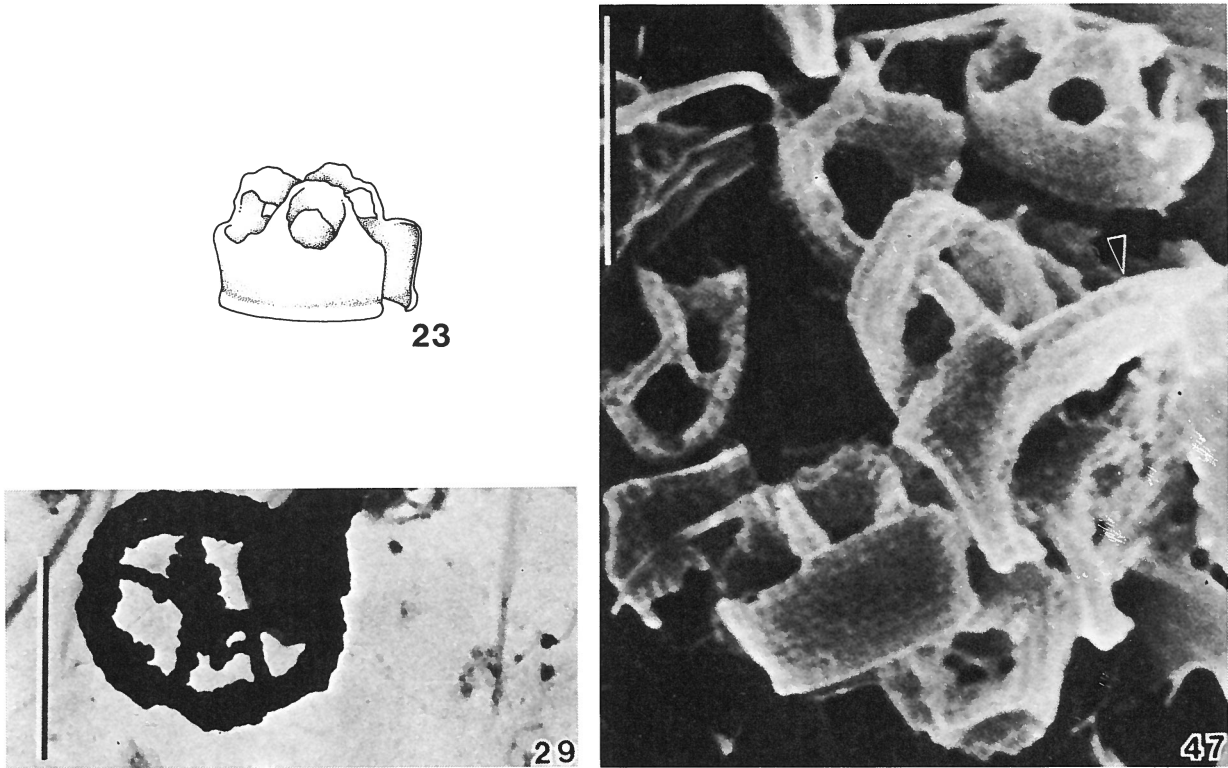


Helladosphaera pienaarrii NORRIS, 1985



Figs. 23, 29, 47 - *Helladosphaera pienaarrii* n. sp.

Fig. 23) A zygolith having two bridges crossing at right angles on the distal side, characteristic of ordinary coccoliths of *Helladosphaera pienaarrii*. Fig. 29) A single coccolith showing irregular bridging in the central area. TEM, sta 143 A. Fig. 47) Several ordinary coccoliths (2 bridges occurring at right angles forming a quadri-arched structure and leaving four large pores) and a single stomatal helladolith (arrow). SEM, Sta, 126A.

Description:

Holococcolithophoridi zygolithos usitatos quadri-arcuatos, ambitu ellipticos, (circa $1 \times 0,7 \mu\text{m}$ atque $0,9 \mu\text{m}$ alt.), membrana laterali quasi $1/2$ alt. ac coccolithus praeditos, habentes. Arcus verticaliter applanati in centro area centralis conveniunt, lamellis arcuum altitudine 4-8 elementorum, et parte centrali, ubi arcus conveniunt, interdum, satis depressa (Figurae 23, 47). Helladolithii stomatales transectionales potius quam parietales visi, et e frusto cuneiforme membranae lateralis exoriuntur, hoc frusto e membrana humile e solum duobus tribusve elementis regionibus in aliis constituta, enascente. Coccolithi circa 24 elementa in $1 \mu\text{m}$ eventa habent.

Holococcolithophorids usually having quadriarched ordinary zygoliths, elliptical in outline (approximately $1 \times 0,7 \mu\text{m}$ and up to $0,9 \mu\text{m}$ high) having a lateral wall that is approximately $1/2$ as high as the coccolith. The vertically flattened arches meet in the center of the central area, the arch plates being from 4-8 elements high and the central part, where the arches meet, sometimes being depressed (Fig. 23,47). The stomatal

helladoliths are transectioning rather than parietal and arise from a wedge-shaped lateral wall piece that arises from a low wall of only two or three elements in other regions. Coccoliths have approximately 24 elements occurring in 1 μm .

Remarks:

It seems likely that the coccoliths illustrated by Kling [1975, Pl. 3, Figs. 15, 16 (as *Helladosphaera* sp. cf. *aurisinae*)] are *H. pienaarii*.

Type level:

Recent.

Type locality:

The type specimen was found in salp's gut contents, Station 126A, R/V *Anton Bruun*, International Indian Ocean Expedition (26 June 1963; 25°01'S, 69°30'E). Additional specimens of this species were found at Stations 102, 136A, and 143A.

Depository:

Not given.

Holotype: fig. 47.

Author:

Norris R.E., 1985, p. 635; figs. 23, 29, 47.

Reference:

Indian Ocean nannoplankton. II. Holococcolithophorids (Calyptosphaeraceae, Prymnesiophyceae) with a review of extant Genera. *J. Phycol.*, vol. 21, pp. 619-641, 57 text-figs.