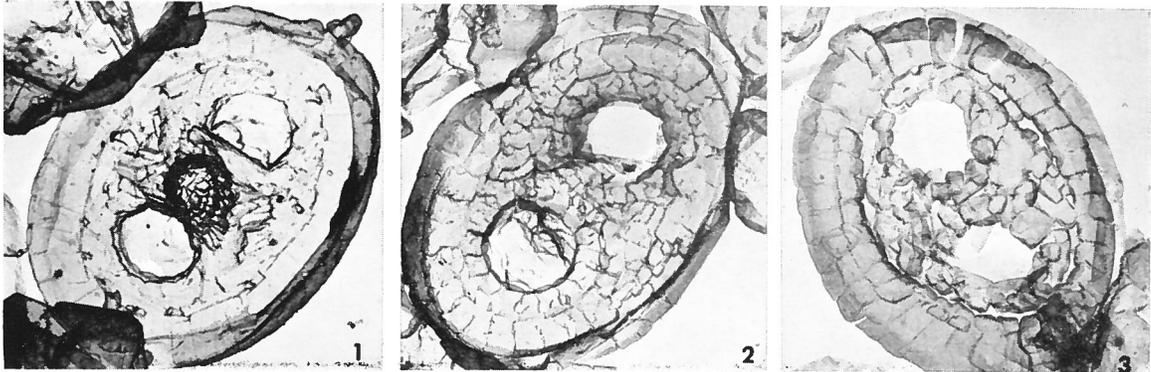


Amphizygus brooksii brooksii BUKRY, 1969



Figs. 1-3 — *Amphizygus brooksii brooksii* BUKRY, n. sp., n. ssp., 1) distal view; 2) holotype, proximal; 3) proximal, x 7130.

Description:

The smooth distal rim of this elliptical coccolith is composed of a single cycle of radial elements. A central stem and 2 circular perforations with distinctive yoke-cycles surrounding them dominate the central area. Eccentricities of the elliptical outline are 1.3 to 1.5. In distal view the rim cycle is made of 28 to 41 (31 mean) radial elements. The central area occupies 69 to 76 percent of the coccolith length; 2 large circular perforations are seen at each end of the elliptical central area. The width of the perforations is equivalent to 22 to 44 percent (30 percent mean) of the total coccolith width. A narrow circular cycle of 12 to 18 radially oriented elements surrounds the perforations. A central stem structure and the centers of the perforations all lie along the long axis of the coccolith. Bundles of rods supporting the multielement stem are tangent to the perforation outlines and occur only near the short axis of the coccolith. In proximal view a radially oriented 32- to 36-element secondary cycle is present. The complete circular nature of the perforation yoke-cycles is best observed in this view.

Maximum diameter: 8 μ .

Remarks:

This form is distinguished from *Zygodiscus* BRAMLETTE & SULLIVAN and *Chiastozygus* GARTNER by its distinctive yoke of elements around the perforations and by the intermediate nature of the stem-support structure. In *Zygodiscus* the support has the form of a short axis crossbar and in *Chiastozygus* it is an X-shaped crossbar. This type species is distinguished from the related *Amphizygus brooksii nanus* BUKRY, by larger perforation openings (narrower yoke cycle) and by lower rim counts.

Type level:

Early Santonian (Lower Austin Chalk).
Known range: Santonian-Campanian.

Type locality:

Farm Road 1382, South Dallas County, Texas, U.S.A.
Occurrence: Texas, France.

Depository:

Geology Department of the University of Illinois, Urbana, Illinois. Holotype, UI-H-3394, proximal view (fig. 2). Primary paratype, UI-H-3392, distal view (fig. 1). Other paratypes, UI-H-3388 through UI-H-3393.

Author:

Bukry D., 1969, p. 47; pl. 25, figs. 1-3.

Reference:

Upper Cretaceous Coccoliths from Texas and Europe. Univ. Kansas Paleont. Contr., Art. 51, (Protista 2), 79 pp., 40 pls., 1 text-fig.