Podorhabdus fusiformis BLACK, 1972

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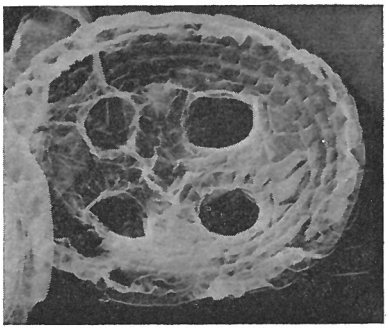

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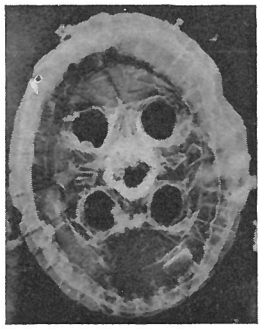

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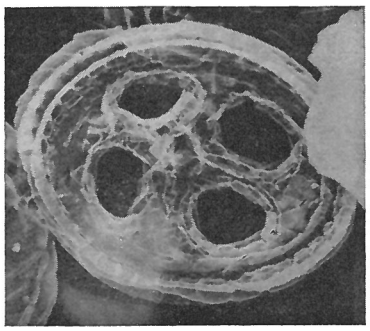
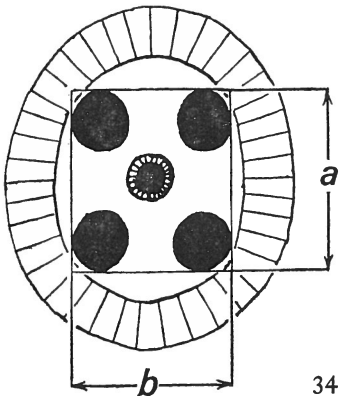


9

Figs. 3, 6-9 — *Podorhabdus fusiformis* sp. nov. 3) Holotype, lateral view. Chloritic Marl, Folkestone (H. 800). SM 18164, x 7,000. 6) Proximal view. Chloritic Marl, Folkestone (H.800). SM 18100, x 7,000. 7) Proximal view. Upper Gault, Bed XII, Folkestone (H.755). SM 22396, x 6,000. 8) Distal view. Chloritic Marl, Folkestone (H.800). SM 18092, x 6,500. 9) Proximal view. Lower Gault, Mildenhall (H.962). SM 26332, x 6,000.



34

Fig. 34 — Spacing of windows in *Podorhabdus fusiformis* sp. nov., x = measurement b expressed as a percentage of measurement a, x = 87%.

Description:

Diagnosis: A species of *Podorhabdus* with a single ring of about 40 petaloid elements in the distal shield, four buttresses of approximately equal width, and a fusiform stalk.

Description: This species resembles *P. albianus* in many respects, but differs in its swollen spine, and in the more nearly equidistant spacing of the windows, which are more nearly circular than in *P. albianus*. Seen from the distal side, the crystallites of the central area have sharp-pointed edges, and take the form of overlapping rhombohedral plates in the expanded parts of the buttresses remote from the spine; near to the spine, the pattern suggests a more fibrous habit, but without the twisted arrangement seen in *P. dietzmannii*.

The spine is 1·0 μ wide where it rises from the confluent buttresses, and is commonly broken away not far above this level. In the single specimen with the spine in position, the total height is a little more than 6·5 μ, and the spine swells to a thickness of 1·6 μ at about half its height. It is constructed of moderately-elongated crystallites arranged parallel with its length, without any suggestion of a spiral twist.

On the proximal surface, each window is framed by a ring of crystallites, and the rings surrounding adjacent windows are in contact with each other. The margin of the proximal shield commonly consists of three narrow concentric cycles of granules.

Measurements (in microns):

					d	d'	p	p'	c	c'	n	x
Holotype:	H.800	18164	lateral	view	6·7	—	—	—	5·3	—	42?	—
	H.755	22396	proximal	»	8·4	6·6	7·8	6·1	*6·9*	*5·1*	41	84%
	H.800	18092	distal	»	6·5	5·2	6·2	4·9	4·4	3·7	37	82%
	»	18100	proximal	»	7·0	6·0	6·2	5·3	*5·3*	*4·2*	42	94%
	H.962	26304	distal	»	8·5	7·0	—	—	5·8	4·2	36	86%

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.
x = spacing of windows (see text-fig. 34).

Remarks:

P. fusiformis differs from the other Cretaceous species of *Podorhabdus* in its distinctively shaped spine, which is only seen in oblique views of the coccolith. The proximal and distal views included here in the species never have the spine preserved, and their reference to *P. fusiformis* is therefore a matter of opinion, based upon close association. Their resemblance to similar views of *P. albianus* leaves open the possibility that they are indeed extreme variants of that species, and if so, that the corresponding aspects of *P. fusiformis* have not yet been correctly recognized.

Type level:

Basal Cenomanian.

Occurrence: Upper Albian and Lower Cenomanian, always local and never common. Very rare in the Upper Gault at Folkestone (H.755) and Mildenhall (H.962). It smain occurrence is in the Chloritic Marl (Lower Cenomanian) at Folkestone (H.800), and a single specimen has been seen in the Chalk Marl (also Lower Cenomanian) at Kentford (H.964).

Type locality:

Chloritic Marl, Folkestone. (Southeastern England).

Depository:

Collection of electron micrographs at the Sedgwick Museum, Cambridge.
Holotype: SM 18164; fig. 3; from the Chloritic Marl (basal Cenomanian) of Folkestone (H.800).

Author:

Black M., 1972, p. 34, fig. 34; pl. 7, figs. 3, 6-9.

Reference:

British Lower Cretaceous Coccoliths. I. Gault Clay. Palaeontogr. Soc. Monogr.: (1), pp. 1-48, pls. 1-16, 31 text-figs., 2 tabs.