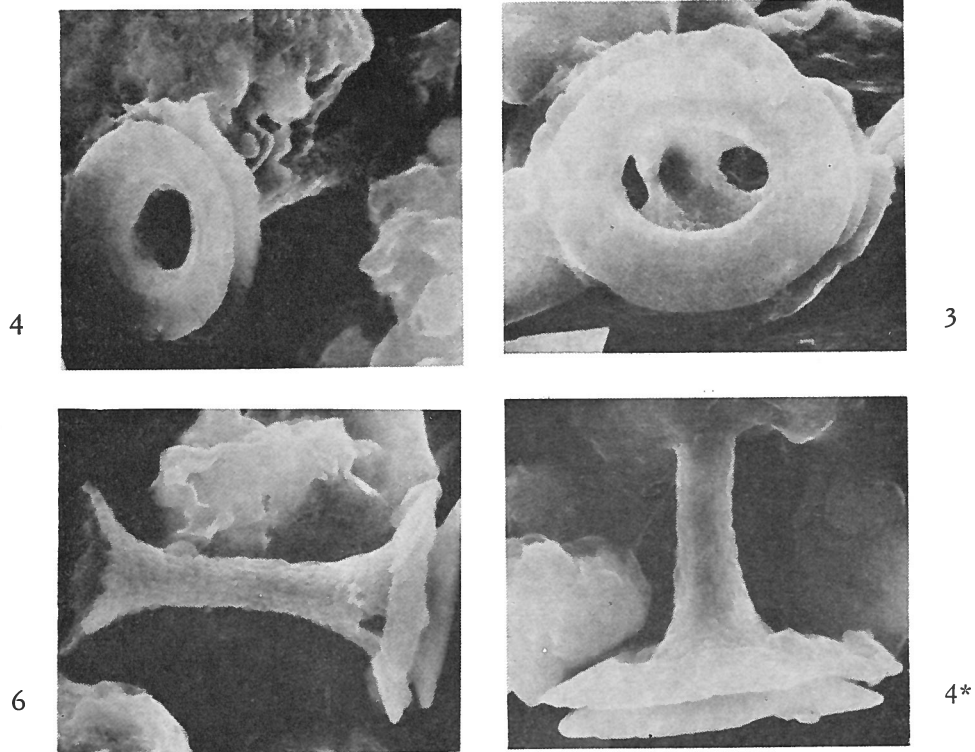


Podorhabdus grassei NOËL, 1965 emend. WIND & WISE, 1976

1965, *Podorhabdus grassei* NOËL, Editions CNRS, p. 103; pl. 9, figs. 1, 2.
1973, *Discorhabdus biperforatus* ROOD, HAY & BARNARD, Ecl. geol. Helv., vol. 64, p. 381,
pl. 3, fig. 7.
1965, *Discorhabdus jungi* NOËL, Editions CNRS, p. 144-145; pl. 22, fig. 5.



Figs. 4, 6, 3, 4* — *Podorhabdus grassei* NOËL, emend. Sample 330-7-5,
120 cm. 4) Proximal-lateral view, $\times 15,300$. 6) Lateral view, $\times 7,600$.
3) Proximal view, $\times 8,000$. 4*) Lateral view, $\times 8,000$.

Description:

Hollow stem of small, distinct crystallites arising from nearly circular podorhabdid base. Stem tapers gradually in distal direction, but becomes greatly expanded before ending approximately $5.5 \mu\text{m}$ above base. Distal edge of stem generally uneven. Two arched or hemispherical perforations are situated at the base of the stem, aligned along the major axis of the base. In some specimens, a narrow groove marks the boundaries of rim and stem. Distal shield constructed of between 30 and 38 elements; proximal shield constructed of approximately the same number of elements. Elements of both shields are nonimbricate and radial.

Size: Plate 79, Figure 5, height 6.5 μm , width of shield 4.3 μm ; Plate 79, Figure 6, height 6.6 μm , width of shield 4.3 μm ; Plate 80, Figures 1, 2, height approximately 6.7 μm , width of shield 5.1 μm ; Plate 80, Figures 3, 4, width of shield 5.8 μm .

Remarks:

The genus and species are emended to conform to features of the holotype. Rather than being constructed of four buttresses supporting a hollow stem, the holotype consists of only two broad stem supports. Transmission electron microscope illustrations of the holotype (Noël, 1965, pl. 9, fig. 1, 2) offer a confused picture of characteristics of the species, as it is only with great difficulty that the illustrations can be viewed as a stereo-pair. Dr. W. W. Hay (1975, personal communication) found that the images could be viewed stereoscopically if they are first cut out of the original publication and manipulated under a large stereoscope. By this procedure he confirmed that only two perforations are present at the base of the stem. Dr. Hay has also concluded, based upon these observations, that *Discorhabdus biperforatus* Rood et al., 1973, is a junior synonym of *Podorhabdus grassei* holotype as emended.

The holotype of *Discorhabdus jungi* Noël (1965, p. 144-145, pl. 22, fig. 5) is a transmission electron microscope photograph of a specimen which was not decalcified during sample preparation. As a result, the only information supplied by the holotype is the lateral profile, dimension, and mode of construction of the distal portion of the stem. The opacity of the specimen to the electron beam obscures all other detail.

Subsequent illustration of *D. jungi* by Rood et al. (1971, pl. 4, fig. 5, 6), and Barnard and Hay (1974, pl. 3, fig. 5; pl. 6, fig. 4) generally offer little evidence of the presence of perforations at the base of the stem. The lateral profile of specimens of *D. jungi* by these authors, as well as the profile of the holotype are quite similar to corresponding views of specimens of *P. grassei*. Resolution of this problem of possible synonymy depends upon the location of perforate forms similar to *P. grassei* on the scanning electron microscope.

Type level:

Occurrence: Oxfordian.

Author:

Wise S. W. and Wind F. H., 1976, p. 305; pl. 79, figs. 4-6; pl. 80, figs. 1-4.

Reference:

Mesozoic and Cenozoic calcareous nannofossils recovered by DSDP Leg 36 drilling on the Falkland Plateau, southwest Atlantic sector of the southern ocean. Initial Reports of the Deep Sea Drilling Project, vol. 36, pp. 269-491, 89 pls., 3 figs., 7 tbs.