

Aphanocapsa planctonica

(Smith) Komárek & Anagnostidis, 1995

Most likely ID: n.a.

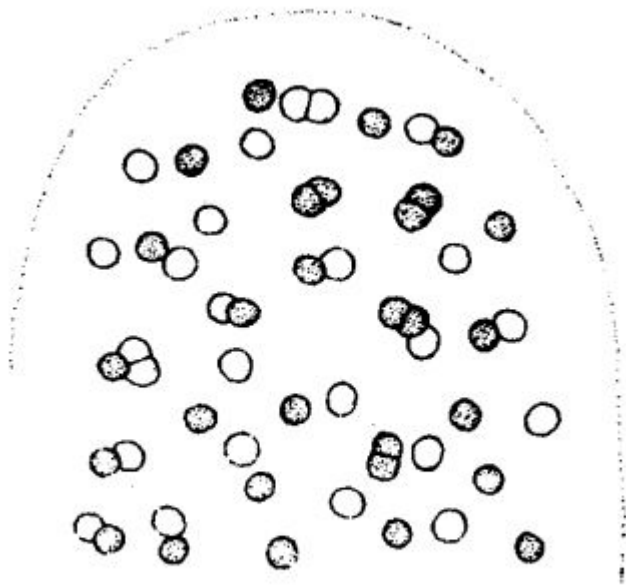
Synonym: *Aphanocapsa elachista* var. *planctonica*

Sampling location: [Simmelried](#)

Phylogenetic tree: [Aphanocapsa planctonica](#)

Diagnosis:

- colony in a common mucilaginous sheath, irregularly or spherically shaped
- cells scattered, widely spaced
- no individual mucilaginous envelope of cells
- cells spherical, diameter 2–3 µm
- color pale blue-green
- cytoplasm homogenous, only few, small granules
- gas vacuoles absent
- planktonic lifestyle



after Smith

Aphanocapsa planctonica

Although *Aphanocapsa planctonica* is said to have a planktonic lifestyle, I found this cyanobacterium between floating plants in the [Simmelried](#).

The identification is based on the shape of the cells and the cell size. The cells of the genus *Aphanocapsa* are spherical, while the cells of the genus *Aphanothece* are cylindrical or elliptical in shape. The species within the genus *Aphanocapsa* are differentiated according to the size of the cells. *Aphanocapsa planctonica* has cells with a diameter of 2–3 μm . The cells of the similar species *Aphanocapsa elachista* have a diameter of 1.5–2 μm and the cells of the species *Aphanocapsa delicatissima* are even smaller with a diameter of 0.5–0.75 μm . The cells in the colonies from the [Simmelried](#) have a diameter of 2.4–3.1 μm (s. fig. 3). It must therefore be *Aphanocapsa planctonica*.

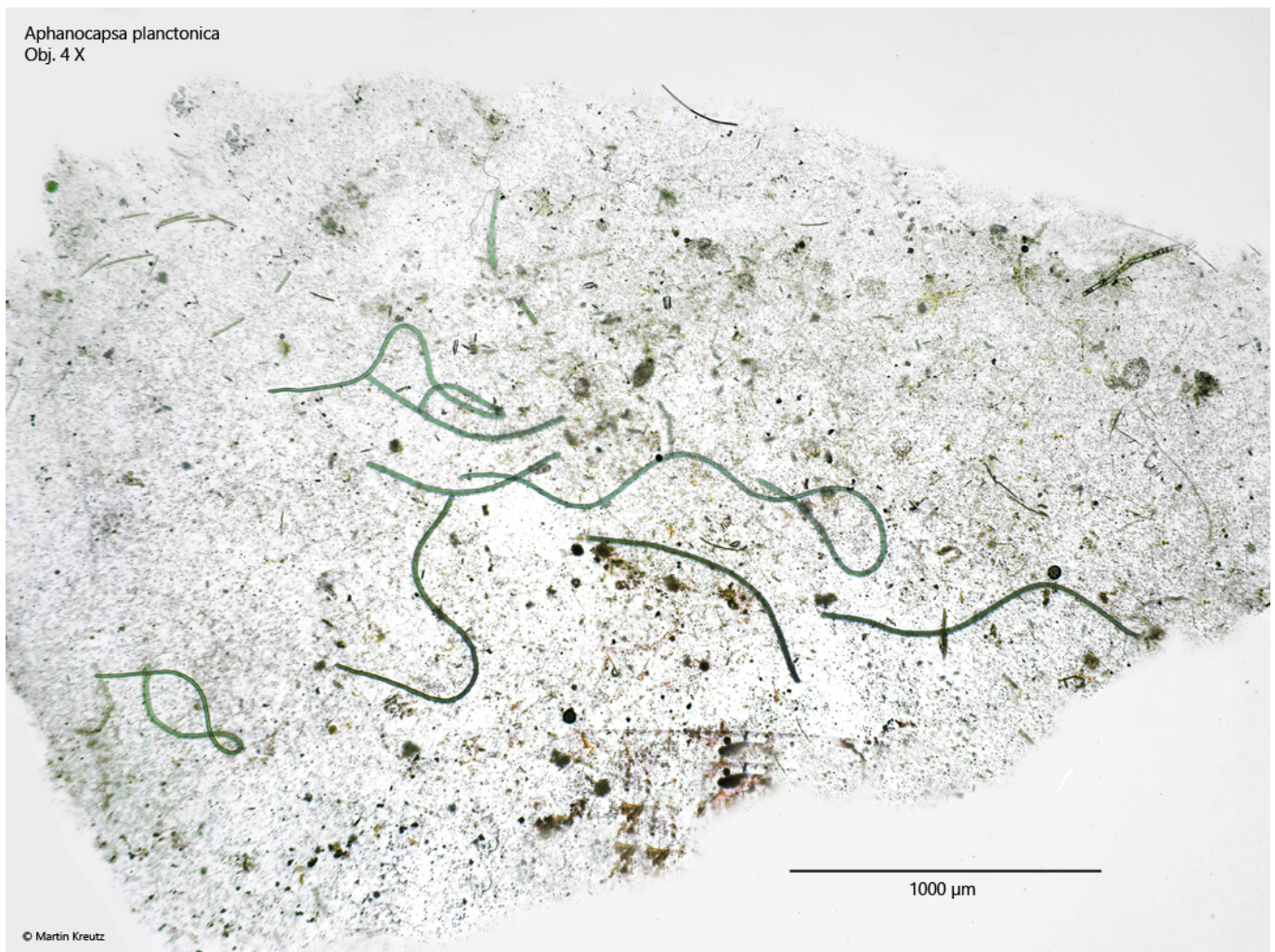


Fig. 1: *Aphanocapsa planctonica*. L = 4120 μm (of colony). A large, irregularly shaped colony. Obj. 4 X.



Fig. 2: *Aphanocapsa planctonica*. L = 4120 μm (of colony). A closer view of the colony as shown in fig. 1. Obj. 10 X.



Fig. 3: *Aphanocapsa planctonica*. $D = 2.4\text{--}3.1\ \mu\text{m}$ (of cells). The spherical, pale blue-green cells in brightfield illumination. Obj. 100 X.

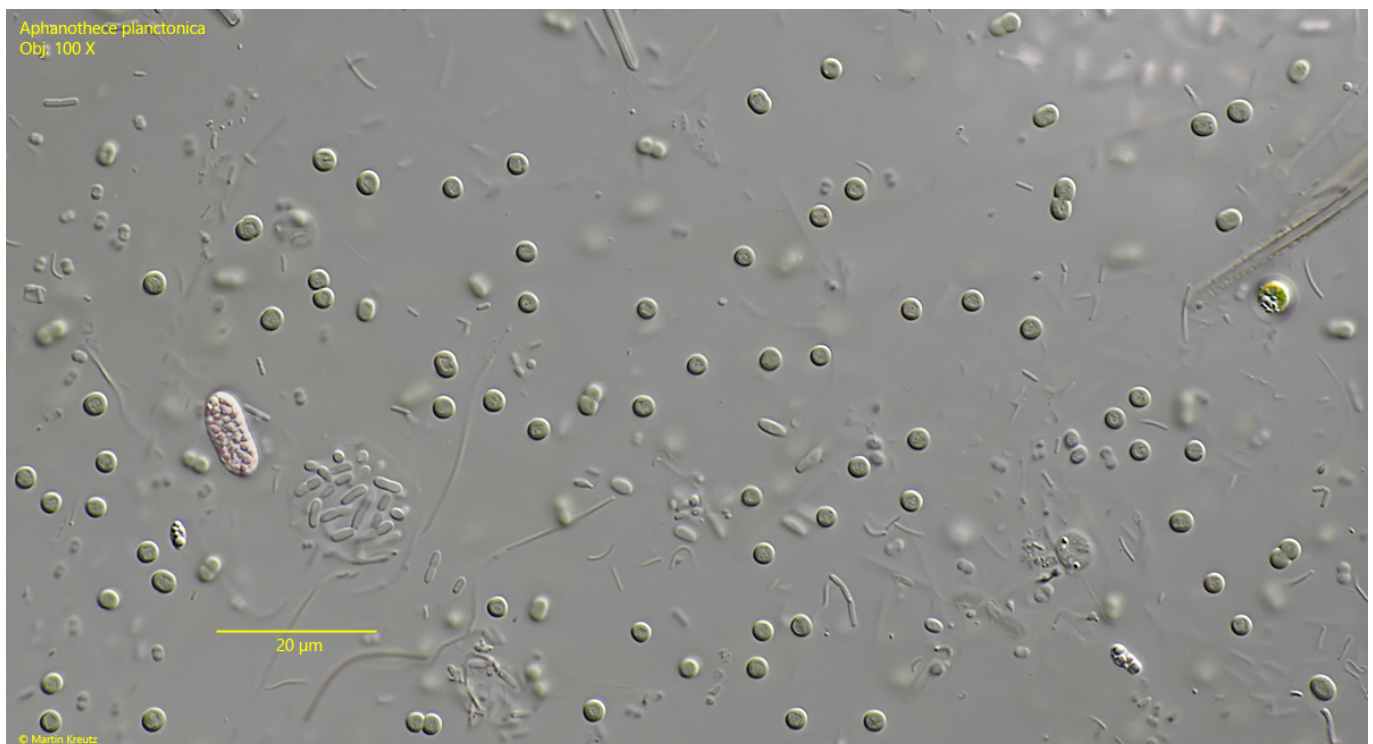


Fig. 4: *Aphanocapsa planctonica*. $D = 2.4\text{--}3.1\ \mu\text{m}$ (of cells). The spherical cells in DIC. Obj. 100 X.