Closterium leibleinii

Kützing ex Ralfs 1848

Most likely ID: n.a.

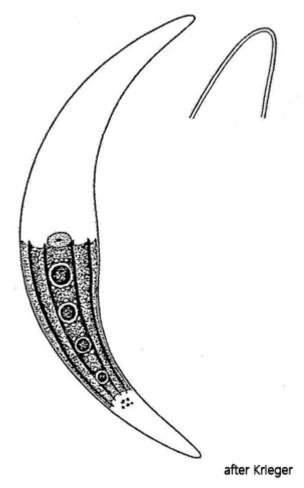
Synonym: n.a.

Sampling location: Sima Moor (Austria)

Phylogenetic tree: Closterium leibleinii

Diagnosis:

- cell crescent-shape tapering to narrowly rounded apices
- middle of ventral side slightly convex
- length 110-215 μm, width 16-21 μm
- two chloroplasts, each with 3-8 longitudinal ridges
- 2-8 pyrenoids arranged along cell axis
- girdle bands absent
- apices with each one terminal vacuole filled with some crystals
- cell wall smooth, without striation
- nucleus central in a cytoplasm bridge between the chloroplasts



Closterium leibleinii

I found my specimens of *Closterium leibleinii* in the <u>Sima Moor</u>, where this species is very common. At first glance, *Closterium leibleinii* can easily be confused with *Closterium moniliferum* because of the convex bulge in the center of the ventral side (s. fig. 1 a-b). However, <u>Closterium moniliferum</u> has a fine striation of the cell wall, whereas the cell wall of Closterium leibleinii is completely smooth (s. fig. 3). In addition, the plasma bridge between the two chloroplasts is considerably longer and more pronounced than in Closterium moniliferum (s. fig. 2). The appearance of Closterium leibleinii is bright and transparent. The apices usually have no porus and a large terminal vacuole with few crystals (s. fig. 4).

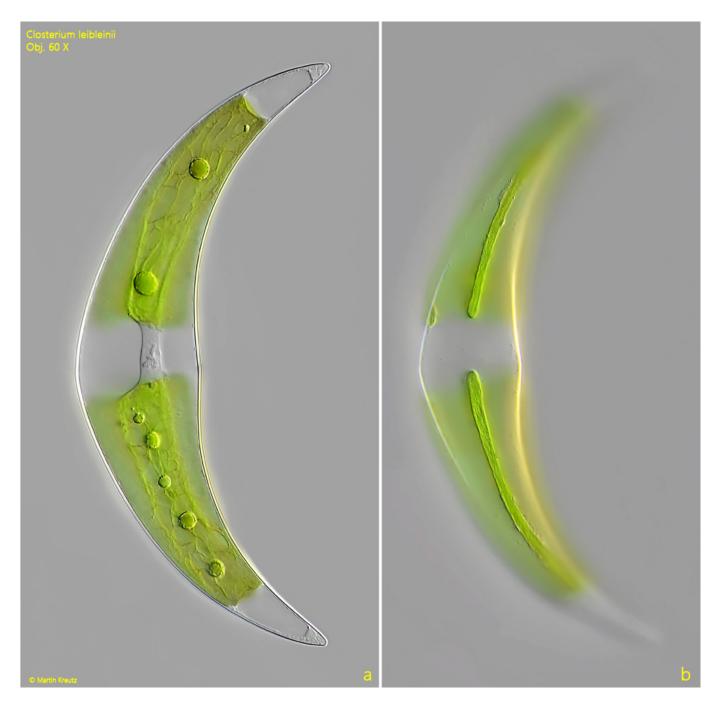


Fig. 1 a-b: Closterium leibleinii. $L=200~\mu m$. Two focal planes of a slightly squashed specimen. Obj. 60 X.

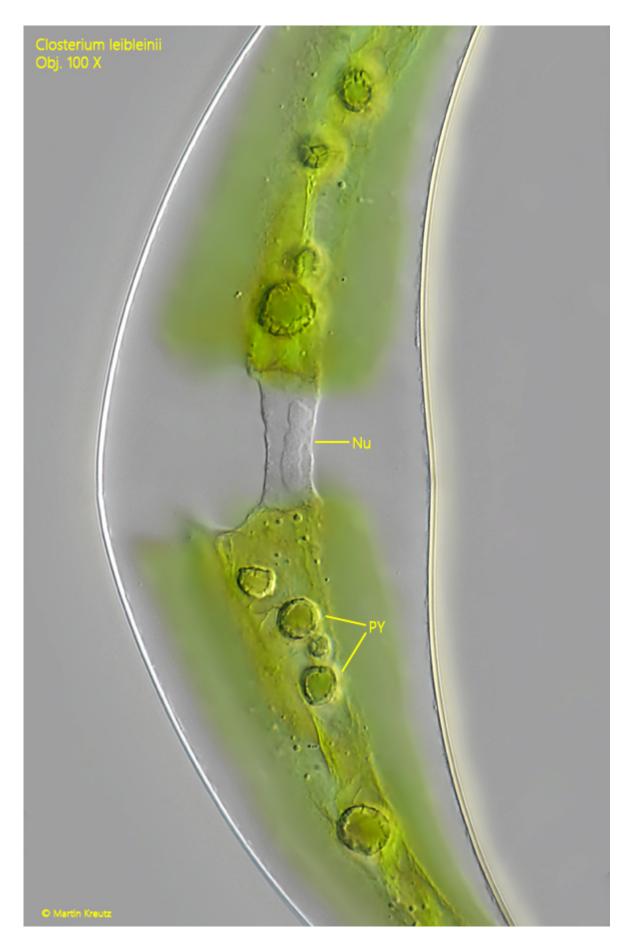


Fig. 2: Closterium leibleinii. The mid-region of the cell in detail. The nucleus (Nu) is located in a bridge of cytoplasm. In the chloroplasts the pyrenoids (PY) are visible. Obj. $100~\mathrm{X}$.



 $\textbf{Fig. 2:} \ \textit{Closterium leibleinii}. \ \textbf{Focal plane on the smooth cell wall without striation}. \ \textbf{Obj. 100} \\ \textbf{X.}$



 $\textbf{Fig. 4:} \ \textit{Closterium leibleinii}. \ \textbf{The narrowly rounded apex with a large terminal vacuole (TV)}$ $\bar{\text{filled}}$ with some crystals. Obj. 100 X.