Closterium acerosum

Ehrenberg ex Ralfs, 1848

Most likely ID: n.a.

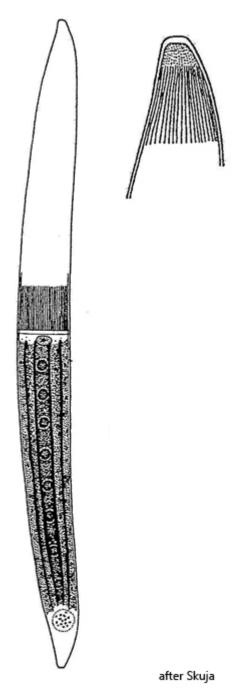
Synonym: n.a.

Sampling location: <u>Ulmisried</u>, 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 to 18 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 <u>Ulmisried</u> 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. 2), which only rarely appears slightly dotted. According to my measurements, there are 12-14 lines/10 µm (s fig. 2).

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

collection of Desmids-Closterium acerosum



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



 ${f Fig.~2:}\ {\it Closterium~acerosum}.$ The surface of the cell wall with a fine striation of about 12

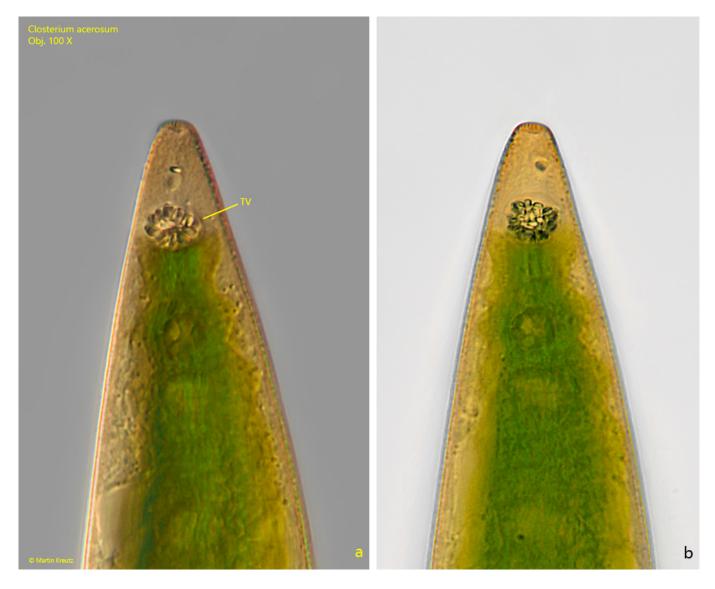


Fig. 3 a-b: Closterium acerosum. The apex in DIC (a) and brightfield illumination (b). The terminal vacuole (TV) is filled with a large number of moving crystals. Obj. 100 X.



 $\textbf{Fig. 4:} \ \textit{Closterium acerosum}. \ \textbf{The cell wall of the apices are punctate (arrow)}. \ \textbf{Obj. 100 X}.$