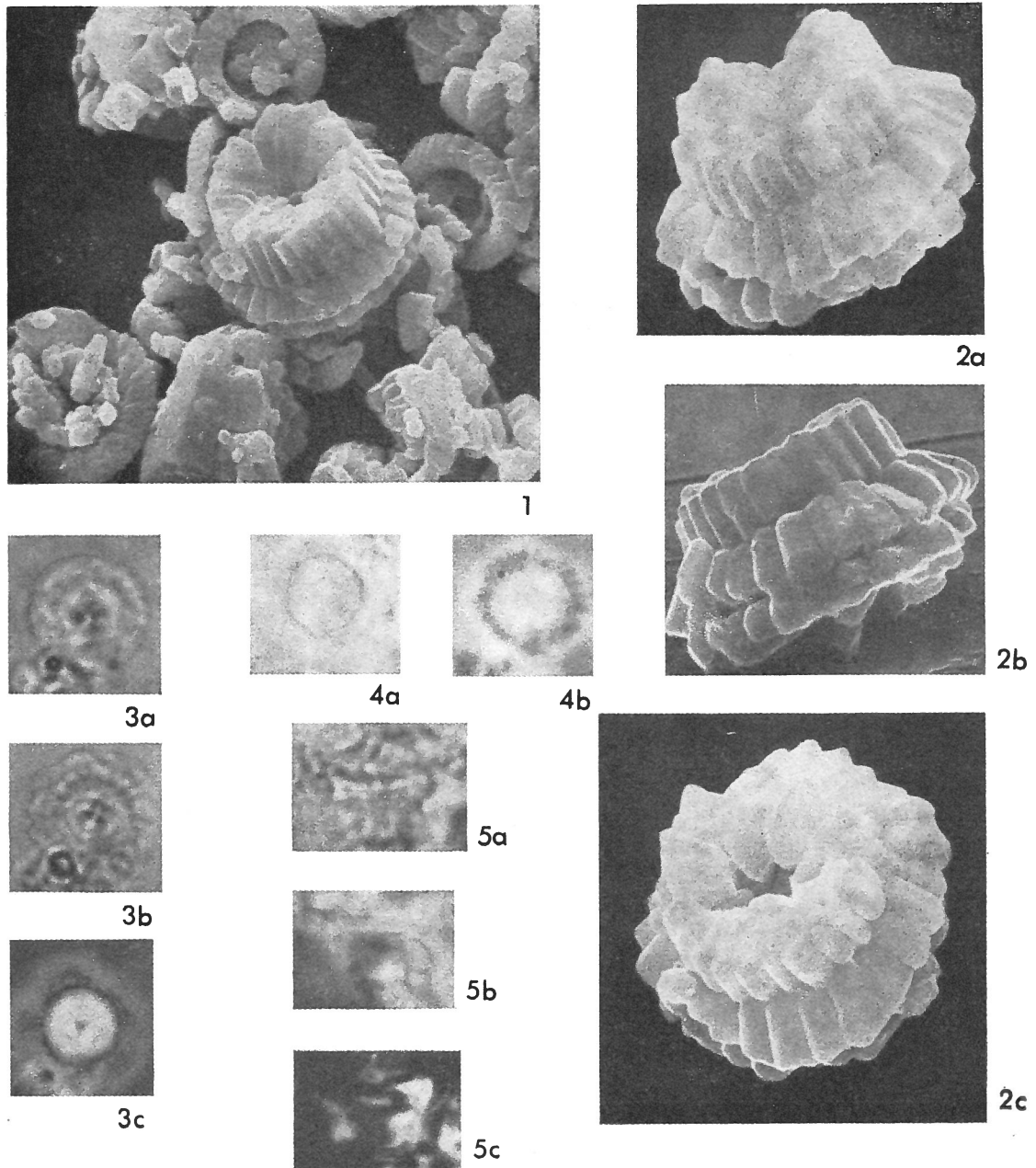


Bomolithus elegans ROTH, 1973



Figs. 1-5 — *Bomolithus elegans* n. sp. Scanning electron and light micrographs of a new Paleocene nannofossil (*Discoaster mohleri* Zone); Sample 167-38, CC. 1) Oblique distal view. Holotype: USNM 188118. In the lower left side view of moderately overgrown *Fasciculithus tympaniformis*. x 4300. 2) Paratype: USNM 188119, (a) oblique distal view, (b) side view, (c) slightly oblique distal view. x 9000. 3) Light micrographs. Paratype: USNM 188120. (a) ordinary light, high focus, (b) ordinary light, median focus (c) phase contrast, high focus. x 2500. 4) Paratype: USNM 188121. (a) ordinary light, high focus, (b) phase contrast, median focus. x 2500. 5) Side view. Paratype: USNM 188122, (a) ordinary light, (b) phase contrast, (c) crossed nicols. x 2500.

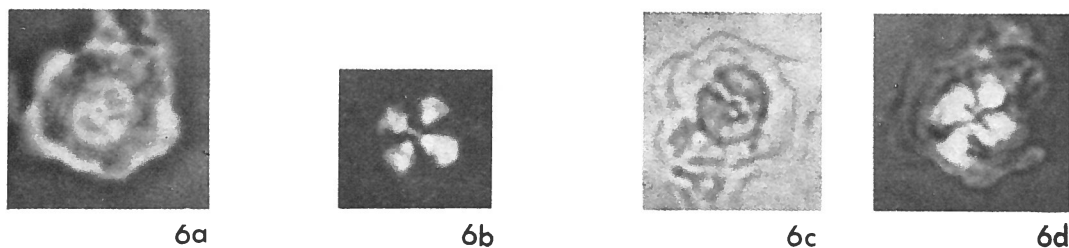


Fig. 6 — *Bomolithus elegans* n. sp. Paratype: USNM 188123, somewhat overgrown, (a) phase contrast, (b) crossed nicols (note that only the distal shield shows birefringence), (c) ordinary light, high focus, (d) crossed nicols, analyzer rotated 10°. x 2500.

Description:

The upper cycle is the highest one and is composed of about 24 irregular wedge-shaped elements which slope towards a crater-like central depression. Not all the elements reach the center. There is an irregular hole in the center of the depression. The next lower cycle consists of about 24 tabular sinistrally imbricate elements which slope towards the periphery of the coccolith. The next lower cycle seems to be of the same basic construction. So far it has only been observed in side view. In the light microscope under cross-polarized light only the central part (i.e., the upper cycle) is bright with a dark cross with practically straight arms. The two lower cycles are extinct.

Dimensions: diameter 7.5 μ .

Remarks:

Heliolithus riedelii BRAMLETTE & SULLIVAN differs from *Bomolithus elegans* n. sp. in having two conical shields both of which are bright under crossed nicols. *Bomolithus elegans* n. sp. has a cylindrical upper cycle with two lower cycles attached to it and only the center is bright in cross-polarized light.

Type level:

Discoaster mohleri Zone, Paleocene.

Occurrence: Only observed in the *Discoaster mohleri* Zone, Magellan Rise, central Pacific.

Type locality:

DSDP Site 167-38 core catcher sample, Magellan Rise, central Pacific.

Depository:

United States National Museum.

Holotype: fig. 1 (USNM 188118); paratypes: figs. 2-6 (USNM 188119-188123).

Author:

Roth P.H., 1973, p. 734, pl. 15, figs. 1-6.

Reference:

Calcareous nannofossils-Leg 17, Deep Sea Drilling Project. Initial Reports of the Deep Sea Drilling Project, vol. 17, n° 23, pp. 695-795, 27 pls., 2 figs., 9 tabs.