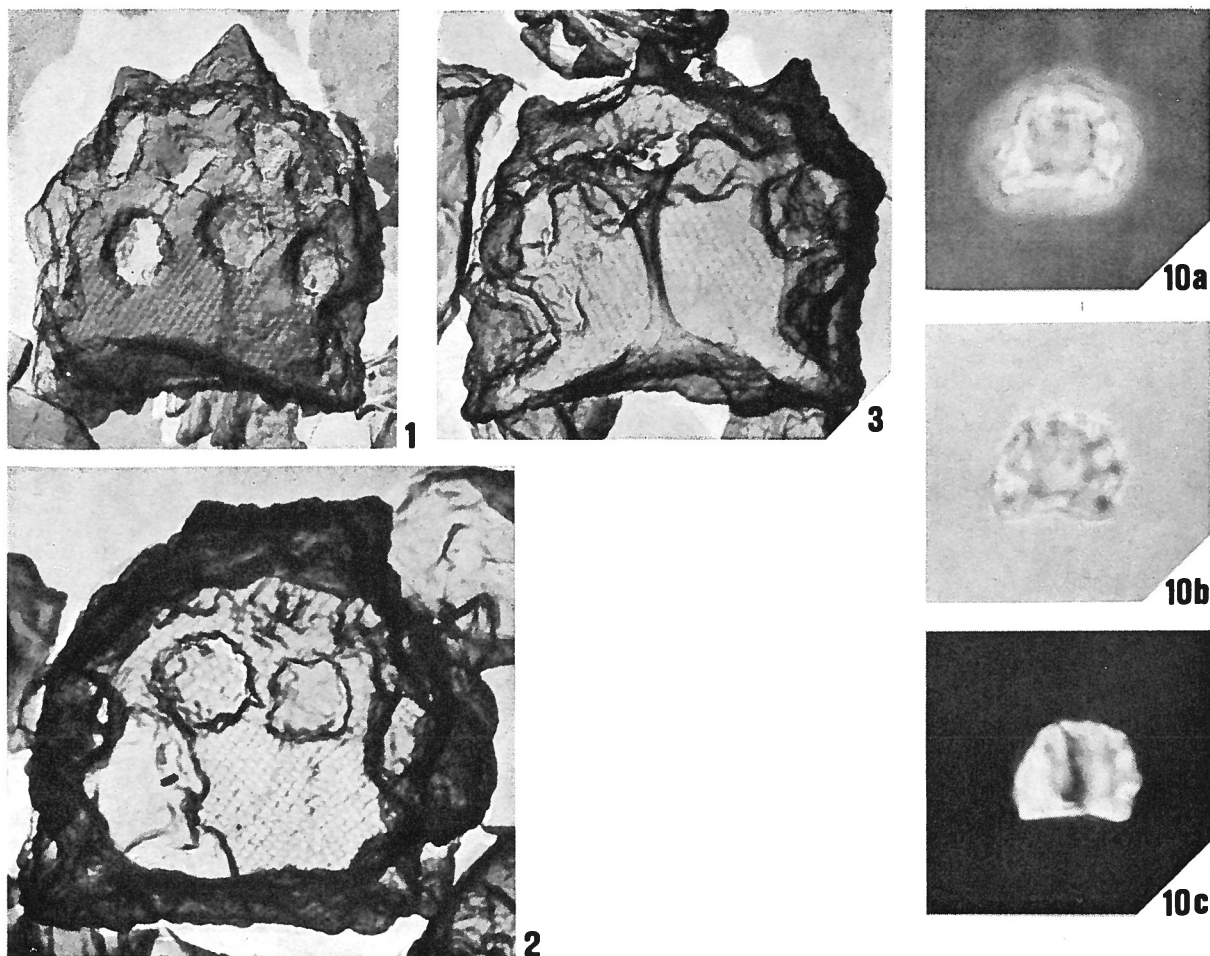


*Dakylethra punctulata* GARTNER, 1969



Figs. 1-3, 10 — *Dakylethra punctulata* GARTNER n. sp., from the Lisbon Formation in Alabama. 1-3) electron micrographs, (1) side view, x 9000, (2, 3) side view, x 10,000; 10) light micrographs, x 2,500, side view, (10a) phase contrast, (10b) transmitted light, (10c) cross-polarized light.

**Description:**

Small helmet-shaped calcareous body with a slightly constricted concave base and elliptical cross-section. The surface is studded with circular pits and usually bears short spike-like projections.

**Remarks:**

*Dakylethra punctulata* is a holococcolith and is constructed of tightly packed uniform-size calcite crystallites which measure about  $0.1 \mu$  in diameter. In light micrographs it can be

seen that the species has a distinct wall, studded with pits and spikes, and a completely enclosed ovoid center. The wall, the pits, and the spikes are constructed of minute calcite crystallites arranged on a spherically symmetrical plan. The ovoid center appears to be filled with clear calcite.

*Daktylethra punctulata* bears no resemblance to any known species of calcareous nannofossil but does resemble somewhat several modern species of *Homozygosphaera*, viz. *Homozygosphaera tholifera* (KAMPTNER), which also is a holococcolith and is constructed of hexagonal calcite crystallites about 0.1  $\mu$  in diameter (see Halldal and Markali, 1955, pl. 6).

**Type level:**

Middle Eocene.

Occurrence: This species was recorded only from the middle Eocene Lisbon Formation at Little Stave Creek in Alabama. M. N. Bramlette has found the species also in the upper Eocene Sovind marl of Denmark and in the upper Eocene of the Crimea (personal communication).

**Type locality:**

Lisbon Formation at Little Stave Creek in Alabama, U.S.A.

**Depository:**

Not given.

**Author:**

Gartner S., Jr. in Gartner S., Jr. and Bukry D., 1969, p. 1219; pl. 141, figs. 1-3; pl. 142, fig. 10.

**Reference:**

Tertiary Holococcoliths. Jour. Paleont., vol. 43, n<sup>o</sup> 5, pp. 1213-1221, pls. 139-142.