Quadrigula closterioides

(Bohlin) Printz, 1916

Most likely ID: n.a.

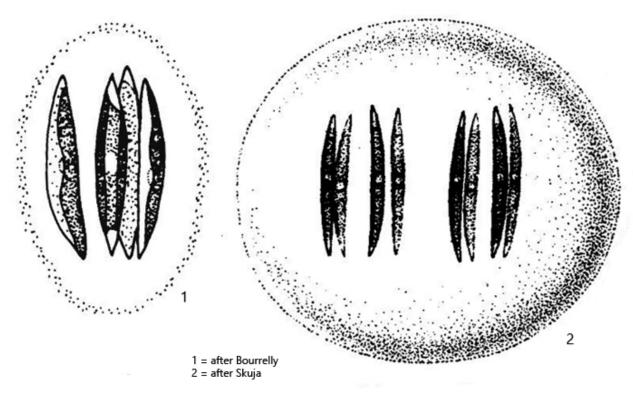
Synonym: Ankistrodesmus closterioides

Sampling location: Simmelried

Phylogenetic tree: Quadrigula closterioides

Diagnosis:

- cells long, spindle-shaped, straight or slightly curved
- cells narrowing gradually to pointed apices
- length 20-30 μm, width 2-6 μm
- colonies 2-16 cells
- one parietal chloroplast with one inconspicuous pyrenoid
- nucleus central



Quadrigula closterioides

I find Quadrigula closterioides only rarely and so far exclusively in the Simmelried. The genus Quadrigula can be distinguished from the genera Ankistrodesmus and Selenastrum by the parallel arrangement of the cells in a colony. In Ankistrodesmus and Selenastrum the cells touch approximately in the middle of the cell and are not parallel.

The pyrenoid in the chloroplast of *Quadrigula closterioides* is very difficult to recognize, especially when the cells are filled with starch grains (s. fig. 2). I was not able to identify the pyrenoid. The nucleus, on the other hand, lies in a recess in the middle of the cell and is not covered by the chloroplast (s. fig. 2).



Fig. 1: Quadrigula closterioides. $L=22-28~\mu m$. A colony of 14 cells. Of the 4 mother cells, three have divided twice and one (left) only once. Obj. 100 X.



Fig. 2: Quadrigula closterioides. L = $28-29 \mu m$. A colony of 4 cells. All cells are filled with spherical starch grains. Nu = nucleus. Obj. 100 X.

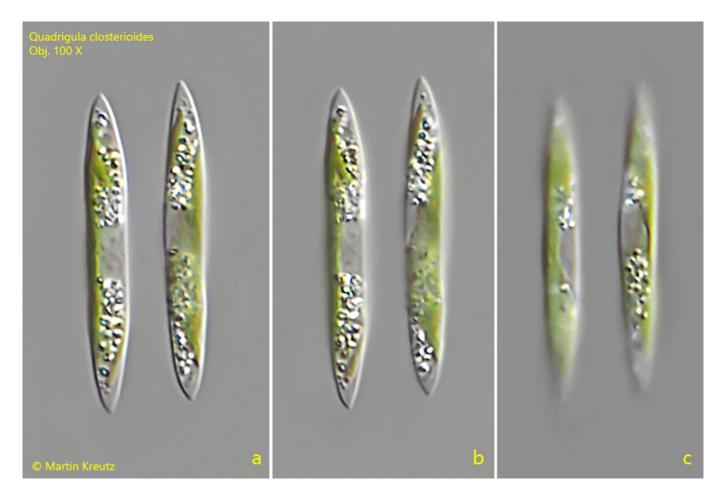


Fig. 3 a-c: Quadrigula closterioides. $L=25-26~\mu m$. The focal planes of a colony of 2 cells. Obj. 100 X.