Cosmarium caelatum Ralfs, 1848

Most likely ID: n.a.

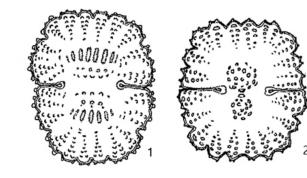
Synonym: n.a.

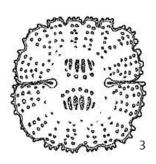
Sampling location: Ibmer Moor (Austria)

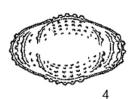
Phylogenetic tree: Cosmarium caelatum

Diagnosis:

- semi-cells broadly trapezoidal with flattened apex
- length 40-50 μm width 36-40 μm
- sinus narrow, slightly dilated to the isthmus
- apical margins of semi-cells regularly indented between granulated crenellations
- radially arranged groups of warts become smaller towards the center of the semi-cells
- ornamentation of central field variable, often with elongated, warts arranged in parallel
- one pyrenoid per semi-cell







1-4 = after Lenzenweger

Cosmarium caelatum

I found Cosmarium caelatum only once in June 1995 in the Ibmer Moor in Austria. Although this species is described by Lenzenweger (1999) as common and adaptable, I have not been able to find this species ever since.

The semi-cells of Cosmarium caelatum are richly ornamented, which makes it look attractive by light microscopy. The semi-cells are mostly trapezoidal with flat apices. Separate groups of warts arranged radially run from the margins of the semi-cells toward the center of the cell and become smaller. The design of the central field of the semi-cells is variable, but always characterized by symmetrically arranged groups of warts. Often elongated, warts arranged in parallel dominate the center of the semi-cells, as in my specimen (s. fig. 1 a), which corresponds most closely to drawing 3 (s. drawings above).

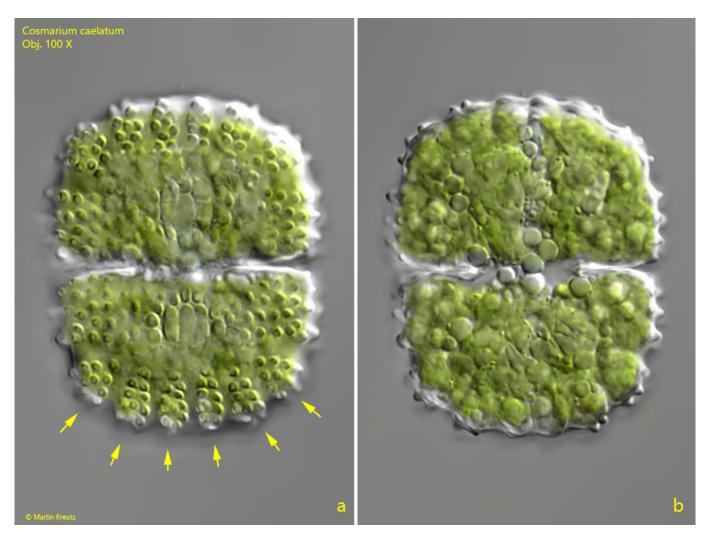


Fig. 1 a-b: Cosmarium caelatum. $L = 52 \mu m$. Two focal planes of a slightly squashed specimen. Note the radially arranged groups of warts becoming smaller towards the center of the semi-cells (arrows). Obj. 100 X.