Heteromarginatus wallacei Bukry, 1969

Description:

The eccentricity of the elliptical outline is 1.4 to 1.5. There are 27 and 29 radial elements in the outer rim cycle of the specimens counted. In distal view the inner rim cycle is recessed below the outer cycle and is composed of 25 or 28 dextrally imbricated and strongly clockwise inclined elements. In proximal view the inner cycle sutures are radially aligned. A narrow secondary cycle of about 35 radial elements is at the juncture of the inner and outer cycles. The central area occupies 70 to 76 percent of the coccolith length and the unique crossbar structures are included there. Crossbars constructed of 2 rows of elements are aligned with the long and short axes of the coccolith. Arising from and extending between the junctures of the crossbars to the rim are 4 monoserial bars constructed of about 7 elements each. This set of bars forms a diamond-shaped frame which with the axial crossbars produces 4 perforations around the central stem. Four large oblong openings occur between the diamond-shaped frame and the inner rim margin.

Maximum diameter: 4.8 µ.

Remarks:

In light microscope this form might be mistaken for Vagalapilla elliptica (Gartner) or Costacentrum lowei Bukry, n. sp. The general patterns are similar, even though the structural detail is distinct. Watznaueria porta Bukry, n. sp., has a similar distal rim but lacks any crossbars and has a proximal shield.

Type level:

Early Campanian (Lower Taylor Marl).

Known range: Campanian.
Type locality:
Lake Waxahachie, Ellis County, Texas, U.S.A.

Depository:
Geology Department of the University of Illinois, Urbana, Illinois. Holotype, UI-H-3387, distal view (fig. 6). Primary paratype, UI-H-3386, proximal view (fig. 7). Other paratypes, UI-H-3385, UI-H-3386.

Author:
Bukry D., 1969, p. 52; pl. 29, figs. 6, 7.

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