

Watznaueria quadriradiata BUKRY, 1969



Figs. 1-3 — *Watznaueria quadriradiata* BUKRY, n. sp., 1) proximal view, x 6650; 2) holotype, proximal x 6650; 3) proximal, x 8550.

Description:

A four-armed cross structure occurs in the center of this roughly circular form (eccentricity of holotype, 1.1). In proximal view, the proximal shield is composed of 2 or 3 cycles of elements, the outer one with serrate outline being composed of 25 to 32 elements that have no distinct imbrication and only slight counterclockwise inclination. At the inner margin of this cycle, the elements are extended into tabs on their dextral, dextrally imbricated sides. One or 2 narrow cycles, each composed of 16 to 22 blocky elements, line the oval central opening, which contains an orthogonal cross structure aligned with the ellipse axes. Since the diameter of the rim cycle of the distal shield is larger than that of the proximal one, rim counts of 25 or 26 elements can be made. In the holotype, the central area occupies 30 percent of the greatest diameter of the coccolith.

Maximum diameter, 8.4 μ .

Remarks:

The tab structure of the proximal shield is seen elsewhere in *Watznaueria coronata* (GARTNER). The serrate margin of the proximal shield and smooth margin of the larger, distal shield are typical of the *W. barnesae* (BLACK) group. The moderate-sized central opening with 1 or 2 lining cycles, the 4-armed cross, and circularity are distinguishing features of *W. quadriradiata*. Most similar to the new species in structure is *W. britannica* (STRADNER) but the latter has a single crossbar.

Type level:

Early Santonian (Lower Austin Chalk).

Known range: Santonian.

Type locality:

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

Occurrence: Texas.

Depository:

Geology Department of the University of Illinois, Urbana, Illinois. Holotype, UI-H-3147, proximal view (fig. 2). Paratypes, UI-H-3148, UI-H-3149.

Author:

Bukry D., 1969, p. 34; pl. 13, 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.