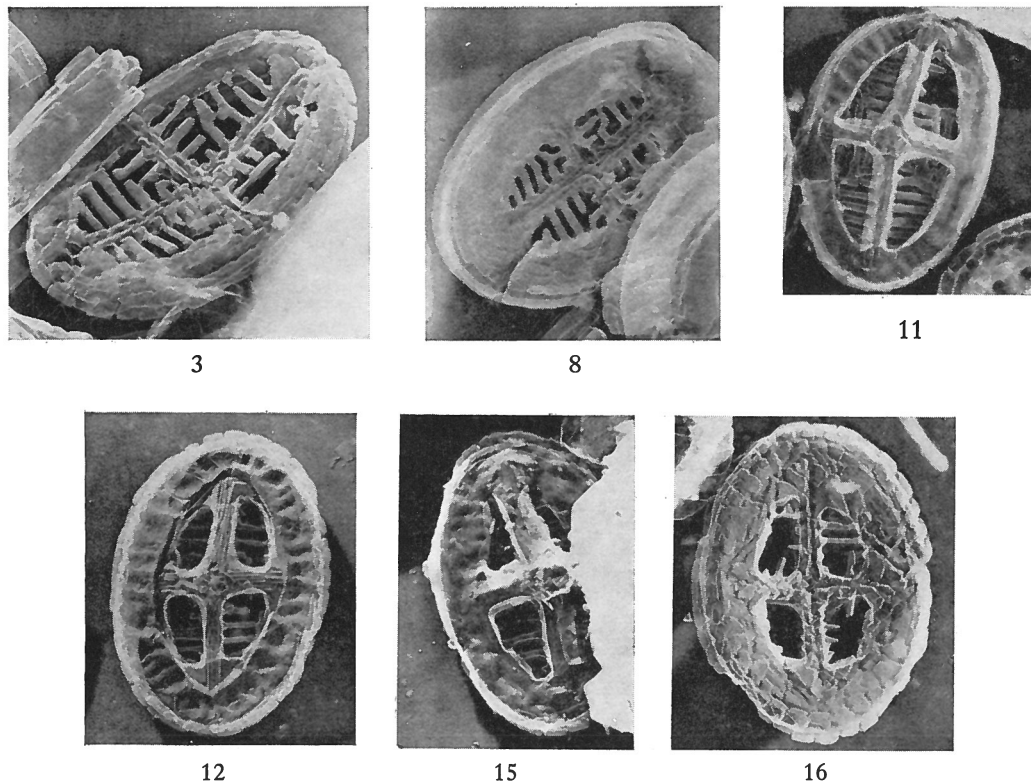


Acaenolithus vimineus BLACK, 1973



Figs. 3, 8, 11, 12, 15, 16 — *Acaenolithus vimineus* sp. nov. 3) Oblique proximal view. Upper Gault, Bed X, Folkestone (H.1022). SM 27932, x 8,600. 8) Proximal view. Upper Gault, Bed X, Folkestone (H.1022). SM 27938. 11) Distal view. Upper Gault, Bed X, Folkestone (H.1022). SM 28009. 12) Holotype, distal view. Upper Gault, Bed XI, Folkestone (H.756). SM 23186. 15) Slightly oblique distal view showing prominent spine. Lower Gault, Bed III, Folkestone (H.1013). SM 27908. 16) Proximal view showing details of plating. Upper Gault, Bed XI, Folkestone (H.756). SM 23157. 8 - 16 x 6,900.

Description:

Diagnosis: A species of *Acaenolithus* with the windows invaded by stout grid-bars at right angles to the arms of the cross, those arising from the long arms predominating.

Description: The distal surface of the marginal rim is fluted. The component plates are of uneven size and have curved sutures; at the external margin is a ring of narrow, tangentially-arranged elements which appear to be appendages of the plates of the main ring. The cross is made of much-elongated crystals with sharp edges, and is boldly striated. Where the arms meet the marginal rim, they are flanked by smooth triangular plates which frame the narrow ends of the windows. The spine is short and consists of a pile of little rhombohedral crystals. Each window is crossed by a set of bars parallel with the short arms of the cross; there are usually four, five or six bars in each window, the bars being about the same width as the

intervening spaces. Most specimens have another set of bars arising from the short arms of the cross; these are less developed than the main set, which they meet usually without crossing or fusion at the points of contact.

The rim appears to consist of three layers, the middle layer often projecting beyond the other two, and appearing as an outer cycle of more or less rectangular, petaloid elements.

The proximal surface of the rim is covered with plates of irregular size and shape, bounded by curved sutures. The cross is not striated on this surface, but consists of brick-shaped elements arranged parallel with the length of the arms.

Measurements (in microns):

				d	d'	p	p'	c	c'	n
Holotype: H.756	23186	distal	view	6.4	4.5	—	—	4.7	2.6	34
	» 23157	proximal	»	6.7	5.0	6.2	4.8	3.5	2.3	38
	» 23218a	»	»	7.6	5.0	7.2	4.8	5.7	2.6	—
H.1013	27908	distal	»	4.8	3.4	—	—	2.7	1.7	38
H.1022	28009	»	»	5.8	3.8	—	—	4.0	2.3	40
	» 27938	proximal	»	6.2	4.4	5.6	3.9	3.4	1.9	38
H.1034	27861	distal	»	4.8	3.1	—	—	3.0	1.6	—

d, d' = major and minor diameters respectively of the distal shield or distal surface.

p, p' = major and minor diameters of the proximal shield or proximal surface.

c, c' = major and minor diameters of the central area; figures in italics indicate measurements on the proximal side, which are not always strictly comparable with those made on the distal side.

n = number of component elements in the distal shield, loxolith-ring or other marginal structure.

Type level:

Upper Gault (Upper Albian).

Occurrence: Middle Albian to Lower Cenomanian. Present throughout the Gault, but uncommon below Bed XI, and more frequent in Kent than in East Anglia. H.755, H.756, H.791, H.792, H.877, H.940, H.1009, H.1013, H.1022, H.1030, H.1034. It is also present, but uncommon, in the Cambridge Greensand (Lower Cenomanian) (H.610, H.847).

Type locality:

East Wear Bay, Folkestone (Southeastern England).

Depository:

Collection of electron micrographs at the Sedgwick Museum, Cambridge.

Holotype: SM 23186; fig. 12; from the Upper Gault at East Wear Bay, Folkestone (H.756).

Author:

Black M., 1973, p. 59; pl. 20, figs. 6, 8, 11, 12, 15, 16; pl. 21, fig. 3.

Reference:

British Lower Cretaceous Coccoliths. I. Gault Clay. Palaeontogr. Soc. Monogr.: (2), pp. 49-112, pls. 17-33, text-figs. 39-51.