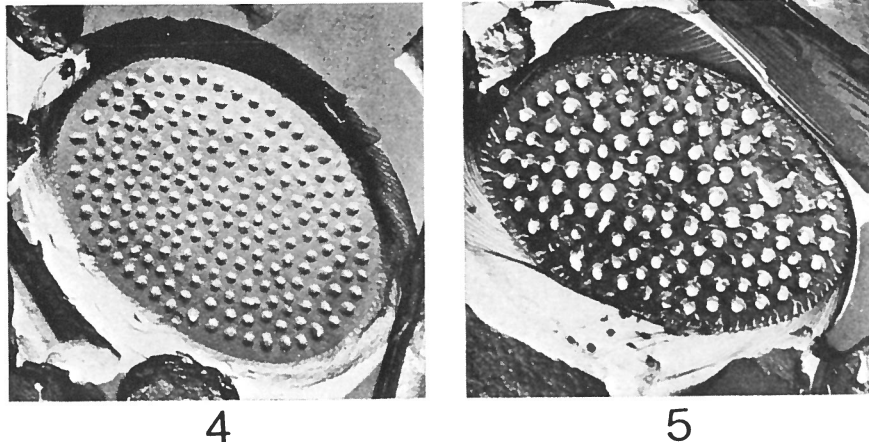


Pontosphaera pacifica BURNS, 1973



Figs. 4,5 - *Pontosphaera pacifica* n. sp.
4) holotype: PEL 2445/36, proximal surface, $\times 5800$; 5) proximal surface, $\times 7600$.

Description:

Diagnosis: Elliptical concave-convex cribriliths with central area perforations arranged in five or more concentric rings, the peripheral ring possessing 45-46 perforations.

Description: The cribriliths are elliptical in outline showing the typical flange construction described for the genus. The central area has a two-layered structure with a finely crenulated rim and narrow (0.34μ wide) unperforated marginal band (Pl. 1, fig. 4). Inside this band the remainder of the central area has five or more rings of perforations which are concentric with the peripheral outline of the coccoliths (Pl. 1, figs. 4,5). Each individual perforation is circular in transverse section but conical in longitudinal section and vary in proximal surface diameter (Pl. 1, figs. 4,5) according to the specimen preservation.

A central suture line easily recognisable in the phase contrast microscope traverses two-thirds the central area major axis.

Dimensions: Holotype — Major axis diameter from outer flange edge, 9.8μ . Small axis diameter of the central area, 8.0μ .

Paratypes (variations) — Major axis diameter of central area, $6.5-9.0\mu$.

Remarks:

This new species is in many ways intermediate in structure between *Pontosphaera alboranensis* BARTOLINI, 1970 (Pl. 1, figs. 1, 2) and *Pontosphaera discopora* SCHILLER (Pl. 1, fig. 6). However, the structure of this new form is sufficiently constant and different from these other two species to warrant attribution as a new species.

Pontosphaera pacifica is distinguished from *P. alboranensis* by the greater diameter and lower number of central area perforations which are arranged into five or more definite rings and not randomly dispersed on the central area as in *P. alboranensis*. It can be further separated from that species by its more elliptical outline and straight rather than

S-shaped elements forming the lamellar flange. The number and arrangement of the central area perforations can also be recognised in this species under phase contrast microscopy, whereas they cannot in *P. alboranensis*.

Pontosphaera pacifica is distinguished from *P. discopora* SCHILLER, as demonstrated by Hay and Boudreaux (1969: 271, pl. vi, figs. 1, 2) by its greater number of perforation rings, higher number of perforations per ring, narrower peripheral unperforated margin to the central area and particularly by the smaller diameter of the central area perforations, measured at the proximal surface.

Type level:

Recent.

Type locality:

South West Pacific Ocean.

Depository:

NZOI Holotype No. 132 and PEL No. 2445/36.

Author:

Burns D.A., 1973, p. 150; pl. 1, figs. 4,5.

Reference:

Structural Analysis of Flanged Coccoliths in Sediments from the South West Pacific Ocean.
Revista Española de Micropaleontología, vol. 5, no. 1, pp. 147-160, 2 pls., 1 text-fig.