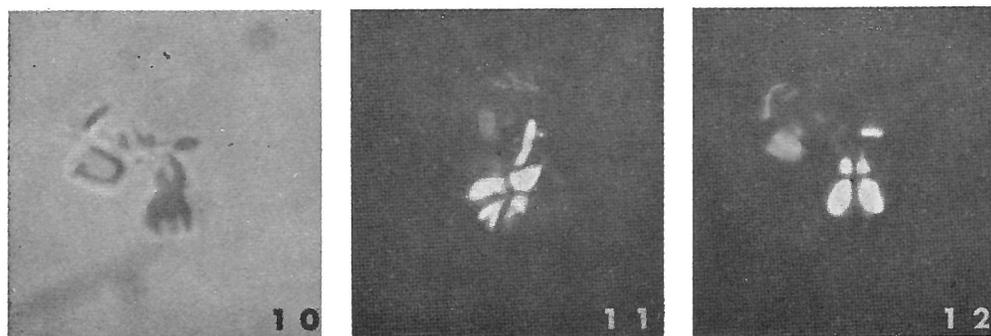


Sphenolithus spiniger BUKRY, 1971



Figs. 10-12 — *Sphenolithus spiniger* n. sp., x 2,000. 1) USNM 176917, DSDP 44.0-4-6, 145-146 cm, cross-polarized, 45°, 2) cross-polarized, 0°. 10) holotype USNM 176916, DSDP 44.0-4-6, 145-150 cm, 90°, 11) holotype, cross-polarized, 45°, 12) holotype, cross-polarized, 0°.

Description:

This small species is dominated by a basal ring of spines. In cross-polarized light, the lower basal quadrants are about twice as tall as the upper basal quadrants. The apical structure appears to be a single small spine that is bright at 45° and dark black, when oriented parallel with a polarization direction. When the nannofossil axis is oriented parallel with a polarization direction, the median extinction band is flared near the base of the specimen, giving the large lower quadrants a rounded appearance. At 45° to the polarization directions, the area occupied by the dark flare of 0° or 90° contains two bright spines that form an inverted “v” and that are outlined by black extinction bands.

Dimensions: width 4-5 microns; height 5-6 microns.

Remarks:

Sphenolithus spiniger is distinguished from other species of *Sphenolithus* by the unique optical pattern of the basal spines in cross-polarized light and also by the small size and vestigial apical structure. It is distinguished from *S. dissimilis* BUKRY & PERCIVAL by the triangular outline, the smaller apical structure, and the smaller upper quadrants of the basal structure.

Type level:

Upper Middle Eocene.

Occurrence: *Sphenolithus spiniger* is common in upper middle Eocene sediment of Horizon Ridge in the northwestern Pacific Ocean.

Type locality:

DSDP 44.0-4-6, 145-150 cm, Horizon Ridge, northwestern Pacific Ocean.

Depository:

United States National Museum.

Holotype: USNM 176916 (figs. 10-12); paratype: USNM 176917.

Author:

Bukry D., 1971, p. 322; pl. 6, figs. 10-12; pl. 7, figs. 1, 2.

Reference:

Cenozoic Calcareous Nannofossils from the Pacific Ocean. San Diego Soc. Nat. Hist., Trans., vol. 16, (14), pp. 303-327; 7 pls., 3 tabs.