

Cosmarium caelatum (Ralfs, 1848)

Most likely ID: n.a.

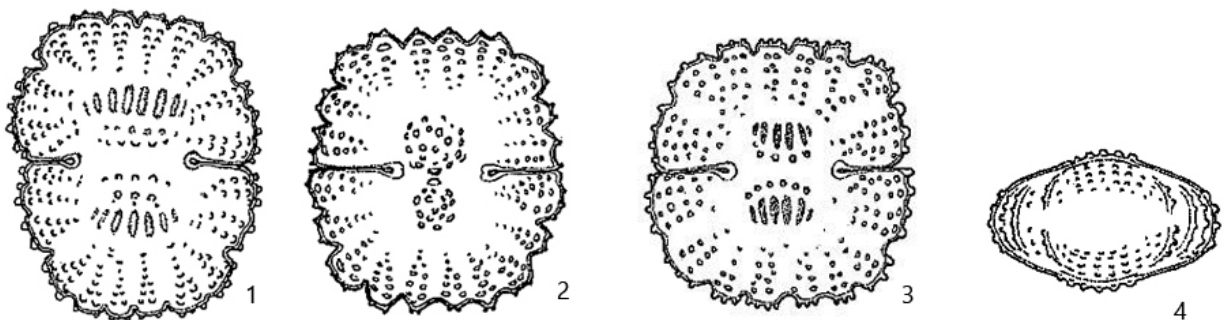
Synonym: n.a.

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 to the center of the semi-cells
- ornamentation of central field variable, often with elongated, parallel arranged warts
- 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 could not find the species again until today.

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 becoming smaller. The design of the central field of the semi-cells is variable, but always characterized by symmetrically arranged groups of warts. Often elongated, parallel arranged warts 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).

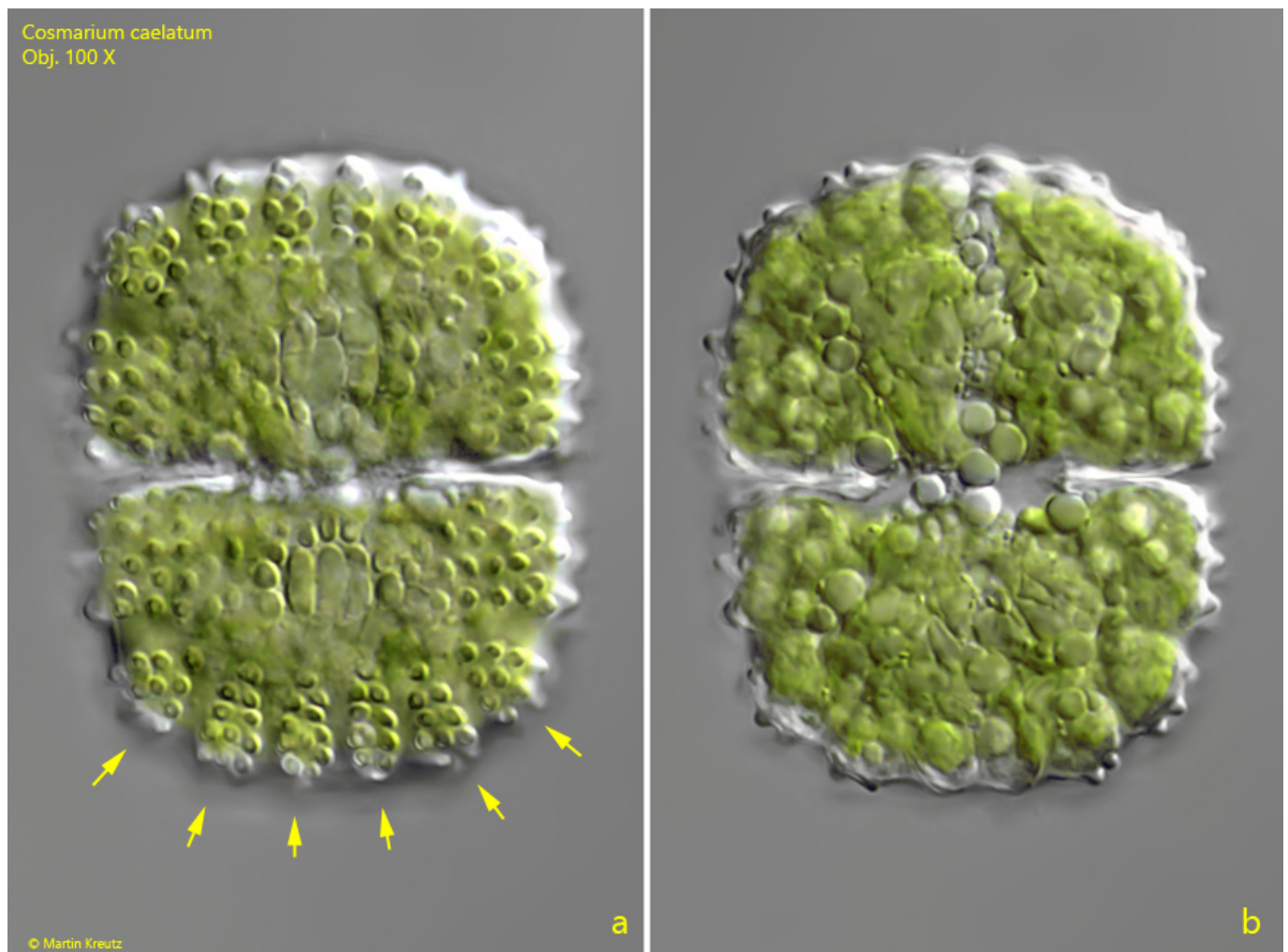


Fig. 1 a-b: *Cosmarium caelatum*. L = 52 μm . Two focal planes of a slightly squashed specimen. Note the radially arranged groups of warts becoming smaller to the center of the semi-cells (arrows). Obj. 100 X.