Scenedesmus semipulcher Hortobágyi, 1960

Most likely ID: n.a.

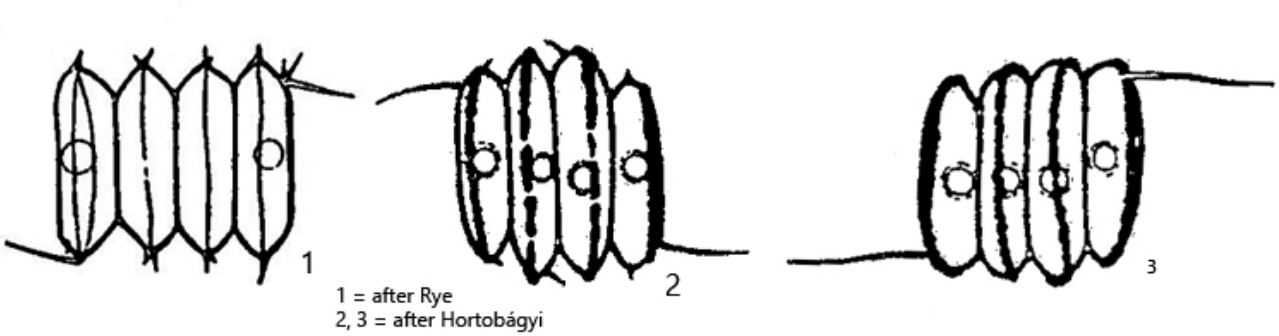
Synonym: n.a.

Sampling location: Lake Constance

Phylogenetic tree: *Scenedesmus semipulcher*

Diagnosis:

- coenobia of (2)–4–(8), linearly arranged cells
- single cells oblong cylindical with rounded ends
- length of cells 7–20 µm, width 2–8 µm
- inner cells with short teeth at apices or naked
- longitudinal ridges on sides of all cells or the inner cells, sometimes interrupted or a row of warts
- outer cells with one spine each (4–17 µm long), arranged diagonally
- one pyrenoid per cell



Scenedesmus semipulcher

I have found *Scenedesmus semipulcher* in the plankton of Lake Constance in July 1994. The main characteristic of *Scenedesmus semipulcher* are the diagonally arranged spines on the two outer cells and the ribs on the sides of the cells. In my population, the ribs were restricted to the inner cells and interrupted in the middle (s. fig. 1 a-b). The cells are parallel and densely arranged. In the same sample, however, I also found specimens in which the individual cells of the coenobia were arranged slightly alternately (s. fig. 2). Although Hortobágyi (1960) writes that the

cells can also be slightly alternating, I was not quite sure about the identification. I have also not found any other source in which this species was described or drawn with alternating cells.

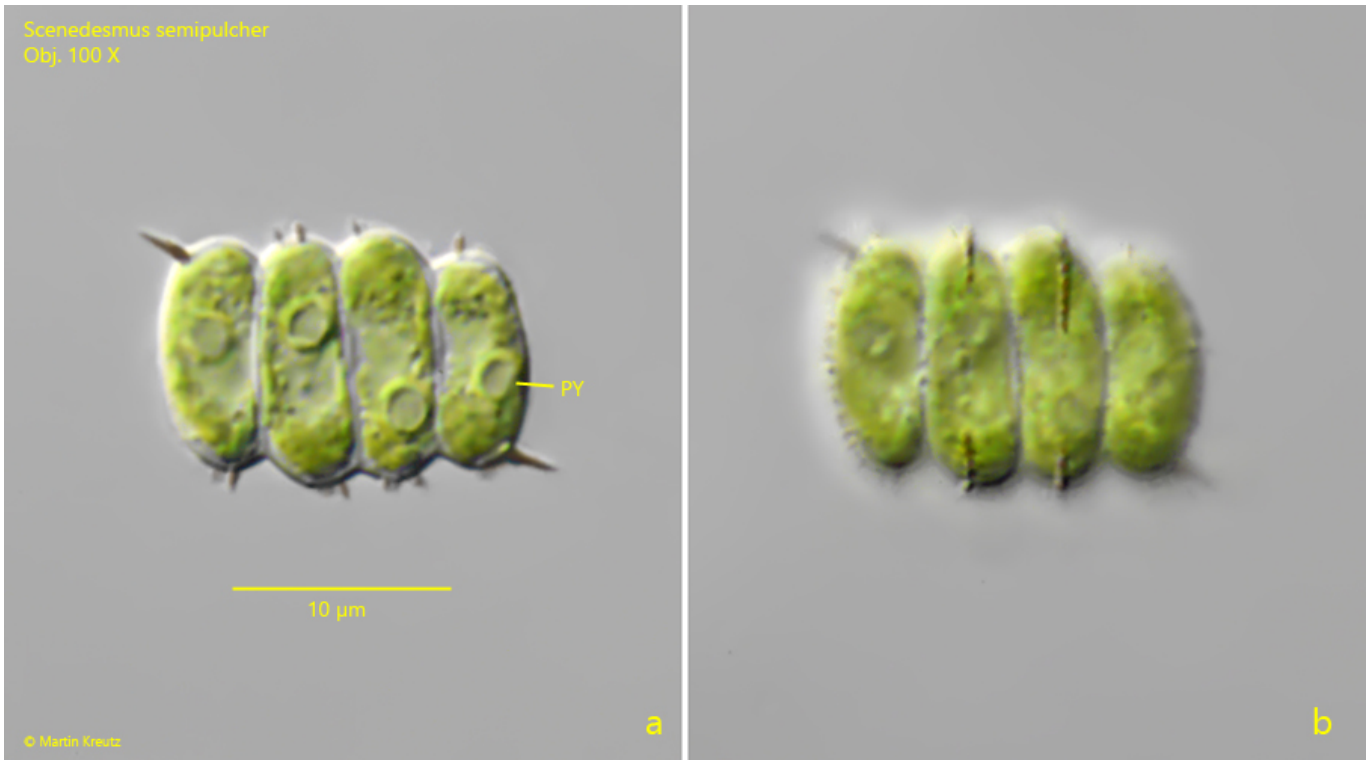


Fig. 1 a-b: *Scenedesmus semipulcher.* L = 18 µm (of coenobium). Two focal planes of a coenobium of 4 cells. Note the diagonally arranged spines of the outer cells and the ridges on the lateral sides of the inner cells. Obj. 100 X.



Fig. 2: *Scenedesmus cf. semipulcher.* L = 16 µm (of coenobium). This specimen has all characteristics of *Scenedesmus semipulcher* but the cells are sligthly alternating and not parallel. Obj. 100 X.