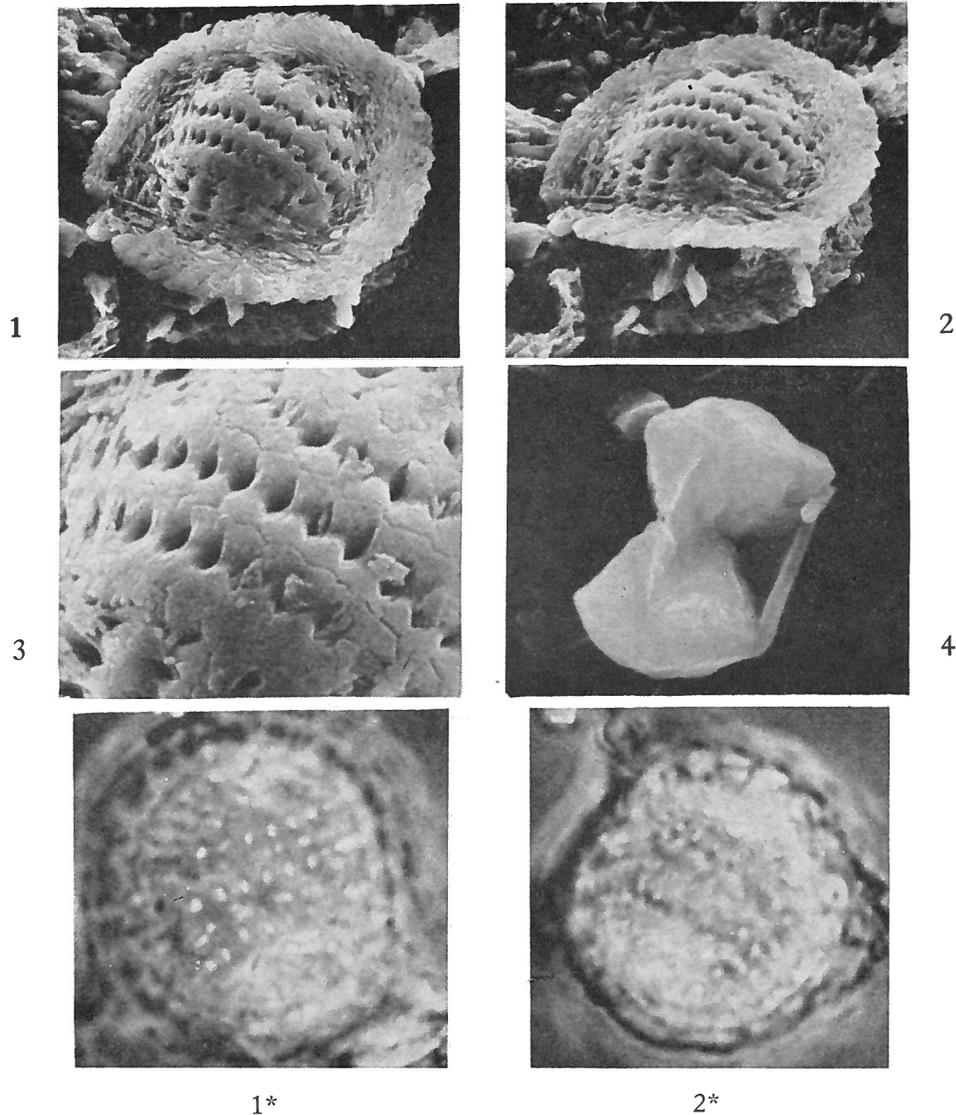


Centosphaera barbata WIND & WISE, 1976



Figs. 1-4, 1*, 2* — *Centosphaera barbata* n. sp. 1-3) Holotype USNM 239492. Sample 327A-10-3, 14 cm. (1, 2) × 1500 (3) Detail of surface, × 4200. 4) Paratype USNM 239493; single skeletal element of *Centosphaera barbata*. Sample 327A-12, CC, × 13,300. 1*) Paratype USNM 239497, phase-contrast illumination, × 4000. 2*) Paratype USNM 239498, phase-contrast illumination, × 4000.

Description:

Diagnosis: Large calcareous spheres constructed in patchwork pattern of hour-glass-like crystals. Keels of needle-like crystals circle the sphere.

Description: Complete specimens may be perfectly spherical or slightly laterally

compressed. A moderately large aperture is present in all of the specimens whose orientation permitted viewing from several directions. The holotype possesses two parallel large fibrous keels which project approximately 4.5 μm outward from the sphere. Flattening of the main body parallels the major keels, and the aperture is located at one end, between the two keels. Short fibrous processes connect the two major keels. These features have been observed in light-microscope mobile mounts on specimens identical to the holotype.

The inner surface of the main body is lined with interlocking seemingly dendritic crystals, which are either features of the proximal surface of the hour-glass-shaped crystals, or rare related in morphology to the fibers constructing the fringes. One paratype appears to possess only one very prominent keel, which circles the sphere at its greatest diameter, terminating at the aperture. It is not known at the present time whether this variation in keel morphology is intraspecific in nature or whether this paratype should serve as the type for a second species. Individual hour-glass-shaped crystals 2.7 μm \times 1.6 μm are readily identifiable in the light microscope, and their presence was often used to indicate the presence of this species in the smear slides studied.

Size: Holotype maximum dimension including fringe, 30 μm ; maximum dimensions of spherical body, 21.5 μm .

Remarks:

The species name is Latin, meaning bearded.

Type level:

Maastrichtian.

Type locality:

Falkland Plateau. DSDP leg 36. Sample 327A-10-3, 14 cm.

Depository:

U.S. National Museum, Washington D.C.

Holotype: USNM 239492; paratypes: USNM 239493-239500.

Author:

Wise S. W. and Wind F. H., 1976, p. 299; pl. 25, figs. 1-6; pl. 26, figs. 1-3; pl. 27, figs. 1-7.

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.