Closterium acerosum

Ehrenberg ex Ralfs, 1848

Most likely ID: n.a.

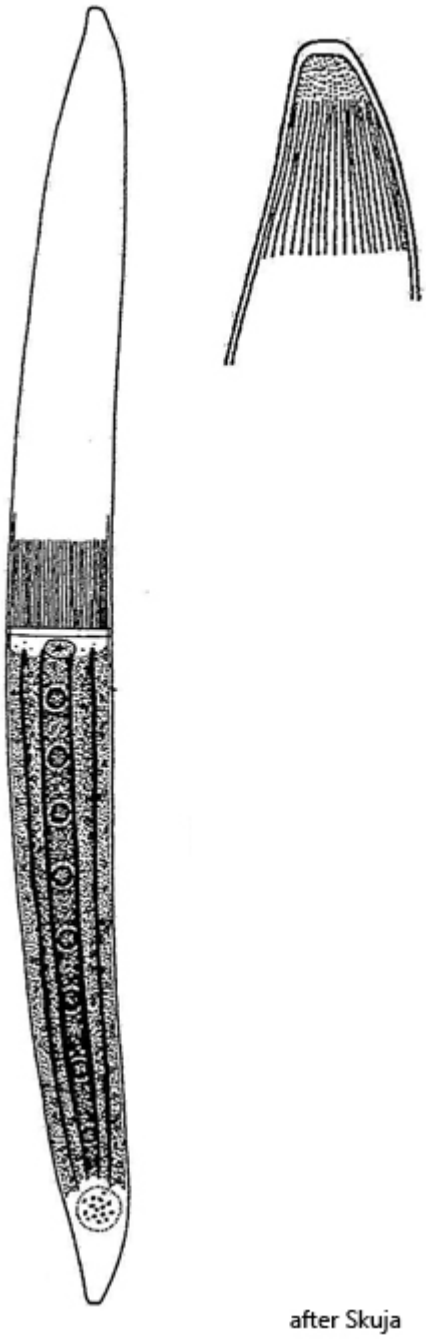
Synonym: n.a.

Sampling location: Ulmisried**,** Pillersee Moor (Austria)

Phylogenetic tree: *Closterium acerosum*

Diagnosis:

- cells long, slender, slightly curved, inner margin almost straight or concave
- length 250–800 µm, width 30–60 µm
- cells taper shortly before apices
- cell wall colorless, yellowish or brownish
- chloroplast with 3–4 longitudinal ridges
- up to18 pyrenoids per semi-cell, slightly irregularly arranged
- cell wall with fine striation, rarely punctate
- cell wall of apices punctate
- terminal vacuoles with large number crystals



Closterium acerosum

So far I have only found *Closterium acerosum* in Ulmisried and in the Pillersee Moor. This species grows very large and is easy to recognize in the samples. However, *Closterium acerosum* can be confused with the similar *Closterium pritchardianum*, which has a very similar shape. However, the cell wall of *Closterium pritchardianum* shows clear rows of dots and interrupted lines, while the cell wall of *Closterium acerosum* shows a fine line pattern (s. fig. 3), which only rarely appears slightly dotted. According to my measurements, there are 12–14 lines/10 µm (s. fig. 3).

More information and images on *Closterium acerosum*: Alfred van Geest-Digital

image collection of Desmids-*Closterium acerosum*

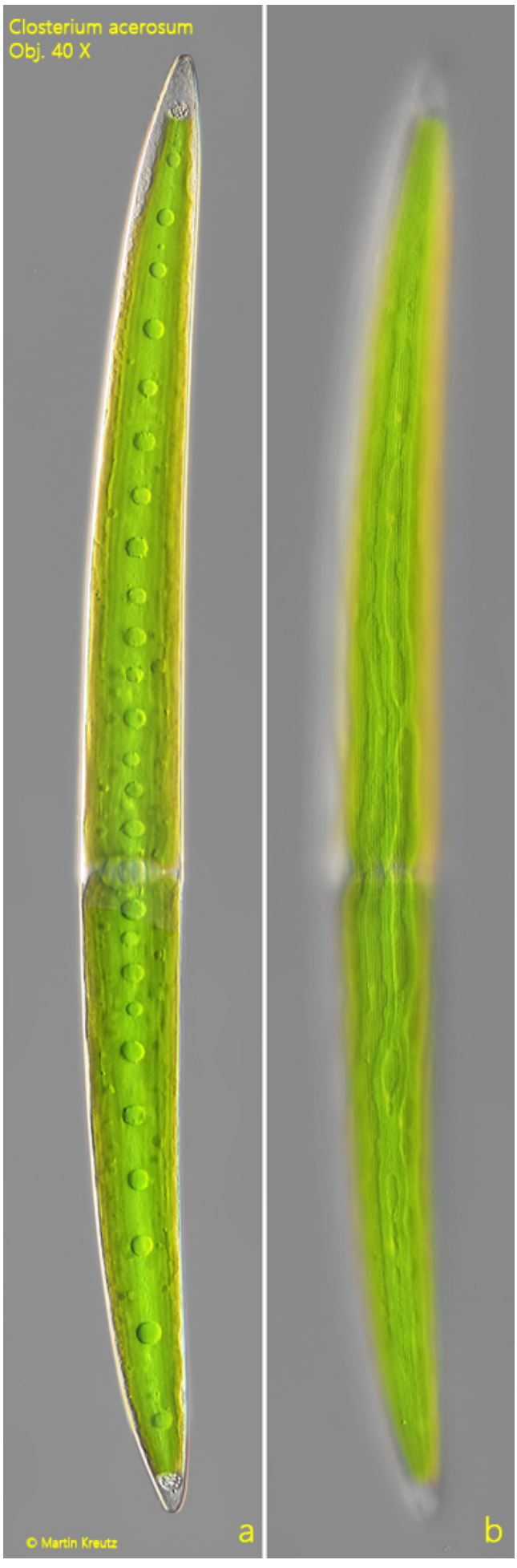

Closterium acerosum
Obj. 40 X
© Martin Kreutz
a
b

Fig. 1 a-b: *Closterium acerosum*. L = 652 µm. Two focal planes of a specimen in DIC. Obj. 40 X.


Closterium acerosum
Obj. 40 X
© Martin Kreutz
a
b

Fig. 2 a-b: *Closterium acerosum*. L = 636 µm. Two focal planes of a second specimen in brightfield illumination. Obj. 40 X.

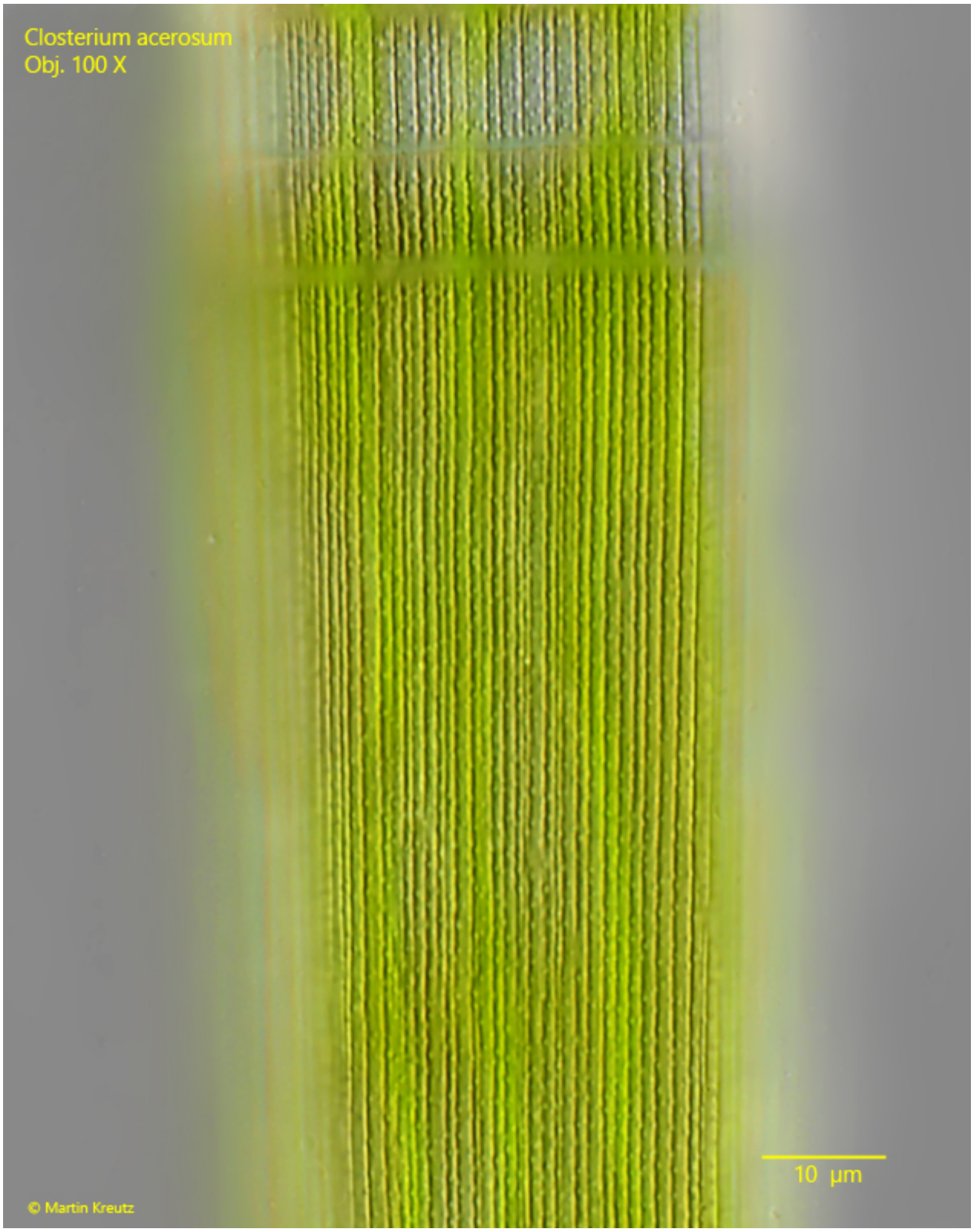


Fig. 3: *Closterium acerosum*. The surface of the cell wall with a fine striation of about 12 lines/10 µm. Obj. 100 X.

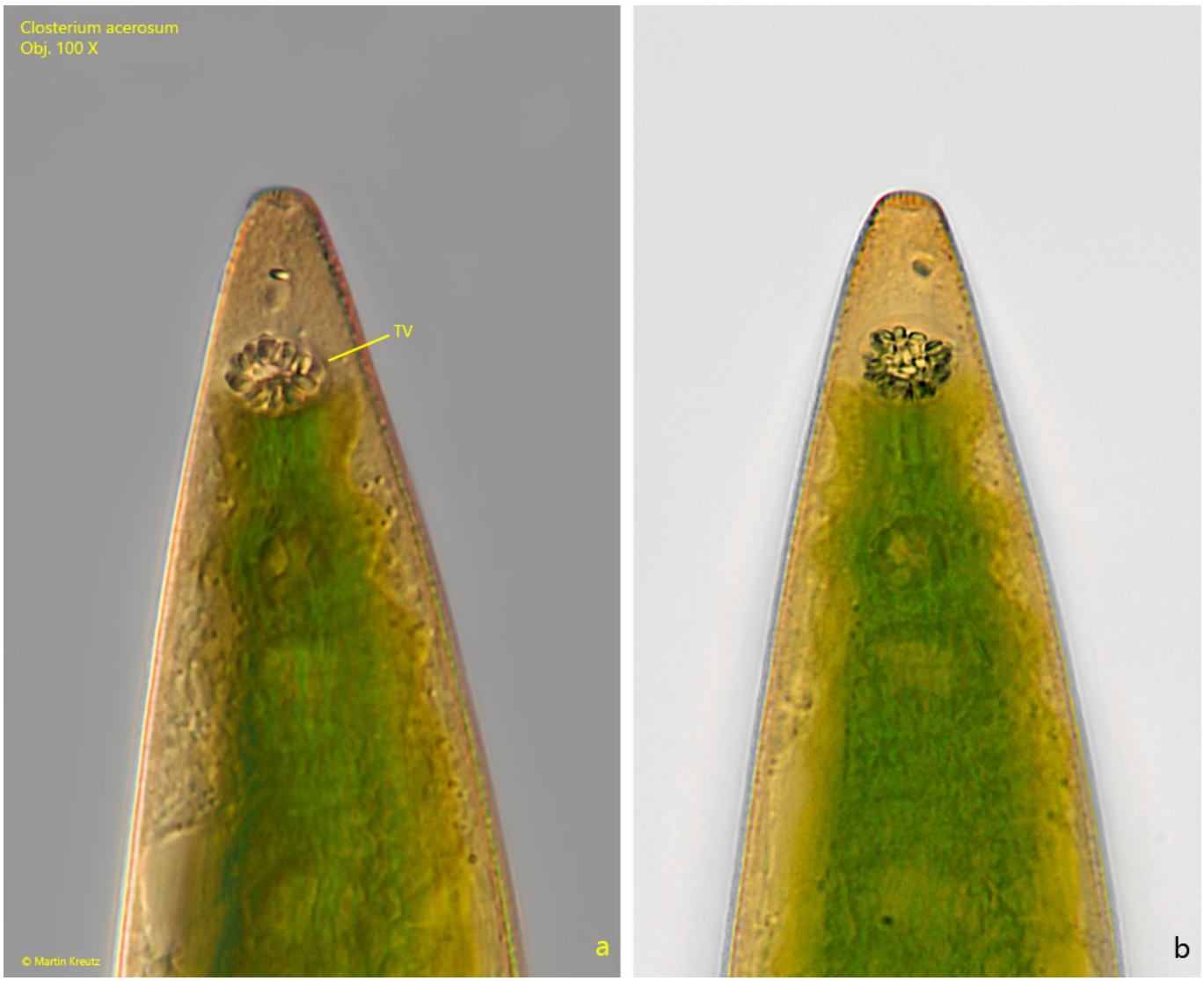


Fig. 4 a-b: *Closterium acerosum*. The apex in DIC (a) and brightfield illumination (b). The terminal vacuole (TV) is filled with a large number of moving crystals. Obj. 100 X.

Fig. 5: *Closterium acerosum*. The cell wall of the apices are punctate (arrow). Obj. 100 X.

Fig. 6: *Closterium acerosum*. The apex of a second specimen. TV = terminal vacuole. Obj. 100 X.