Closterium leibleinii

Kützing ex Ralfs 1848

Most likely ID: n.a.

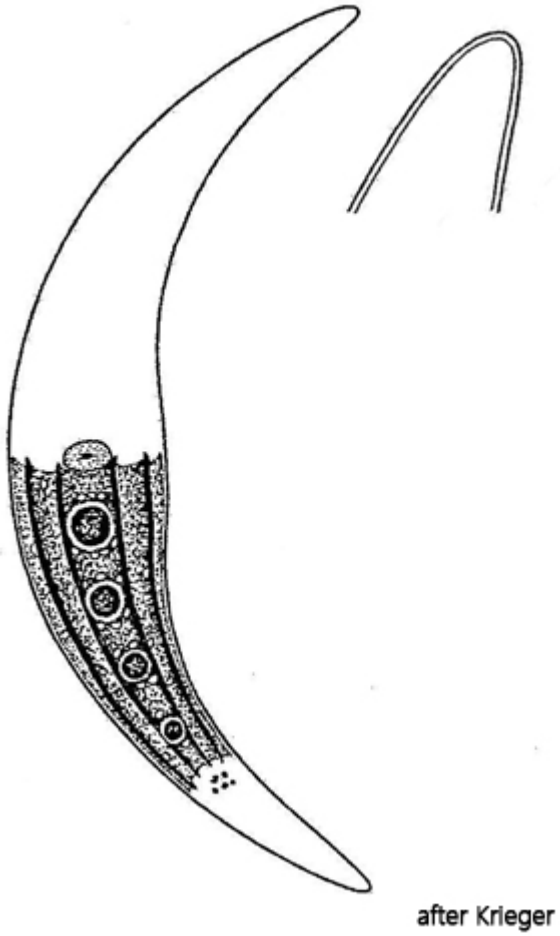
Synonym: n.a.

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 Sima Moor, 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, *Closterium moniliferum* 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 µm. Two focal planes of a slightly squashed specimen. Obj. 60 X.

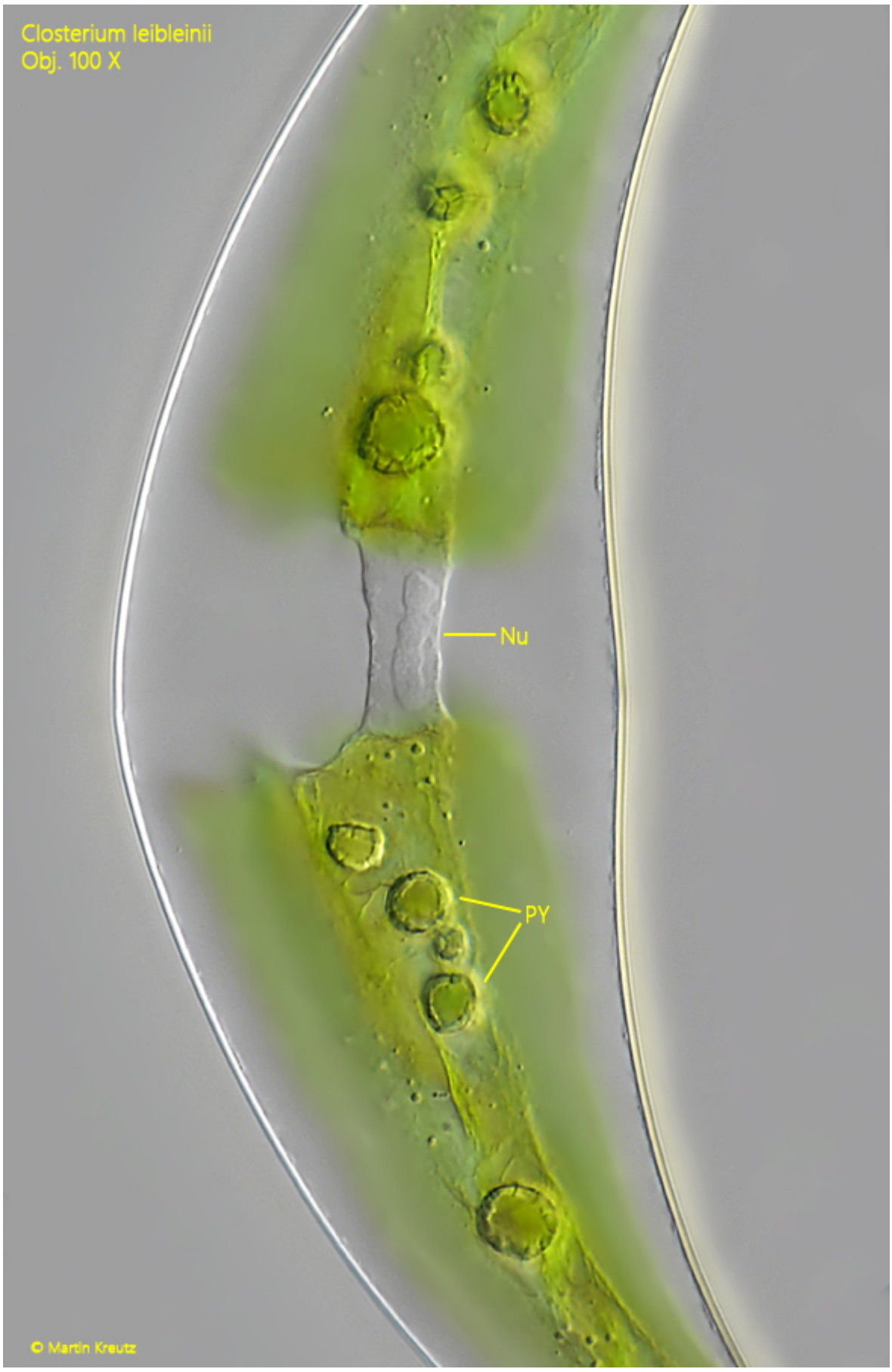


Fig. 2: *Closterium leibleinii*. The mid-region of the cell in detail. The nucleus (Nu) is located in a bridge of cytoplasm. In the chloroplasts the pyrenoids (PY) are visible.

Obj. 100 X.



Fig. 2: *Closterium leibleinii*. Focal plane on the smooth cell wall without striation. Obj. 100 X.



Fig. 4: *Closterium leibleinii*. The narrowly rounded apex with a large terminal vacuole (TV) filled with some crystals. Obj. 100 X.