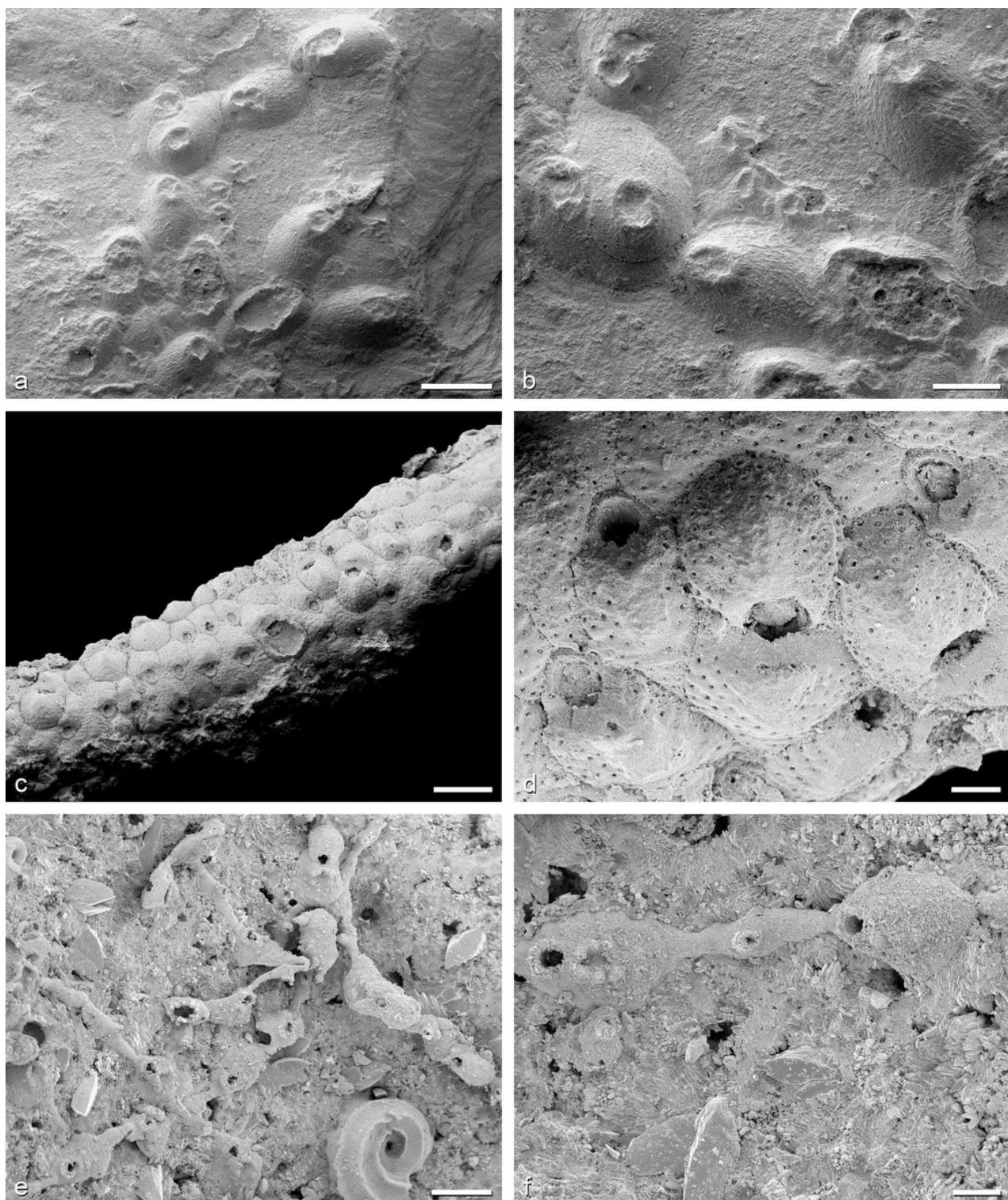


Figure 80: a-b *Kronothoa dissoluta* (VOIGT, 1930), holotype, SMF 26480, late Campanian, Staversvad near Kristianstad-Arkelstorp, Skåne län, Sweden. c-d *Kunradina bicincta* VOIGT, 1981, holotype, SMF 24804, late Maastrichtian (*Belemnitella junior* belemnite Zone), Schunk Quarry near Voerendaal-Kunrade, Limburg, Netherlands. e-f *Mosathoa interrupta* VOIGT & HILLMER, 1983, holotype, SMF 25104, late Maastrichtian (*Belemnitella junior* belemnite Zone), Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands.

Scale bars: a, c, 50 µm; b, e 250 µm; d, f 100 µm.

Original label: VOIGT collection number 299.

Locus typicus: Voerendaal-Kunrade, Limburg, Netherlands.

Stratum typicum: Kunrade Limestone.

Further distribution: Late Maastrichtian, Saint-Symphorien, municipality of Mons, Wallonia Belgium; Chef-du-Pont, Normandy, France; Sehnde-Iiten, Lower Saxony, Germany; around Maastricht, Limburg, Netherlands.

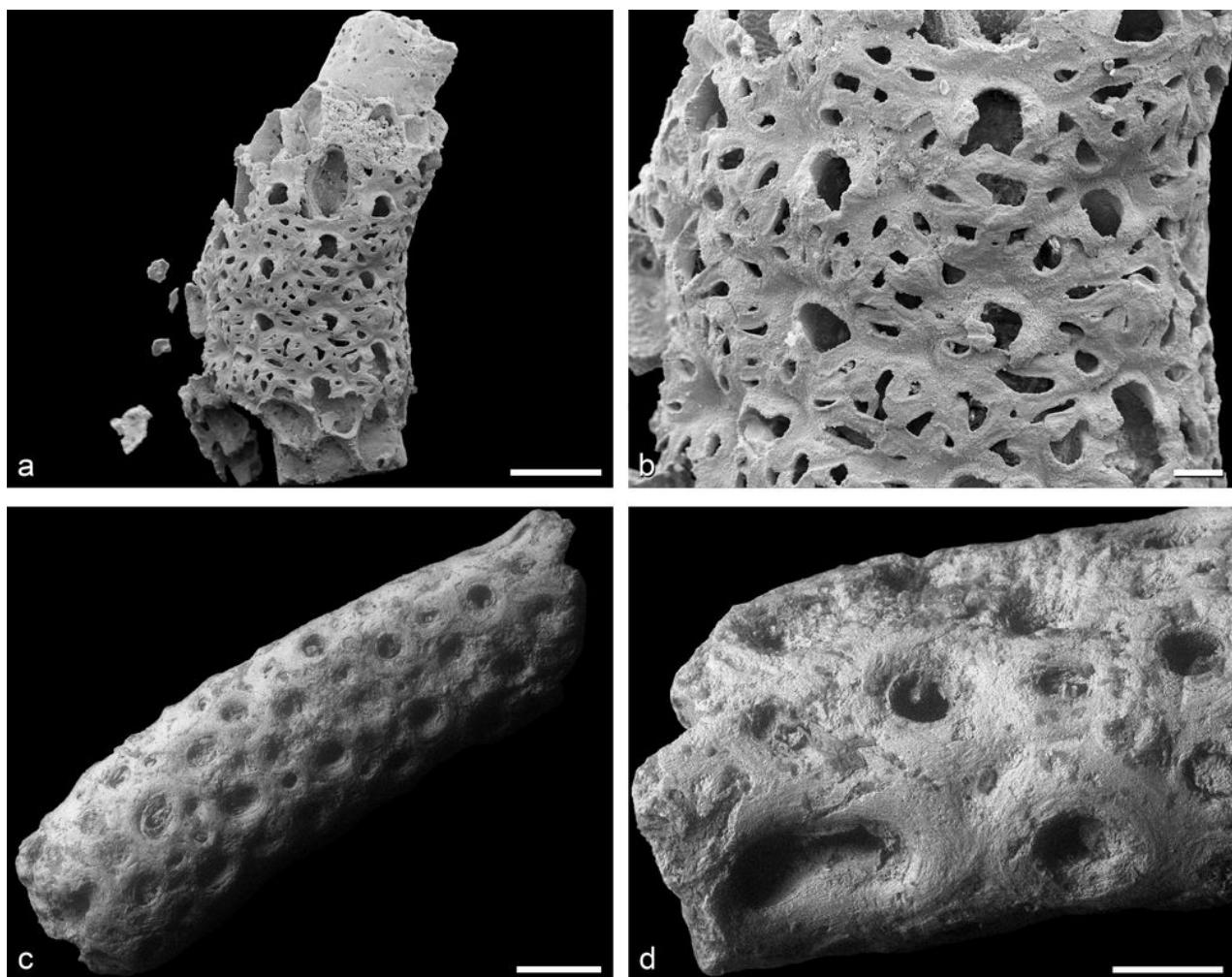


Figure 81: a-b *Ramicosticella erratica* VOIGT & GORDON, 1998, SMF 26215, Danian, Groß Pampau, Schleswig-Holstein, Germany. c-d *Frurionella europaea* VOIGT, 1951, SMF 26349, late Maastrichtian, Voerendaal-Kunrade, Limburg, Netherlands.

Scale bars: a, c 500 µm; d 250 µm; b 100 µm.

Stratigraphical range: Late Maastrichtian.

Remarks: *Frurionella europaea* may be a junior synonym of *Eschara gaimardi* BOSQUET in HAGENOW, 1851, as discussed by VOIGT (1951, 1979b). It was reported from the late Maastrichtian chalk tuff of Saint-Symphorien by VOIGT (1957a).

Family Romancheinidae JULLIEN, 1888

Genus *Ochetosella* CANU & BASSLER, 1917

Ochetosella lata FAVORSKAYA et al., 1996 (Fig. 82a-b)

*# 1996 *Ochetosella lata* n.sp. - FAVORSKAYA et al., p. 173, Pl. 2, figs. 1a-b, 2-3.

Holotype: SMF 26183 (FAVORSKAYA et al., 1996, Pl. 2, fig. 1a-b).

Original label: VOIGT collection number 12822.

Locus typicus: Nukus (No'kis/Некис), Karakalpakstan, Uzbekistan.

Stratum typicum: Paleocene sands.

Stratigraphical range: Paleocene.

Remarks: FAVORSKAYA et al. (1996) cited VOIGT collection number 12822 as the holotype. However, there is no specimen in the VOIGT collection bearing this number. Specimen 12843 that was depicted in Pl. 2, fig. 2 proves to be the holotype.

Ochetosella makarovae FAVORSKAYA et al., 1996 (Fig. 82c-d)

*# 1996 *Ochetosella makarovae* n.sp. - FAVORSKAYA et al., p. 172, Fig. 1, Pl. 1, figs. 1a-b, 2-3.

Holotype: SMF 26180 (FAVORSKAYA et al., 1996, Pl. 1, figs. 1a-b)

Original label: VOIGT collection number 12820.

Locus typicus: Nukus (No'kis/Некис), Karakalpakstan, Uzbekistan.

Stratum typicum: Paleocene sands.

Stratigraphical range: Paleocene.

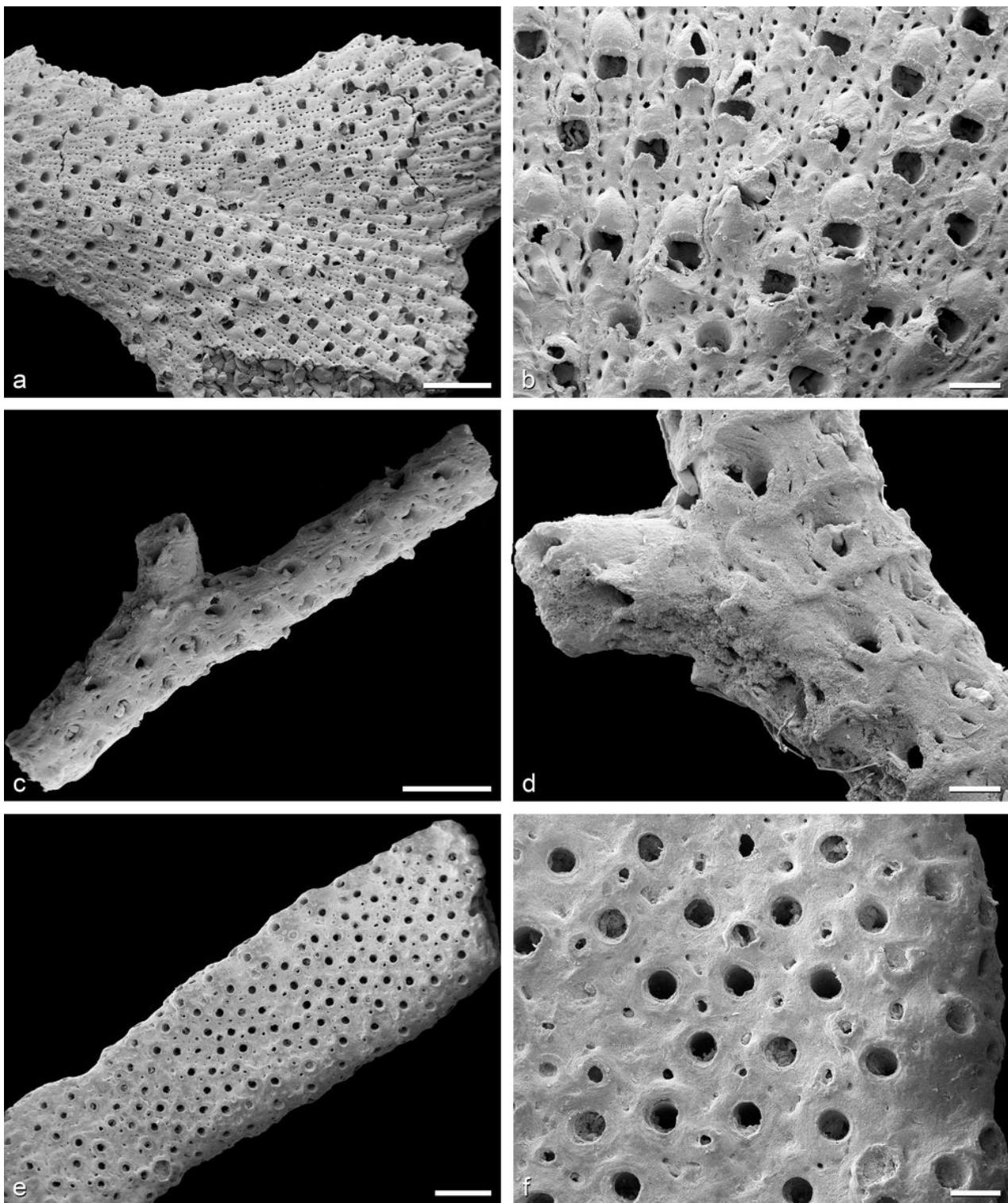


Figure 82: a-b *Ochetosella lata* FAVORSKAYA et al., 1996, holotype, SMF 26183, Paleocene, Nukus (No'kis/Некис), Karakalpakstan, Uzbekistan. c-d *Ochetosella makarovaæ* FAVORSKAYA et al., 1996, holotype, SMF 26180, Paleocene, Nukus (No'kis/Некис), Karakalpakstan, Uzbekistan. e-f *Beisselina celleporoides* (VOIGT, 1930), neotype, SMF 26114, middle Danian, Voldum in the Favrskov Kommune, Region Midtjylland, Denmark.

Scale bars: a, c, e 1 mm; b, d, f 250 µm.

Family Tesseradomidae
JULLIEN & CALVET, 1903

Genus *Beisselina* CANU, 1913

***Beisselina celleporoides* (VOIGT, 1930)**
(Fig. 82e-f)

- *# 1930 *Kleidionella celleporoides* n.sp. – VOIGT, p. 529, Pl. 37, fig. 4.
- # 1959b *Beisselina celleporoides* (VOIGT), 1930 – VOIGT, p. 701, Pl. XXXI, figs. 10-12.
- ?# 1962 *Beisselina celleporoides* (VOIGT) – BERTHELSEN, p. 199, Pl. 24, figs. 3-5.
- # 1963 *Beisselina celleporoides* (VOIGT, 1930) –



WIESEMANN, p. 34, Figs. 8–10, 11d–e, 12c, 16b, Pl. 2, figs. 5–7.

1964 *Beisselina celleporoides* VOIGT, 1930 – VOIGT, Pl. XI, figs. 3–4.

Syntypes: This material belonged to the first VOIGT Collection that was destroyed in a fire at the *Geologisches Staatsinstitut Hamburg* in 1943.

Locus typicus: Faxe quarries, Zealand Region, Denmark, and Köthen (Anhalt), Saxony-Anhalt, Germany.

Stratum typicum: Danian.

Neotype: SMF 26114 (VOIGT, 1959b, Pl. XXXI, fig. 10).

Original label: VOIGT collection number 3188.

Locus neotypicus: Voldum, Favrskov Kommune, Midtjylland Region, Denmark.

Stratum neotypicum: Bryozoan limestone of middle Danian age.

Further distribution: Danian, Ciply, Mons municipality, Wallonia, Belgium; Faxe quarries and Herfølge, Køge Kommune, Zealand Region, Denmark; Klintholm, Island of Funen, South Denmark Region, Denmark; Island of Saltholm and Torslunde near Taastrup, Capital Region, Denmark; Köthen (Anhalt), Saxony-Anhalt, Germany; Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands.

Stratigraphical range: Danian.

Remarks: VOIGT collection number 3188, which has been figured by VOIGT (1959b) was designated as the neotype of *Beisselina celleporoides* (VOIGT, 1930) by WIESEMANN (1963).

Infraorder Lepraliomorpha GORDON, 1989

Superfamily Schizoporelloidea JULLIEN, 1883

Family Porinidae ORBIGNY, 1852

Genus *Gastropella* CANU & BASSLER, 1917

Gastropella gueliebaueri VOIGT, 1999 (Fig. 83a–b)

*# 1999 *Gastropella gueliebaueri* n.sp. – VOIGT, p. 308, Pl. 6, figs. 52–58.

Holotype: Lost (VOIGT, 1999, Pl. 6, figs. 53–54).

Original label: VOIGT collection number 12343.

Locus typicus: Sophia Jacoba shaft near Hückelhoven, North Rhine-Westphalia, Germany.

Stratum typicum: Hückelhoven beds at a depth of 545 m.

Stratigraphical range: Danian.

Remarks: G. LIEBAU collected all known specimens of this species and gave them to VOIGT. The SEM stub onto which the holotype was fixed shows only a small trace of the holotype. Here, we image specimen SMF 26237 (VOIGT collection number 12355), which was figured by VOIGT

(1999, Pl. 6, figs. 55–56).

***Gastropella herrigi* VOIGT, 1999**

*# 1999 *Gastropella herrigi* n.sp. – VOIGT, p. 308, Pl. 6, figs. 47–51.

Holotype: Not found (VOIGT, 1999, Pl. 6, figs. 47–51).

Original label: VOIGT collection number 717.

Locus typicus: Glacial drift deposit near Neu Wulmstorf-Daerstorf, Lower Saxony, Germany.

Stratum typicum: Bryozoan limestone of Danian age.

Stratigraphical range: Danian.

Remarks: The holotype is the only known specimen of this species. The SEM stub labelled as containing the holotype has an unimaged specimen of a different cheilostome, the SEM stubs apparently having been confused. Unfortunately, none of the specimens from the material of VOIGT (1999) can be identified as the holotype of *G. herrigi* and this specimen must be considered lost. Interpretation of the identity of this species is hampered by the length of the scale bars on the figures of *G. herrigi* not being indicated by VOIGT (1999).

'Porina' hamulifera (VOIGT, 1987)

(Fig. 83c–d)

*# 1987a *Porina hamulifera* n.sp. – VOIGT, p. 79, Pl. 20, figs. 24–29.

Holotype: SMF 25590 (VOIGT, 1987a, Pl. 20, fig. 25).

Original label: VOIGT collection number 8289.

Locus typicus: Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands.

Stratum typicum: Pockets in the hardground at the base of the Danian.

Further distribution: Danian, Mons borehole and Ciply in the municipality of Mons, Wallonia, Belgium.

Stratigraphical range: Danian.

Remarks: VOIGT (1987a) mentioned that 'old' specimens of *Porina hamulifera* sometimes possess two adventitious avicularia lateral of the peristome. These were not observed in the holotype or other specimens of the type material available.

Superfamily Celleporoidea JOHNSTON, 1838

Family Phidoloporidae GABB & HORN, 1862

Genus *Reteporella* BUSK, 1884

Reteporella schuermannii (BUGE, 1973) (Fig. 83e–f)

*# 1973 *Sertella schuermannii* n.sp. – BUGE, p. 43, Pl. 7, figs. 6–7.

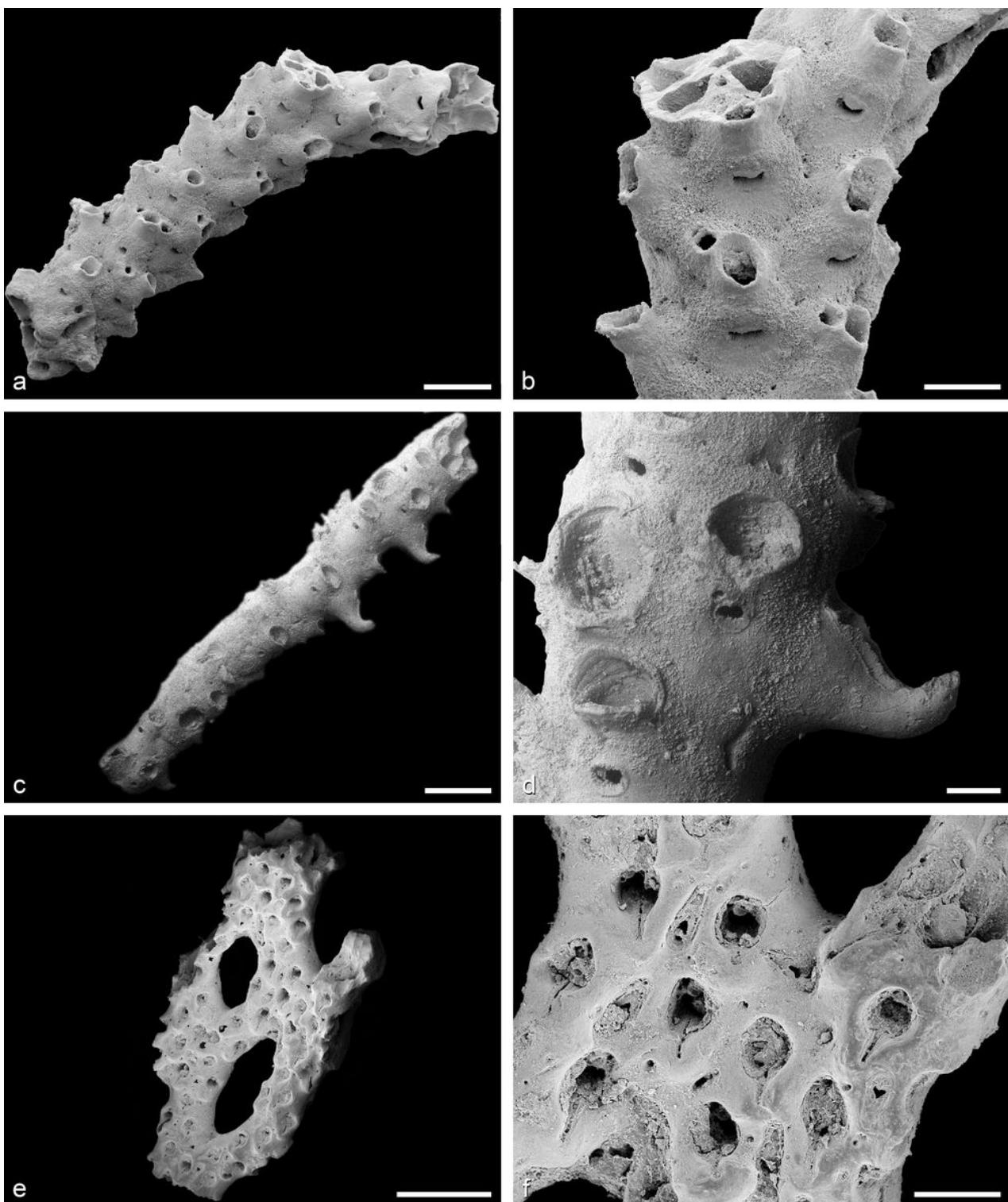


Figure 83: a-b *Gastropella gueliebau* VOIGT, 1999, SMF 26237, Danian, Sophia Jacoba shaft near Hückelhoven, North Rhine-Westphalia, Germany. c-d '*Porina*' *hamulifera* (VOIGT, 1987), holotype, SMF 25590, Danian, Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands. e-f *Reteporella schuermannii* (BUGE, 1973), holotype, SMF 26447, Burdigalian, Miste near Winterswijk, Gelderland, Netherlands.

Scale bars: e 1 mm; a, c 500 µm; b, f 250 µm; d 100 µm.

Holotype: SMF 26447 (BUGE, 1973, Pl. 7, figs. 6-7)

Original label: Unlabeled.

Locus typicus: Miste near Winterswijk, Gelderland, Netherlands.

Stratum typicum: Miocene, Burdigalian.

Stratigraphical range: Burdigalian.

Remarks: The holotype is the only reported specimen of this species. The genus *Sertella* JULLIEN in JULLIEN & CALVET, 1903, is a junior synonym of *Reteporella* BUSK, 1884, according to GORDON (1989).

**Cheilostomata incertae sedis****Genus *Bubnoffiella* VOIGT, 1959*****Bubnoffiella suffulta* (MARSSON, 1887)**

(Fig. 84a-b)

- # 1839 *Eschara lima* nob. – HAGENOW, p. 266.
- # 1839 *Cellepora lima* nob. – HAGENOW, p. 272.
- # 1840 *Cellepora lima* n. – HAGENOW, p. 639.
- # 1846 *Cellepora lima* v. HAG. – HAGENOW, p. 614.
- *# 1887 *Homalostega suffulta* n.sp. – MARSSON, p. 95, Pl. X, fig. 4.
- # 1913 *Homalostega cavernosa* sp. nov. – BRYDONE, p. 98, Pl. IV, figs. 4–6.
- # 1925 *Monoporella suffulta* (MARSS.) – LEVINSSEN, p. 400, Pl. VII, fig. 77.
- # 1930 *Homalostega suffulta* MARSSON – VOIGT, p. 631, Pl. 36, fig. 12, Pl. 37, fig. 1.
- # 1959a *Bubnoffiella suffulta* (MARSSON), 1887 – VOIGT, p. 11 & 22, Pl. VI, figs. 4–6.
- ?# 1992 *Bubnoffiella suffulta* (MARSSON, 1887) – FAVORSKAYA, p. 136, Pl. 73, fig. 1.

Holotype: The material of MARSSON (1887) belonged to the collections of the *Preußische Geologische Landesanstalt* (Prussian Geological Land Survey) that VOIGT (1982a) reported to have been destroyed during World War II. However, a part of the collection has been recovered (MARTHA, 2014). If the type material of *B. suffulta* belongs to the recovered material, the neotype would have to be set aside.

Locus typicus: Island of Rügen, Mecklenburg-Vorpommern, Germany.

Stratum typicum: White chalk of early Maastrichtian age.

Neotype: SMF 24154 (VOIGT, 1959a, Pl. VI, figs. 4–5).

Original label: VOIGT collection number 2436.

Locus neotypicus: Island of Rügen, Mecklenburg-Vorpommern, Germany.

Stratum neotypicum: White chalk of early Maastrichtian age.

Further distribution: Early Maastrichtian, Aalborg, Region Nordjylland, Denmark; Island of Møn, Zealand Region, Denmark; Trimingham, Norfolk, England, United Kingdom. Late Maastrichtian, Saint-Symphorien, Mons municipality, Wallonia, Belgium.

Stratigraphical range: Maastrichtian.

Remarks: *Bubnoffiella suffulta* is the type species of *Bubnoffiella* VOIGT, 1959. VOIGT (1959a) regarded both *Eschara lima* HAGENOW, 1839, and *Cellepora lima* HAGENOW, 1839 as senior synonyms, but considered them as *nomen nudum* as they were not figured by HAGENOW and the descriptions were incomplete. *Bubnoffiella suffulta* was reported from the late Maastrichtian chalk tuff of Saint-Symphorien by VOIGT (1957a), and it probably also occurs in the Campanian of the Aral

Sea region in northern Uzbekistan according to FAVORSKAYA (1992).

Genus *Dysnoetocella* VOIGT, 1964***Dysnoetocella aenigmatica* VOIGT, 1964**

(Fig. 84c-d)

- *# 1964 *Dysnoetocella aenigmatica* n.sp. – VOIGT, p. 464, Pl. XIII, figs. 8–9, Pl. XV, figs. 1–5, Pl. XVI, figs. 1–2.

Holotype: SMF 24194 (VOIGT, 1964, Pl. XV, fig. 1).

Original label: VOIGT collection number 3660.

Locus typicus: Albert Canal at km 24.0 near Riemst-Vroenhoven, Flanders, Belgium.

Stratum typicum: Tuff of Danian age.

Further distribution: Danian, Boryszew bore-hole near Boryszew, Gmina Wiązowna, Masovian Voivodeship, Poland; km 23.85 of the Albert Canal near Riemst-Vroenhoven, Flanders, Belgium.

Stratigraphical range: Danian.

Remarks: *Dysnoetocella aenigmatica* is the type species of *Dysnoetocella* VOIGT, 1964.

Genus *Fissuricella* VOIGT, 1959***Fissuricella fissa* (VOIGT, 1930)**

(Fig. 84e-f)

- *# 1930 *Andriopora fissa* n.sp. – VOIGT, p. 496, Pl. 26, figs. 22–23.
- # 1959c *Fissuricella fissa* (VOIGT, 1930) – VOIGT, p. 263, Pl. 26, figs. 4–7.
- # 1962 *Fissuricella fissa* (VOIGT) – BERTHELSEN, p. 160, Pl. 18, fig. 2.
- # 1971 *Fissuricella fissa* (VOIGT) – CHEETHAM, Pl. 1, fig. 5.

Holotype: The samples belonging to the first VOIGT Collection were destroyed in 1943 in a fire at the Geologisches Staatsinstitut Hamburg.

Locus typicus: Faxe quarries, Zealand Region, Denmark.

Stratum typicum: Bryozoan limestone of middle Danian age.

Neotype: SMF 24109 (VOIGT, 1959c, Pl. 26, fig. 4).

Original label: VOIGT collection number 2962.

Locus neotypicus: Faxe quarries, Zealand Region, Denmark.

Stratum neotypicum: Bryozoan limestone of middle Danian age.

Further distribution: Danian, Herfølge, Køge Kommune; Stevns Klint in the Stevns Kommune (both Zealand Region, Denmark); Island of Saltholm, Capital Region, Denmark; abundant in glacial drift deposits containing flint in northern Germany (e.g., Neu Wulmstorf-Daerstorf, Lower Saxony, Germany), Limhamn, Skåne län, Sweden.

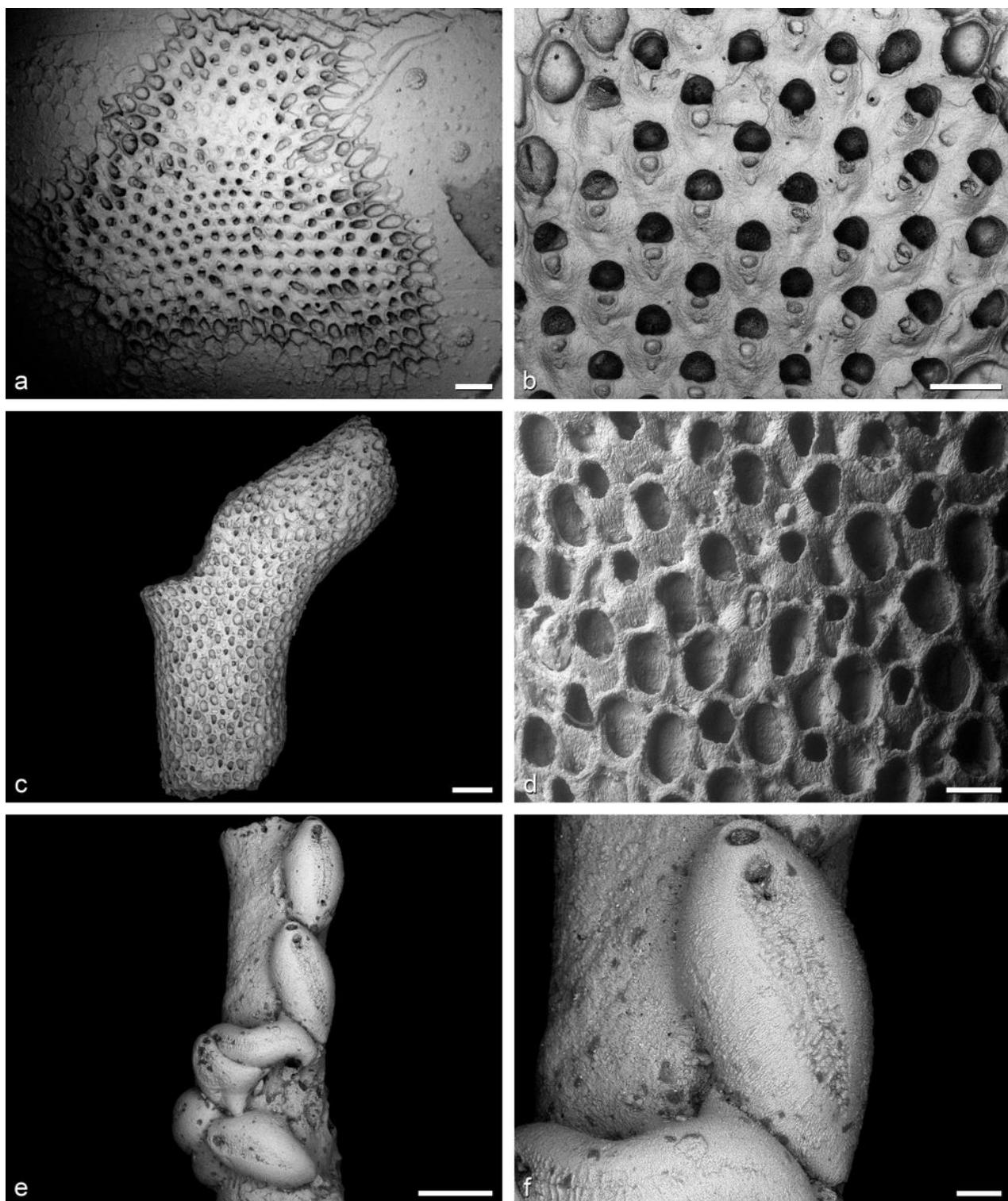


Figure 84: a-b *Bubnoffiella suffulta* (MARSSON, 1887), neotype, SMF 24154, early Maastrichtian, Island of Rügen, Mecklenburg-Vorpommern, Germany. c-d *Dysnoetocella aenigmatica* VOIGT, 1964, holotype, SMF 24194, Danian, Albert Canal at km 24.0 near Riemst-Vroenhoven, Flanders, Belgium. e-f *Fissuricella fissa* (VOIGT, 1930), neotype, SMF 24109, middle Danian, Faxe quarries, Zealand Region, Denmark.

Scale bars: a, c 1 mm; b, e 500 µm; d 250 µm; f 100 µm.

Stratigraphical range: Danian.

***Fissuricella vermiculata* VOIGT, 1959**
(Fig. 85a-b)

*# 1959c *Fissuricella vermiculata* n.g. n.sp. -
VOIGT, p. 261, Pl. 25, figs. 1-4, Pl. 26, figs. 1-2.

Holotype: SMF 24112 (VOIGT, 1959c, Pl. 25, figs. 1-4, Pl. 26, fig. 1).

Original label: VOIGT collection number 2665.

Locus typicus: Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands.

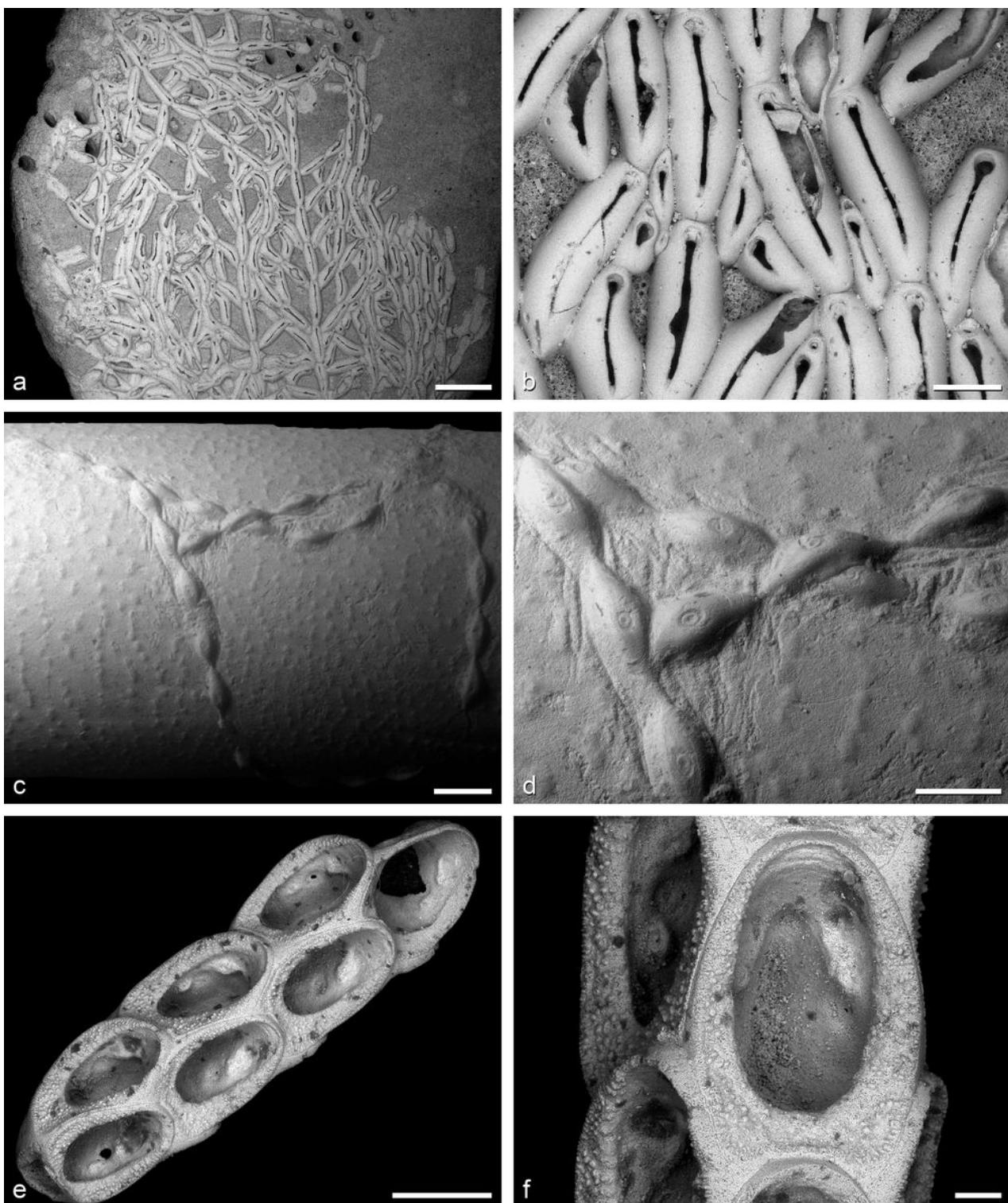


Figure 85: a-b *Fissuricella vermiculata* VOIGT, 1959, holotype, SMF 24112, late Maastrichtian (*Belemnella casimirovensis* belemnite Zone), Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands. c-d *Hoeverella krauseae* TAYLOR & VOIGT, 1992, holotype, SMF 25959, early Campanian (*Gonioleuthis quadrata* belemnite Zone), Alemannia quarry near Sehnde-Höver, Lower Saxony, Germany. e-f *Stichopora tristicha* VOIGT, 1962, holotype, SMF 24137, late Maastrichtian, Hamburg-Hummelsbüttel, Hamburg, Germany.

Scale bars: a 2.5 mm; c 1 mm; b, d-e 500 µm; f 100 µm.

Stratum typicum: Chalk tuff of the latest Maastrichtian (Md₄), *Belemnella casimirovensis* belemnite Zone; colony encrusting a fragment of the echinoid *Hemipneustes* sp.

Further distribution: Late Maastrichtian, Saint-Symphorien, Mons municipality, Wallonia, Belgium.

Stratigraphical range: Late Maastrichtian.



Remarks: *Fissuricella vermiculata* is the type species of *Fissuricella* VOIGT, 1959. An SEM image of this species was used on the cover of the memorial volume for Ehrhard VOIGT (*Courier Forschungsinstitut Senckenberg*, volume 257).

Genus *Hoeverella* TAYLOR & VOIGT, 1992

Hoeverella krauseae TAYLOR & VOIGT, 1992

(Fig. 85c-d)

- *# 1992 *Hoeverella krauseae* sp. nov. – TAYLOR & VOIGT, p. 116, Figs. 1–9.

Holotype: SMF 25959 (TAYLOR & VOIGT, 1992, Figs. 1–9).

Original label: VOIGT collection number 10551.

Locus typicus: Alemannia quarry near Sehnde-Höver, Lower Saxony, Germany.

Stratum typicum: White chalk of the *Goniothethis quadrata* belemnite Zone.

Stratigraphical range: Early Campanian.

Remarks: *Hoeverella krauseae* is the type species of *Hoeverella* TAYLOR & VOIGT, 1992. I. KRAUSE collected the holotype and gave it to VOIGT.

Genus *Stichopora* HAGENOW, 1846

Stichopora tristicha VOIGT, 1962

(Fig. 85e-f)

- *# 1962a *Stichopora tristicha* n.sp. – VOIGT, p. 246, Pl. 28, figs. 1–8.
2005 *Stichopora tristicha* VOIGT, 1962 – HINZ-SCHALLREUTER & SCHALLREUTER, p. 551.

Holotype: SMF 24137 (VOIGT, 1962a, Pl. 28, figs. 1–3).

Original label: VOIGT collection number 3538.

Locus typicus: Former brick factory in Hamburg-Hummelsbüttel, Hamburg, Germany.

Stratum typicum: Glacial drift deposit containing white chalk of late Maastrichtian age.

Further distribution: Late Maastrichtian (*Belemnella junior* belemnite Zone), Hemmoor, Lower Saxony, Germany.

Stratigraphical range: Late Maastrichtian.

Genus *Taeniocellaria* VOIGT, 1966

Taeniocellaria setifera VOIGT, 1966

(Fig. 86a-b)

- *# 1966 *Taeniocellaria setifera* n.g. n.sp. – VOIGT, p. 415, Pl. 36, Pl. 37, figs. 1–4.
1979a *Taeniocellaria setifera* VOIGT, 1966 – VOIGT, p. 559, Pl. 3, fig. 7.

Holotype: SMF 24785 (VOIGT, 1966, Pl. 36, Pl. 37, figs. 1–4).

Original label: VOIGT collection number 3557.

Locus typicus: Albert Canal near the Château Neercanne, Riemst-Kanne, Flanders, Belgium.

Stratum typicum: Chalk tuff of latest Maastrichtian age (Md₄).

Stratigraphical range: Latest Maastrichtian.

Remarks: *Taeniocellaria setifera* is the type species of *Taeniocellaria* VOIGT, 1966. The only reported specimen of this species is the holotype preserved by bioimmuration together with the holotype of *Stolonicella schindewolfi* VOIGT, 1966.

Genus *Taenioporella* VOIGT, 1987

Taenioporella articulata (VOIGT, 1930)

(Fig. 86c-d)

- # 1886 *Vincularia areolata*, HAGENOW – PERGENS & MEUNIER, p. 232, Pl. XIII, fig. 1.
*# 1930 *Taenioporina articulata* n.sp. – VOIGT, p. 534, Pl. 37, figs. 17–19.
1962 *Taenioporina articulata* VOIGT – BERTHELSEN, p. 208, Pl. 26, fig. 1.
1963 *Taenioporina articulata* VOIGT, 1930 – VEENSTRA, p. 132, Pl. 8, figs. 15–16.
1964 *Taenioporina articulata* VOIGT, 1930 – VOIGT, p. 449, Pl. IX, figs. 5–6.
1987a *Taenioporella articulata* (VOIGT) – VOIGT, p. 89, Pl. 21, figs. 1–10.
2005 *Taenioporina articulata* VOIGT, 1930 (VOIGT, 1987) – HINZ-SCHALLREUTER & SCHALLREUTER, p. 551.

Holotype: The samples belonging to the first VOIGT Collection were destroyed in 1943 in a fire at the Geologisches Staatsinstitut Hamburg.

Locus typicus: Faxe quarries, Zealand Region, Denmark; Island of Rügen, Mecklenburg-Vorpommern, Germany; Annetorp, Malmö, Skåne län, Sweden.

Stratum typicum: White chalk of early Maastrichtian age (Rügen); bryozoan limestone of middle Danian age (Faxe); Danian glacial drift deposits (Annetorp).

Neotype: SMF 25532 (VOIGT, 1987a, Pl. 21, fig. 1).

Original label: VOIGT collection number 7624.

Locus neotypicus: Voldum, Favrvskov Kommune, Region Midtjylland, Denmark.

Stratum neotypicum: Bryozoan limestone of middle Danian age.

Further distribution: Early Maastrichtian, Island of Rügen, Mecklenburg-Vorpommern, Germany. Late Maastrichtian, Hemmoor and Hemmoor-Basbeck, Lower Saxony, Germany; Cotenin Peninsula, Manche, Normandy, France. Danian, Albert Canal near Riemst-Vroenhoven; Waterschei borehole, Genk; Eisden shaft near Maasmechelen (all Flanders, Belgium); Mons borehole and Ciply (both Mons municipality, Wallonia, Belgium); Köthen (Anhalt), Saxony-Anhalt, Germany; Curfs Quarry near Berg, Valkenburg aan de Geul municipality; Beatrix and Neer boreholes near Neer, Leudal municipality (all Limburg, Netherlands); Boryszew borehole near Boryszew, Gmina Wiązowna, Masovian Voivodeship, Poland.

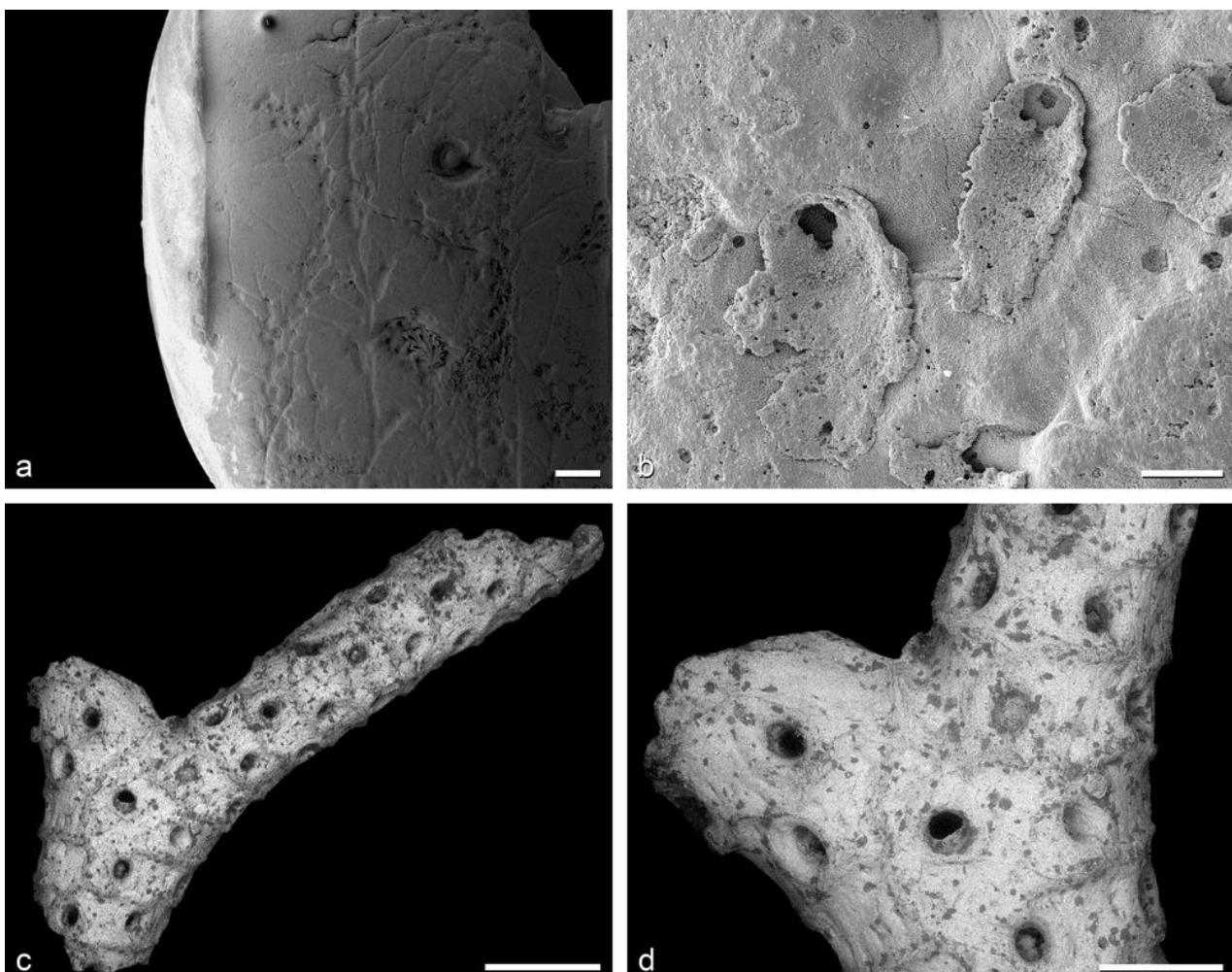


Figure 86: a-b *Taeniocellaria setifera* VOIGT, 1966, holotype, SMF 24785, late Maastrichtian, Albert Canal near the Château Neercanne, Riemst-Kanne, Flanders, Belgium. c-d *Taenioporella articulata* (VOIGT, 1930), neotype, SMF 25532, middle Danian, Voldum in the Favrvskov Kommune, Region Midtjylland, Denmark.

Scale bars: a, c 1 mm; b 100 µm; d 500 µm.

Taenioporina articulata also occurs in Danian sediments throughout Denmark and southern Sweden, and in glacial drift deposits of northern Germany. Thanetian, "Pont Labou" near Pau, Pyrénées-Atlantiques, Nouvelle-Aquitaine, France.

Stratigraphical range: Early Maastrichtian to Thanetian.

Remarks: *Taenioporella articulata* is the type species of *Taenioporella* VOIGT, 1987. This species was mistaken for *Vincularia areolata* HAGENOW, 1851, by PERGENS and MEUNIER (1886). The figure of the holotype in VOIGT (1987a) is flipped horizontally.

Incertae sedis

'*Amathia immurata* VOIGT, 1972'

(Fig. 87a-b)

- *p# 1972 *Amathia immurata* n.sp. – VOIGT, p. 90, Pl. 17, fig. 1 (non Pl. 17, figs. 2-5).
- # 1979a *Amathia immurata* VOIGT, 1972 – VOIGT, p. 546.

Holotype: SMF 24412 (VOIGT, 1972, Pl. 17, fig. 1).

Original label: VOIGT collection number 4110.

Locus typicus: Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands.

Stratum typicum: Tuffeau de Maastricht of late Maastrichtian age.

Stratigraphical range: Late Maastrichtian.

Remarks: The holotype colony is an external mould preserved by bioimmuration on the base of the cyclostome species *Idmidronea macilenta* (HAGENOW, 1851) and is the only fossil representative of *Amathia* LAMOUROUX, 1812, known to date. VOIGT (1979a) assigned all paratypes of *Amathia immurata* VOIGT, 1972, to the new cheiostome species *Laterotectaria pseudamathia* VOIGT, 1979. *Amathia immurata* is therefore represented only by this badly preserved colony consisting of two longitudinal rows of autozooids. Its affinity with *Amathia* and classification as a ctenostome bryozoan are very questionable.

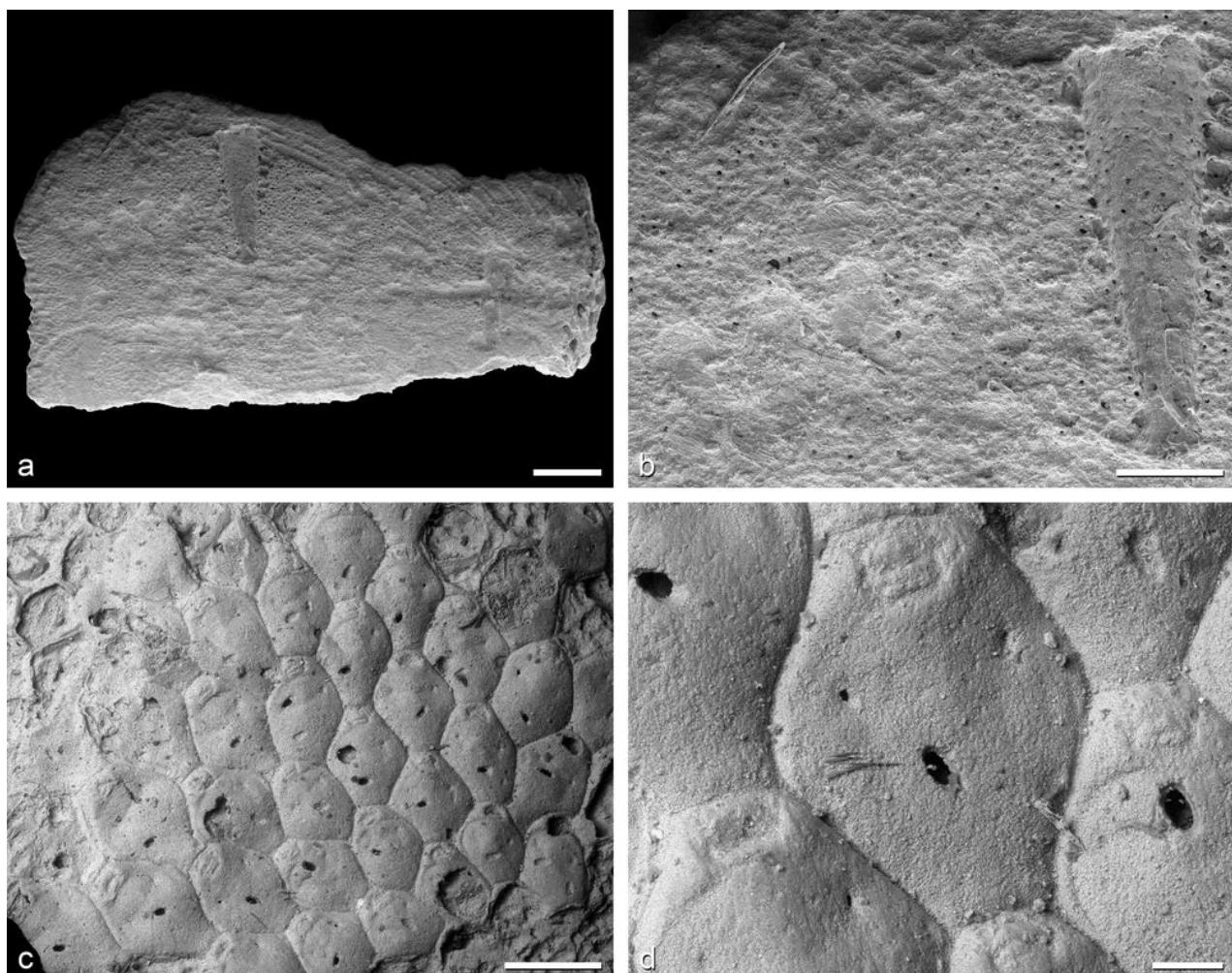


Figure 87: a-b '*Amathia immurata* VOIGT, 1972', 'holotype', SMF 24412, late Maastrichtian, Curfs Quarry near Berg, Valkenburg aan de Geul municipality, Limburg, Netherlands. c-d '*Harmeriella cretacea* VOIGT, 1957' [borings in *Stichomicropora*], 'holotype', SMF 26386, early Maastrichtian, Sassnitz, Mecklenburg-Vorpommern, Germany. Scale bars: a, c 500 µm; b 250 µm; d 100 µm.

'*Harmeriella cretacea* VOIGT, 1957'
(Fig. 87c-d)

- *# 1957b *Harmeriella* (?) *cretacea* n.sp. - VOIGT, p. 348, Figs. 1-2, 4d, Pl. 1, figs. 1-2.
1973 *Harmeriella* (?) *cretacea* VOIGT, 1957 - VOIGT & SOULE, p. 31.

Holotype: SMF 26386 (VOIGT, 1957b, Pl. 1, figs. 1-2).

Original label: SMF XIX 136.

Locus typicus: Sassnitz, Mecklenburg-Vorpommern, Germany.

Stratum typicum: White chalk of early Maastrichtian age.

Stratigraphical range: Early Maastrichtian.

Remarks: The holotype is the only reported specimen of this species. It consists of borings into the cryptocyst of a colony of the cheilostome *Stichomicropora membranacea* (HAGENOW, 1839) oriented in rows suggesting that they were produced by a boring ctenostome bryozoan. Howe-

ver, VOIGT and SOULE (1973) were uncertain about the classification of the boring as a ctenostome. The species cannot be treated as a bryozoan and should be reclassified as an ichnotaxon.

Ichnotaxa

The following species were treated by VOIGT and SOULE (1973) as ctenostome bryozoans. However, since they are neither body fossils nor bioimmurations but borings presumably made by ctenostome bryozoans, they are treated here as ichnotaxa. Others (e.g., POHowsky, 1978) had treated ctenostome borings as body fossils on account of their close correspondence to the morphology of the zooids.

Ichnogenus *Foraripora*
VOIGT & SOULE, 1973

***Foraripora pesavis* VOIGT & SOULE, 1973**
(Fig. 88a-b)

- *# 1973 *Foraripora pesavis* n.sp. - VOIGT & SOULE, p. 29, Pl. 3, figs. 1-7.

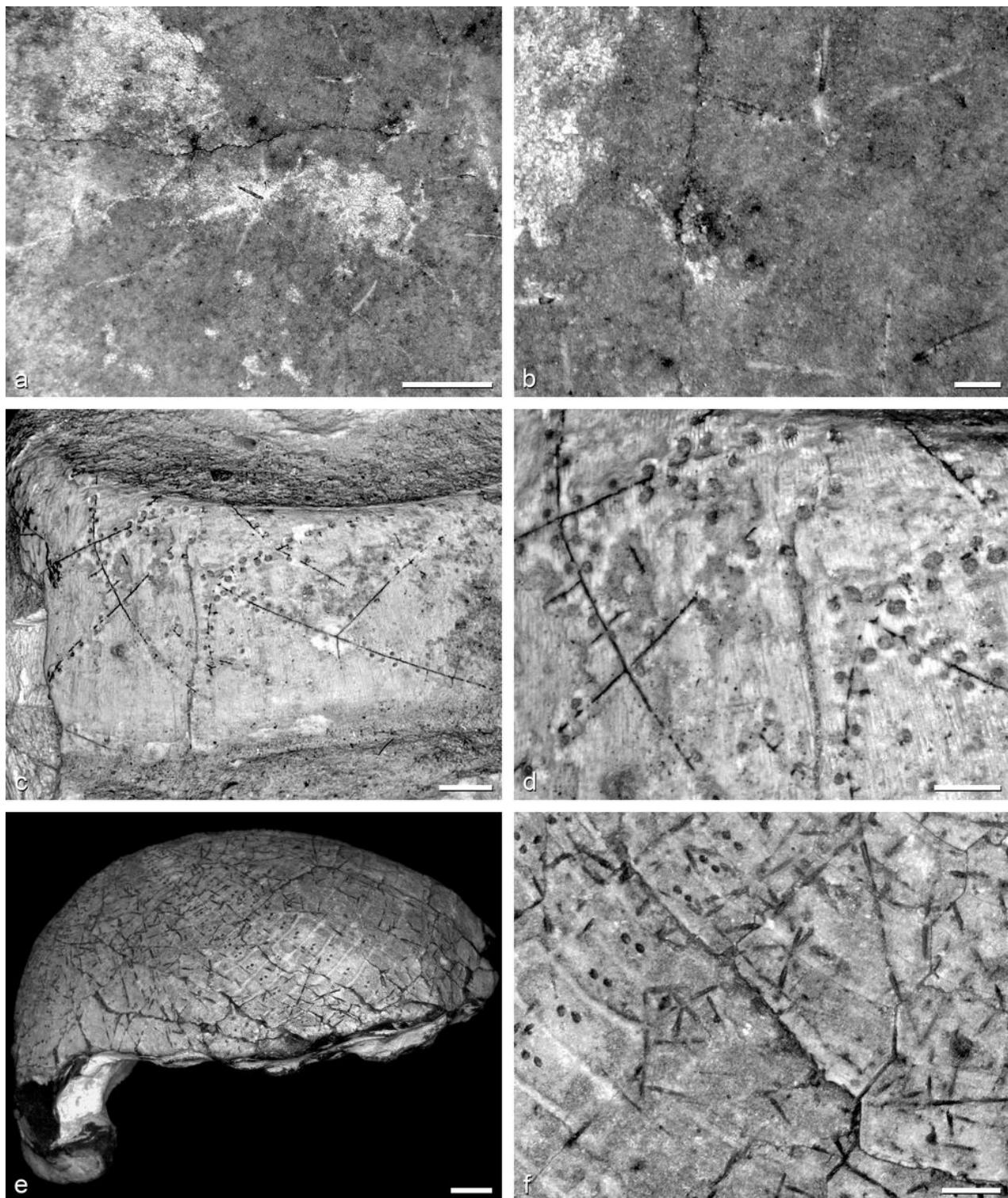


Figure 88: a-b *Foraripora pesavis* VOIGT & SOULE, 1973, holotype, SMF 24470, late Campanian, chalk pit of the cement factory Alsen-Breitenburg near Lägerdorf, Schleswig-Holstein, Germany. c-d *Iramena gosaviensis* (VOIGT & SOULE, 1973), holotype, SMF 24467, late Coniacian or early Santonian, Edelbachgraben near Gosau, Upper Austria, Austria. e-f *Pinaceocladichnus echinicola* (VOIGT & SOULE, 1973), holotype, SMF 24472, Campanian or Maastrichtian, seashore near Sierksdorf, Schleswig-Holstein, Germany.
Scale bars: e 5 mm; a, f 2,5 mm; c 1 mm; b, d 500 µm.

- # 1978 *Foraripora pesavis* VOIGT & SOULE, 1973
– POHowsky, p. 130, Fig. 4C.
- # 1996b *Foraripora pesavis* VOIGT & SOULE, 1973
– VOIGT, Figs. 16, 26.

Holotype: SMF 24470 (VOIGT & SOULE, 1973, Pl. 3, fig. 1).

Original label: VOIGT collection number 3013.



Locus typicus: Chalk pit of the cement factory Alsen-Breitenburg near Lägerdorf, Schleswig-Holstein, Germany.

Stratum typicum: Late Campanian.

Stratigraphical range: Early Campanian to early Maastrichtian.

Further distribution: Late Campanian, Hvide Klint, Island of Møn, Zealand Region, Denmark. Early Maastrichtian, Island of Rügen, Mecklenburg-Vorpommern, Germany.

Remarks: *Foraripora pesavisi* is the type species of *Foraripora* VOIGT & SOULE, 1973. The holotype is a boring in a shell of *Inoceramus* sp.

Ichnogenus *Iramena* BOEKSCHEOTEN, 1970

Iramena gosaviensis

(VOIGT & SOULE, 1973)

(Fig. 88c-d)

*# 1973 *Penetrantia gosaviensis* n.sp. - VOIGT & SOULE, p. 30, Pl. 4, figs. 1-5.

p# 1978 *Penetrantia* spp. indet. - POHowsky, p. 87, Figs. 3A, 6B4, 6D, Pl. 9, figs. 2-10, Pl. 10, figs. 1-4, 7, Pl. 12, figs. 4-6.

non# 1988 *Iramena bonaresi* nov. incognita. - MAYORAL, p. 15, Fig. 3, Pl. I, figs. 1-3.

Holotype: SMF 24467 (VOIGT & SOULE, 1973, Pl. 4, figs. 1-5).

Original label: VOIGT collection number 5706.

Locus typicus: Edelbachgraben near Gosau, Upper Austria, Austria.

Stratum typicum: Late Coniacian or early Santonian.

Stratigraphical range: Late Coniacian or early Santonian.

Remarks: The holotype is the only reported specimen of this species and bores into a shell of *Actaeonella* sp. VOIGT and SOULE (1973) had discussed the affinities of *Penetrantia gosaviensis* with *Iramena* BOEKSCHEOTEN, 1970, but did not favour the description of their new species as an ichnofossil. *Penetrantia gosaviensis* was later considered to be a junior synonym of the new ichnospecies *Iramena bonaresi* described by MAYORAL (1988) from the Early Pliocene of Andalucía, Spain. However, the huge stratigraphical gap and differences in the morphometry do not favour this synonymy.

Ichnogenus *Pinaceocladiichnus* MAYORAL, 1988

Pinaceocladiichnus echinicola

(VOIGT & SOULE, 1973)

(Fig. 88e-f)

*# 1973 *Terebripora* (?) *echinicola* n.sp. - VOIGT & SOULE, p. 27, Pl. 2, figs. 4-6.

p# 1978 *Orbignyopora archiaci* (FISCHER), 1866 - POHowsky, p. 59, Figs. 2G, 3C, Pl. 5, figs. 1-5.

2005 *Terebripora* ? *echinicola* VOIGT & SOULE, 1973 - HINZ-SCHALLREUTER & SCHALLREUTER, p. 552.

Holotype: SMF 24472 (VOIGT & SOULE, 1973, Pl. 2, figs. 4-5).

Original label: VOIGT collection number 5410.

Locus typicus: Seashore near Sierksdorf, Schleswig-Holstein, Germany.

Further distribution: Campanian or Maastrichtian, glacial drift near Schashagen-Brodau, Schleswig-Holstein, Germany.

Stratum typicum: Glacial drift deposit containing white chalk of Campanian or Maastrichtian age.

Stratigraphical range: Campanian or Maastrichtian.

Remarks: H. KLAGES collected all specimens of this species and gave them to VOIGT. The holotype bores into a fragment of *Echinocorys* sp. The affinity of *T. (?) echinicola* with *Terebripora* ORBIGNY, 1847, was questioned by VOIGT and SOULE (1973) in the original description of the species. POHowsky (1978) considered it to be a possible junior synonym of *Orbignyopora archiaci* (FISCHER, 1866), but the poor preservation of the material from northern German material does not allow a conclusive opinion.

Acknowledgments

We are grateful to Brigitte LOTZ and Marie-Louise TRITZ for technical assistance. For help with digitization during the course of the DFG project, Alfonso LÓPEZ-GÓNZALEZ, Sandra J. HUBER, Christoph NEU, Julian STAKE and Kristina WÖRZLER are thanked. Furthermore, the help of Andreas ALLSPACH is gratefully acknowledged for an introduction to the database SeSam used for digitization and for transfer from SeSam to the new database AQUILA. Françoise BIGEY (Muséum National d'Histoire Naturelle, Paris), Sten L. JAKOBSEN (Københavns Universitet, København), Peter SCHUMACHER (Museum Helgoland) are thanked for information on the fate of material described by VOIGT (1985a), HÅKANSSON and VOIGT (1996), and VOIGT (1991c), respectively. We are grateful to Max WISSHAK for advice regarding the classification of ichnotaxa. For help with searches for bryozoans in the *Geologisch-/Paläontologisches Museum*, Hamburg, and for loan of specimens, we thank Ulrich KOTTHOFF, and for loan of bryozoan material from the Museum für Naturkunde, Berlin we are grateful to Christian NEUMANN. Our cooperation partners are gratefully acknowledged for information and images of VOIGT types from other collections. Dennis P. GORDON (NIWA, Wellington) and Anna V. KOROMYSLOVA (Borissiak Paleontological Institute of the Russian Academy of Science, Moscow) are thanked for helpful reviews and comments on the manuscript. We thank Bruno GRANIER for editing our manuscript. Financial support by the DFG Project SCHO 581/12-1 "Enhancing documentation and digitalization of the Bryozoa collection donated by Professor VOIGT (1905-2004) to the Senckenberg Research Institute,



Frankfurt am Main, Germany" is gratefully acknowledged.

Bibliographic references

- ALDER J. (1857).- Zoophytology.- *Quarterly Journal of Microscopical Science*, vol. 5, p. 24-25.
- ALLÈGRE R. (1936).- Les bryozoaires du Coniacien des Charentes (sensu lato).- *Bulletin de la Société Géologique de France* (Série 5), Paris, vol. 6, p. 87-107.
- ALLÈGRE R. (1939).- Quelques membraniporides du Crétacé de l'Aurès (Algérie).- *Bulletin du Muséum National d'Histoire Naturelle* (2e Série), Paris, vol. 11, p. 163-166.
- ALLMAN G.J. (1856).- A monograph of the freshwater Polyzoa, including all the known species, both British and Foreign.- Ray Society, London, 119 p.
- AUDOUIN V. (1826).- Explication sommaire des planches de polypes de l'Égypte et de la Syrie, publiées par Jules-César Savigny, Membre de l'Institut; offrant un exposé des caractères naturels des genres avec la distinction des espèces. In: SAVIGNY J.-C. (ed.), Description de l'Égypte, ou Recueil des observations et des recherches qui ont été faites en Égypte pendant l'expédition de l'Armée française... Histoire naturelle.- Imprimerie Impériale, Paris, p. 226-244.
- BASSLER R.S. (1935).- Bryozoa (generum et genotyporum index et bibliographia).- W. Junk, Den Haag, 229 p.
- BASSLER R.S. (1953).- Treatise on invertebrate paleontology. Part G. Bryozoa.- University of Kansas Press and Geological Society of America, Lawrence and Boulder, 253 p.
- BEISSEL I. (1865).- Ueber die Bryozoen der Aachener Kreidebildung.- *Natuurkundige Verhandelingen van der Hollandsche Maatschappij der Wetenschappen te Haarlem*, vol. 22, p. 1-92.
- BERTHELSEN O. (1948).- Studies on the bryozoan species *Coscinopleura elegans* and *Coscinopleura angusta* n. sp. from the Senonian and Danian deposits of Denmark: Med dansk resumé.- *Danmarks Geologiske Undersøgelse*, IV. Række, vol. 3, no. 3, p. 1-15.
- BERTHELSEN O. (1962).- Cheilostome Bryozoa in the Danian deposits of East Denmark.- C.A. Reitzel, København, 290 p.
- BLAINVILLE H.M.D. de (1830).- Zoophytes. In: CUVELIER F.G. (ed.), Dictionnaire des sciences naturelles, dans lequel on traite méthodiquement des différens êtres de la nature, considérés soit en eux-mêmes, d'après l'état actuel de nos connaissances, soit relativement à l'utilité qu'en peuvent retirer la médecine, l'agriculture, le commerce et les arts. Suivi d'une biographie des plus célèbres naturalistes. Tome soixantième. Zooph-Zyt.- F.-G. Levrault, Paris, 546 p.
- BOARDMAN R.S. (1984).- Origin of the post-Triassic Stenolaemata (Bryozoa): A taxonomic overview.- *Journal of Paleontology*, vol. 58, no. 1, p. 19-39.
- BOARDMAN R.S. (1998).- Reflections on the morphology, anatomy, evolution, and classification of the class Stenolaemata (Bryozoa).- *Smithsonian Contributions to Paleobiology*, vol. 86, p. 1-59.
- BOEKSHOTEN G.J. (1970).- On bryozoan borings from the Danian at Fakse, Denmark. In: CRIMES T.P. & HARPER J.C. (eds.), Trace fossils. Proceedings of an international conference held at Liverpool University, 6, 7, 8 January 1970.- Seel House Press, Liverpool, p. 43-48.
- BORG F. (1926).- Studies on Recent cyclostomatous Bryozoa.- *Zoologiska Bidrag från Uppsala*, vol. 10, p. 181-507.
- BROOD K. (1972).- Cyclostomatous Bryozoa from the Upper Cretaceous and Danian in Scandinavia.- *Acta Universitatis Stockholmiensis*, vol. 23, p. 1-464.
- BRYDONE R.M. (1906).- Further notes on the stratigraphy and fauna of the Trimmington Chalk.- *Geological Magazine, new series (Decade V)*, vol. 3, no. 7, p. 289-300.
- BRYDONE R.M. (1909).- Notes on new or imperfectly known Chalk Bryozoa (Polyzoa).- *Geological Magazine, new series (Decade V)*, vol. 6, no. 09, p. 398-400.
- BRYDONE R.M. (1910).- Notes on new or imperfectly known Chalk Polyzoa.- *Geological Magazine, new series (Decade V)*, vol. 7, no. 02, p. 76-77.
- BRYDONE R.M. (1913).- Notes on new or imperfectly known Chalk Polyzoa.- *Geological Magazine, new series (Decade V)*, vol. 10, no. 03, p. 97-99.
- BRYDONE R.M. (1914a).- Notes on new or imperfectly known Chalk Polyzoa.- *Geological Magazine, new series (Decade VI)*, vol. 1, no. 8, p. 345-347.
- BRYDONE R.M. (1914b).- Notes on new or imperfectly known Chalk Polyzoa.- *Geological Magazine, new series (Decade VI)*, vol. 1, no. 11, p. 481-483.
- BRYDONE R.M. (1916).- Notes on new or imperfectly known Chalk Polyzoa.- *Geological Magazine, new series (Decade VI)*, vol. 3, no. 03, p. 97-100.
- BRYDONE R.M. (1929).- Further notes on new or imperfectly known Chalk Polyzoa.- Dulau & Co., London, 40 p.
- BRYDONE R.M. (1930).- Further notes on new or imperfectly known Chalk Polyzoa. Part II. (*Vincularia*, *Onychocella*, *Rhagasostoma*, *Pornia*, etc.).- Dulau & Co., London, 24 p.
- BRYDONE R.M. (1936).- Further notes on new or imperfectly known Chalk Polyzoa.- Dulau & Co., London, 30 p.
- BRYDONE R.M. (1942).- On some recently described Cretaceous cheilostomatous Polyzoa.- *Geological Magazine*, vol. 79, no. 01, p. 62-64.
- BUGE É. (1952).- Classe des bryozoaires (Bryozoa Ehrenberg 1831). In: PIVETEAU J. (ed.), Les stades inférieurs d'organisation du règne animal :



- Introduction, généralités, protistes, spongaires, coelenterés, bryozoaires.- Masson, Paris, p. 688-749.
- BUGÉ É. (1973).- Les bryozoaires miocènes du nord-ouest de l'Allemagne.- *Paläontologische Zeitschrift*, vol. 47, no. 1-2, p. 32-53.
- BUGÉ É. & TILLIER S. (1977).- *Doliocoitis atlantica* n. gen. n. sp., cériopore (Bryozoa, Cyclostomata) des côtes d'Afrique occidentale.- *Bulletin du Muséum National d'Histoire Naturelle*, vol. 425, p. 1-24.
- BUGÉ É. & VOIGT E. (1972).- Les *Cellulipora* (Bryozoa, Cyclostomata) du Cénomanien français et la famille des Celluliporidae.- *Geobios*, vol. 5, no. 2, p. 121-150.
- BUSK G. (1852a).- An account of the Polyzoa, and sertularian zoophytes, collected in the voyage of the Rattlesnake, on the coasts of Australia and the Louisiade Archipelago etc. In: MACGILLIVRAY J. (ed.), Narrative of the Voyage of H.M.S. Rattlesnake, commanded by the late Captain Owen STANLEY... 1846-1850; including discoveries and surveys in New Guinea, the Louisiade Archipelago, etc., to which is added the account of Mr E.B. KENNEDY's expedition for the exploration of the Cape York Peninsula [including Mr W. CARRON's narrative]. Vol. 1.- T.W. Boone, London, p. 343-402.
- Busk G. (1852b).- Catalogue of marine Polyzoa in the collection of the British Museum. Part I. Cheilostomata (part).- Trustees of the British Museum, London, 54 p.
- Busk G. (1854).- Catalogue of marine Polyzoa in the collection of the British Museum. Part II. Cheilostomata (part).- Trustees of the British Museum, London, 66 p.
- Busk G. (1856).- Zoophytology.- *Quarterly Journal of Microscopical Science*, vol. 4, p. 308-31.
- Busk G. (1859).- A monograph of the fossil Polyzoa of the Crag.- Palaeontographical Society, London, 136 p.
- Busk G. (1875).- Catalogue of marine Polyzoa in the collection of the British Museum. Part III. Cyclostomata.- Trustees of the British Museum, London, 39 p.
- Busk G. (1884).- Report on the Polyzoa collected by H.M.S. *Challenger* during the years 1873-1876. Part I. - The Cheilostomata.- *Report on the Scientific Results of the Voyage of the H.M.S. 'Challenger'*, Zoology, vol. 10, no. 5, 216 p.
- CANU F. (1900).- Révision des bryozoaires du Crétacé figurés par ORBIGNY. II. Cheilostomata.- *Bulletin de la Société Géologique de France* (Série 3), Paris, vol. 28, p. 334-463.
- CANU F. (1903).- Contributions à l'étude des bryozoaires fossiles. III. - Description de quelques membranipores de Tunisie.- *Bulletin de la Société Géologique de France* (Série 4), Paris, vol. 3, p. 659-661.
- CANU F. (1904).- Étude des bryozoaires tertiaires recueillis en 1885 et 1886 par M. Ph. THOMAS dans la région sud de la Tunisie.- *Exploration Scientifique de la Tunisie*, vol. 1904, p. 1-37.
- CANU F. (1907).- Bryozoaires des terrains tertiaires des environs de Paris.- *Annales de Paléontologie*, vol. 2, no. 2, p. 57-89.
- CANU F. (1909).- Les bryozoaires fossiles des terrains du sud-ouest de la France. III. - Burdigalien. IV. - Helvétien.- *Bulletin de la Société Géologique de France* (Série 4), Paris, vol. 9, p. 440-458.
- CANU F. (1911).- Iconographie des bryozoaires fossiles de l'Argentine. Deuxième partie.- *Anales del Museo Nacional de Historia Natural de Buenos Aires*, vol. 14, p. 215-291.
- CANU F. (1912).- Étude comparée des bryozoaires helvétiens de l'Égypte avec les bryozoaires vivants de la Méditerranée et de la Mer Rouge.- *Mémoires présentés à l'Institut Egyptien*, vol. 6, no. 3, p. 185-236.
- CANU F. (1913).- Études morphologiques sur trois nouvelles familles de bryozoaires.- *Bulletin de la Société Géologique de France* (Série 4), Paris, vol. 13, p. 132-147.
- CANU F. (1916).- Les bryozoaires fossiles des terrains du sud-ouest de la France. IX. Aquitanien.- *Bulletin de la Société Géologique de France* (Série 4), Paris, vol. 15, p. 320-334.
- CANU F. (1918).- Les ovicelles des bryozoaires cyclostomes. Études sur quelques familles nouvelles et anciennes.- *Bulletin de la Société Géologique de France* (Série 4), Paris, vol. 16, no. 7-8, p. 324-335.
- CANU F. (1920).- Bryozoaires crétacés des Pyrénées.- *Bulletin de la Société Géologique de France* (Série 4), Paris, vol. 19, no. 4-6, p. 186-211.
- CANU F. & BASSLER R.S. (1917).- A synopsis of American Early Tertiary cheilostome Bryozoa.- *Bulletin of the United States National Museum*, vol. 96, p. 1-87.
- CANU F. & BASSLER R.S. (1920).- North American Early Tertiary Bryozoa.- *Bulletin of the United States National Museum*, vol. 106, p. 1-879.
- CANU F. & BASSLER R.S. (1922).- Studies on the cyclostomatous Bryozoa.- *Proceedings of the United States National Museum*, vol. 61, p. 1-160.
- CANU F. & BASSLER R.S. (1926).- Phylum Moluscoidea, Class Bryozoa. In: WADE B. (ed.), The fauna of the Ripley Formation on Coon Creek, Tennessee.- U.S. Geological Survey, Washington D.C., p. 32-39.
- CHEETHAM A.H. (1954).- A new Early Cretaceous cheilostome bryozoan from Texas.- *Journal of Paleontology*, vol. 28, no. 2, p. 177-184.
- CHEETHAM A.H. (1971).- Functional morphology and biofacies distribution of cheilostome Bryozoa in the Danian stage (Paleocene) of Southern Scandinavia.- *Smithsonian Contributions to Paleobiology*, vol. 6, p. 1-87.
- CHIPLONKAR G.W. (1939).- Bryozoa from the Bagh Beds.- *Proceedings of the Indian Academy of Sciences, Section B*, vol. 10, no. 1, p. 98-108.
- CHIPLONKAR G.W. & GHARE M.A. (1976).- Palaeon-



- tology of the Bagh Beds. Part VII. Bryozoa.- *Biovigyanam*, vol. 2, no. 1, p. 59-76.
- CIPOLLA F. (1921).- I briozoi pliocenici di Altavilla, presso Palermo.- *Giornale di Scienze Naturali ed Economiche*, vol. 32, p. 163-337.
- DAVIS A.G. (1934).- English Lutetian Polyzoa.- *Proceedings of the Geologists' Association*, vol. 45, no. 2, p. 205-245.
- DEFRANCE J.L.M. (1823).- Lichenopore. (Foss.). In: CUVIER F.G. (ed.), *Dictionnaire des sciences naturelles*, dans lequel on traite méthodiquement des différens êtres de la nature, considérés soit en eux-mêmes, d'après l'état actuel de nos connaissances, soit relativement à l'utilité qu'en peuvent retirer la médecine, l'agriculture, le commerce et les arts. Suivi d'une biographie des plus célèbres naturalistes. Tome vingt-sixième. Lep-Lin.- F.-G. Levrault, Paris, p. 256-257.
- DUCASSE J. (1958).- Les bryozoaires maëstrichtien et campaniens de la Saintonge et du Périgord occidental : Répartition et valeur stratigraphique.- PhD thesis, Université de Bordeaux, Bordeaux, 168 p.
- EHLERS (1876).- *Hypophorella expansa*. Ein Beitrag zur Kenntnis der minierenden Bryozoen.- *Abhandlungen der Königlichen Gesellschaft der Wissenschaft zu Göttingen*, vol. 21, p. 3-156.
- EHRENBERG C.G. (1831).- *Symbolæ physicæ, seu icones et descriptiones animalium evertebratorum, sepositis insectis, quae ex itineribus per Libyam, Ægyptum, Nubiam, Dongalam, Syriam, Arabiam et Habessiniam publico institutis sumptu Friderici Guilelmi Hemprich et Christiano Godofredi Ehrenberg medicinae et chirurgiae doctorum, studio annis MDCCCXXV-MDCCCXXV redierunt*.- G. Reimer, Berlin, 128 p.
- EISERHARDT K.-H. (1998).- Originalekatalog zur Bryozoensammlung E. Voigt. Senckenberg-Museum, Frankfurt/Main.- Catalogue, Geologisch-Paläontologisches Institut der Universität Hamburg, Hamburg, p.
- ERNST A. & VOIGT E. (2002).- Zooidal anatomy in Ordovician and Carboniferous trepostome bryozoans.- *Paläontologische Zeitschrift*, vol. 76, no. 2, p. 339-345.
- FAVORSKAYA T.A. (1987).- Мшанки маастрихта босиочной Туркмении [Bryozoans from the Maastrichtian of eastern Turkmenistan].- *Ежегодник Всесоюзного Палеонтологического Общества* [Annual of the All-Union Paleontological Society], vol. 30, p. 82-107.
- FAVORSKAYA T.A. (1988).- Мшанки маастрихта западного Узбекистана [Maastrichtian bryozoans of western Uzbekistan].- *Бюллетень Московского общества испытателей природы. Отдел геологический* [Bulletin of the Moscow Society of Naturalists. Department of Geology], vol. 63, no. 1, p. 94-102.
- FAVORSKAYA T.A. (1992).- Мшанки кампана и маастрихта юга СССР [Bryozoans in the Campanian and Maastrichtian of the southern USSR]. In: Атлас рукободящих групп фауны Мезозоя юга и югоиздока СССР [Atlas of the leading fauna groups in the Mesozoic of the southern and eastern USSR].- Труды Бессарабского Научно-исследовательского Геологического Института А. П. Карпинского, Санкт-Петербург [Saint Petersburg], p. 115-136.
- FAVORSKAYA T.A. (1996).- Практическое руководство по макрофaуне России и сопредельных территорий. Мшанки мезокайнозоя [A practical handbook on the macrofauna of Russia and adjacent territories: Bryozoans of the Mesocenozoic].- Всероссийский научно-исследовательский геологический институт им. А. П. Карпинского [Russian Geological Research Institute A.P. Karpinski], Санкт-Петербург [Saint Petersburg], 81 p.
- FAVORSKAYA T.A. GORDON D.P. & VOIGT E. (1996).- New Bryozoa (Cheilostomatida, Ascophorina) from the Paleocene of Uzbekistan.- *Mitteilungen aus dem Geologisch-Paläontologischen Institut der Universität Hamburg*, vol. 79, p. 171-181.
- FISCHER J.-C. (2002).- Conception et suites de la Paléontologie française d'Alcide d'ORBIGNY.- *Comptes Rendus Palevol*, vol. 1, no. 7, p. 599-613.
- FISCHER P. (1866).- Étude sur les bryozoaires perforants de la famille des téreébriporides.- *Muséum National d'Histoire Naturelle, Nouveaux Archive*, vol. 2, p. 293-313.
- FLEMING J. (1828).- A history of British animals, exhibiting the descriptive characters and systematical arrangement of the genera and species of quadrupeds, birds, reptiles, fishes, Mollusca, and Radiata of the United Kingdom; including the indigenous, extirpated, and extinct kinds, together with periodical and occasional visitants.- Bell & Bradfute, Edinburgh, 565 p.
- FLOR F.D. (1968).- *Pniotopora balavoinei* n. sp. (Bryozoa cribrimorpha) aus dem Santon von Nord-Frankreich.- *Mitteilungen aus dem Geologischen Staatsinstitut in Hamburg*, vol. 37, p. 95-97.
- FLOR F.D. (1972).- Biometrische Untersuchungen zur Autökologie oberkretazischer Bryozoen.- *Mitteilungen aus dem Geologisch-Paläontologischen Institut der Universität Hamburg*, vol. 41, p. 15-128.
- FLOR F.D. (1975).- *Discotruncatulipora corbis* n. g. n. sp. (Bryoz. Cycl.) aus der Oberen Kreide.- *Mitteilungen aus dem Geologisch-Paläontologischen Institut der Universität Hamburg*, vol. 44, p. 99-110.
- FRECH F. (1887).- Die Versteinerungen der unteren Thonlager zwischen Suderode und Quedlinburg.- *Zeitschrift der Deutschen Geologischen Gesellschaft*, vol. 39, p. 141-202.
- FRIČ A. (1889).- Studien im Gebiete der böhmischen Kreideformation. IV. Die Teplitzer Schichten.- *Archiv der naturwissenschaftliche Landesdurchforschung von Böhmen*, vol. 7,



- no. 2, p. 1-120.
- FRIČ A. (1911).- Studien im Gebiete der böhmischen Kreideformation. Ergänzungen zu Bd. I. Illustriertes Verzeichnis der Petrefacten der cenomanen Korcyner Schichten.- *Archiv der naturwissenschaftliche Landesdurchforschung von Böhmen*, vol. 15, p. 1-101.
- GABB W.M. & HORN G.H. (1862).- Monograph of the fossil Polyzoa of the Secondary and Tertiary formations of North America.- *Journal of the Academy of Natural Sciences of Philadelphia*, vol. 5, no. 2, p. 111-179.
- GEINITZ H.B. (1842).- Charakteristik der Schichten und Petrefacten des sächsisch-böhmischen Kreidegebirges. Drittes Heft. Die sächsisch-böhmische Schweitz, die Oberlausitz und das Innere von Böhmen.- Arnoldische Buchhandlung, Dresden, Leipzig, 54 p.
- GEINITZ H.B. (1846).- Grundriß der Versteinerungskunde.- Arnoldische Buchhandlung, Dresden, Leipzig, 813 p.
- GEINITZ H.B. (1849).- Das Quadersandsteinengebirge oder Kreidegebirge in Deutschland.- Craz & Gerlach, Freiberg, 293 p.
- GOLDFUß A. (1826-1833).- Petrefacta Germaniae tam ea, quae in museo Universitatis Regiae Borussicae Fredericae Wilhelmiae Rhenanae servantur quam alia quaecunque in Museis Hoeninghausiano Muensteriano aliisque extant Iconibus et Descriptionibus Illustrata. Erster Theil.- Arnz und Comp., Düsseldorf, 252 p.
- GORDON D.P. (1984).- The marine fauna of New Zealand. Bryozoa. Gymnolaemata from the Kermadec Ridge.- *New Zealand Oceanographic Institute Memoir*, vol. 91, p. 1-198.
- GORDON D.P. (1989).- The marine fauna of New Zealand: Bryozoa: Gymnolaemata (Cheilo-stomida Ascophorina) from the western South Island continental shelf and slope.- *New Zealand Oceanographic Institute Memoir*, vol. 95, p. 1-158.
- GORDON D.P. (2000).- Towards a phylogeny of the cheiostomes - Morphological models of frontal wall/shield evolution. In: HERRERA-CUBILLA A. & JACKSON J.B.C. (eds.), Proceedings of the 11th International Bryozoology Association Conference: Smithsonian Tropical Research Institute, Republic of Panama, January 26-31, 1998.- The Institute, Balboa, p. 17-37.
- GORDON D.P. (2002).- Late Cretaceous-Paleocene 'porinids' - mixed frontal shields and evidence of polyphyly. In: WYSE JACKSON P.N., BUTTLER C.J. & SPENCER JONES M.E. (eds.), *Bryozoan studies 2001*.- CRC Press, London, p. 113-124.
- GORDON D.P. & TAYLOR P.D. (1997).- The Cretaceous-Miocene genus *Lichenopora* (Bryozoa), with a description of a new species from New Zealand.- *Bulletin of The Natural History Museum, Geology Series*, vol. 53, no. 1, p. 71-78.
- GORDON D.P. & VOIGT E. (1996).- The kenozooidal origin of the ascophorine hypostegal coelom and associated frontal shield. In: GORDON D.P., SMITH A.M. & GRANT-MACKIE J.A. (eds.), *Bryozoans in space and time. Proceedings of the 10th International Bryozoology Conference, Victoria University of Wellington, Wellington, New Zealand, 1995*.- National Institute of Water and Atmospheric Research, Wellington, p. 89-107.
- GRAY J.E. (1848).- List of the specimens of British animals in the collections of the British Museum. Part I. Centrionae or radiated animals.- Trustees of the British Museum, London, 173 p.
- GREGORY J.W. (1896).- Catalogue of the fossil Bryozoa in the Department of Geology, British Museum (Natural History). The Jurassic Bryozoa.- Trustees of the British Museum (Natural History), London, 239 p.
- GREGORY J.W. (1899).- Catalogue of the fossil Bryozoa in the Department of Geology, British Museum (Natural History). The Cretaceous Bryozoa. Volume I.- Trustees of the British Museum (Natural History), London, 457 p.
- GREGORY J.W. (1909).- Catalogue of the fossil Bryozoa in the Department of Geology, British Museum (Natural History). The Cretaceous Bryozoa. Volume II.- Trustees of the British Museum (Natural History), London, 346 p.
- HAGENOW F. von (1839).- Monographie der Rügenschen Kreide-Versteinerungen, I. Abtheilung: Phylolithen und Polyparien.- *Neues Jahrbuch für Mineralogie, Geognosie und Petrefaktenkunde*, vol. 7, p. 253-296.
- HAGENOW F. von (1840).- Monographie der Rügenschen Kreide-Versteinerungen, II. Abtheilung: Radiaren und Annulaten.- *Neues Jahrbuch für Mineralogie, Geognosie und Petrefaktenkunde*, vol. 8, p. 631-671.
- HAGENOW F. von (1846).- Bryozoa. Mooskorallen. In: Grundriß der Versteinerungskunde.- Arnoldische Buchhandlung, Dresden, Leipzig, p. 586-635.
- HAGENOW F. von (1851).- Die Bryozoen der Maastrichter Kreidebildung.- Theodor Fischer, Cassel, 111 p.
- HÅKANSSON E. & THOMSEN E. (2001).- Macroevolutionary trends. Evolutionary trends in a major group of colonial animals. In: JACKSON J.B.C., LIDGARD S. & MCKINNEY F.K. (eds.), *Evolutionary patterns: Growth, form, and tempo in the fossil record*.- University of Chicago Press, Chicago, p. 326-347.
- HÅKANSSON E. & VOIGT E. (1996).- New free-living bryozoans from the northwest European Chalk.- *Bulletin of the Geological Society of Denmark*, vol. 42, p. 187-207.
- HAMM H. (1881).- Die Bryozoen des Maastrichter Obersenon. I. Theil. Die cyclostomen Bryozoen.- PhD thesis, Friedrich-Wilhelms-Universität Berlin, Berlin, 47 p.
- HARMELIN J.-G. BORONAT J. MOISSETTE P. & ROSSO A. (1989).- *Distansescharella seguenzai* CIPOLLA, 1921 (Bryozoa, Cheiostomata), nouvelles données morphologiques et écologiques tirées de spécimens fossiles (Miocène, Pliocène) et actuels de Méditerranée.- *Geobios*, Villeurbanne, 22, p. 411-424.



- ne, vol. 22, no. 4, p. 485-501.
- HARMER S.F. (1926).- The Polyzoa of the Siboga Expedition. Part II. Cheilostomata Anasca (with additions to previous reports).- *Siboga-Expedition*, vol. 28b, p. 181-501.
- HASTINGS A.B. (1966).- Observations on the type-material of some genera and species of Polyzoa.- *Bulletin of the British Museum (Natural History), Zoology Series*, vol. 14, p. 57-78.
- HAYWARD P.J. & RYLAND J.S. (1998).- Cheilostomatous Bryozoa. Part I. Aeteoidea - Cribrilinoidea.- Field Studies Council, Shrewsbury, 366 p.
- HENNIG A.H. (1892).- Studier öfver bryozoerna i Sveriges kritsystem. I. Cheilostomata.- *Lunds Universitets Års-skrift*, vol. 28, no. 11, p. 1-51.
- HENNIG A.H. (1894).- Studier öfver bryozoerna i Sveriges kritsystem. II. Cyclostomata.- *Lunds Universitets Års-skrift*, vol. 30, no. 8, p. 1-46.
- HILLMER G. (1971).- Bryozoen aus dem Alb und Cenoman von Hannover.- *Bericht der Naturhistorischen Gesellschaft Hannover, Beiheft*, vol. 7, no. Eilenriede-Festschrift, p. 49-67.
- HILLMER G., VOIGT E. & SCHOLZ J. (1997).- Neue fungiforme Bryozoen-Genera (Cyclostomata) aus dem subhercynen Santonium und ihre Ökologie.- *Courier Forschungsinstitut Senckenberg*, vol. 201, p. 201-223.
- HILTERMANN H. (1941).- Ein litorales Paläozän in Norddeutschland.- *Zeitschrift der Deutschen Geologischen Gesellschaft*, vol. 93, p. 259-269.
- HINCKS T. (1862).- A catalogue of the zoophytes of south Devon and south Cornwall.- *Journal of Natural History (Series 3)*, vol. 9, no. 54, p. 467-475.
- HINCKS T. (1879).- On the classification of the British Polyzoa.- *Journal of Natural History (Series 5)*, vol. 3, no. 14, p. 153-164.
- HINCKS T. (1880).- A history of the British marine Polyzoa.- J. Van Voorst, London, 601 p.
- HINCKS T. (1882).- Contributions towards a general history of the marine Polyzoa. IX. Foreign Cheilostomata (Miscellaneous).- *Journal of Natural History (Series 5)*, vol. 9, no. 50, p. 116-127.
- HINZ-SCHALLREUTER I. & SCHALLREUTER R. (2005).- Geschiebe-Bryozoen. Teil A: Aus Geschieben beschriebene neue Arten.- *Archiv für Geschiebekunde*, vol. 4, no. 9, p. 513-560.
- D'HONDT J.-L. & GORDON D.P. (1999).- Entoproctes et bryozoaires Cheilostomida (Pseudomala-costegomorpha et Cryptocystomorpha) des Campagnes Musorstrom autour de la Nouvelle Calédonie.- *Mémoires du Muséum National d'Histoire Naturelle*, vol. 180, p. 169-251.
- ICZN (1964).- International Code of Zoological Nomenclature, adopted by the XV International Congress of Zoology / Code International de Nomenclature Zoologique, adopté par le XVe Congrès international de zoologie.- International Trust for Zoological Nomenclature, London, 176 p.
- ICZN (1999).- International Code of Zoological Nomenclature.- International Trust for Zoolo-
- gical Nomenclature, London, 306 p.
- JOHNSTON G. (1838).- A history of British zoophytes.- W.H. Lizars, Edinburgh, 341 p.
- JOHNSTON G. (1847).- A history of the British zoophytes.- J. Van Voorst, London, 488 p.
- JULLIEN J. (1882).- Note sur une nouvelle division des bryozoaires cheilostomiens.- *Bulletin de la Société Zoologique de France*, vol. 6, p. 271-285.
- JULLIEN J. (1883).- Dragages du Travailleur. Bryozoaires. Espèces draguées dans l'Océan Atlantique en 1881.- *Bulletin de la Société Zoologique de France*, vol. 7, p. 497-529.
- JULLIEN J. (1886).- Les Costulidées, nouvelle famille de bryozoaires.- *Bulletin de la Société Zoologique de France*, vol. 11, p. 601-620.
- JULLIEN J. (1888).- Bryozoaires.- Gauthier Villars et fils, Paris, 92 p.
- JULLIEN J. & CALVET L. (1903).- Bryozoaires provenant des campagnes de l'Hirondelle (1886-1888).- *Résultats des Campagnes Scientifiques Accomplies sur son Yacht par Albert I^{er}, Prince Souverain de Monaco*, vol. 23, 188 p.
- KADE G. (1852).- Die losen Versteinerungen des Schanzenberges bei Meseritz.- *Programm des Königlichen Gymnasiums zu Meseritz*, vol. 1852, p. 1-35.
- KEIJ A.J. (1977).- The Tertiary bryozoan genera *Bicornifera* and *Bifissurinella* (Cheilostomata, Anasca).- *Proceedings of the Koninklijke Nederlandse Akademie van Wetenschappen Series B, Palaeontology, Geology, Physics, Chemistry, Anthropology*, vol. 80, no. 4, p. 229-241.
- KOSCHINSKY C. (1885).- Ein Beitrag zur Kenntniss der Bryozoenfauna der älteren Tertiärschichten des südlichen Bayerns. I. Abtheilung: Cheilostomata.- *Palaeontographica*, vol. 32, no. 1, p. 1-73.
- KOROMYSLOVA A.V., MARTHA S.O. & PAKHNEVICH A.V. (2015).- Микротомографическое исследование мшанок рода *Acoscinoplaera* (Coscinoplaeridae) из Кампана и Маастрихта Европы [Micro-CT studies on the genus *Acoscinoplaera* (Coscinoplaeridae) from the Campanian and Maastrichtian of Europe]. In: BOGDANOVA T.N. (ed.), Современные проблемы палеонтологии. Материалы LXI сессии Палеонтологического общества при РАН (13-17 апреля 2015 г., Санкт-Петербург). [Modern problems of paleontology. Materials of the LXI Cessna Paleontological Society at RAS (13-17 April 2015, St. Petersburg)].- Российская Академия Наук [Russian Academy of Sciences], Санкт-Петербург [Saint Petersburg], p. 54-56.
- KOROMYSLOVA A.V., MARTHA S.O. & PAKHNEVICH A.V. (2018).- The internal morphology of *Acoscinoplaera* Voigt, 1956 (Cheilostomata, Bryozoa) from the Campanian-Maastrichtian of Central and Eastern Europe.- *PalZ*, vol. 92, no. 2, p. 241-266.
- LABRACHERIE M. (1975).- Sur quelques bryozoaires de l'Éocène inférieur nord-aquitain.- *Revista*



- Española de Micropaleontología*, vol. 7, p. 127-164.
- LAGAAIJ R. (1952).- The Pliocene Bryozoa of the Low Countries and their bearing on the marine stratigraphy of the North Sea region.- *Mededelingen van de Geologische Stichting*, vol. 5, p. 1-233.
- LAGAAIJ R. (1953).- The vertical distribution of the lunulitiform Bryozoa in the Tertiary of the Netherlands.- *Mededelingen van de Geologische Stichting*, vol. 7, p. 13-19.
- LAMARCK J.B. (1816).- Histoire naturelle des animaux sans vertèbres... précédée d'une introduction offrant la détermination des caractères essentiels de l'animal, sa distinction du végétal et des autres corps naturels, enfin, l'exposition des principes fondamentaux.- Verdier, Paris, 568 p.
- LAMOUROUX J.V.F. (1812).- Extrait d'un mémoire sur la classification des polypiers coralligènes non entièrement pierreux.- *Nouveau Bulletin des Sciences, par la Société Philomathique de Paris*, vol. 3, p. 181-188.
- LAMOUROUX J.V.F. (1821).- Exposition méthodique des genres de l'ordre des polypiers: avec leur description et celle des principales espèces, figurées dans 84 planches, les 63 premières appartenant à l'Histoire naturelle des zoophytes d'ELLIS et SOLANDER.- Agasse, Paris, 115 p.
- LANG W.D. (1914).- On *Herpetopora*, a new genus containing three new species of Cretaceous cheilostome Polyzoa.- *Geological Magazine, new series (Decade VI)*, vol. 1, no. 1, p. 5-8.
- LANG W.D. (1916a).- A revision of the "cribrimorph" Cretaceous Polyzoa.- *Journal of Natural History (Series 8)*, vol. 18, no. 103, p. 81-112.
- LANG W.D. (1916b).- A revision of the "cribrimorph" Cretaceous Polyzoa.- *Journal of Natural History (Series 8)*, vol. 18, no. 107, p. 381-410.
- LANG W.D. (1921).- Catalogue of the fossil Bryozoa (Polyzoa) in the Department of Geology, British Museum (Natural History). The Cretaceous Bryozoa (Polyzoa). Volume III. The cribrimorphs. - Part I.- Trustees of the British Museum (Natural History), London, 269 p.
- LANG W.D. (1922).- Catalogue of the fossil Bryozoa (Polyzoa) in the Department of Geology, British Museum (Natural History). The Cretaceous Bryozoa (Polyzoa). Volume IV. The cribrimorphs. - Part II.- Trustees of the British Museum (Natural History), London, 404 p.
- LARWOOD G.P. (1962).- The morphology and systematics of some Cretaceous cribimorph Polyzoa (Pelmatoporinae).- *Bulletin of the British Museum (Natural History), Geology Series*, vol. 6, p. 1-285.
- LEVINSEN G.M.R. (1902).- Studies on Bryozoa.- *Videnskabelige Meddelelser fra den naturhistoriske Forening i Kjøbenhavn*, vol. 54, p. 1-31.
- LEVINSEN G.M.R. (1907).- Sur la régénération totale des bryozoaires.- *Oversigt over det Kongelige Danske Videnskabernes Selskabs Forhandlinger*, vol. 4, p. 151-159.
- LEVINSEN G.M.R. (1909).- Morphological and systematic studies on the cheilostomatous Bryozoa.- Nationale Forfatteres Forlag, København, 431 p.
- LEVINSEN G.M.R. (1925).- Undersøgelser over Bryozoerne i den danske Kridtformation. Efter Forfatterens død udg. af K. Brünnich NIELSEN og Th. MORTENSEN.- *Det Kongelige Danske Videnskabernes Selskabs Skrifter / Naturvidenskabelig og Mathematiske Afdeling*, vol. 7, p. 283-445.
- LINK H.F. (1807).- Beschreibung der Naturalien-Sammlung der Universitaet zu Rostock. Dritte Abtheilung. In: LINK H.F. (ed.), *Beschreibung der Naturalien-Sammlung der Universitaet zu Rostock*.- Adler, Rostock, p. 101-165.
- LONSDALE W. (1850).- Descriptions of the fossils of the Chalk Formation. Notes on the corals. In: *The geology and fossils of the Tertiary and Cretaceous formations of Sussex*.- Longman, Brown, Green and Longmans, London, p. 237-324.
- MACGILLIVRAY P.H. (1895).- A monograph of the Tertiary Polyzoa of Victoria.- *Transactions of the Royal Society of Victoria*, vol. 4, p. 1-166.
- MARSSON T. (1887).- Die Bryozoen der weissen Schreibkreide der Insel Rügen.- *Paläontologische Abhandlungen*, vol. 4, no. 1, p. 3-112.
- MARTHA S.O. (2014).- Things we lost in the fire: the rediscovery of type material from Ehrhard Voigt's early publications (1923-1942) and the bryozoan collection of Hermann BRANDES. In: WYSE JACKSON P.N. & SPENCER JONES M.E. (eds.), *Annals of Bryozoology 4: Aspects of the history of research on bryozoans*.- International Bryozoology Association, Dublin, p. 107-127.
- MARTHA S.O. MATSUYAMA K. TAYLOR P.D. & SCHOLZ J. (2015).- On rediscovered types of Santonian cheilostome bryozoans described by Ehrhard Voigt (1924, 1930) from the Subhercynian Cretaceous Basin and its surroundings.- *Paläontologische Zeitschrift*, vol. 89, no. 4, p. 689-706.
- MARTHA S.O. NIEBUHR B. & SCHOLZ J. (2017).- Cheilostome Bryozoen.- *Geologica Saxonica*, vol. 62, p. 11-52.
- MARTHA S.O. & TAYLOR P.D. (2016).- A new western European Cretaceous bryozoan genus from the early Cenomanian radiation of neocheilostomes.- *Papers in Palaeontology*, vol. 2, no. 2, p. 311-321.
- MARTHA S.O. TAYLOR P.D. MATSUYAMA K. & SCHOLZ J. (2014).- A brief history of misidentification and missing links: the Jurassic cyclostome *Kololophos* GREGORY, 1896 and a new genus from the Cretaceous. In: Rosso A., WYSE JACKSON P.N. & PORTER J. (eds.), *Bryozoan Studies 2013: Proceedings of the 16th International Bryozoology Association Conference*, Catania, Sicily.- Museo Tridentino di Scienze Naturali, Trento, p. 169-179.



- MARYŃSKA T. (1969).- Bryozoa from the Uppermost Maastrichtian and Paleocene deposits of the Middle Vistula Gorge near Puławy.- *Prace Muzeum Ziemi*, vol. 14, p. 85-129.
- MAYORAL E. (1988).- *Pennatichnus* nov. icnogen.: *Pinaceo cladichnus* nov. icnogen. e *Iramena*. Huellas de bioerosión debidas a Bryozoa perforantes (Ctenostomata, Plioceno inferior) en la Cuenca del Bajo Guadalquivir.- *Revista Española de Paleontología*, vol. 3, no. 1, p. 13-22.
- MEDD A.W. (1965).- *Dionella* gen. nov. (superfamily Membraniporacea) from the Upper Cretaceous of Europe.- *Palaeontology*, vol. 8, no. 3, p. 492-517.
- MEDD A.W. (1979).- *Ellisina* NORMAN and *Periporosella* CANU & BASSLER (superfamily Membraniporacea) from the Upper Cretaceous of Europe.- Her Majesty's Stationery Office, London, 29 p.
- MEUNIER A. & PERGENS É. (1885).- Nouveaux bryozoaires du Crétacé supérieur.- *Annales de la Société Malacologique de Belgique*, vol. 20, p. 32-37.
- MILNE EDWARDS H. (1838).- Mémoire sur les cries, les hornères et plusieurs autres polypes vivants ou fossiles dont l'organisation est analogue à celle des tubulipores.- *Annales des Sciences Naturelles, Zoologie* (Série 2), vol. 9, p. 193-238.
- MONGEREAU N. & BRAGA G. (1967).- *Decurella toorense* nov. gen. nov. sp. (Bryozoa-Cyclostomata).- *Travaux des Laboratoires de Géologie de la Faculté des Sciences de Lyon*, vol. 14, p. 33-37.
- MORRIS P.A. (1980).- The bryozoan family Hippothoidae (Cheilostomata-Ascophora), with emphasis on the genus *Hippothoa*.- Allan Hancock Foundation, Los Angeles, 115 p.
- NORMAN A.M. (1903).- Notes on the natural history of East Finmark.- *Journal of Natural History* (Series 7), vol. 11, no. 66, p. 567-598.
- NOVÁK O. (1877).- Beitrag zur Kenntnis der Bryozoen der böhmischen Kreideformation.- *Denkschriften der Kaiserlichen Akademie der Wissenschaften, Wien*, vol. 37, no. 2, p. 79-126.
- NOWICKI M.J. (1986).- The biostratigraphy of Coniacian-Santonian cheilostome Bryozoa of the north Aquitaine Basin.- PhD thesis, King's College, London University, London, 283 p.
- ORBIGNY A. d' (1847).- Zoophytes.- *Voyage dans l'Amérique meridionale*, vol. 5, no. 4, p. 7-28.
- ORBIGNY A. d' (1849).- Description des quelques genres nouveaux de mollusques bryozoaires.- *Revue et Magazine de Zoologie Pure et Appliquée* (Série 2), vol. 1, p. 499-504.
- ORBIGNY A. d' (1850).- Prodrome de paléontologie stratigraphique universelle des animaux mollusques & rayonnés, faisant suite au cours élémentaire de paléontologie et de géologie stratigraphiques. Deuxième volume.- Victor Masson, Paris, 428 p.
- ORBIGNY A. d' (1851a).- Paléontologie française. Description zoologique et géologique de tous les animaux mollusques et rayonnés fossiles de France, comprenant leur application à la reconnaissance des couches. Terrains Crétacés. Atlas. Tome cinquième, contenant les bryozoaires.- Victor Masson, Paris, Pls. 600-683.
- ORBIGNY A. d' (1851b).- Paléontologie française. Description zoologique et géologique de tous les animaux mollusques et rayonnés fossiles de France, comprenant leur application à la reconnaissance des couches. Terrains Crétacés. Tome cinquième, contenant les bryozoaires.- Victor Masson, Paris, 188 p.
- ORBIGNY A. d' (1852a).- Paléontologie française. Description zoologique et géologique de tous les animaux mollusques et rayonnés fossiles de France, comprenant leur application à la reconnaissance des couches. Terrains Crétacés. Tome cinquième, contenant les bryozoaires.- Victor Masson, Paris, p. 189-472.
- ORBIGNY A. d' (1852b).- Paléontologie française. Description zoologique et géologique de tous les animaux mollusques et rayonnés fossiles de France, comprenant leur application à la reconnaissance des couches. Terrains Crétacés. Atlas. Tome cinquième, contenant les bryozoaires.- Victor Masson, Paris, Pl. 684-761.
- ORBIGNY A. d' (1852c).- Prodrome de paléontologie stratigraphique universelle des animaux mollusques & rayonnés, faisant suite au cours élémentaire de paléontologie et de géologie stratigraphiques. Troisième volume.- Victor Masson, Paris, 196 p.
- ORBIGNY A. d' (1853).- Paléontologie française. Description zoologique et géologique de tous les animaux mollusques et rayonnés fossiles de France, comprenant leur application à la reconnaissance des couches. Terrains Crétacés. Tome cinquième, contenant les bryozoaires.- Victor Masson, Paris, p. 473-984.
- ORBIGNY A. d' (1854).- Paléontologie française. Description zoologique et géologique de tous les animaux mollusques et rayonnés fossiles de France, comprenant leur application à la reconnaissance des couches. Terrains Crétacés. Tome cinquième, contenant les bryozoaires.- Victor Masson, Paris, p. 985-1192.
- ORTMANN A.E. (1890).- Die japanische Bryozoenfauna (Bericht über die von Herrn Dr. L. DÖDERLEIN im Jahre 1880-81 gemachten Sammlungen).- *Archiv für Naturgeschichte*, vol. 54, no. 1, p. 1-72.
- OSSWALD J. (1890).- Die Bryozoen der Mecklenburger Kreidegeschiebe.- *Archiv des Vereins der Freunde der Naturgeschichte in Mecklenburg*, vol. 43, p. 101-110.
- OSTROVSKY A.N. (2013).- Evolution of sexual reproduction in marine invertebrates.- Springer, Dordrecht, 357 p.
- OSTROVSKY A.N. & TAYLOR P.D. (2004).- Systematics of Upper Cretaceous calloporid bryozoans



- with primitive spinose ovicells.- *Palaeontology*, vol. 47, no. 3, p. 775-793.
- OSTROVSKY A.N. & TAYLOR P.D. (2005).- Brood chambers constructed from spines in fossil and Recent cheilostome bryozoans.- *Zoological Journal of the Linnean Society*, vol. 144, no. 3, p. 317-361.
- PERGENS É. (1889).- Révision des bryozoaires du Crétacé figurés par d'ORBIGNY. Première partie. - Cyclostomata.- *Mémoires de la Société Belge de Géologie, de Paléontologie et d'Hydrologie*, vol. 3, p. 305-400.
- PERGENS É. & MEUNIER A. (1886).- La faune des bryozoaires garumniens de Faxe.- *Annales de la Société Malacologique de Belgique*, vol. 21, p. 187-242.
- PICTET F.-J. (1857).- Traité de paléontologie ou histoire naturelle des animaux fossiles considérés dans leurs rapports zoologiques et géologiques.- J.-B. Baillièvre et fils, Paris, 768 p.
- POČTA F. (1892).- O mechovkách z korycanských vrstev pod Kaňkem u Kutné Hory.- Nákladem České akademie císaře Františka Josefa pro vědy, slovesnost a umění, Praha, 42 p.
- POHowsky R.A. (1978).- The boring ctenostomate Bryozoa: Taxonomy and paleobiology based on cavities in calcareous substrata.- *Bulletins of American Paleontology*, vol. 73, no. 301, p. 1-192.
- PRUD'HOMME J. (1961).- Le genre *Amphiblestrella* : Nouveau genre de bryozoaires cheilostomes.- *Bulletin de la Société Géologique de France* (Série 7), Paris, vol. 2, no. 7, p. 947-950.
- QUENSTEDT F.A. (1881).- Petrefactenkunde Deutschlands. Der ersten Abtheilung sechster Band. Korallen (Röhren- und Sternkorallen).- Fues's Verlag (R. Reisland), Leipzig, 1093 p.
- REUSS A.E. (1846).- Die Versteinerungen der böhmischen Kreideformation.- Schweizerbart'sche Verlagsbuchhandlung, Stuttgart, 148 p.
- REUSS A.E. (1848).- Die fossilen Polyparien des Wiener Tertiärbeckens. Ein monographischer Versuch.- Braumüller und Seidel, Wien, 109 p.
- REUSS A.E. (1869).- Paläontologische Studien über die älteren Tertiärschichten der Alpen. II. Abtheilung: Die fossilen Anthozoen und Bryozoen der Schichtengruppe von Crosara.- *Denkschriften der Kaiserlichen Akademie der Wissenschaften, Wien*, vol. 29, no. 1, p. 215-298.
- REUSS A.E. (1872).- Die Bryozoen und Foraminiferen des unteren Quaders. In: Das Elbthalgebirge in Sachsen. I. Theil: Der untere Quader.- Theodor Fischer, Cassel, p. 95-144.
- REUSS A.E. (1874a).- Die Foraminiferen, Bryozoen und Ostracoden des Plänfers. In: Das Elbthalgebirge in Sachsen. Zweiter Theil: Der mittlere und obere Quader.- Theodor Fischer, Cassel, p. 73-157.
- REUSS A.E. (1874b).- Die fossilen Bryozoen des österreichisch-ungarischen Miocäns. I. Abtheilung. Salicornaridea, Cellularidea, Membraniporidea.- *Denkschriften der Kaiserlichen Akademie der Wissenschaften, Wien*, vol. 33, p. 141-190.
- ROEMER F.A. (1840).- Die Versteinerungen des norddeutschen Kreidegebirges. Erste Lieferung.- Hahn'sche Hofbuchhandlung, Hannover, Pls. I-XVI.
- ROEMER F.A. (1841).- Die Versteinerungen des norddeutschen Kreidegebirges.- Hahn'sche Hofbuchhandlung, Hannover, 145 p.
- SCHÄFER P. (1991).- Brutkammern der Stenolaemata (Bryozoa): Konstruktionsmorphologie und phylogenetische Bedeutung.- *Courier Forschungsinstitut Senckenberg*, vol. 136, p. 1-263.
- SCHÖNFELDER E. (1933).- Die Kreideanhäufungen im Geschiebemergel des nördlichen Schleswig, ihre Fossiliführung und geologische Bedeutung.- *Jahresberichte des Niedersächsischen Geologischen Vereins*, vol. 25, p. 85-128.
- SCHOLZ J. & HILLMER G. (1995).- Reef-bryozoans and bryozoan-microreefs: Control factor evidence from the Philippines and other regions.- *Facies*, vol. 32, no. 1, p. 109-143.
- SCHUBERT T. (1986).- Parallele Merkmalsentwicklung der Bryozoen-Arten von *Woodipora* JULLIEN 1888 im Coniacium bis Maastrichtium NW-Europas.- *Geologisches Jahrbuch, Reihe A*, vol. 98, p. 3-83.
- SHERBORN C.D. (1899).- On the dates of the "Paléontologie française" of d'ORBIGNY.- *Geological Magazine, new series (Decade IV)*, vol. 6, no. 05, p. 223-225.
- SILÉN L. (1946).- On two new groups of Bryozoa living in the shells of molluscs.- *Arkiv för Zoologi*, vol. 38B, p. 1-7.
- SMITT F.A. (1867).- Kritisk förteckning öfver Skandinaviens Hafs-Bryozoer [II. Fortsättning från förra årgången p. 115, meddelad d. 11 October 1865].- *Öfversigt af Kongliga Vetenskaps-Akademiens, Förfärlingar*, vol. 23, no. 5, p. 395-534.
- SMITT F.A. (1873).- Floridan Bryozoa, collected by Count L.F. de POURTALES. Part II.- *Kongliga Svenska Vetenskaps-Akademiens Handlingar*, vol. 11, no. 4, p. 1-83.
- SPIEGLER D. & EISERHARDT K.-H. (2002).- First evidence of colonial Bicorniferidae (Bryozoa incertae sedis). In: GÜRS K. (ed.), Northern European Cenozoic Stratigraphy: Proceedings of the 8th Biannual Meeting of the RCNNS/RCNPS.- Landesamt für Natur und Umwelt des Landes Schleswig-Holstein, Flintbek, p. 7-14.
- STRAND E. (1928).- Miscellanea nomenclatorica zoologica et paleontologica. I-II.- *Archiv für Naturgeschichte*, vol. 92A, no. 8, p. 30-75.
- SZCZECHURA J. (1969).- Problematic microfossils from the Upper Eocene of Poland.- *Revista Española de Micropaleontología*, vol. 1, no. 1, p. 81-94.
- TAVENER-SMITH R. & WILLIAMS A. (1972).- The secretion and structure of the skeleton of living and fossil Bryozoa.- *Philosophical Transactions of the Royal Society B: Biological Sciences*,



- vol. 264, no. 859, p. 97-160.
- TAYLOR P.D. (1987).- Fenestrate colony-form in a new meliceritid bryozoan from the U. Cretaceous of Germany.- *Mesozoic Research*, vol. 1, no. 2, p. 71-77.
- TAYLOR P.D. (1994).- Systematics of the meliceritid cyclostome bryozoans; introduction and the genera *Elea*, *Semielea* and *Reptomultilea*.- *Bulletin of The Natural History Museum, Geology Series*, vol. 50, no. 1, p. 1-103.
- TAYLOR P.D. & BADVE R.M. (1994).- The mid-Cretaceous bryozoan fauna from the Bagh Beds of central India: composition and evolutionary significance. In: HAYWARD P.J., RYLAND J.S. & TAYLOR P.D. (eds.), *Biology and palaeobiology of bryozoans*.- Olsen & Olsen, Fredensborg, p. 181-186.
- TAYLOR P.D. & BADVE R.M. (1995).- A new cheilostome bryozoan from the Cretaceous of India and Europe: a cyclostome homeomorph.- *Palaeontology*, vol. 38, no. 3, p. 627-657.
- TAYLOR P.D. & GORDON D.P. (2007).- Bryozoans from the Late Cretaceous Kahuitara Tuff of the Chatham Islands, New Zealand.- *Alcheringa*, vol. 31, no. 4, p. 339-363.
- TAYLOR P.D. & GRISCHENKO A.V. (1999).- *Rodinopora* gen. nov. and the taxonomy of fungiform cyclostome bryozoans.- *Species Diversity*, vol. 4, p. 9-33.
- TAYLOR P.D. & MCKINNEY F.K. (2006).- Cretaceous Bryozoa from the Campanian and Maastrichtian of the Atlantic and Gulf Coastal Plains, United States.- *Scripta Geologica*, vol. 132, p. 1-346.
- TAYLOR P.D. & VOIGT E. (1992).- *Hoeverella krauseae* gen. et sp. nov., an unusual uniserial cheilostome bryozoan from the Campanian of Hannover.- *Paläontologische Zeitschrift*, vol. 66, no. 1-2, p. 115-122.
- THOMAS H.D. & LARWOOD G.P. (1956).- Some "uniserial" membraniporine polyzoan genera and a new American Albian species.- *Geological Magazine*, vol. 93, no. 5, p. 369-376.
- THOMAS H.D. & LARWOOD G.P. (1960).- The Cretaceous species of *Pyripora* d'ORBIGNY and *Rhammatopora* Lang.- *Palaeontology*, vol. 3, no. 3, p. 370-386.
- THOMSEN E. (1977a).- Relations between encrusting bryozoans and substrate: An example from the Danian of Denmark.- *Bulletin of the Geological Society of Denmark*, vol. 26, p. 133-145.
- THOMSEN E. (1977b).- Phenetic variability and functional morphology of erect cheilostome bryozoans from the Danian (Paleocene) of Denmark.- *Paleobiology*, vol. 3, no. 04, p. 360-376.
- THOMSEN E. & HÅKANSSON E. (1995).- Sexual versus asexual dispersal in clonal animals: Examples from cheilostome bryozoans.- *Paleobiology*, vol. 21, no. 4, p. 496-508.
- TOOTS H. (1952).- Bryozoen des estnischen Kuckersits.- *Mitteilungen aus dem Geologischen Staatsinstitut in Hamburg*, vol. 21, p. 113-137.
- VEENSTRA H.J. (1963).- Microscopic studies of boulder clays.- *Rijksuniversiteit Groningen*, Groningen, 211 p.
- VIGNEAUX M. (1949).- Révision des bryozoaires néogènes du Bassin d'Aquitaine et essai de classification.- *Mémoires de la Société Géologique de France* (Nouvelle Série), Paris, vol. 60, 153 p.
- VINE G.R. (1890a).- Notes on the Polyzoa and Microzoa of the Red Chalk of Yorkshire and Norfolk.- *Proceedings of the Yorkshire Geological Society*, vol. 11, no. 3, p. 363-396.
- VINE G.R. (1890b).- A monograph of the Polyzoa (Bryozoa) of the Red Chalk of Hunstanton.- *Quarterly Journal of the Geological Society*, vol. 46, no. 1-4, p. 454-486.
- VIJKOVA L.A. (2000).- Новые находки позднемеловых стенолемных мшанок с закрытым типом роста [New finds of Late Cretaceous stenolaematus bryozoans with a closed type of growth].- *Палеонтологический журнал* [Paleontological Journal], vol. 41, no. 6, p. 29-31.
- VIJKOVA L.A. (2004a).- Новые данные о среднеднеюрских мшанках центра европейской части России [New data on Middle Jurassic bryozoans from central part of European Russia].- *Бюллетень Московского общества испытателей природы. Отдел геологический* [Bulletin of the Moscow Society of Naturalists. Department of Geology], vol. 2006, no. 4, p. 49-59.
- VIJKOVA L.A. (2004b).- Идмонеiformные Tubulipora (мшанки Stenolaemata): Особенности морфологии, вопросы систематики, новые таксоны [Idmoneiform Tubulipora (Bryozoa, Stenolaemata): morphological features, problems in systematics, and new taxa].- *Палеонтологический журнал* [Paleontological Journal], vol. 46, no. 1, p. 43-55.
- VIJKOVA L.A. (2007).- Новые мшанки Stenolaemata из средней юры Москвы и Подмосковья [New bryozoans (Stenolaemata) from the Middle Jurassic of Moscow City and the Moscow Region].- *Палеонтологический журнал* [Paleontological Journal], vol. 49, no. 1, p. 46-55.
- VOIGT E. (1923).- Über einige neue und wenig bekannte Bryozoen der Gattung *Floridina* aus dem Danien von Faxe.- *Meddelelser fra Dansk geologisk Forening*, vol. 6, no. 1, p. 1-9.
- VOIGT E. (1924a).- Beiträge zur Kenntnis der Bryozoenfauna der subherzynen Kreidemulde.- *Paläontologische Zeitschrift*, vol. 6, no. 2, p. 93-173.
- VOIGT E. (1924b).- Beiträge zur Kenntnis der Bryozoenfauna der subherzynen Kreidemulde. Zweiter Teil. Cheilostomata.- *Paläontologische Zeitschrift*, vol. 6, no. 3, p. 191-247.
- VOIGT E. (1924c).- Über neue Bryozoen aus Daniengeschieben Anhalts.- *Paläontologische Zeitschrift*, vol. 6, no. 4, p. 249-273.



- Zeitschrift, vol. 6, no. 1, p. 3-13.
- VOIGT E. (1925).- Über das Vorkommen von Bryozoen in Diluvialgeschieben und die Grundzüge ihrer Systematik.- *Zeitschrift für Geschiebeforschung*, vol. 1, p. 97-104.
- VOIGT E. (1928).- Neue artikulierte cheilostome Bryozoen aus einem Kreidegeschiebe ober-senonen Alters von Cöthen in Anhalt.- *Zeitschrift für Geschiebeforschung*, vol. 4, p. 105-114.
- VOIGT E. (1929).- Die Bryozoengattung *Diplosolen* in der Schreibkreide von Rügen.- *Mitteilungen aus dem Naturwissenschaftlichen Verein für Neu-Vorpommern und Rügen in Greifswald*, vol. 52/56, p. 1-8.
- VOIGT E. (1930).- Morphologische und stratigraphische Untersuchungen über die Bryozoa-fauna der oberen Kreide. I. Teil. Die cheilostomen Bryozoen der jüngeren Oberkreide in Nordwestdeutschland, im Baltikum und in Holland.- *Leopoldina: Berichte der Kaiserlich-Deutschen Akademie der Naturforscher zu Halle*, vol. 6, p. 379-579.
- VOIGT E. (1949).- Cheilostome Bryozoen aus der Quadratenkreide Nordwestdeutschlands.- *Mitteilungen aus dem Geologischen Staatsinstitut in Hamburg*, vol. 19, p. 1-49.
- VOIGT E. (1951).- Das Maastricht-Vorkommen von Ilten bei Hannover und seine Fauna.- *Mitteilungen aus dem Geologischen Staatsinstitut in Hamburg*, vol. 20, p. 15-109.
- VOIGT E. (1956).- Untersuchungen über *Coscinopleura* MARSS. (Bryoz. foss.) und verwandte Gattungen.- *Mitteilungen aus dem Geologischen Staatsinstitut in Hamburg*, vol. 25, p. 26-75.
- VOIGT E. (1957a).- Bryozoen aus dem Kreidetuff von St. Symphorien bei Ciply (Ob. Maastrichtien).- *Bulletin de l'Institut Royal des Sciences Naturelles de Belgique*, vol. 33, p. 1-48.
- VOIGT E. (1957b).- *Harmeriella? cretacea* n. sp., ein fragliches parasitisches Bryozoon aus der Schreibkreide von Rügen.- *Senckenbergiana lethaea*, vol. 38, p. 345-357.
- VOIGT E. (1959a).- Revision der von F. v. HAGENOW 1838-1850 aus der Schreibkreide von Rügen veröffentlichten Bryozoen.- *Geologie*, vol. 8, no. 25, p. 1-80.
- VOIGT E. (1959b).- Sur les différents stades de l'astogénèse de certains bryozoaires cheilostomes.- *Bulletin de la Société Géologique de France* (Série 7), Paris, vol. 1, no. 6, p. 697-704.
- VOIGT E. (1959c).- Über *Fissuricella* n. g. (Bryozoa foss.).- *Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen*, vol. 108, no. 3, p. 260-269.
- VOIGT E. (1962a).- Neue Bryozoen aus Schreibkreide-Geschieben (Maastrichtien, Ob. Kreide) der Umgebung von Hamburg.- *Paläontologische Zeitschrift*, vol. 36, no. H. Schmidt-Festband, p. 244-253.
- VOIGT E. (1962b).- Верхнемеловые мшанки европейской части СССР и некоторых сопредельных областей [Upper Cretaceous bryozoans of the European part of the USSR and neighbouring territories].- Издательство Московского университета [Moscow University Press], Москва [Moskva], 126 p.
- VOIGT E. (1964).- A bryozoan fauna of Dano-Montian age from Boryszew and Sochaczew in central Poland.- *Acta Palaeontologica Polonica*, vol. 9, no. 4, p. 419-480.
- VOIGT E. (1966).- Die Erhaltung vergänglicher Organismen durch Abformung infolge Inkrustation durch sessile Tiere unter besonderer Berücksichtigung einiger Bryozoen und Hydrozoen aus der Oberen Kreide.- *Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen*, vol. 125, no. Festband Schindewolf, p. 401-422.
- VOIGT E. (1967).- Oberkreide-Bryozoen aus den asiatischen Gebieten der UdSSR.- *Mitteilungen aus dem Geologischen Staatsinstitut in Hamburg*, vol. 36, p. 5-95.
- VOIGT E. (1968a).- Über Immuration bei fossilen Bryozoen dargestellt an neuen Funden aus der Oberen Kreide.- *Nachrichten der Akademie der Wissenschaften in Göttingen, II. Mathematisch-Physikalische Klasse*, vol. 1968, no. 4, p. 47-63.
- VOIGT E. (1968b).- Homoeomorphy in cyclostomatous Bryozoa as demonstrated in *Spiropora* (Preliminary report).- *Atti della Società Italiana di Scienze Naturali e del Museo Civico di Storia Naturale in Milano*, vol. 108, p. 43-53.
- VOIGT E. (1968c).- On the Cretaceous age of the so-called Jurassic cheilostomatous Polyzoa (Bryozoa). A contribution to the knowledge of the Polyzoa-fauna of the Maastrichtian in the Cotentin (Manche).- *Bulletin of The Natural History Museum, Geology Series*, vol. 17, p. 1-45.
- VOIGT E. (1968d).- Zwei homeomorphe Arten der Bryozoengattung *Columnotheca* MARSSON.- *Lethaia*, vol. 1, no. 4, p. 382-401.
- VOIGT E. (1971).- The cheilostome nature of the alleged cyclostomatous bryozoan genus *Dysnoetopora*.- *Lethaia*, vol. 4, no. 1, p. 79-100.
- VOIGT E. (1972).- *Amathia immurata* n. sp., ein durch Biomuration erhaltenes ctenostomes Bryozoon aus der Maastrichter Tuffkreide.- *Paläontologische Zeitschrift*, vol. 46, no. 1-2, p. 87-92.
- VOIGT E. (1973a).- Bryozoen aus dem Santon von Gehrden bei Hannover. I Cyclostomata.- *Berichte der Naturhistorischen Gesellschaft Hannover*, vol. 117, p. 111-147.
- VOIGT E. (1973b).- Environmental conditions of bryozoan ecology of the hardground biotope of the Maastrichtian Tuff-Chalk, near Maastricht (Netherlands). In: LARWOOD G.P. (ed.), Living and fossil Bryozoa: recent advances in research. Proceedings of the International Bryozology Association Conference.- Academic



- Press, London, p. 185-197.
- VOIGT E. (1974).- Zwei neue cyclostome Bryozoen der Familie Corymboporidae (SMITT) im Cenoman von Mülheim-Broich (Ruhr).- *Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen*, vol. 146, no. 2, p. 195-220.
- VOIGT E. (1975a).- Bryozoen aus dem Campan von Misburg bei Hannover.- *Berichte der Naturhistorischen Gesellschaft Hannover*, vol. 119, p. 235-277.
- VOIGT E. (1975b).- Heteromorphy in Cretaceous Bryozoa. In: POUYET S. (ed.), *Bryozoa 1974. Proceedings of the third conference. International Bryozoology Association*.- Université Claude Bernard, Lyon, p. 77-95.
- VOIGT E. (1977a).- *Arachnidium jurassicum* n. sp., (Bryoz. Ctenostomata) aus dem mittleren Dogger von Goslar am Harz.- *Neues Jahrbuch für Geologie und Paläontologie, Abhandlungen*, vol. 153, no. 2, p. 170-179.
- VOIGT E. (1977b).- *Infundibulipora huckriedei* n. sp. (Bryoz. Cyclostomata) from the Upper Cretaceous of Iran and western Europe. (With remarks on the genus *Infundibulipora* BROOD, 1972.).- *Journal of the Palaeontological Society of India*, vol. 20, no. Jurij Alendrovich Orlov Memorial Number, p. 230-236.
- VOIGT E. (1978).- *Pachyteichopora* n. g. (Bryoz. Cyclostomata) aus der oberen Kreide.- *Paläontologische Zeitschrift*, vol. 52, no. 3-4, p. 257-270.
- VOIGT E. (1979a).- The preservation of slightly or non-calcified fossil Bryozoa (Ctenostomata and Cheilostomata) by bioimmuration. In: LARWOOD G.P. & ABBOTT M.B. (eds.), *Advances in bryozoology*.- Academic Press, London, New York, p. 541-564.
- VOIGT E. (1979b).- Bryozoen der Kunrader Schichten in Süd-Limburg (Oberkreide, Ob. Maastrichtium). I. Cheilostomata.- *Grondboor en Hamer*, vol. 2, p. 33-88.
- VOIGT E. (1980).- *Arachnidium longicauda* n. sp. (Bryozoa Ctenostomata) aus der Maastrichter Tuffkreide (Ob. Kreide, Maastrichtium).- *Neues Jahrbuch für Geologie und Paläontologie, Monatshefte*, vol. 1980, no. 12, p. 738-746.
- VOIGT E. (1981a).- Répartition et utilisation stratigraphique des bryozoaires du Crétacé moyen (Aptien-Coniacien).- *Cretaceous Research*, vol. 2, no. 3-4, p. 439-462.
- VOIGT E. (1981b).- Erster fossiler Nachweis des Algen-Genus *Fosliella* HOWE, 1920 (Corallinaeae; Rhodophyceae) in der Maastrichter und Kunrader Kreide (Maastrichtium, Oberkreide).- *Facies*, vol. 5, no. 1, p. 265-281.
- VOIGT E. (1981c).- Upper Cretaceous bryozoan-seagrass association in the Maastrichtian of the Netherlands. In: LARWOOD G.P. & NIELSEN C. (eds.), *Recent and fossil Bryozoa. Papers presented at the 5th Conference on Bryozoa Durham 1980*.- Olsen & Olsen, Fredensborg, p. 281-298.
- VOIGT E. (1982a).- Heteromorphie und taxonomischer Status von *Lopholepis* v. HAGENOW, 1851, *Cavarinella* MARSSON, 1887 und ähnlichen Cyclostomata-Genera (Bryozoa, ob. Kreide).- *Nachrichten der Akademie der Wissenschaften in Göttingen, II. Mathematisch-Physikalische Klasse*, vol. 1981, no. 2, p. 39-91.
- VOIGT E. (1982b).- *Aggregopora schmidti* n.g. n.sp. (Bryoz. Cyclostomata) aus der Ober-Maastrichtium-Schreibkreide von Hemmoor (Niedersachsen) und einige andere verwandte Formen.- *Geologisches Jahrbuch, Reihe A*, vol. 61, p. 225-257.
- VOIGT E. (1982c).- Über *Pyripora huckei* BUGE (Bryoz. Cheilostomata) in Geschieben des Holsteiner Gesteins (Unt. Miozän).- *Der Geschiebesammler*, vol. 16, no. 2, p. 49-56.
- VOIGT E. (1983).- Zur Biogeographie der europäischen Oberkreidebryozoenfauna.- *Zitteliana*, vol. 10, p. 317-347.
- VOIGT E. (1984).- Die Genera *Reteporidea* d'ORBIGNY, 1849 und *Crisidmonea* MARSSON (Bryozoa, Cyclostomata) in der Maastrichter Tuffkreide (Ob. Maastrichtium) nebst Bemerkungen über *Polyascosocia* CANU & BASSLER und andere ähnliche Gattungen.- *Mitteilungen aus dem Geologisch-Paläontologischen Institut der Universität Hamburg*, vol. 56, no. Festband Georg Knetsch, p. 385-412.
- VOIGT E. (1985a).- Bryozoaires du Crétacé supérieur trouvés dans les résidus du remplissage d'une fente karstique dans les Gorges du Nant (Vercors).- *Geobios*, Villeurbanne, vol. 18, no. 5, p. 621-655.
- VOIGT E. (1985b).- Bryozoaires du Sénonien charpentais du chantier de l'autoroute A 10 "L'Aquitaine".- *Cretaceous Research*, vol. 6, no. 1-2, p. 129-142.
- VOIGT E. (1987a).- Die Bryozoen des klassischen Dano-Montiens von Mons (Belgien).- *Mémoires pour servir à l'Explication des Cartes Géologiques et Minières de la Belgique*, vol. 17, 161 p.
- VOIGT E. (1987b).- Neue cyclostome Bryozoen aus der Maastrichter Tuffkreide (Ob. Maastrichtium).- *Paläontologische Zeitschrift*, vol. 61, no. 1-2, p. 41-56.
- VOIGT E. (1987c).- *Keratostoma niemeyeri* n. gen. n. sp., aus dem baltischen Maastrichtium, mit Bemerkungen zu *Stichocados* MARSSON, 1887 (Bryozoa, Cheilostomata, Cribrimorpha).- *Verhandlungen des Naturwissenschaftlichen Vereins in Hamburg, Neue Folge*, vol. 29, p. 143-169.
- VOIGT E. (1987d).- Thalassinoid burrows in the Maastrichtian Chalk Tuff near Maastricht (The Netherlands) as a fossil hardground microcavern biotope of Cretaceous bryozoans. In: Ross J.R.P. (ed.), *Bryozoa: Present and Past. Papers Presented at 7th International Conference on Bryozoa, Bellingham*.- Western Washington University, Bellingham, p. 293-300.



- VOIGT E. (1988).- Wachstums- und Knospungsstrategie von *Grammothoa filifera* VOIGT & HILLMER (Bryozoa, Cheilostomata, Ob. Kreide).- *Paläontologische Zeitschrift*, vol. 62, no. 3-4, p. 193-203.
- VOIGT E. (1989a).- Neue cyclostome Bryozoen aus dem Untercenomanium von Mülheim-Broich (Westfalen).- *Münstersche Forschungen zur Geologie und Paläontologie*, vol. 69, p. 87-113.
- VOIGT E. (1989b).- Beitrag zur Bryozoen-Fauna des sächsischen Cenomaniums. Revision von A.E. REUSS' 'Die Bryozoen des unteren Quaders' in H.B. GEINITZ' 'Das Elbthalgebirge in Sachsen' (1872). I: Cheilostomata.- *Abhandlungen des Staatlichen Museums für Mineralogie und Geologie zu Dresden*, vol. 36, p. 8-87.
- VOIGT E. (1991a).- Eine neue Bryozoen-Art aus dem Obercampanium von Misburg bei Hannover (vorläufige Mitteilung).- *Arbeitskreis Paläontologie Hannover*, vol. 19, no. 3-4, p. 118-123.
- VOIGT E. (1991b).- Mono- or polyphyletic evolution of cheilostomatous bryozoan divisions? In: BIGEY F.P. (ed.), *Bryozoaires actuels et fossiles: Bryozoa living and fossil*.- Société des Sciences Naturelles de l'Ouest de la France, Nantes, p. 505-522.
- VOIGT E. (1991c).- Bryozoen aus der Oberkreide Helgolands.- *Geologisches Jahrbuch, Reihe A*, vol. 120, p. 177-217.
- VOIGT E. (1992a).- Stütz-, Anker- und Haftorgane bei rezenten und fossilen Bryozoen (Cyclostomata und Cheilostomata).- *Verhandlungen des Naturwissenschaftlichen Vereins in Hamburg, Neue Folge*, vol. 33, p. 155-189.
- VOIGT E. (1992b).- Über die wahrscheinliche Funktion der Frontalwand-Tuberkeln als Distanzhalter bei cheilostomen Bryozoen (fossil und rezent).- *Verhandlungen des Naturwissenschaftlichen Vereins in Hamburg, Neue Folge*, vol. 33, p. 131-154.
- VOIGT E. (1993a).- Zwei neue Bryozoen-Genera (Cyclostomata) aus dem westfälischen Cenoman.- *Zitteliana*, vol. 20, no. Hagn/Herm-Festschrift, p. 361-368.
- VOIGT E. (1993b).- Neue cribrimorphe Bryozoen (Fam. Pelmatoporidae) aus einem Maastrichtium Schreibkreide-Geschiebe von Zweedorf (Holstein).- *Mitteilungen aus dem Geologisch-Paläontologischen Institut der Universität Hamburg*, vol. 75, p. 137-169.
- VOIGT E. (1994a).- Zwei neue Bryozoengenera (*Filicisparsa sommerae* n.g. n.sp. und *Craticulacella schneemilchae* n.g. n.sp.) aus der Oberkreide von Misburg und Höver bei Hannover und von Lägerdorf (Holstein).- *Bericht der Naturhistorischen Gesellschaft zu Hannover*, vol. 136, p. 7-25.
- VOIGT E. (1994b).- *Ceriopora*-like features in idmoneiform cyclostome bryozoans. In: HAYWARD P.J., RYLAND J.S. & TAYLOR P.D. (eds.), *Biology and palaeobiology of bryozoans*.- Olsen & Olsen, Fredensborg, p. 197-200.
- VOIGT E. (1994c).- Das Genus *Bactrellaria* MARSSEN, 1887 (Bryozoa Cheilostomata) aus Maastrichtium-Geschieben und dem Anstehenden.- *Archiv für Geschiebekunde*, vol. 1, no. 10, p. 573-588.
- VOIGT E. (1995a).- Die Bryozoen-Fauna. In: WEIDERT W.K. (ed.), *Klassische Fundstellen der Paläontologie*. Band III.- Goldschneck, Korb, p. 140-141.
- VOIGT E. (1995b).- *Diaperoecia neumeieri*, eine neue multilamelläre cyclostome Bryozoenart aus dem Turon von Zaitzkofen (Oberpfalz, Bayern).- *Mitteilungen der Bayerischen Staatssammlung für Paläontologie und histor. Geologie*, vol. 35, p. 9-26.
- VOIGT E. (1995c).- *Abdomenopora schumacheri* n.g. n.sp. (Bryozoa, Cheilostomata) aus dem Maastrichtium von Lüneburg.- *Jahrbuch des Naturwissenschaftlichen Vereins für das Fürstentum Lüneburg von 1851 e.V.*, vol. 40, p. 223-239.
- VOIGT E. (1995d).- *Septocea* n. g. (Bryozoa Cyclostomata), ein neues Kreide-Bryozogenus von Rügen und Maastricht.- *Paläontologische Zeitschrift*, vol. 69, no. 1-2, p. 173-179.
- VOIGT E. (1996a).- Eine neue multilamelläre oberkretazische *Actinopora*-Art (Bryozoa Cyclostomata) aus Geschiebe aus Norddeutschland.- *Archiv für Geschiebekunde*, vol. 2, no. 1, p. 43-56.
- VOIGT E. (1996b).- Submarine Aragonit-Lösung am Boden des Schreibkreide-Meeres.- *Mitteilungen aus dem Geologisch-Paläontologischen Institut der Universität Hamburg*, vol. 77, p. 577-601.
- VOIGT E. (1998).- *Osculipora prescheri* n. sp. (Bryozoa, Cyclostomata, Fam. Cytididae BASSLER, 1953) aus dem Baltischen Danium.- *Abhandlungen des Staatlichen Museums für Mineralogie und Geologie zu Dresden*, vol. 43/44, p. 293-303.
- VOIGT E. (1999).- Neue Bryozoen aus dem Baltischen Danium (1. Cheilostomata).- *Greifswalder Geowissenschaftliche Beiträge*, vol. 6, p. 301-325.
- VOIGT E. & EISERHARDT K.-H. (1995).- *Tervidmonea* n.gen. (Bryozoa, Cyclostomata) aus dem Paläogen Mitteleuropas.- *Paläontologische Zeitschrift*, vol. 69, no. 3-4, p. 417-427.
- VOIGT E. & ERNST H. (1985a).- *Talmontipora* n. g., ein neues aberrantes cyclostomes Bryozogenus aus der Oberkreide des aquitanischen Beckens (Frankreich).- *Nachrichten der Akademie der Wissenschaften in Göttingen, II. Mathematisch-Physikalische Klasse*, vol. 1985, no. 3, p. 101-113.
- VOIGT E. & ERNST H. (1985b).- Regressive Astogenese bei *Nudonychocella* n.g. n.sp. und anderen Bryozoen aus der Tuffkreide von Maastricht.- *Paläontologische Zeitschrift*, vol. 59, no. 1-2, p. 57-73.



- VOIGT E. & FLOR F.D. (1970).- Homöomorphien bei fossilen cyclostomen Bryozoen, dargestellt am Beispiel der Gattung *Spiropora* LAMOURoux 1821.- *Mitteilungen aus dem Geologisch-Paläontologischen Institut der Universität Hamburg*, vol. 39, p. 7-96.
- VOIGT E. & GORDON D.P. (1995).- *Ascancestor and Confusocella* - two new genera of cheilostome Bryozoa from the Upper Cretaceous with transitional frontal-shield morphologies.- *Berliner Geowissenschaftliche Abhandlungen Reihe E Paläobiologie*, vol. 16, p. 15-23.
- VOIGT E. & GORDON D.P. (1998).- *Ramicosticella* gen. nov., a new Danian genus of Arachnopodidae (Bryozoa, Cheilostomatida).- *Verhandlungen des Naturwissenschaftlichen Vereins in Hamburg, Neue Folge*, vol. 37, p. 95-104.
- VOIGT E. & HILLMER G. (1983).- Oberkretazische Hippothoidae (Bryozoa Cheilostomata) aus dem Campanium von Schweden und dem Maastrichtium der Niederlande.- *Mitteilungen aus dem Geologisch-Paläontologischen Institut der Universität Hamburg*, vol. 54, p. 169-208.
- VOIGT E. & HILLMER G. (1996).- Soft-tissue moulds preserved by bioimmuration in the new bryozoan genus *Kunradocella* (Cheilostomatida). In: GORDON D.P., SMITH A.M. & GRANT-MACKIE J.A. (eds.), *Bryozoans in space and time. Proceedings of the 10th International Bryozoology Conference*, Victoria University of Wellington, Wellington, New Zealand, 1995.- National Institute of Water and Atmospheric Research, Wellington, p. 361-366.
- VOIGT E. & SCHNEEMILCH U. (1986).- Neue cheilostome Bryozoenarten aus dem nordwestdeutschen Campanium.- *Mitteilungen aus dem Geologisch-Paläontologischen Institut der Universität Hamburg*, vol. 61, no. Ulrich Lehmann Festband, p. 113-147.
- VOIGT E. & SOULE J.D. (1973).- Cretaceous burrowing bryozoans.- *Journal of Paleontology*, vol. 47, no. 1, p. 21-33.
- VOIGT E. & VÁVRA N. (2006).- *Stylofranciopora turris* nov. gen. nov. sp. - eine neue cyclostome Bryozoe aus der Oberkreide von Schleswig-Holstein (Deutschland). In: SCHOLZ J., TAYLOR P.D. & VÁVRA N. (eds.), *Contributions to bryozoology: A tribute to Ehrhard Voigt (1905-2004)*.- Senckenbergische Naturforschende Gesellschaft, Frankfurt am Main, p. 137-148.
- VOIGT E. & VIAUD J.-M. (1983).- Bryozoaires du Sénonien de Vendée (Bassin de Challans-Commequiers).- *Géologie Méditerranéenne*, vol. 10, no. 3-4, p. 219-228.
- VOIGT E. & WILLIAMS A. (1973).- Revision des Genus *Inversaria* v. HAGENOW 1851 (Bryoz. Cheilost.) und seine Beziehungen zu *Solenonychocella* n.g.- *Nachrichten der Akademie der Wissenschaften in Göttingen, II. Mathematisch-Physikalische Klasse*, vol. 1973, no. 8, p. 140-178.
- WAHLE T. (1930).- Die cheilostomen Bryozoen aus dem Diluvium von Wierzebaum Kreis Schwerin a.d.W.- *Abhandlungen und Berichte der Naturwissenschaftlichen Abteilung der Grenzmärkischen Gesellschaft zur Erforschung und Pflege der Heimat (e.V.)*, Schneidemühl, vol. 5, p. 20-34.
- WALTER B. (1970).- Les bryozoaires jurassiques en France. Étude systématique. Rapports avec la stratigraphie et la paléoécologie.- *Documents des Laboratoires de Géologie de la Faculté des Sciences de Lyon*, vol. 35, 328 p.
- WALTER B. (1986).- Les bryozoaires fasciculés néocomiens.- *Palaeontographica Abteilung A*, vol. 195, p. 75-99.
- WATERS A.W. (1887).- On Tertiary cyclostomatous Bryozoa from New Zealand.- *Quarterly Journal of the Geological Society*, vol. 43, no. 1-4, p. 337-350.
- WEITSCHAT W. (1974).- *Pergensella geniculata* (v. HAGENOW) [Bryoz. Cycl.] in Schreibkreide- und Tuffkreide-Fazies.- *Mitteilungen aus dem Geologisch-Paläontologischen Institut der Universität Hamburg*, vol. 43, p. 61-73.
- WEITSCHAT W. & VOIGT E. (1983).- *Poroplagioecia* - ein neues Bryozoen-Genus aus dem norddeutschen Barremium (Unterkreide) (Ordo Cyclostomata).- *Verhandlungen des Naturwissenschaftlichen Vereins in Hamburg (Neue Folge)*, vol. 26, p. 37-46.
- WIESEMANN G. (1963).- Untersuchungen an der Gattung *Beisselina* CANU 1913 und ähnlichen Bryozoen (Maastrichtien, Danien, Montien).- *Mitteilungen aus dem Geologischen Staatsinstitut in Hamburg*, vol. 32, p. 5-70.
- WINSTON J.E. (2005).- Re-description and revision of SMITT's 'Floridan Bryozoa' in the collection of the Museum of Comparative Zoology, Harvard University.- *Virginia Museum of Natural History, Memoir*, vol. 7, 147 p.
- ZÁGORŠEK K. (2003).- Upper Eocene Bryozoa from Waschberg Zone (Austria).- *Beiträge zur Paläontologie*, vol. 28, p. 101-263.
- ZÁGORŠEK K. & KROH A. (2003).- Cretaceous Bryozoa from Scharrergraben (Santonian, Gosau Group, Eastern Alps).- *Geologica Carpathica*, vol. 54, no. 6, p. 1-13.
- ZÁGORŠEK K. & VODRÁŽKA R. (2006).- Cretaceous Bryozoa from Chrtníky (Bohemian Massif). In: SCHOLZ J., TAYLOR P.D. & VÁVRA N. (eds.), *Contributions to bryozoology: A tribute to Ehrhard Voigt (1905-2004)*.- Senckenbergische Naturforschende Gesellschaft, Frankfurt am Main, p. 161-177.
- ZAWISCHA D. (2004).- Kleine Besonderheiten aus der Voigtschen Sammlung, 2. Teil.- *Arbeitskreis Paläontologie Hannover*, vol. 32, no. 4, p. 107-113.
- ZUFFARDI COMERCI R. (1927).- Fauna del neo-cretacico della Tripolitania.- *Bollettino dell'R. Ufficio Geologico d'Italia*, vol. 52, no. 12, p. 1-28.