

## ***Cosmarium caelatum* Ralfs, 1848**

**Most likely ID:** n.a.

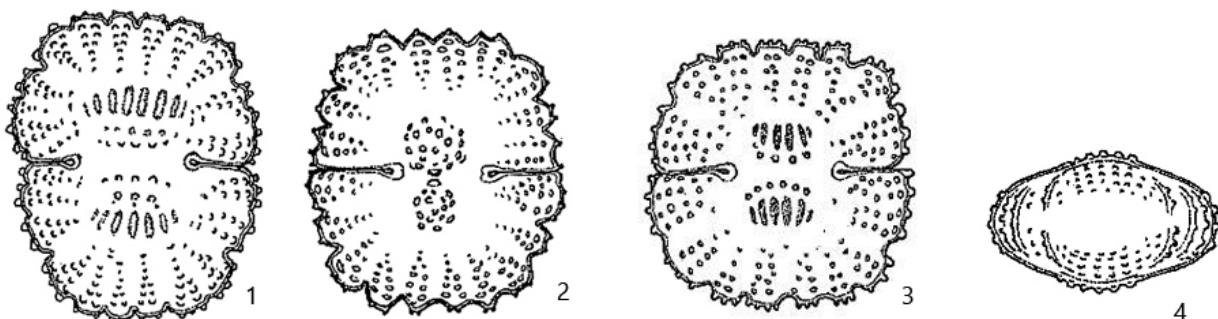
**Synonym:** n.a.

**Sampling location:** Ibmer Moor (Austria)

**Phylogenetic tree:** [\*Cosmarium caelatum\*](#)

### **Diagnosis:**

- semi-cells broadly trapezoidal with flattened apex
- length 40–50  $\mu\text{m}$  width 36–40  $\mu\text{m}$
- 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

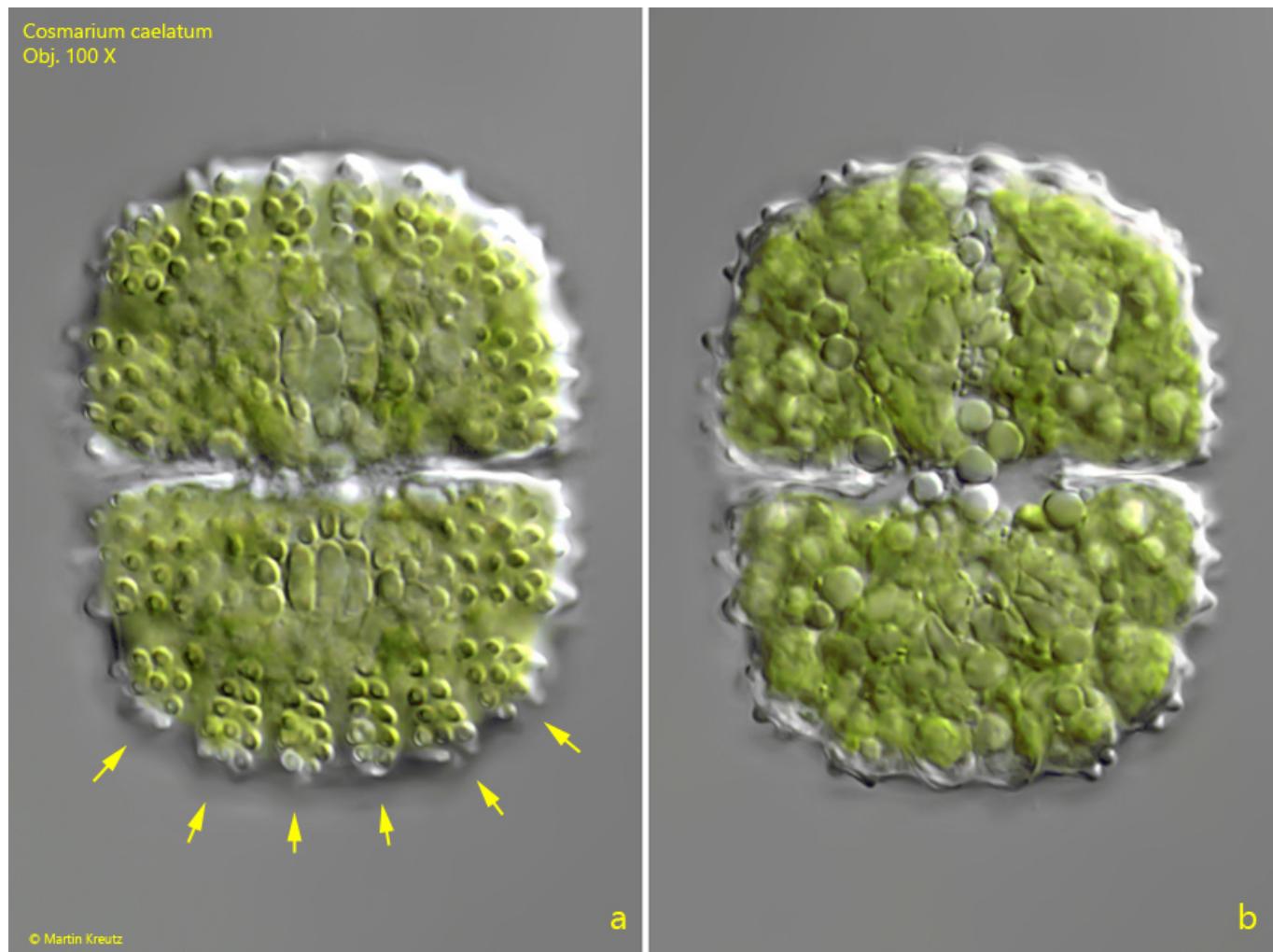


1–4 = after Lenzenweger

*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.