

## *Desmodesmus serratus*

(Corda) An, Friedl & Hegewald, 1999

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

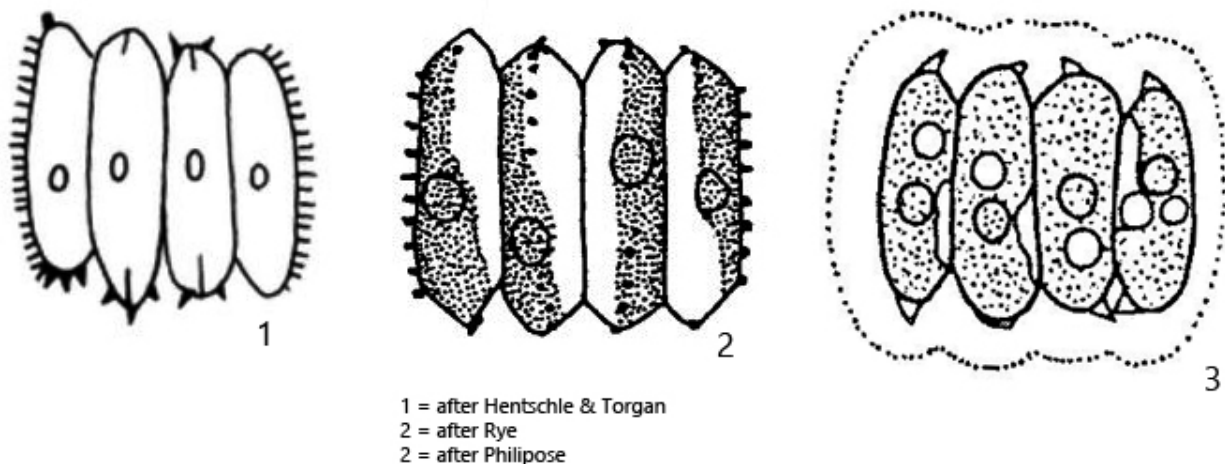
**Synonym:** *Scenedesmus serratus*, *Arthrodesmus serratus*

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

**Phylogenetic tree:** [Desmodesmus serratus](#)

### Diagnosis:

- coenobia of 2-4-(8) linearly arranged cells
- coenobia surrounded by mucilage sheath
- single cells oblong cylindrical with rounded ends
- length of cells 7.8-20  $\mu\text{m}$ , width 2.5-7  $\mu\text{m}$
- 1-4 short teeth at rounded apices of cells
- often a row of small teeth at the lateral wall of the outer cells
- cell wall smooth (apart from teeth)
- one pyrenoid per cell

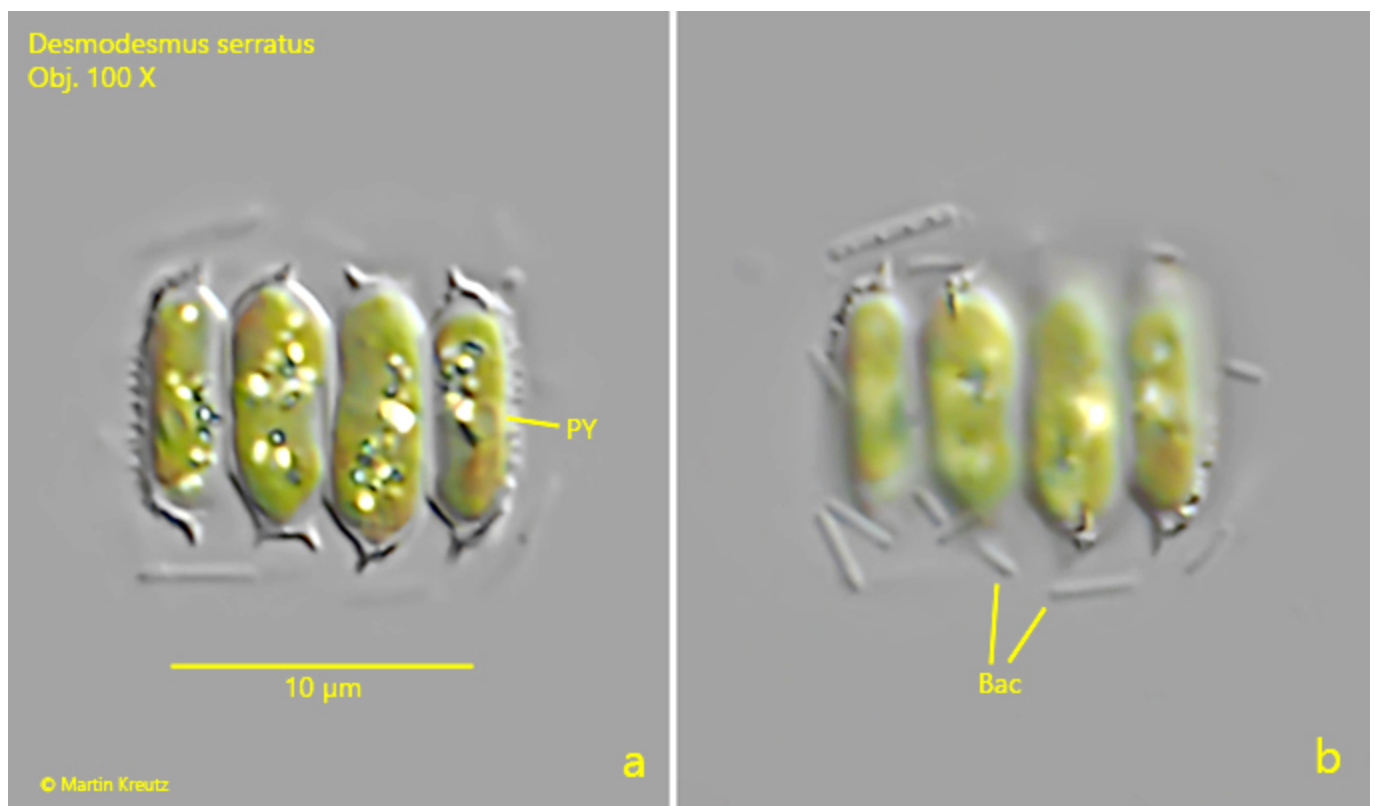


*Desmodesmus serratus*

*Desmodesmus serratus* was originally described by Bohlin (1901) as *Scenedesmus serratus*,

but was transferred to the genus *Desmodesmus* by An, Friedl and Hegewald in 1999.

In August 2023 I found *Desmodesmus serratus* in large numbers in the plankton of the [pond of the waste disposal company Constance](#). This species is very small and can easily be overlooked when sifting through a plankton sample. *Desmodesmus serratus* can be recognized by the very small teeth on the apices of the cells. In addition, a mucus sheath around the coenobium is characteristic, which only becomes visible in DIC by attached bacteria (s. fig. 1 a-b). A row of small teeth can often be found on the lateral outer sides of the coenobium. Otherwise the walls of the cells are naked (s. fig. 1 b). The similar species [Desmodesmus brasiliensis](#) has longitudinal ridges on the lateral sides of the cells in addition to the apical, small teeth. This allows to distinguish these two species.



**Fig. 1 a-b:** *Desmodesmus serratus*. L = 12.6 µm (of coenobium). Two focal planes of a coenobium of 4 cells. Note the bacteria (Bac) covering the mucilage sheath of the coenobium. PY = pyrenoid. Obj. 100 X.