Cosmarium boeckii Wille, 1880

Most likely ID: n.a.

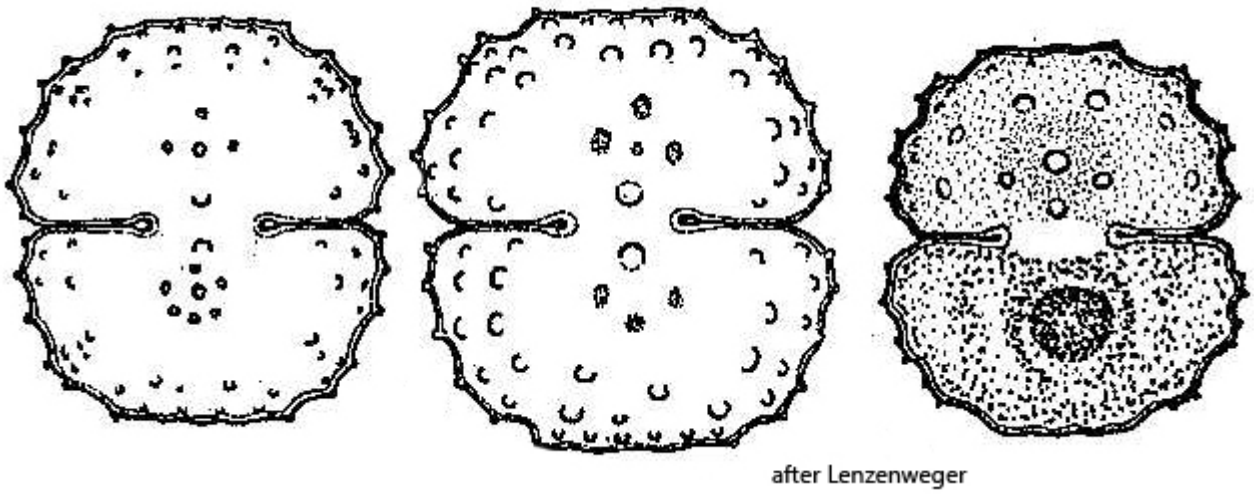
Synonym: n.a.

Sampling location: Mühlweiher Litzelstetten

Phylogenetic tree: *Cosmarium boeckii*

Diagnosis:

- semi-cells almost semi-circular, flattened apices
- length 30–40 µm, width 28–38 µm
- basal angles rounded
- apices with 4–5 flat undulations
- closed sinus, outside widened
- cell wall with marginal rows of papillae
- in the center of semi-cell 4 papillae arranged in diamond shape
- one pyrenoid per semi-cell



Cosmarium boeckii

I found *Cosmarium boeckii* in several specimens in July 2025 in the Mühlweiher Litzelstetten. There, the specimens were found growing on floating aquatic plants.

The identification of *Cosmarium boeckii* is essentially achieved by the 4 papillae, which are located in the middle of the semi-cells and arranged in a diamond shape. However, these are not easy to recognize in living specimens. They were best seen in my specimens under brightfield illumination (s. fig. 2 b).

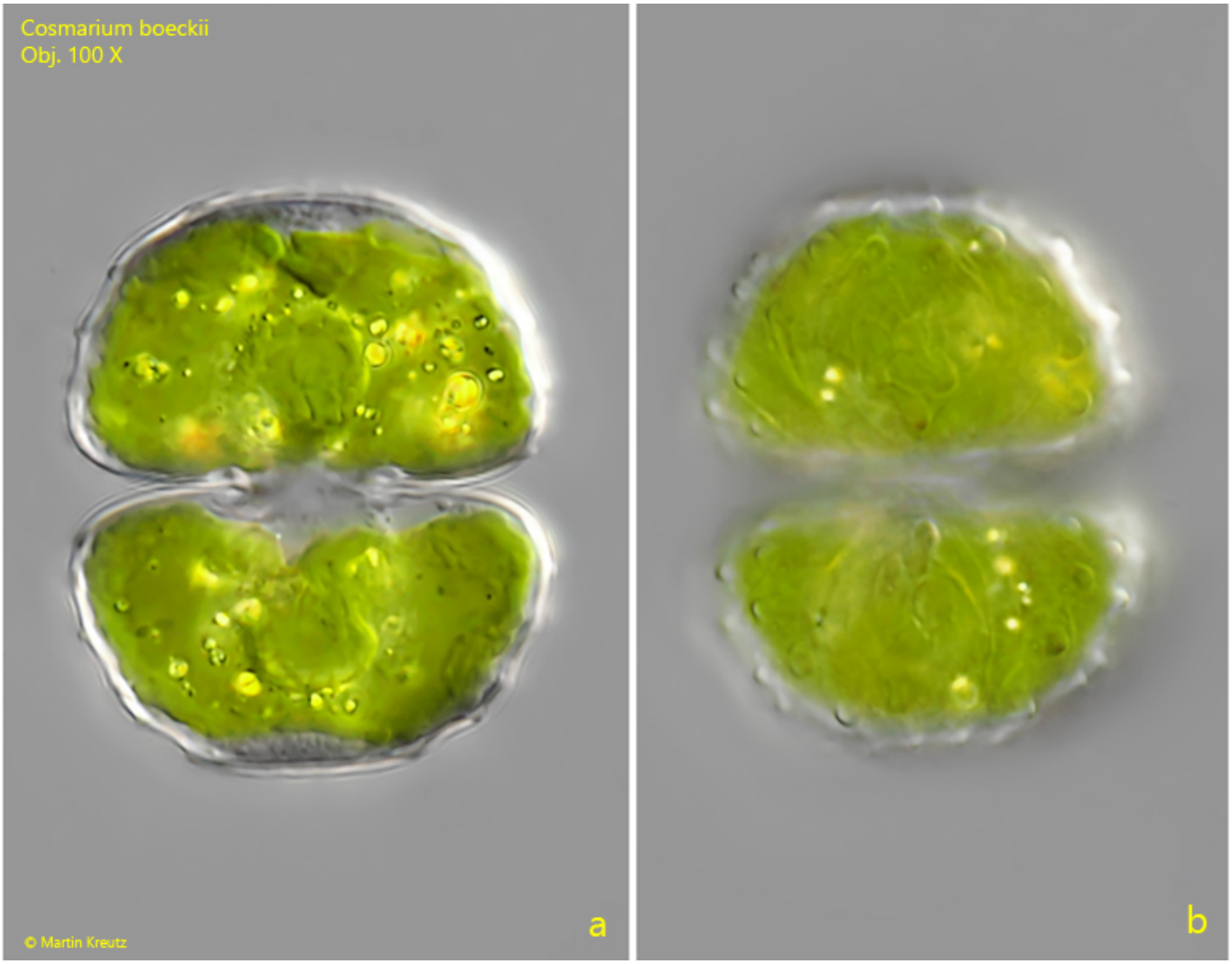


Fig. 1 a-b: *Cosmarium boeckii*. L = 36 µm. Two focal planes of a specimen found in July 2025 in the Mühlweiher Litzelstetten. Obj. 100 X.

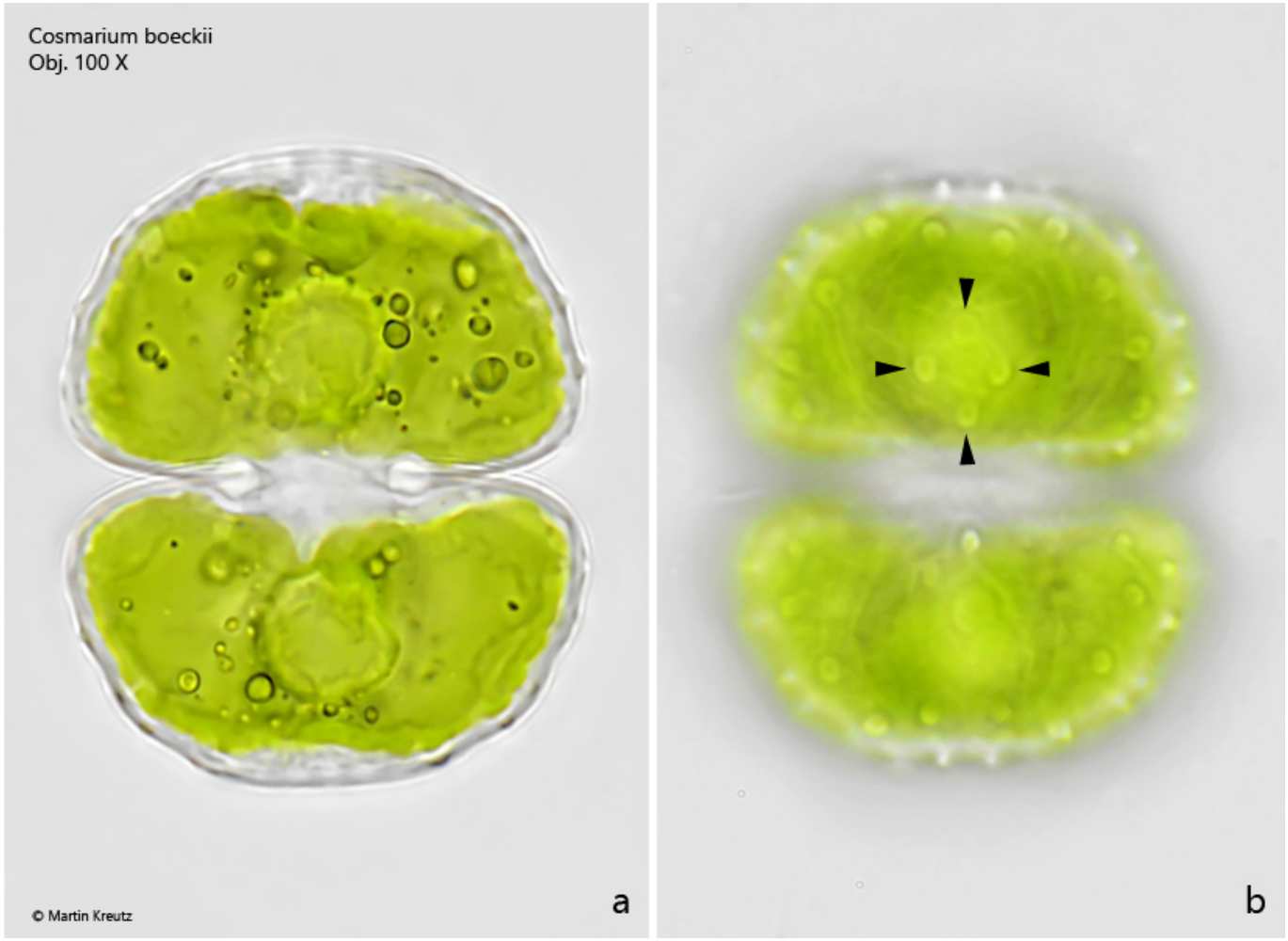


Fig. 2 a-b: *Cosmarium boeckii*. L = 36 µm. The same specimen as shown in fig. 1 a-b in brightfield illumination. Note the 4 papillae in the center of the semi-cells arranged in a diamond shape (arrowheads). Obj. 100 X.