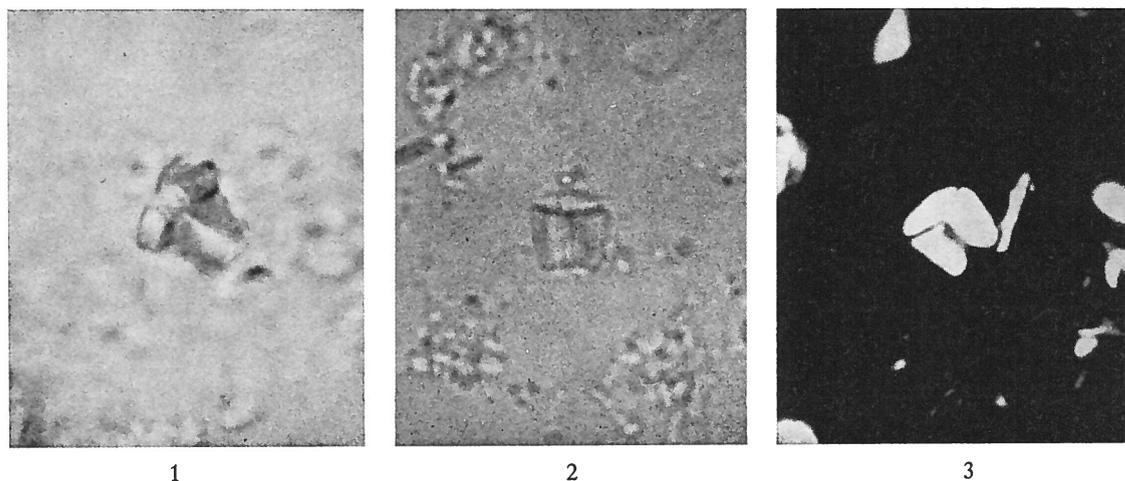


Fasciculithus pileatus BUKRY, 1973

Discoasteroides megastypus BRAMLETTE & SULLIVAN. Prins, 1971, Second Plank.

Conf. Proc., pl. 6, figs. 12A-C.

Fasciculithus sp. cf. *F. ulii* PERCH-NIELSEN. Roth, 1973, Deep Sea Drilling
Proj. Initial Repts., v. 17, pl. 16, figs. 1a-c.



Figs. 1-3 — *Fasciculithus pileatus* n. sp. 1) USNM 188517, DSDP 199-10-2, 34-35 cm; bright field, 45°. 2) Holotype, USNM 188514, DSDP 199-10-2, 34-35 cm; bright field, 0°. 3) cross-polarized, 45°. x 2000.

Description:

Fasciculithus pileatus is a medium-sized species with smooth straight walls that expand from the base to the apex. Therefore, the body is basically a truncated cone. A large, convex-topped, lens-shaped cap covers the entire top of the body and can extend beyond it. A central stud may connect the cap and body in some specimens. In cross-polarized light, side views have a straight dark line bisecting the body and a straight dark line separating the body and cap, forming three bright areas.

Size: 5-12 microns.

Remarks:

Fasciculithus pileatus is unique among other species of the genus owing to its strong-relief three-part division in side view. The only similar species, *F. ulii*, is distinguished by its concave body walls and small flat-topped apex that fails to cap the entire body and gives only weak optical relief in side view. Examination of samples from the type core of *F. ulii*, DSDP 119-25 [not DSDP 119-37 as was indicated in the captions of the type illustrations; Perch-Nielsen, 1971], confirms these distinctions. No wholly and brightly capped *Fasciculithus* specimens occur in DSDP 119-25-1, 133-134 cm or DSDP 119-25-2, 65-66 cm. *F. pileatus* is distinguished from potential overgrowth forms of *F. ulii* by the cap acting as a single crystalli-

graphic unit, instead of bilateral units in crosspolarized light. Its long stratigraphic range through the Paleocene is matched only by *F. tympaniformis*, a conservative, parallel-sided, cylindrical form with no distinctive ornamentation.

Type level:

Paleocene.

Occurrence: *Fasciculithus pileatus* is presently known from the Paleocene of tropical parts of the Pacific, Indian, Atlantic, and Caribbean. It occurs in DSDP 199-10-2, 34-35 cm; 199-9, CC; and 199-7-1, 76-77 cm, in the *Discoaster multiradiatus* Zone. It occurs in the *Heliolithus kleinpellii* Zone in DSDP 144A-3A-3, 114-115 cm and in the *Fasciculithus tympaniformis* Zone in DSDP 237-50-1, 55-56 cm; 167-39-1, 115-116 cm; and 152-7-4, 105-106 cm; and reworked into the middle Eocene of DSDP 171-9-3, 90-91 cm.

Type locality:

Caroline Abyssal Plain (DSDP 199-10-2, 34-35 cm).

Depository:

United States National Museum.

Holotype: USNM 188514; paratypes: USNM 188515 to 188517.

Author:

Bukry D., 1973, p. 307; pl. 1, figs. 7-9; pl. 2, figs. 1-5.

Reference:

Phytoplankton stratigraphy, Deep Sea Drilling Project Leg 20, Western Pacific Ocean. Initial Reports of the Deep Sea Drilling Project, vol. 20, pp. 307-317, pls. 1, 2; text-fig. 1.