

***Aphanocapsa plantonica***  
**(Smith) Komárek & Anagnostidis, 1995**

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

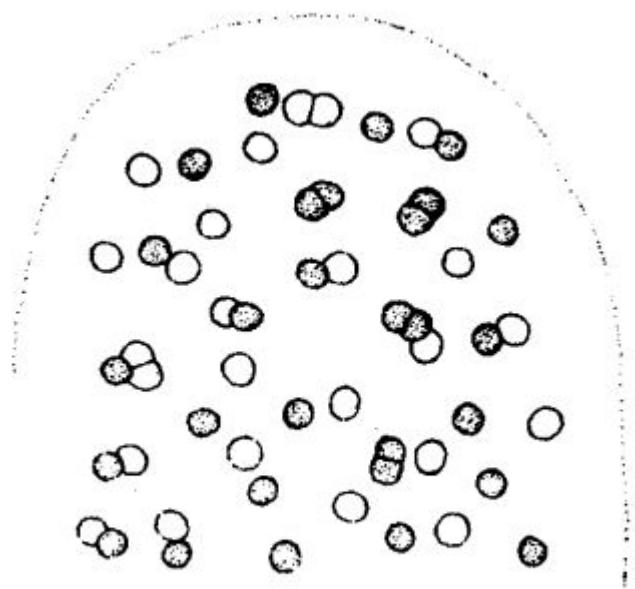
**Synonym:** *Aphanocapsa elachista* var. *plantonica*

**Sampling location:** [Simmelried](#)

**Phylogenetic tree:** [Aphanocapsa plantonica](#)

**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  $\mu\text{m}$
- color pale blue-green
- cytoplasm homogenous, only few, small granules
- gas vacuoles absent
- planktonic lifestyle



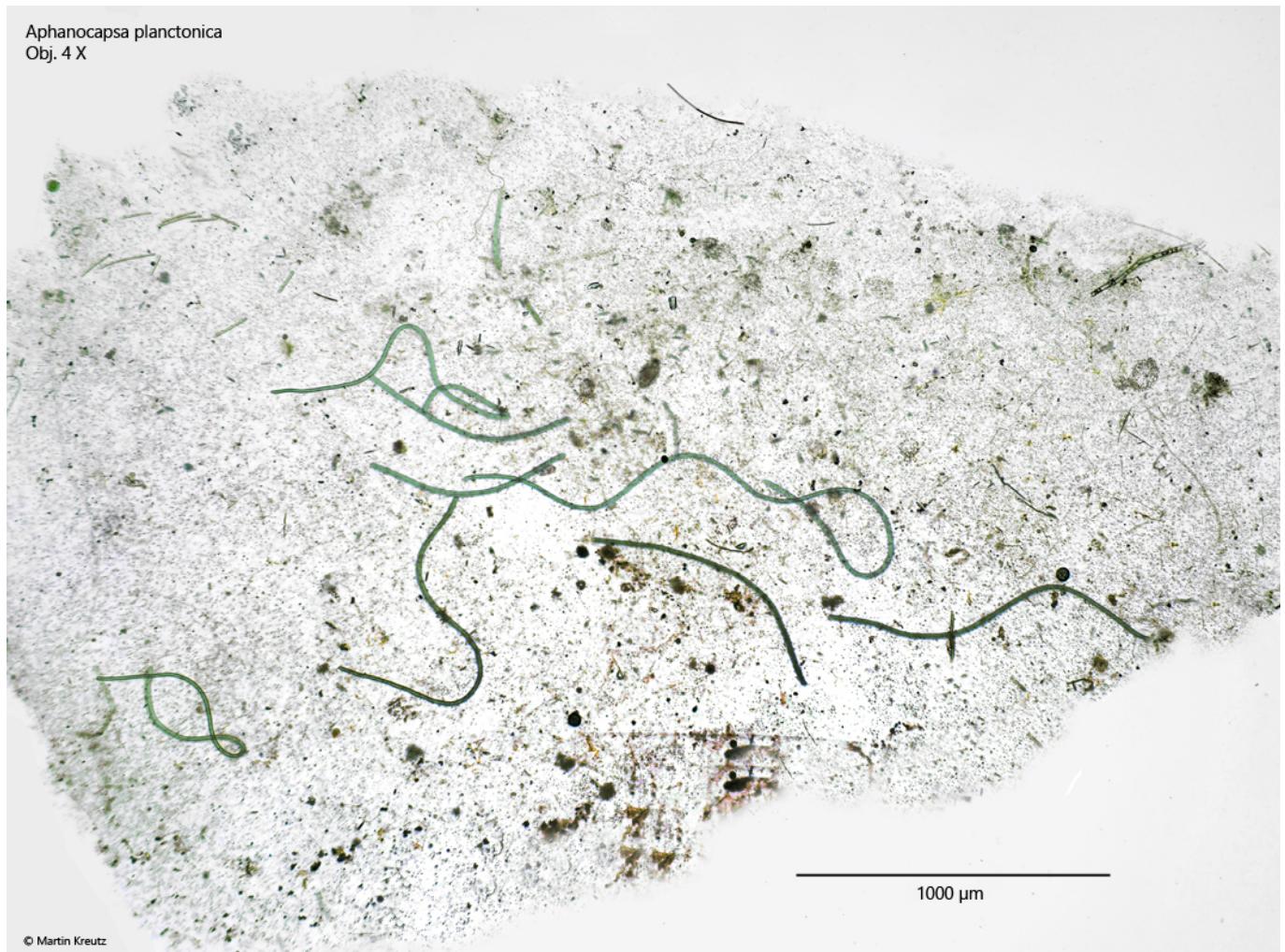
after Smith

### *Aphanocapsa plantonica*

Although *Aphanocapsa plantonica* 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 plantonica* has cells with a diameter of 2-3  $\mu\text{m}$ . The cells of the similar species *Aphanocapsa elachista* have a diameter of 1.5-2  $\mu\text{m}$  and the cells of the species *Aphanocapsa delicatissima* are even smaller with a diameter of 0.5-0.75  $\mu\text{m}$ . The cells in the colonies from the [Simmelried](#) have a diameter of 2.4-3.1  $\mu\text{m}$  (s. fig. 3). It must therefore be *Aphanocapsa plantonica*.

*Aphanocapsa planctonica*  
Obj. 4 X



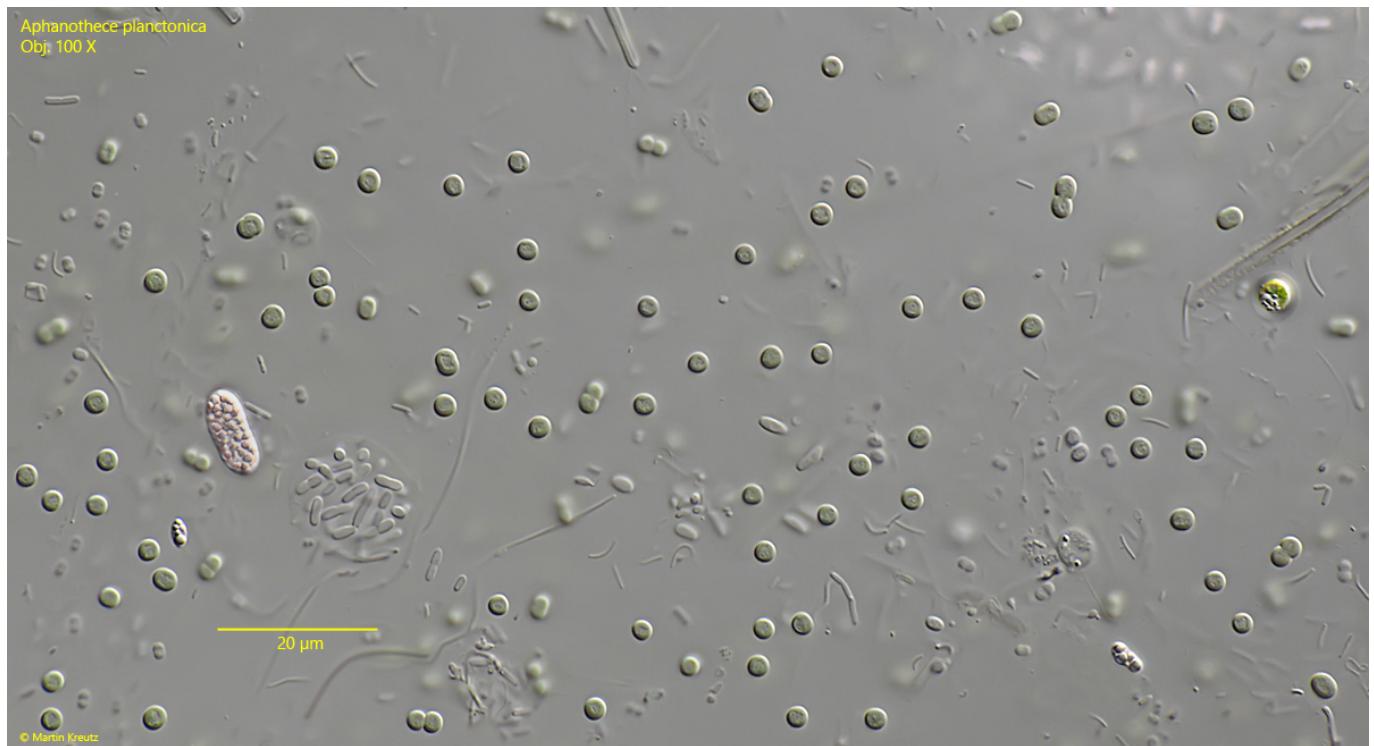
**Fig. 1:** *Aphanocapsa planctonica*. L = 4120 µm (of colony). A large, irregularly shaped colony. Obj. 4 X.



**Fig. 2:** *Aphanocapsa planctonica*. L = 4120  $\mu\text{m}$  (of colony). A closer view of the colony as shown in fig. 1. Obj. 10 X.



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



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