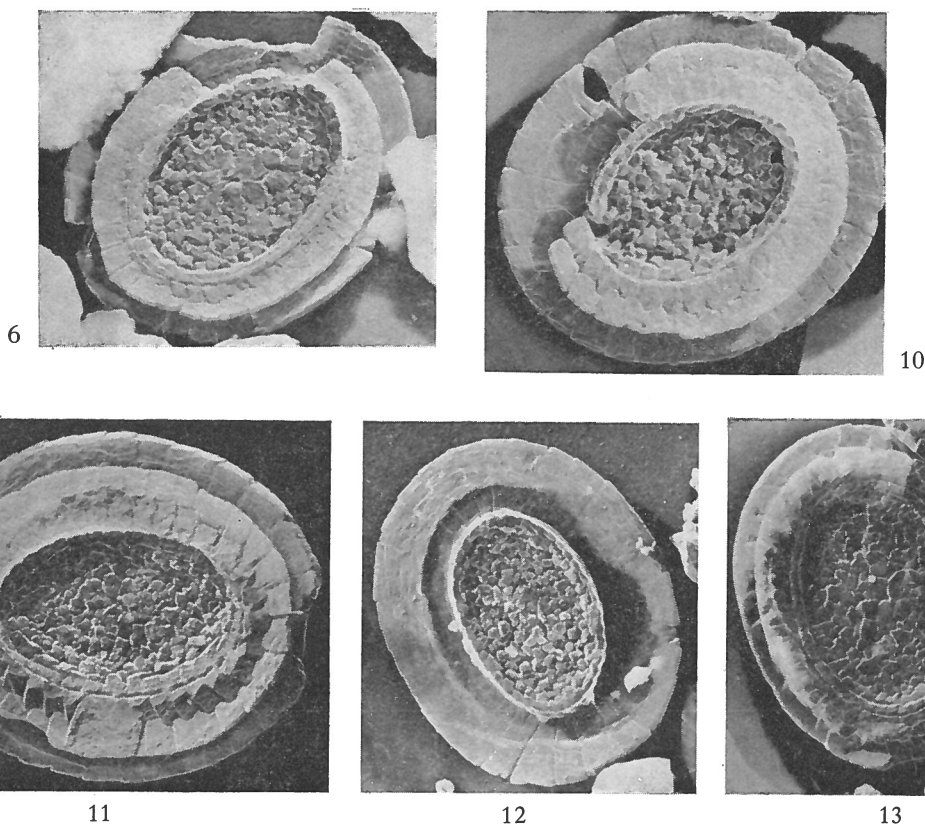


*Gaarderella granulifera* BLACK, 1973



Figs. 6, 10-13 — *Gaarderella granulifera* sp. nov. 6) Proximal view. Lower Gault, Bed II, Folkestone (H.1011). SM 28374, x 4,700. 10) Proximal view with part of the proximal shield broken away and exposing the outer wall of the connecting tube. Lower Gault, Mildenhall (H.924). SM 25960. x 5,200. 11) Holotype, proximal view. Lower Gault, Mildenhall (H. 924). SM 26018, x 5,200. 12) Proximal view of specimen which has lost the entire proximal shield, thus exposing the under side of the distal shield to view, Lower Gault, Bed V, Folkestone (H.605). SM 13548, x 4,700. 13) Proximal view. Upper Gault, Bed XII, Folkestone (H.1026). SM 28508, x 5,200.

**Description:**

Diagnosis: As for the genus (*Gaarderella* BLACK, 1973).

Description: Only the proximal view is known with certainty. Seen from this side, the distal shield shows a single cycle of jointive petaloid elements which are truncated at the outer margin to give a smooth elliptical outline to the coccolith. The proximal shield is slightly smaller than the distal, and consists of two concentric cycles of elements which interlock along an irregular line running round the shield at about half its width. The large elliptical centre is filled with a mosaic of small equidimensional granules. The two shields are joined together by a connecting tube which is exposed to view in damaged specimens whose proximal shield has been partly broken away or suffered complete destruction. Even in complete specimens

the trace of the connecting tube can often be seen separating the granular centre from the petaloid rim of the proximal shield.

Measurements (in microns):

				d	d'	p	p'	c	c'	n
Holotype:	H.924	26018	proximal view	11.1	9.5	9.5	8.0	5.8	3.8	34
	H.799	31042	»	9.3	7.8	7.7	6.6	4.7	3.5	50
	»	31070	»	11.6	9.8	—	—	7.2	5.6	46
	»	31259	»	8.7	7.5	7.7	6.8	4.7	3.4	46
	H.924	25960	»	10.8	9.1	8.7	7.6	5.3	3.7	49
	»	26017	»	12.6	10.2	—	8.4	7.6	5.0	42
	H.945	26106	»	11.7	8.8	—	—	6.1	3.4	44
	H.962	26380	»	10.7	8.0	—	—	5.2	2.9	32
	H.1011	28321	»	9.7	8.5	8.8	7.2	5.3	3.4	34
	»	28374	»	10.1	8.4	8.4	7.0	5.7	4.0	40
	H.1022	28017	»	10.3	8.4	9.2	7.4	6.2	4.3	46
	H.1026	28508	»	8.7	7.1	7.5	6.1	5.5	3.8	48

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.

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

#### Remarks:

The granular centre at first sight invites comparison with *Caterella* BLACK, 1971 but the structure of the distal shield is non-imbricate and like that of *Sollasites*.

These large and easily recognized coccoliths are particularly conspicuous in the *Hoplites dentatus* Zone. At other levels in the Gault they are rare and erratically distributed.

#### Type level:

Lower Gault.

Occurrence: Middle and Upper Albian. Frequent in the dark clays near the base of the Gault at Cambridge (H.799), Mildenhall (H.924, H.927) and Hockwold (H.945). At Folkestone the species is commonest in Bed II (H.1011); it is also present but much less common at higher levels in the section up to Bed XII (H.605, H.1022, H.1026).

#### Type locality:

Mildenhall (Southeastern England).

#### Depository:

Collection of electron micrographs at the Sedgwick Museum, Cambridge.

Holotype: SM 26018; fig. 11; from the Lower Gault at Mildenhall (H.924).

#### Author:

Black M., 1973, p. 65; pl. 19, figs. 6, 10-13.

#### Reference:

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