Closterium venus

Kützing ex Ralfs 1848

Most likely ID: n.a.

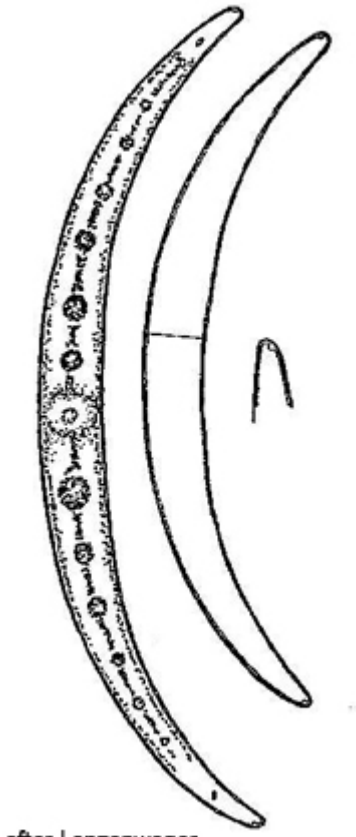
Synonym: n.a.

Sampling location: Pond of the convent Hegne, Ulmisried, Simmelried

Phylogenetic tree: *Closterium venus*

Diagnosis:

- cell continuously curved, but not a semicircle
- apices acutely rounded, with pore
- length 55–95 µm, width 7–12
- cell wall smooth, without striation
- two chloroplasts, each with 3 longitudinal ridges
- only few pyrenoids per semi-cell, commonly 1–2
- girdle bands present
- cell wall colorless, sometimes brownish
- terminal vacuoles with single or few small crystals
- nucleus central



Closterium venus

I find *Closterium venus* quite frequently, but always only single specimens. The most important distinguishing feature is the small size of 100 µm or less, as well as the slender and uniformly curved shape.

In my population the cells had always 2 pyrenids per semi-cell. This corresponds to the description of *Closterium venus* by Förster (1982). I have never found cells with more pyrenoids. Lenzenweger (1996), however, describes the species with “some” pyrenoids and draws it with 6 pyrenoids per semi-cell (s. drawing above).

The differentiation from the very similar species *Closterium incurvum* is difficult. The cells of this species have an almost semicircular curvature and the apices are very pointed. In addition, the cells of *Closterium incurvum* are a maximum of 80 µm long and therefore somewhat smaller than those of *Closterium venus*. Otherwise, the characteristics are identical. Since the cells of my population are significantly less curved and have a length of about 100 µm, they can be assigned to *Closterium venus*.

More images and information on *Closterium venus*: Wolfgang Bettighofer-Protisten.de-

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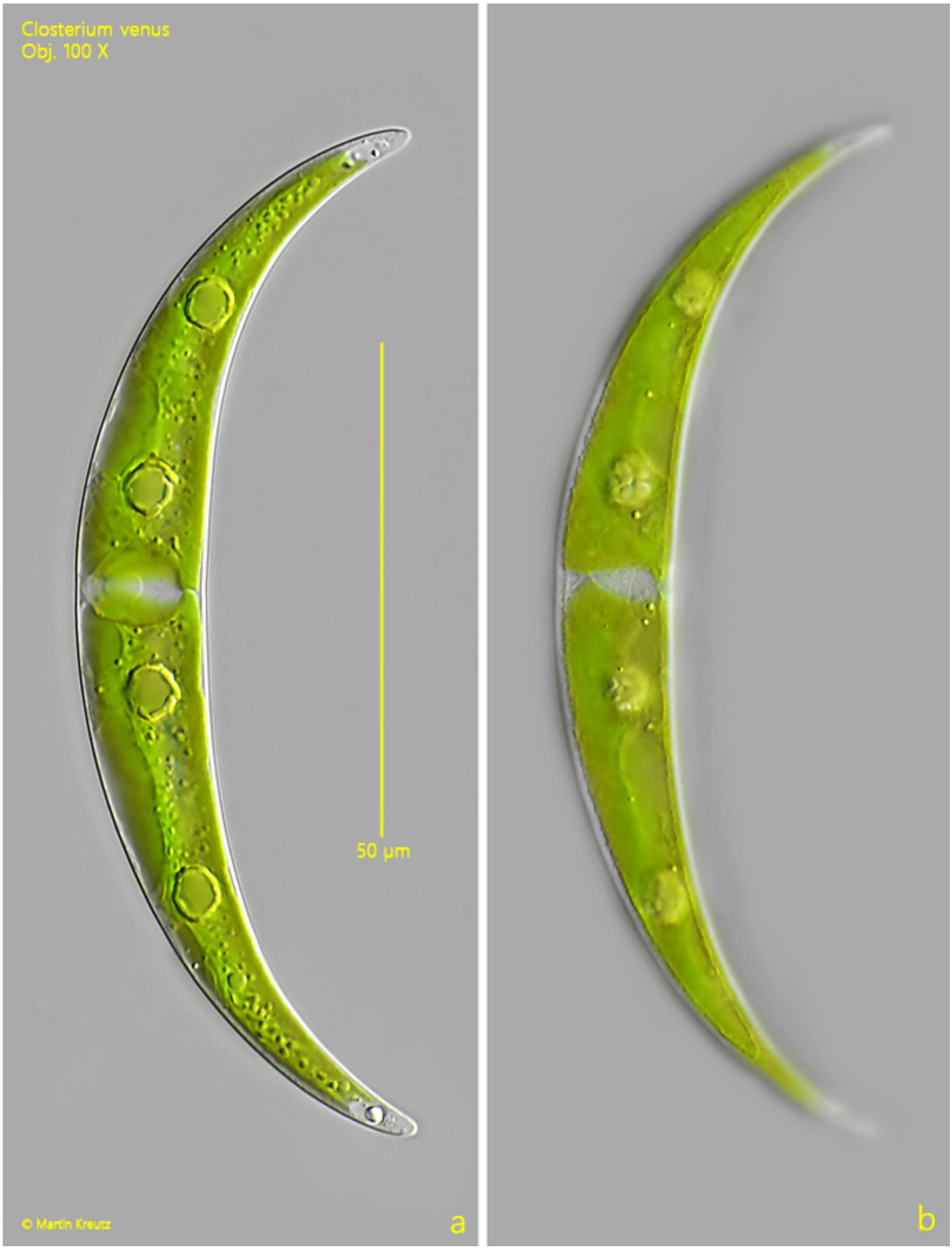

Fig. 1 a-b: *Closterium venus*. L = 102 µm. Two focal planes on the central nucleus (a) and

the smooth cell wall (b). Obj. 100 X.

Fig. 2: *Closterium venus*. Focal plane on the apical pore (PO). Obj. 100 X.