

**Chiasmolithus titus** GARTNER, 1970

1967 *Coccolithus consuetus* BRAMLETTE & SULLIVAN, Levin and Joerger, *Micropal.*, vol. 13, p. 164; pl. 1, figs. 1a-b (not Bramlette and Sullivan, 1961).

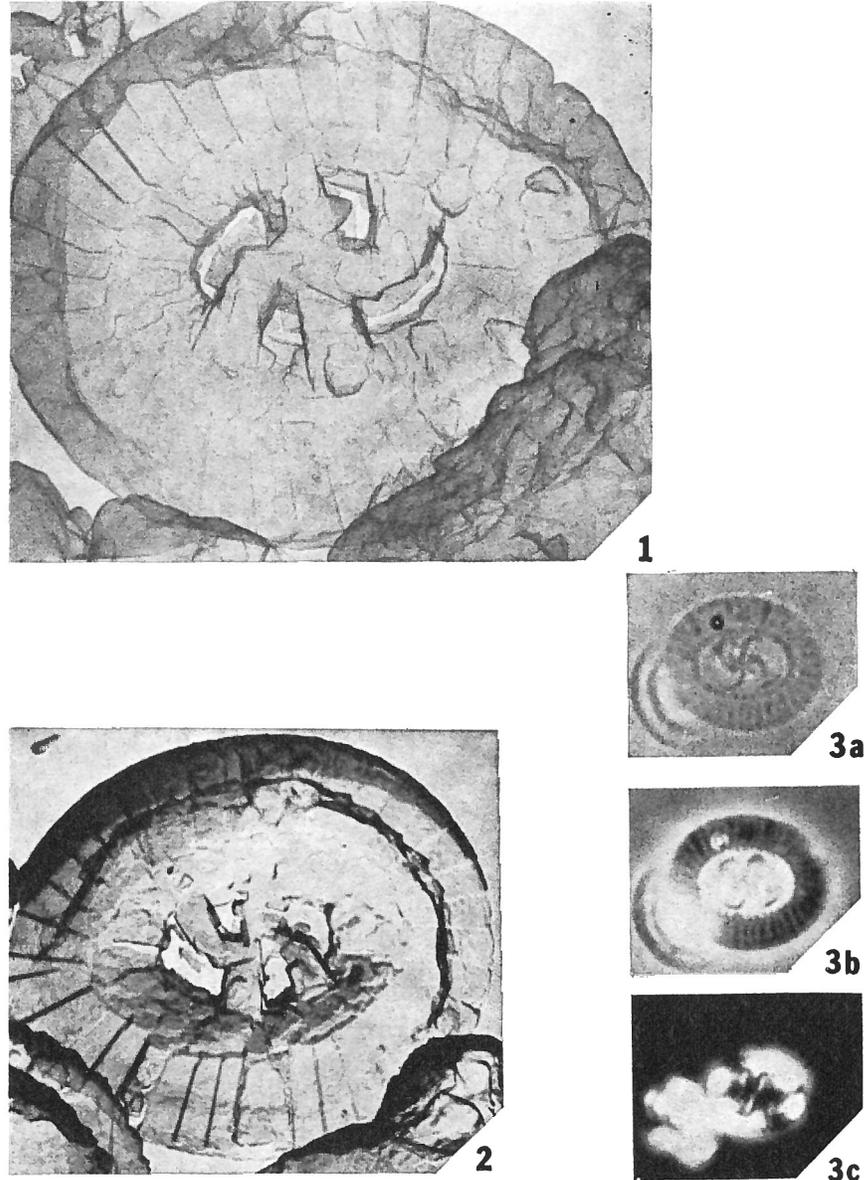


Fig. 17 — *Chiasmolithus titus* n. sp.; 1, 2) Electron micrographs of carbon replicas, x 10,000. (1) distal side of specimen from JOIDES Blake Plateau core J-6, 251 feet. (Print is left-right reversed); (2) distal side of specimen from the Shubuta member of the Yazoo Clay, Mississippi (Holotype). 3) Light micrographs of specimens from the Shubuta member of the Yazoo Clay, Mississippi, x 2,500. (a) transmitted light, (b) phase contrast, (c) cross-polarized light.

**Description:**

Elliptical placolith with open center spanned by two crossbars; one crossbar member is straight and diagonal, the other crossbar member is S-shaped.

**Remarks:**

*Chiasmolithus titus* is a medium sized placolith species which is most easily distinguished by the shape of the crossbars. The S-shaped crossbar is subparallel to the short axis of the ellipse at the points where it is attached to the inner margin of the central tube. This same crossbar bends sharply, however, so that its middle segment is approximately aligned with the long axis of the ellipse. The other crossbar is straight, and diagonal with respect to the ellipse. The crossbars are constructed of tabular prisms stacked on top of each other and in cross-polarized light they appear unsplit. The shields are constructed of about 37 elements and the sutures are slightly inclined. The maximum diameter of the species is 6.5 to 8.5  $\mu$ .

**Type level:**

*Chiasmolithus titus* occurs from near the base of the Middle Eocene on up through the Upper Eocene. This species is never very abundant and may be encountered only sporadically over most of its range. It is exceptionally well developed at the type locality of the Shubuta Member of the Yazoo Clay, in Mississippi and in the Lisbon Formation at Little Stave Creek, Alabama.

**Type locality:**

Shubuta Member of the Yazoo Clay, Mississippi, U.S.A.

**Depository:**

Not given. Holotype: Fig. 17-(2).

**Author:**

Gartner S., Jr., 1970, p. 945, Fig. 17 (1, 2, 3a, b, c).

**Reference:**

Phylogenetic Lineages in the Lower Tertiary Coccolith Genus *Chiasmolithus*. Proc. North American Paleont. Convention, Part G, pp. 930-957, 17 figs.