

Hornibrookina EDWARDS, 1973

Description:

Placoliths with three or four segment cycles forming a low, double flanged, elongate oval dish, having a large proximally positioned central cycle constructed of two parallel segment rows arranged normal to a prominent major axial plane of symmetry. The central cycle is enclosed by an oval wall of steeply dipping, imbricate laths. The wall is, in turn, distally and proximally rimmed by two narrow shields constructed of abutting segments. The distal shield is formed from a segment cycle distinct from that of the tube.

Type species:

Hornibrookina teuriensis EDWARDS, 1973.

Remarks:

This genus is easily distinguished from all previously described placoliths by its uniquely constructed central cycle. Consequently its exact systematic position is uncertain and it may prove to belong to a new family. For the present it is tentatively placed in the Coccolithaceae on the grounds that it is a placolith with a distal shield which is dark under crossed polarised light. Despite several attempts no electron micrographs of the type species have been obtained. However, an electron micrograph (fig. 82) of another, as yet unnamed, species of *Hornibrookina*

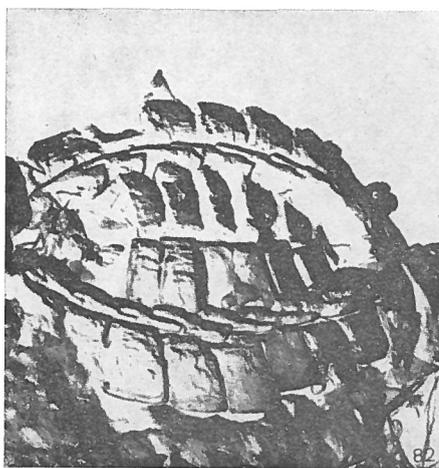


Fig. 82 — *Hornibrookina* sp. „Specimen”, N1300 (N150/f1116, *Discoaster mediosus* Zone, Te Uri Stream). PEL 2293/10, oblique distal view, x 14250.

present in the early Waipawan (late Paleocene) *Discoaster mediosus* Zone at Te Uri Stream has been obtained. Although of a corroded and damaged specimen, this figure confirms light microscope-based deductions that in *Hornibrookina* the central area, wall and distal shield are formed from separate segment cycles. It does not indicate whether the proximal shield forms

a fourth cycle, as light microscopic observations suggest, or forms an integrated cycle with the tube, or less likely, the distal shield. The shield segments of this species are reminiscent of those on the rim of late Mesozoic pseudorhabdolites such as *Deflandrius cretaceus* (ARKHANGELSKII) with which it is most unlikely to be closely related.

Author:

Edwards A.R., 1973, p. 77.

Reference:

Key species of New Zealand calcareous nannofossils. New Zealand Journal of Geology and Geophysics. vol. 16, n° 1, pp. 68-89, figs. 1-88.