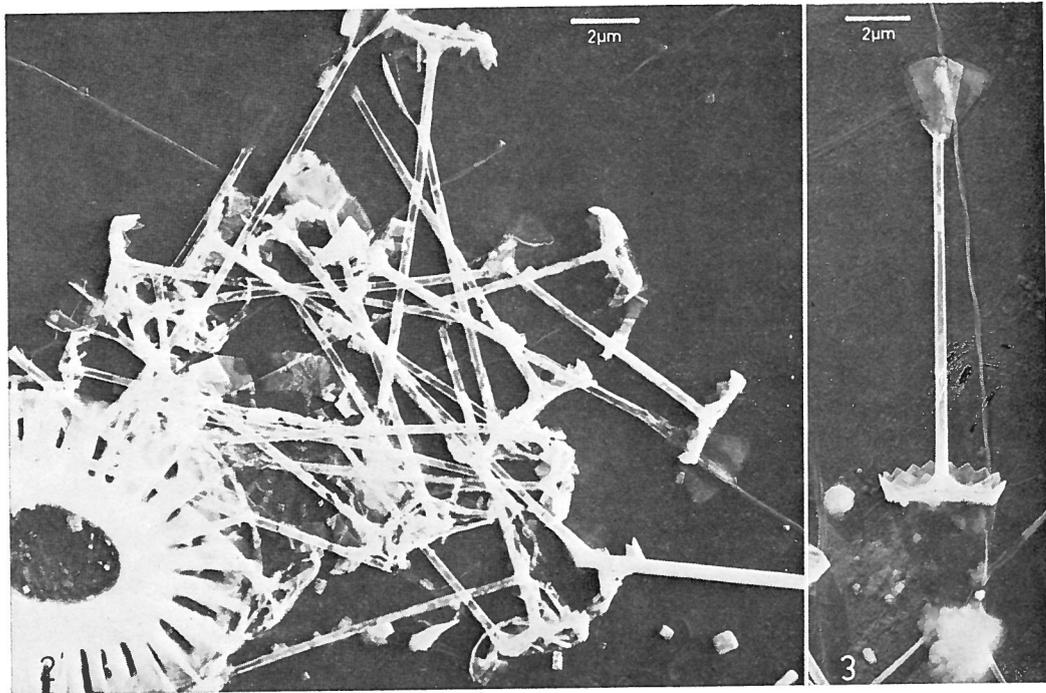


Papposphaera thomsenii NORRIS, 1983



Figs. 2, 3 — *Papposphaera thomsenii*. 2) A group of styliform pappoliths all having a conical distal appendage. Some central area element structure can be seen in the lowermost coccoliths. 3) A single pappolith having a conical distal appendage. The upright marginal rim elements are evident as are the process buttress and the hollow nature of the shaft.

Description:

Coccosphaerae e pappolithis styliformibus compositae, omnibus fere eiusdem structurae. Processus coccolithia usque ad 6 μm longi; quorum longitudo componitur partim e fistula cava processus ipsius quae 4 μm extendit, partim ex elementis distalibus erectis 2 μm extendentibus. Elementa distalia 4 in processu sunt cuneiformia marginibus distalibus rotundis, quae omnia una appendicem efficiunt infundibuliformem. Coccolithicus discus basalis rotundus figura, labrum habet e 16 elementis erectis compositum; quae elementa forma quidem trianguli aequilateralis in quadrato superimpositi similia sunt, et in eisdem elementis imis sita est series elementorum humilium et parvorum et triangularium, quorum angulus obtusus est ad suturam inter elementa erecta posita. Pars autem media plerumque aperta sed 4 seriebus elementorum rectangularium intersecta fulcrum in imo processu efficientium. Coccosphaerae integrae et cellae viventes observatae non sunt.

Cells comprised of styliform pappoliths, all having approximately the same structure. Coccolith processes are up to approximately 6 μm long. 5 μm being the length of the hollow process shaft and 1 μm being the upright distal elements. The 4

distal elements on the process are cuneiform with rounded distal edges, together forming an infundibuliform appendage. Coccolith basal disc circular in outline, having a rim of 16 upright, chevron-shaped elements. A row of low, small, triangular to rectangular elements lies at the base of these elements, the obtuse angle at the suture between the upright elements. Central area mostly open but crossed by four rows of rectangular elements that form a buttress at the base of the process. Entire coccospheres and living cells were not observed. Collected within the gut of a salp, surface sample, Station 132D (I.I.O.E., *Anton Bruun*).

Remarks:

Papposphaera thomsenii is probably closely related to the type species of the genus, *P. lepida* TANGEN, but the new species differs in the infundibuliform distal appendage on the coccolith processes, the absence of a "wristlet" of elements at the distal end of the process stalk and the slightly differently shaped elements of the proximal ring of the coccolith disc.

Type level:

Recent.

Type locality:

Indian Ocean.

Second Cruise of the R/V Anton Bruun, participating in the International Indian Ocean Expedition, at the following stations: station 131A, 35°57' S, 79°04' E, July 1 1963, surface water temp. 15°C; and station 132D, 31°08' S, 78°23' E, July 4 1963, surface water temp. 18°C.

Depository:

Department of Botany, University of Washington, Seattle.

Holotype: Fig. 3.

Author:

Norris R.E., 1983, p. 166, figs. 2, 3.

Reference:

The family position of *Papposphaera* Tangen and *Pappomonas* Manton & Oates (Prymnesiophyceae) with records from the Indian Ocean. *Phycologia* (1983) Vol. 22, no. 2, pp. 161-169, figs. 5, tbs. 1.