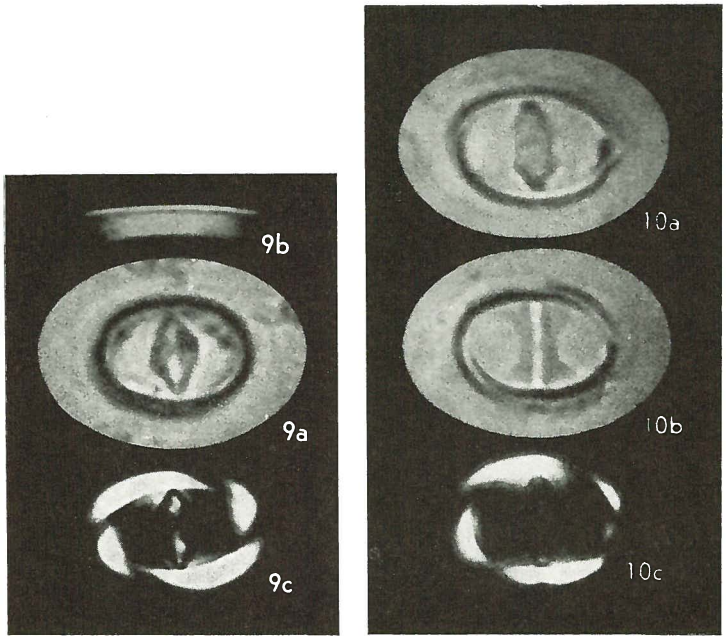
Zygodiscus adamas BRAMLETTE & SULLIVAN, 1961



FIGS. 9a-c — *Zygodiscus adamas* BRAMLETTE & SULLIVAN, n. sp. Holotype, no. 564237: a, proximal view; b, side view, drawing; c, proximal view, long axis 85° to x-nic (measured clockwise from either plane of crossed nicols). x 2000 ca.

FIGS. 10a-c — *Zygodiscus adamas* BRAMLETTE & SULLIVAN, n. sp. Paratype no. 564238: a, proximal view, long axis 90° to polarizer, lower nicol only; b, proximal view, long axis 0° to polarizer, lower nicol only; c, proximal view, long axis 70° to x-nic (measured clockwise from either plane of crossed nicols). x 2000 ca.

Description:

Coccolith with a thin rim of uniform height, turned out at the top to form a very narrow flange. Basal plate with inconspicuous to large openings on each side of the diamond- or lozenge-shaped transverse bar. Length 11—13 μ.

Remarks:

In polarized light the transverse bar shows the peculiar difference in crystallite orientation within segments characteristic of this genus and of *Lophodolithus*, as shown in figure 10a-b. The openings in the basal plate are inconspicuous in early forms of the species but are increasingly larger in later forms, which thus have little of the basal plate. The lozenge-shaped form of the bar (fig. 9a) is also modified in the specimens with large openings (fig. 10a). These later forms thus resemble those early forms of *Lophodolithus nascens* which show little of the asymmetry in height of rim and width of flange that is characteristic of that species. The

development of *Lophodolithus* from *Zygodiscus* thus seems well supported by forms of these two species having characters transitional between the two genera.

Type level:

Paleocene.

Distribution: Locally present throughout Unit 2 (Paleocene) and in the basal part of Unit 3 (Lower Eocene).

Type locality:

Lodo section, northwestern Fresno County, central California, U.S.A.

Depository:

U. S. National Museum. Holotype: U.S.N.M. 564237, Lodo 32; paratype: U.S.N.M. 564238, Lodo 32.

Author:

Bramlette M.N. and Sullivan F.R., 1961, p. 148; pl. 4, figs. 9a-c, 10a-c.

Reference:

Coccolithophorids and related Nannoplankton of the early Tertiary in California. Micropaleontology, vol. 7, nº 2, pp. 129-188, pls. 1-14.