Closterium pusillum Hantzsch, 1861

Most likely ID: n.a.

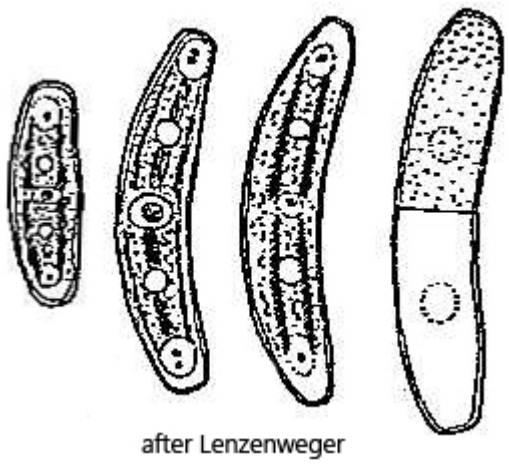
Synonyms: *Closterium obtusum* var. *pusillum*, *Arthrodia pusilla*, *Closterium naviculoides*, *Closterium pusillum* var. *monolithum*, *Closterium pusillum* var. *minus*

Sampling location: Schwemm Moor (Austria)

Phylogenetic tree: *Closterium pusillum*

Diagnosis:

- stocky shape, only slightly curved
- ventral side slightly concave or straight
- length 23–60 µm, width 7–10 µm
- apices broadly rounded
- cell wall smooth, colorless
- two chloroplasts with with each one pyrenoid
- girdle bands absent
- terminal vacuoles with a single crystal



Closterium pusillum

So far, I have found only a single specimen of *Closterium pusillum* in an old sample from the Schwemm Moor. This species is the smallest within the genus *Closterium*.

The specimen was 28 µm in length, at the lower end of the range for *Closterium pusillum*. This form was designated by Lenzenweger (1996) as *Closterium pusillum* var. *minus*, but he also pointed out that the designation is taxonomically doubtful. In fact, the variant is listed as a synonym of *Closterium pusillum* (s. „Synonyms“ above).

The cell wall of my specimen was smooth and colorless, but showed small irregularities that appeared as tiny bumps on the surface. Chloroplasts and pyrenoids corresponded to the description, but I could not detect any terminal vacuoles. Possibly these were obscured by the chloroplasts.

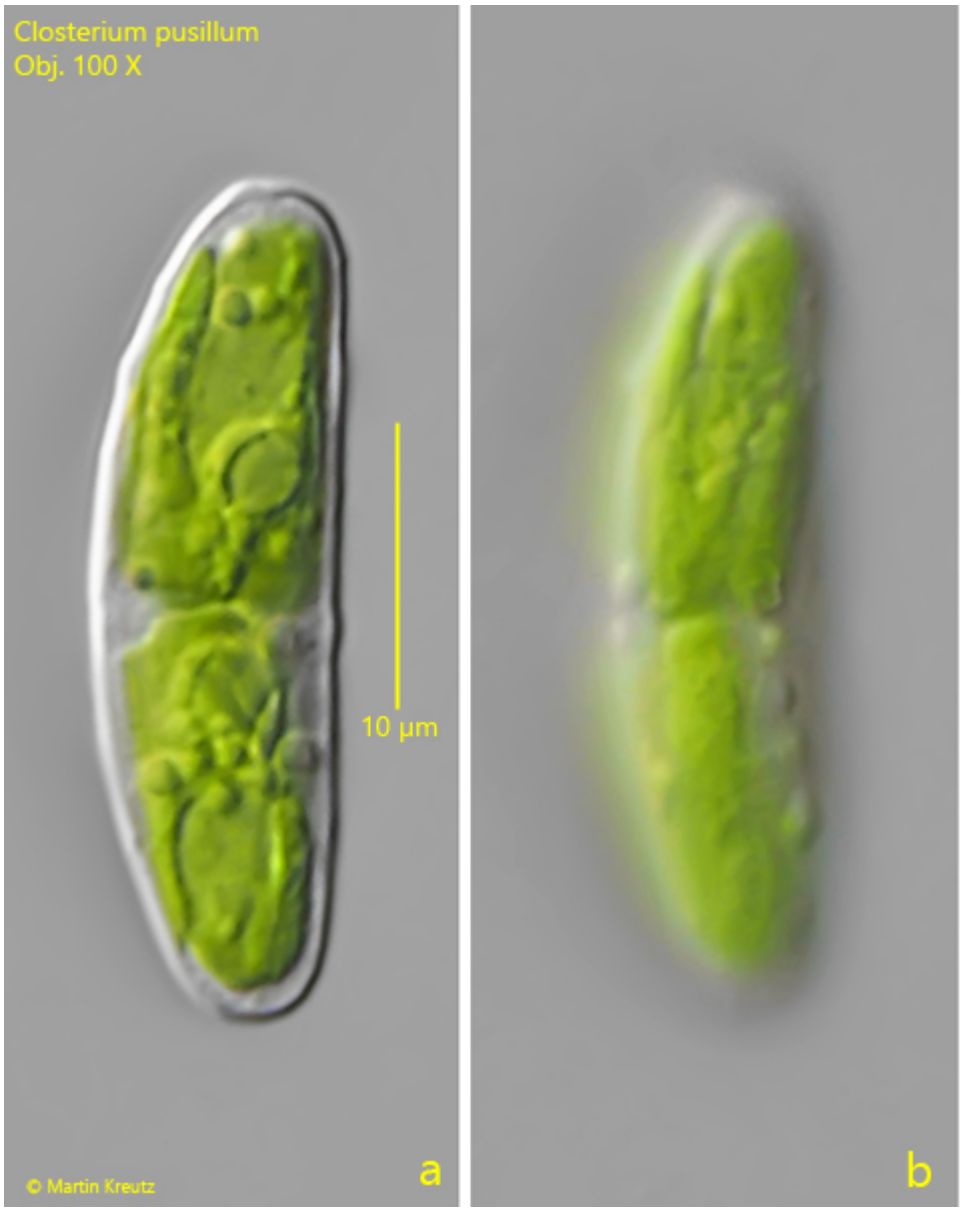


Fig. 1 a-b: *Closterium pusillum*. L = 28 µm. Two focal planes of a specimen in DIC. Obj. 100 X.

Fig. 2 a-b: *Closterium pusillum*. L = 28 µm. The same specimen as shown in fig. 1 a-b in brightfield illumination. Obj. 100 X.