

***Closterium limneticum***

**Lemmermann, 1899**

**Most likely ID:** n.a.

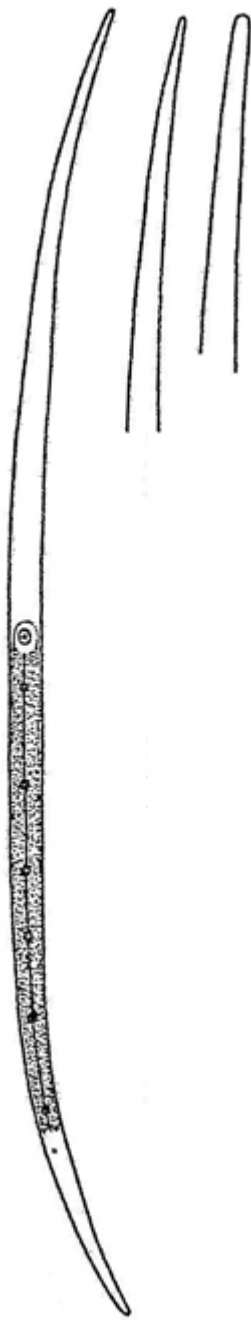
**Synonym:** n.a.

**Sampling location:** [Pond of the waste disposal company Constance](#)

**Phylogenetic tree:** [Closterium limneticum](#)

**Diagnosis:**

- cell long, slender, slightly curved, middle almost straight
- length 97-300 µm, width 4-8 µm
- two chloroplasts, each with 3 longitudinal ridges
- 3-13 pyrenoids per cell
- girdle bands absent, sometime pseudo girdle bands
- cell wall smooth, colorless
- apices slender, narrowly rounded, porus absent
- terminal vacuole with one or two gypsum crystal



after Lemmermann

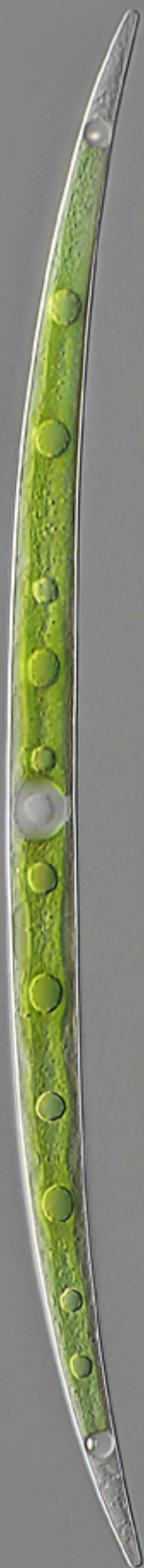
### Closterium limneticum

I found *Closterium limneticum* in the plankton of the [pond of the waste disposal company Constance](#), which is highly eutrophic and has a high fish population. This agrees with the descriptions of the typical habitats of *Closterium limneticum*.

The characteristics of the specimens in my population match the criteria for *Closterium limneticum*. The cells are slightly curved, but almost straight in the central part. The cell wall is smooth and colorless (s. fig. 2 b). Each chloroplast contains 5-6 pyrenoids (s. fig. 1 a) and the terminal vacuoles each contain a large gypsum crystal. The apices of my specimens were tightly rounded, without a porus.

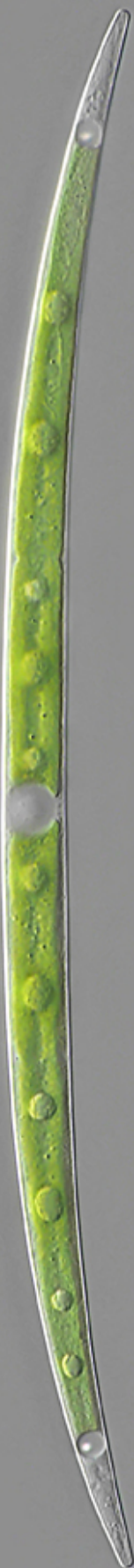
The similar species *Closterium gracile* has different ecological requirements and occurs mainly in nutrient-poor *Sphagnum* bogs. In addition, *Closterium gracile* has a clear thickening in the apices with a porus.

*Closterium limneticum*  
Obj. 60 X



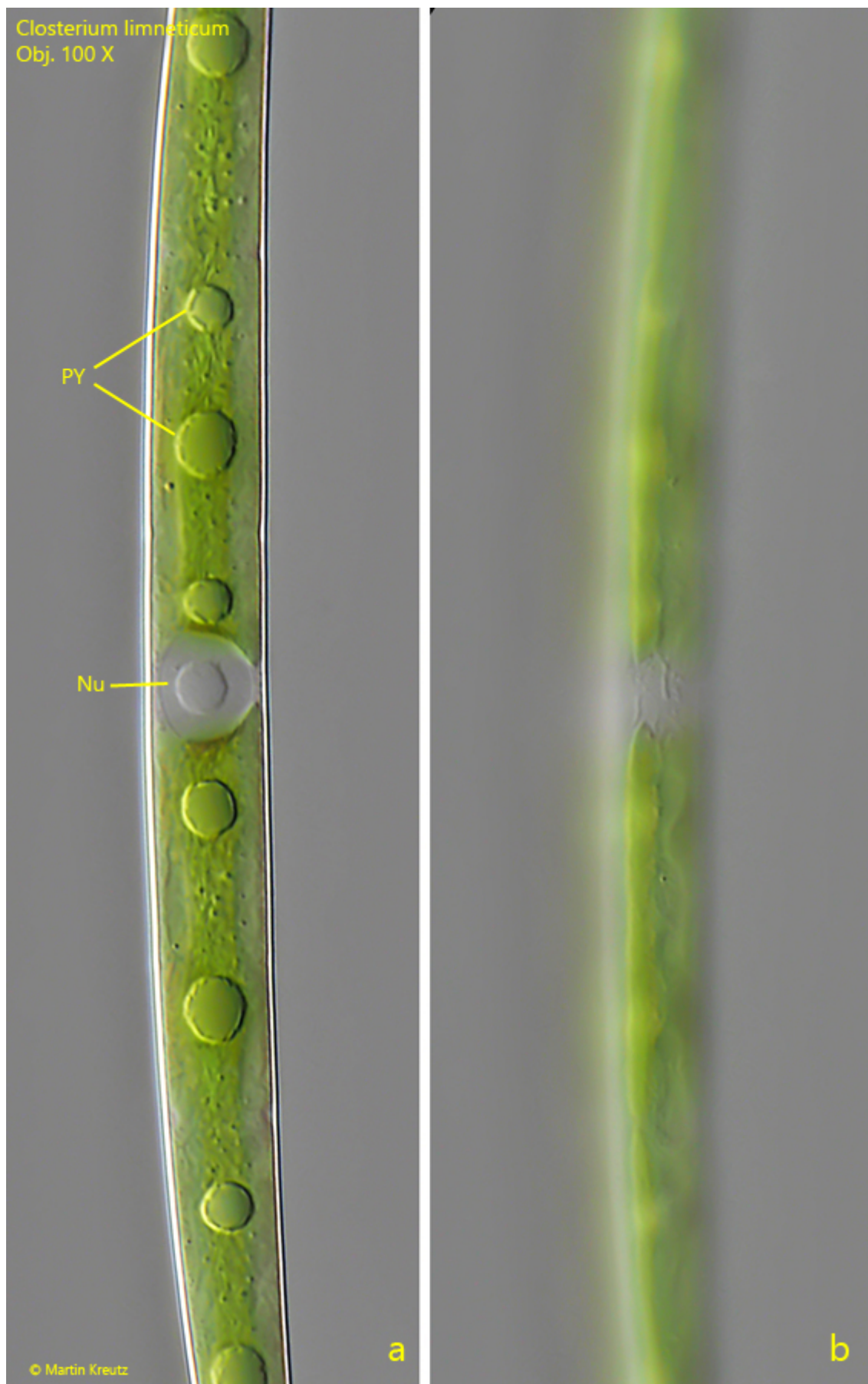
a

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b

**Fig. 1 a-b:** *Closterium limneticum*. L = 273  $\mu\text{m}$ . Two focal planes of a slightly squashed specimen. Obj. 60 X.



**Fig. 2 a-b:** *Closterium limneticum*. L = 273  $\mu\text{m}$ . Two focal planes from the cell center. Note the smooth, transparent cell wall without a striation (b). Nu = nucleus, PY = pyrenoids. Obj. 100 X.



**Fig. 3:** *Closterium limneticum*. The apex of a semi-cell in detail. Note the single gypsum crystal (GC) in the terminal vacuole. The apex is narrowly rounded without a porus. Obj. 100 X.