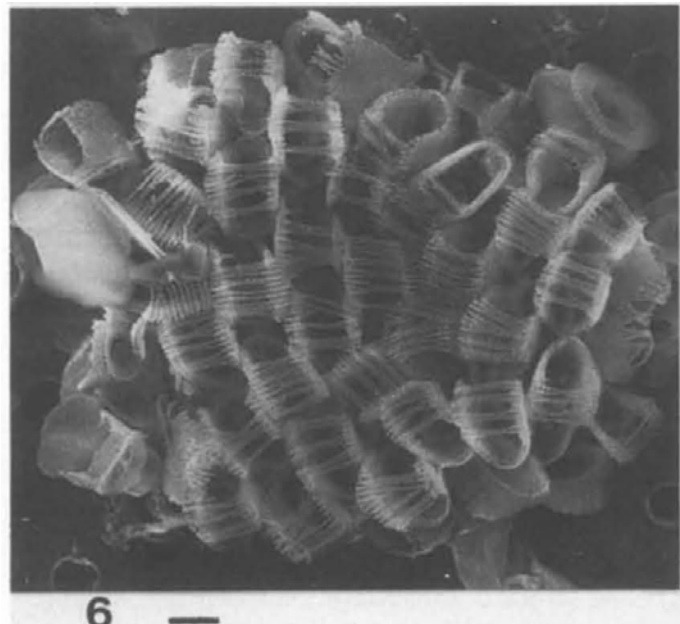
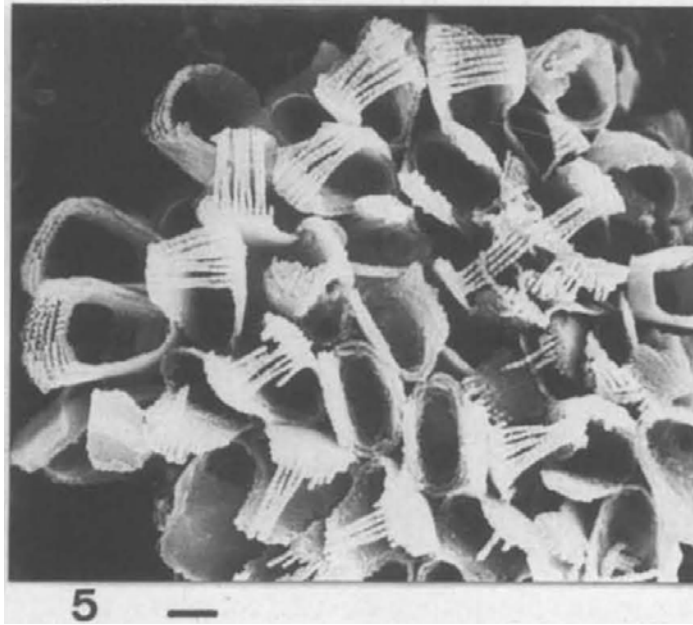
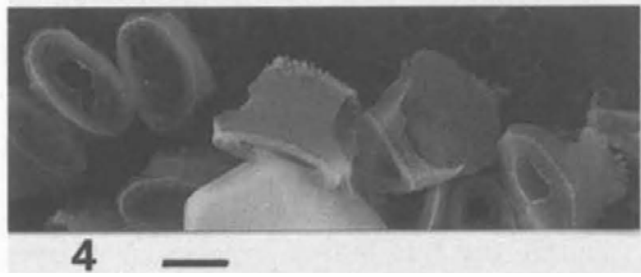
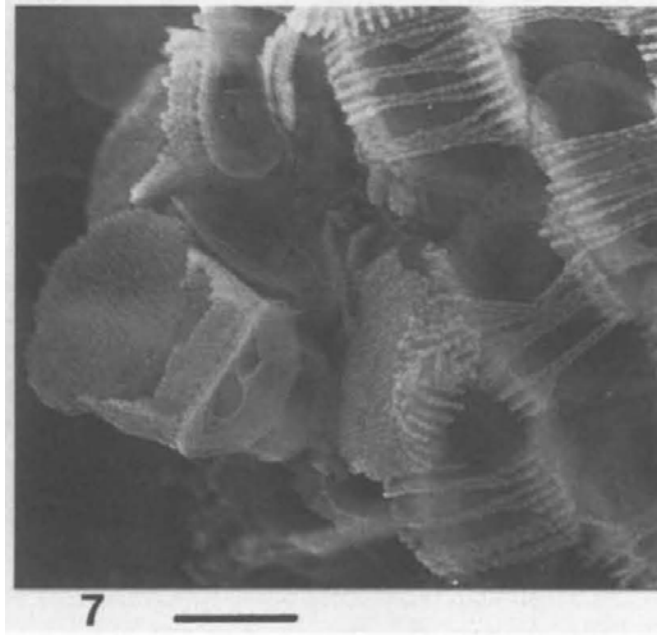


67. *Poritectolithus maximus* Kleijne (1991)





Pl. XVI, figs 4-7

*Corisphaera arethusae* Kamptner, Gaarder (1962), pp. 39-41, pl. 3.

*Corisphaera?*, Okada and McIntyre (1977), p. 28, pl. 13, fig. 6.

*Periphyllophora* sp., Nishida (1979), pl. 19, fig. 1.

*Helladosphaera arethusae* (Kamptner), Norris (1985), p. 633, figs. 43, 44.

**Diagnosis:** *Testa coccolithica constans ex holococcolithis, quorum ordinarii sunt quasi-zygolithi; longitudine 2.3-2.5  $\mu$ m, latitudine 1.8-2.3  $\mu$ m, altitudine circa 2.0-4.0  $\mu$ m. Constant ex annulo basali unistrato cum tubo proximali bistrato, lateribus rectis leviter dilatantibus distaliter. Primus annulus crystallinus tubi ordinatum perforatus serie foraminum, amplitudine unius microcrystalli. Latera longa tubi ovalis elongata distaliter, connexa per pontem constantem ex pluribus seriebus microcrystallorum, plus vel minus parallelorum. Versus aperturam stomatalem coccolithi amplificant altitudinem. Intra tubum partes laminae cum perforationibus hexagonalibus. Pars proximalis helladolithorum stomatalium similiter constructa ac in coccolithis ordinariis. Pars distalis extensa in processum bistratum, distaliter dilatantem, cuius finis fastigium parvum. Altitudo tota coccolithi 2.0-2.3  $\mu$ m.*

Dimorphic coccosphere consisting of holococcoliths. Ordinary coccoliths are zygolith-like; 2.3-2.5  $\mu$ m long, 1.8-2.3  $\mu$ m wide, about 2.0-4.0  $\mu$ m high. They consist of a single-layered basal ring, bearing a double-layered proximal tube with straight sides that slightly widen distally. The first crystal ring of the tube is regularly perforated, leaving a row of openings of 1 microcrystal width. The long sides of the oval tube are elongated distally, and are connected by a bridge consisting of several, more or less parallel strings of microcrystals. The coccoliths increase in height towards the stomatal opening. Parts of a

plate with hexagonal perforations are present inside the tube. The proximal part of the stomatal heliocoliths is similarly constructed as in ordinary coccoliths; the distal part is extended in a double-layered, distally widening process. This broad process ends in a small peak. Total coccolith height 2.0-2.3  $\mu\text{m}$ .

**Holotype:** Plate XVI, 6, 7.

**Paratypes:** Plate XVI, 4, Station T86-C-51-A and Plate XVI, 5, Station GO-135.

**Type locality:** 28°33.6'N, 38°44.9'W (Station T86-17R, 45C-A, central North Atlantic Ocean), depth 45 m.

**Derivation of name:** "*maximus*" (L.), highest, biggest; referring to the extensive height of the ordinary coccoliths.

**Number of specimens studied:** 3.

**Remarks:** This species resembles *P. poritectum* in having the same basic structure, including the plate with the hexagonal pattern (which is not shown in the micrographs), and in having ordinary coccoliths of variable height. It differs from that species in having larger coccoliths, and in having stomatal coccoliths with a distally widening instead of a tapering appendix. Another difference is that the tube wall and the elongated sides are double-layered, whereas in *P. poritectum* only the elongated sides of the tube are double-layered.

**Distribution:** Not found during Cruise Gx. Cruise GO: a single specimen at Station GO-135, Arabian Sea. Cruise APNAP I: two single specimens at Stations T86-C-51-A and T86-17R, 45, C-A, central North Atlantic.

**Previous research:** North Atlantic (Gaarder, 1962), Indian Ocean (Norris, 1985), Pacific (Okada and McIntyre, 1977; Nishida, 1979).

Kleijne, A., 1991. Holococcolithophorids from the Indian Ocean, Red Sea, Mediterranean Sea and North Atlantic Ocean. *Marine Micropaleontology*, **17**: 1-76.