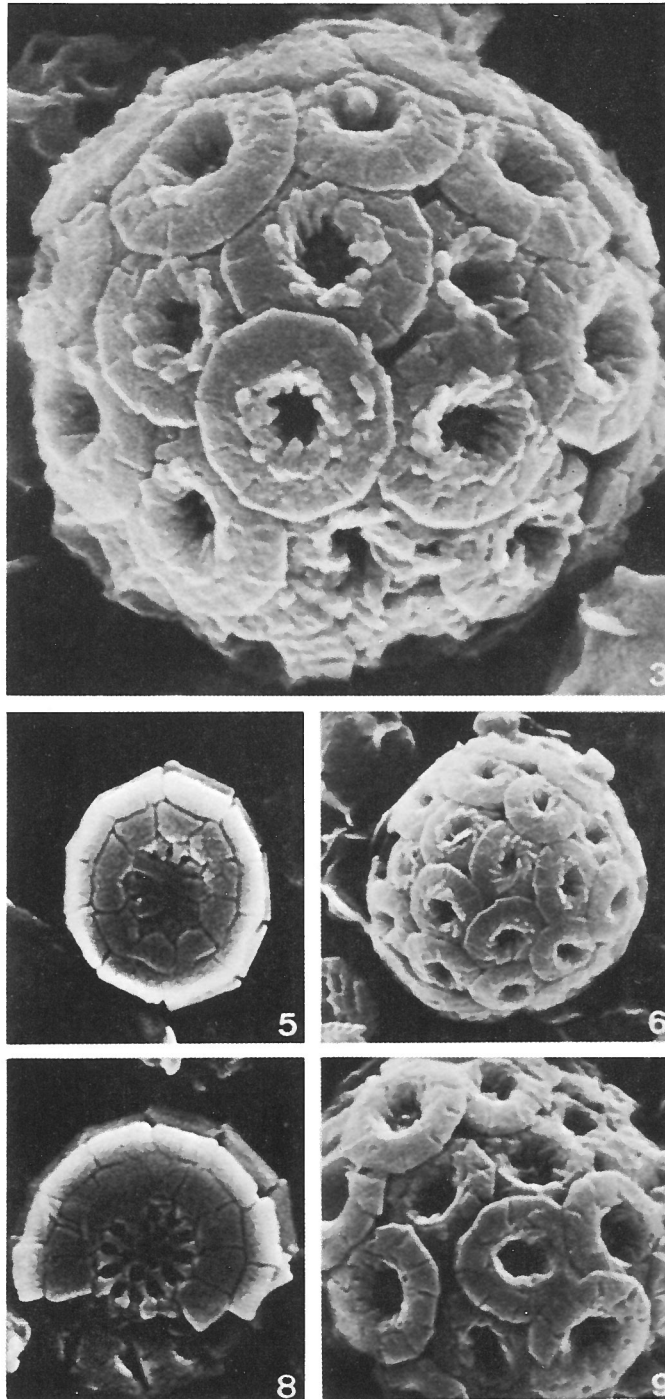


Prinsius africanus PERCH-NIELSEN, 1981



Figs. 3, 5, 6, 8, 9-*Prinsius africanus* n. sp.
Coccospheres (Fig. 3, 6, 9) and proximal views (Fig. 5, 8). Holotype:
Figure 3.566; $\times 14,000$ (Fig. 3), $\times 15,000$ (Fig. 5,8), $\times 5000$ (Fig. 6) and
 $\times 10,000$ (Fig. 9).

Description:

Diagnosis: Round to broadly-elliptical, small coccolith with a distal and a proximal shield and a crown of elements around a central area covered by a net-like structure.

Description: The distal shield consists of 9 to 16 partly interlocking elements and has a round to broad-elliptical outline. A crown of tangentially oriented elements surrounds the central area. In well-preserved specimens, the crown is higher than the distal shield. The net-like structure covering the central area is also easily visible in distal view. The proximal shield is slightly smaller than the distal shield and consists of two cycles. The central net-like structure seems to have 2 or 3 to over 10 perforations. In cross-polarized light, the central area stays quite dark, the crown shows very high birefringence, and the distal and proximal shield remain almost invisible, but the proximal shield shows very slight birefringence.

Remarks:

Prinsius africanus was assigned to *Prinsius* despite the central net-like structure, which is not usually a feature of species assigned to this genus, but of *Toweius*. In *Toweius*, on the other hand, there are usually two cycles of elements around the open or net covered central area. The partly interlocking elements of the distal shield are not found in younger forms of *Prinsius* and *Toweius* but in most species of *Biscutum*. *P. africanus* may be related to *Prinsius petalossus*, in which the crown is extremely high, and its tangential elements oriented the other way round than in the new species. Also, *P. petalossus* has an elliptical outline and only a single proximal shield. In other small Danian coccoliths as *Prinsius dimorphosus* and *Prinsius tenuiculum* (OKADA & THIERSTEIN) n. comb. (Basionym *?Biscutum tenuiculum* OKADA & THIERSTEIN, 1979, p. 521, 522, Pl. 9, Fig. 5) the central area is either closed, i.e. covered or completely open, and both species do not have a crown. *?Biscutum romeinii* also has a central net-like structure, but is elliptical to elongate-elliptical and has no crown. The coccospheres of the new species are spherical and contain about 20-40 coccoliths which measure about 1.5-3.5 microns.

Type level:

Danian, Chiasmolithus danicus Zone, NP3.

Occurrence: *Prinsius africanus* was only found in sample 566, from Richards Bay, South Africa, where it is common.

Type locality:

Richards Bay, South Africa.

Depository:

ETH SEM Archive, Honggerberg, Zurich.

Holotype: Negative 6-1444/9, fig. 3.

Author:

Perch-Nielsen K., 1981, p. 842; pl. 3, figs. 3, 5, 6, 8, 9.

Reference:

New Maastrichtian and Paleocene calcareous nannofossils from Africa, Denmark, the USA and the Atlantic, and some Paleocene lineages. *Eclogae geol. Helv.*, vol. 74/3, pp. 831-863, 7 pls., 14 text-figs.