

***Closterium directum* Archer, 1862**

Most likely ID: n.a.

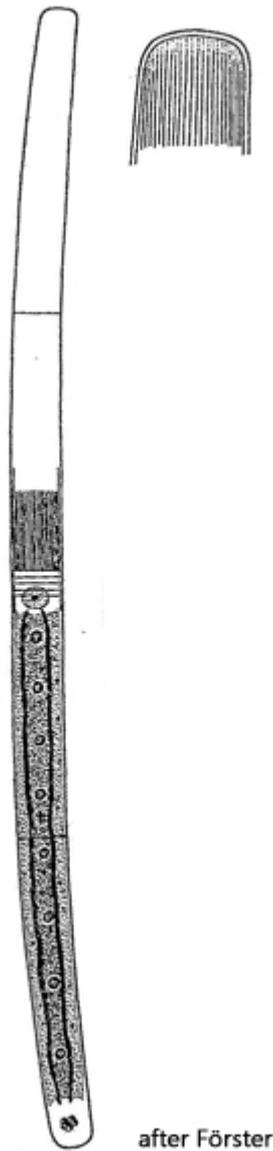
Synonym: n.a.

Sampling location: [Schwemm Moor \(Austria\)](#)

Phylogenetic tree: [Closterium directum](#)

Diagnosis:

- cells slender, slightly curved, straight in middle
- tapered slightly towards ends
- length 195–450 μm
- cell wall with tight striation (9-10 striae/10 μm)
- striation of cell wall sometimes absent
- girdle bands present
- chloroplast with 3–6 longitudinal ridges
- 6–19 pyrenoids per semi-cell
- apices subtruncate, broadly rounded, pore absent
- terminal vacuoles with aggregates of crystals



Closterium directum

So far, I have only found *Closterium directum* in the [Schwemm Moor](#), where this species is very common. *Closterium directum* can essentially be recognized by the very slightly curved cells, which hardly taper towards the apices (s. fig. 1 a-b). The apices are very broadly rounded or almost flat. The cell walls in the specimens of my population were always distinctly striated (s. fig. 4). However, Förster (1982) mentions that the striation can also be very weak or even absent. In the terminal vacuoles of this species, there are always aggregates of crystals, which can appear stacked (s. fig. 5 a).

Closterium directum
Obj. 60 X

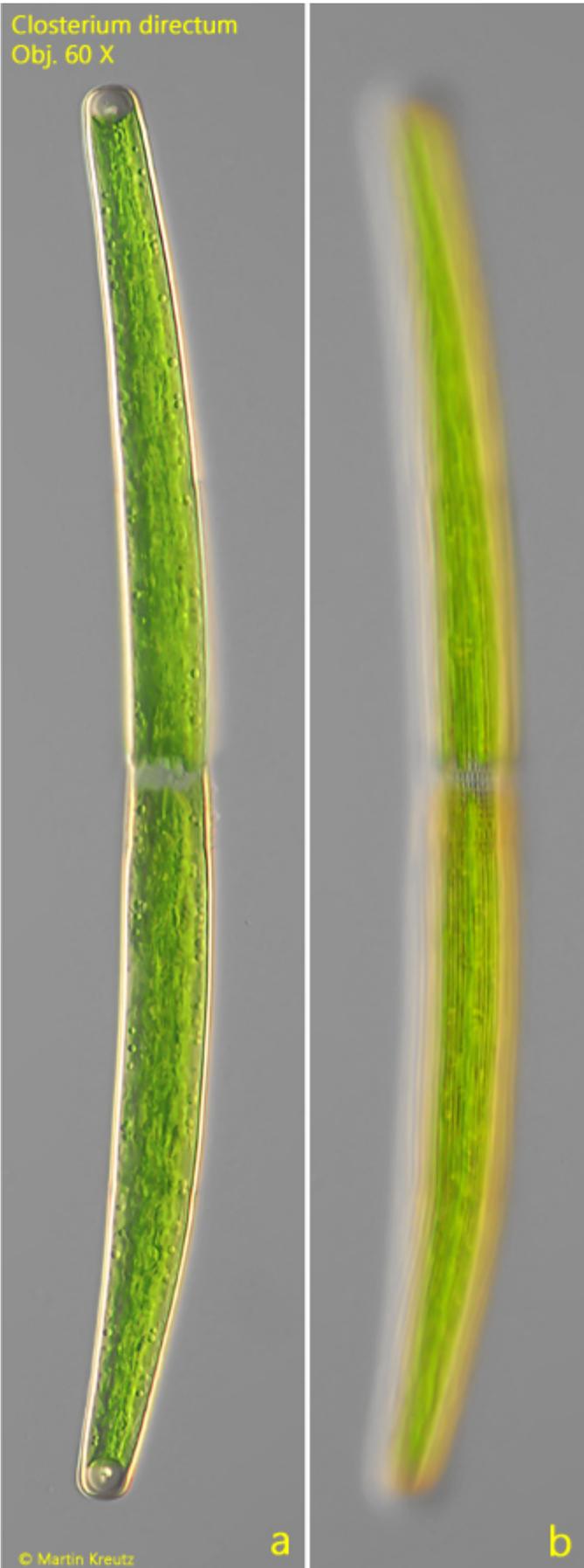


Fig. 1 a-b: *Closterium directum*. L = 222 μ m. Two focal planes of a specimen in DIC. Obj. 60 X.

Closterium directum
Obj. 60 X



a

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b

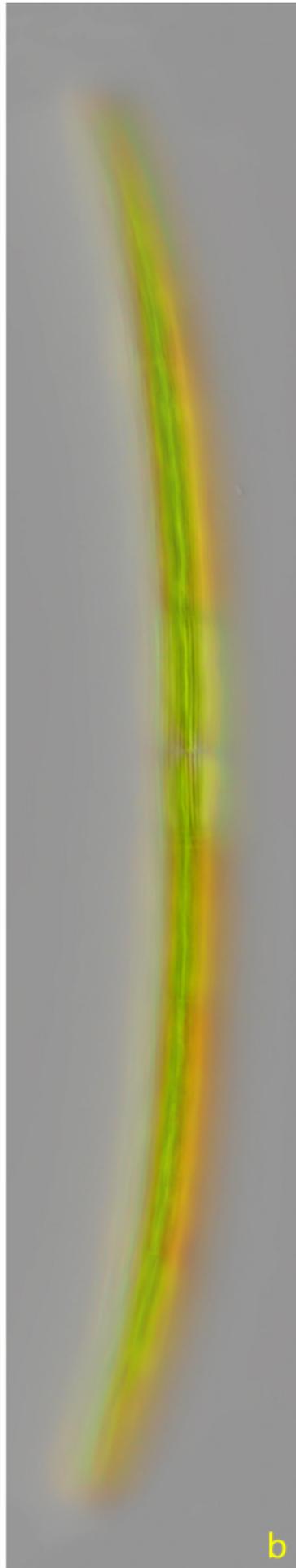
Fig. 2 a-b: *Closterium directum*. L = 222 μ m. The same specimen as shown in fig. 1 a-b in brightfield illumination. Obj. 60 X.

Closterium directum
Obj. 60 X



a

© Martin Kreutz



b

Fig. 3 a-b: *Closterium directum*. L = 374 μm . A second, larger specimen. Obj. 60 X.

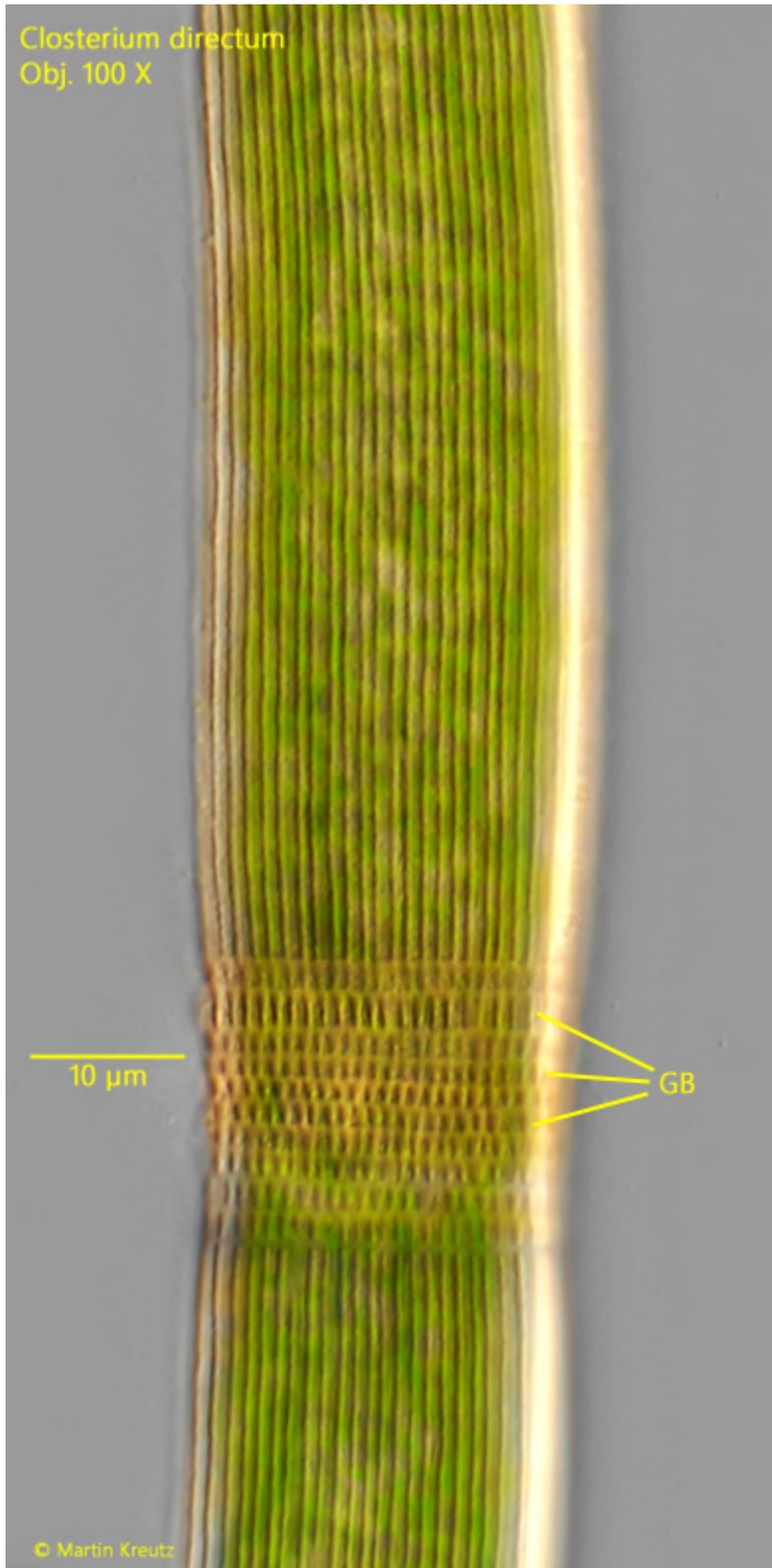


Fig. 4: *Closterium directum*. L = 222 μm . The striation of the cell wall in a squashed specimen. GB = girdle bands. Obj. 100 X.

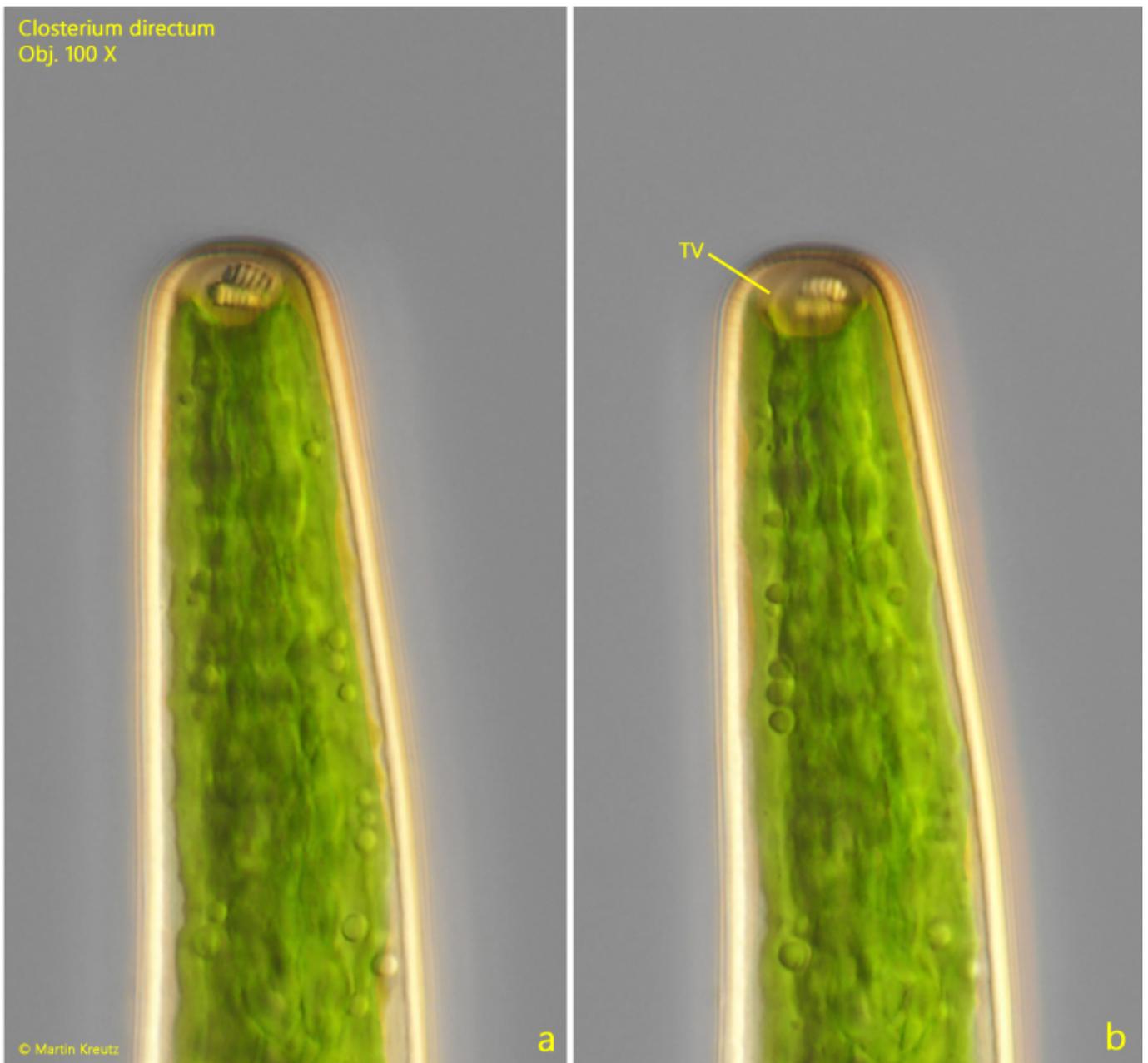


Fig. 5 a-b: *Closterium directum*. Two focal planes of the broadly rounded apex without pore. The terminal vacuole (TV) is filled with aggregates of crystals. Obj. 100 X.