Synura spinosa Korshikov, 1929

Most likely ID: n.a.

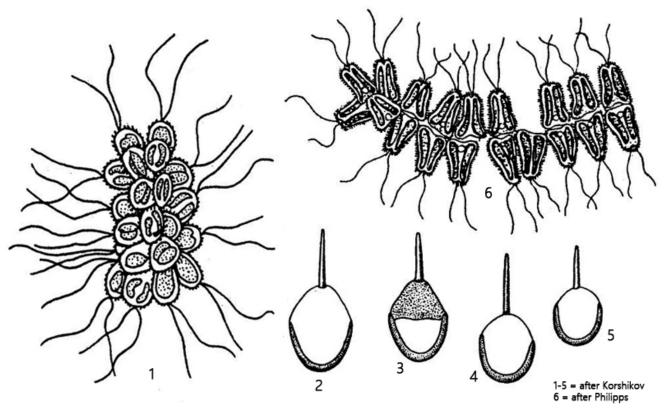
Synonym: Chlorodesmus hispidus

Sampling location: Simmelried

Phylogenetic tree: Synura spinosa

Diagnosis:

- colonies spherical, oblong or ribbon-shaped
- cells obovid, trigonal or club-shaped
- length 20-40 µm (of cells)
- cells covered with a layer of silica scales
- scales elliptical with a straight spine, $3-5 \mu m \log 3$
- 2 flagella of equal length
- 2 brownish-yellow chloroplasts
- eyespot absent
- contractile vacuole posterior



Synura spinosa

So far I have only been able to find *Synura spinosa* in the <u>Simmelried</u>, where the species is very rare. The species usually occurs mainly in spring.

The shape of the cells and colonies of *Synura spinosa* is very variable. Mostly I find oval colonies with slender, slightly club-shaped cells. Very rarely I find ribbon-shaped colonies with almost triangular cells (s. figs 1 a-b and 3 a-b). The latter variant was named Chlorodesmus hispidus by Philipps (1882). In 1994, however, Calado and Rino were able to show that it is also *Synura spinosa*, due to the identical scale shape.

For a reliable identification of *Synura spinosa* it is necessary to evaluate the exact shape of the silica scales covering the body of the cells. In Synura spinosa these are oval with a thickened margin and a straight spine (s. figs. 2 and 4). The spine is about as long as the scale. The scales of *Synura spinosa* in my population were 6.3-6.7 µm long.

Since I found both oval colonies with club-shaped cells and the ribbon-shaped colonies with triangular cells, which Philipps described as *Chlorodesmus hispidus*, I was able to compare the scales of both shape variants directly. They are absolutely identical (s. figs. 2 and 4) and I can therefore confirm the synonymization with Synura spinosa by Calado and Rino.

More images and information on Synura spinosa: Michael Plewka-Freshwater life-Synura <u>spinosa</u>

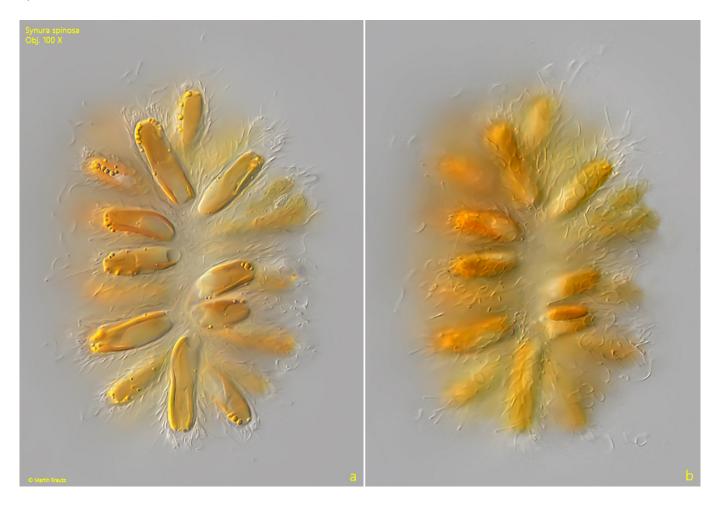


Fig. 1 a-b: $Synura\ spinosa$. L = 94 μm (of colony). Two focal planes of an oval colony of about 30 cells. Obj. 100 X.

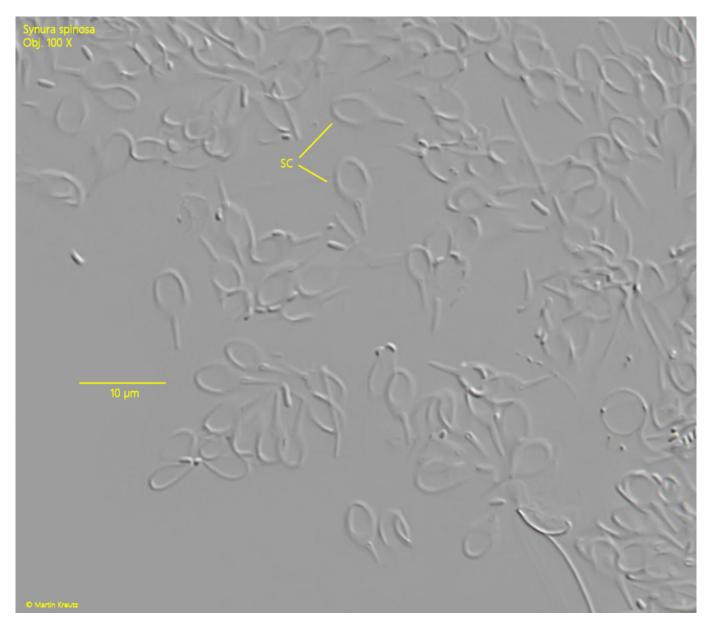


Fig. 2: Synura spinosa. The silica scales of the cells from the colony as shown in fig. 1 a-b. The scales are oval with a thickended margin and a straight spine. Obj. $100\ X$.





Fig. 3 a-b: Synura spinosa. $L=134~\mu m$ (of colony). Two focal planes of a ribbon-shaped colony of almost trigonal cells. Obj. 100 X.

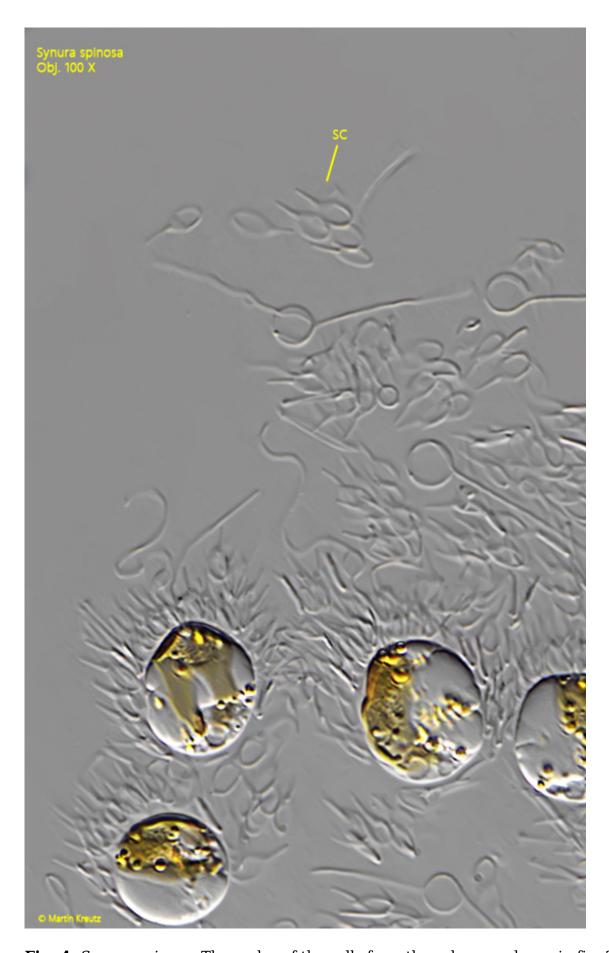


Fig. 4: Synura spinosa. The scales of the cells from the colony as shown in fig. 3 a-b. Obj. $100~\mathrm{X}$.