

***Aphanothece saxicola* (Nägeli, 1849)**

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

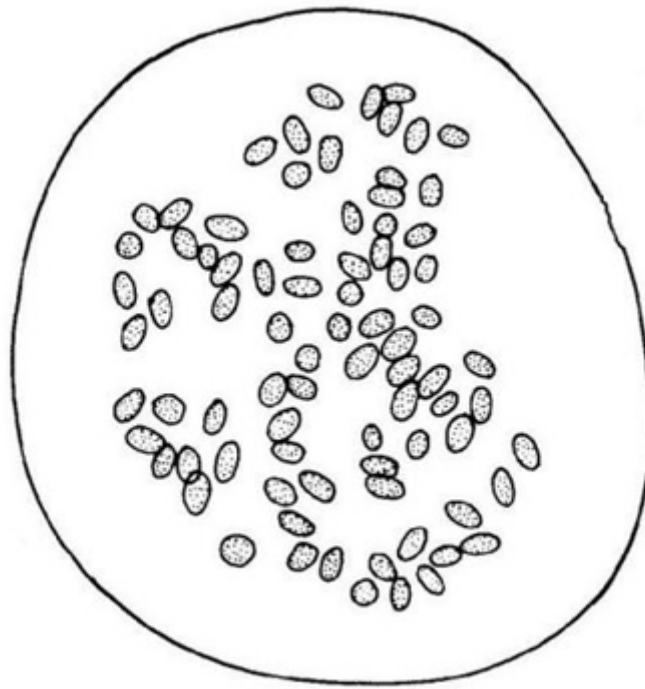
**Synonym:** n.a.

**Sampling location:** [Simmelried](#), [Pond of the convent Hegne](#)

**Phylogenetic tree:** [Aphanothece saxicola](#)

**Diagnosis:**

- colony in a common mucilaginous sheath, irregularly or spherically shaped
- cells loosely arranged
- no individual mucilaginous envelope of cells
- cells oblong, broadly rounded ends, sometimes slightly curved
- cells 1.7-2.6 µm broad, 3-6 µm long
- color pale blue-green
- cytoplasm homogenous, only few granules
- gas vacuoles absent



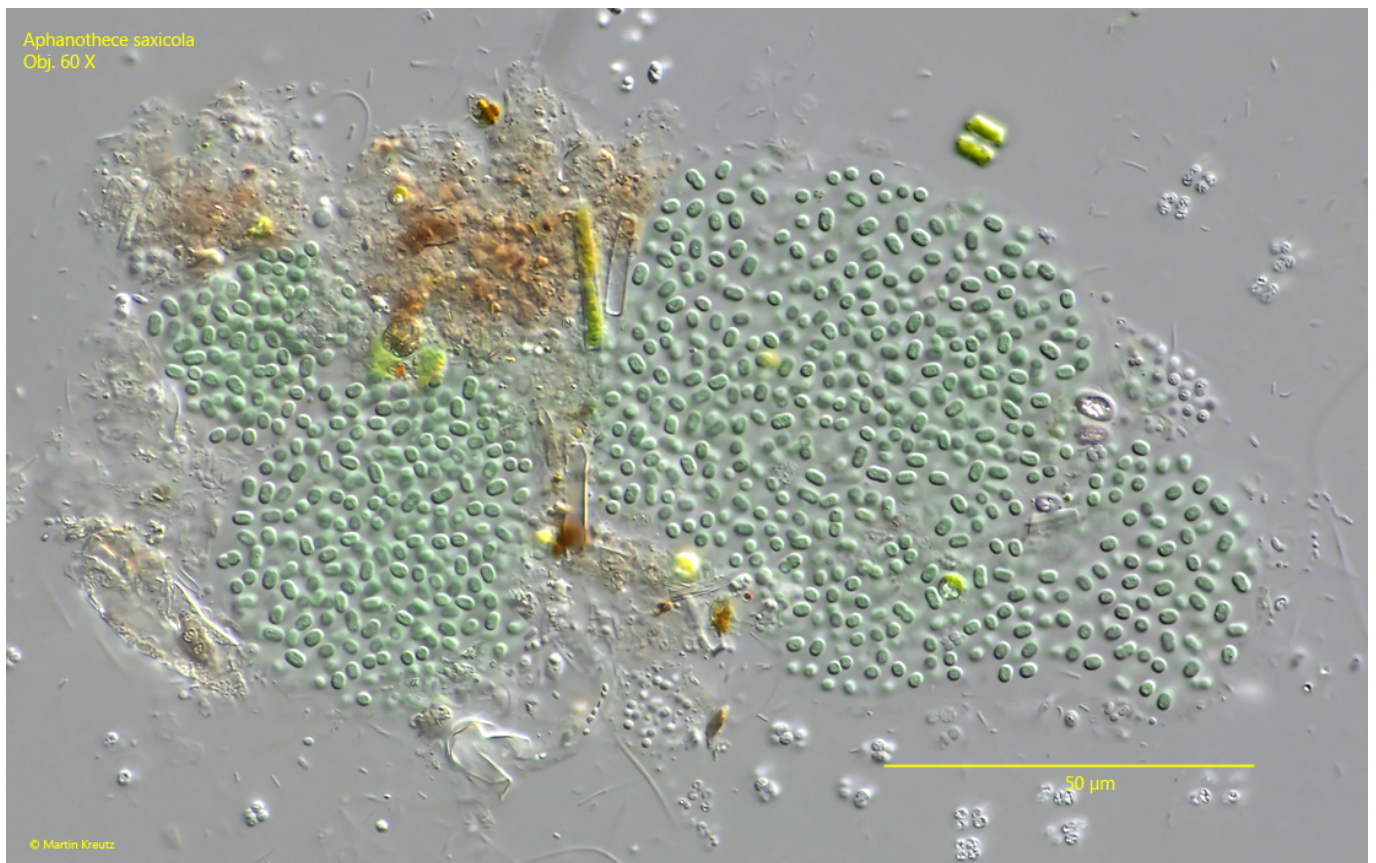
after Patil & Basarkar

*Aphanothece saxicola*

So far I have found *Aphanothece saxicola* in the [Simmelried](#) and in the [pond of the convent of Hegne](#). There the colonies were found in the uppermost layer of mud.

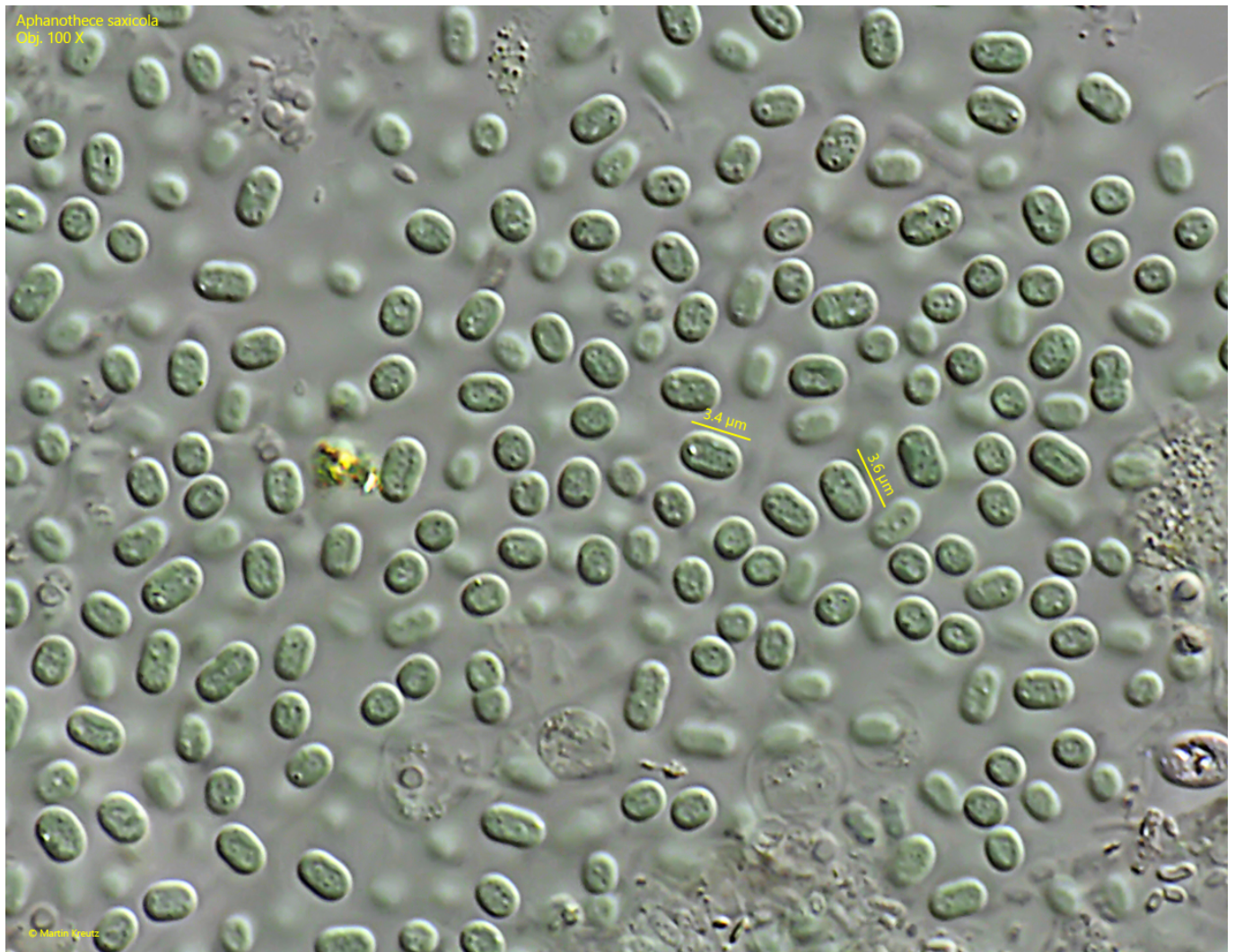
The colonies were all between 70-100  $\mu\text{m}$  in size and irregularly shaped. I did not find any spherical colonies. The distinction between the different species of the genus *Aphanothece* is essentially based on cell size, cell shape and habitat.

The cells in the colonies from both localities were very constant between 3.0-3.7  $\mu\text{m}$  long and between 2.2-2.6  $\mu\text{m}$  wide (s. figs. 2, 4 and 6). The cell shape was oblong, with broadly rounded ends. The similar species *Aphanothece microscopica* has larger cells (length = 3.2-10  $\mu\text{m}$ , width = 3-6  $\mu\text{m}$ ).



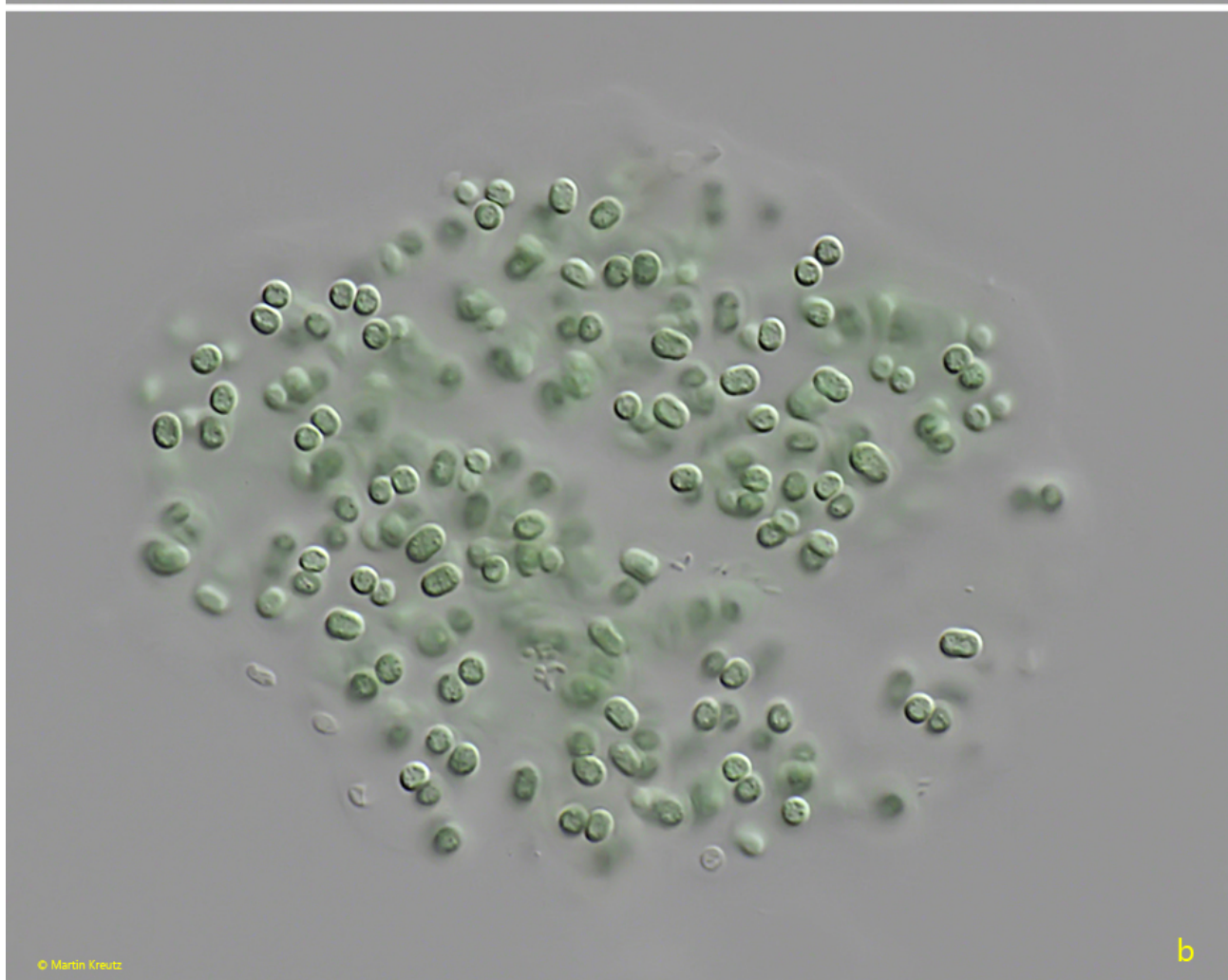
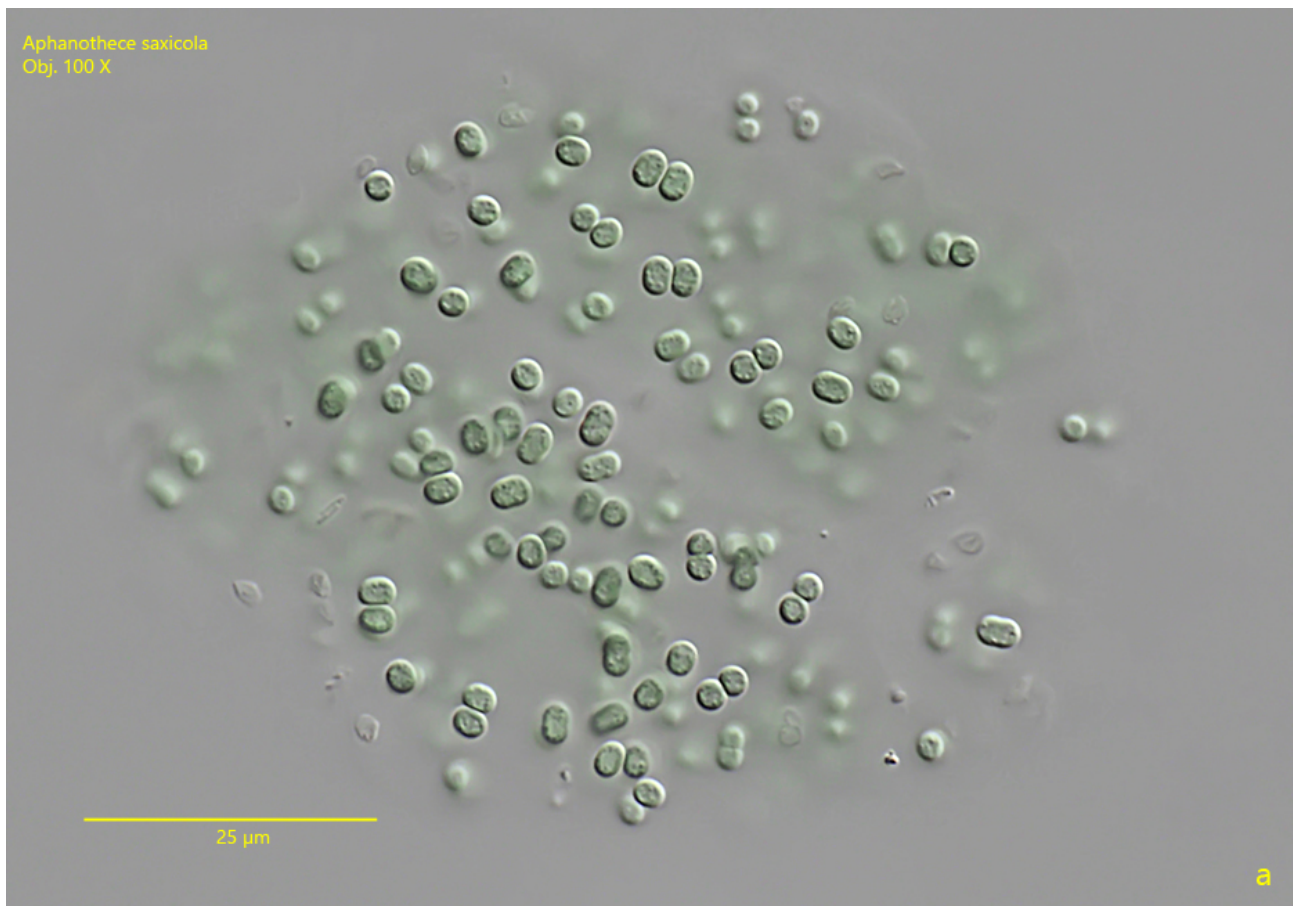
**Fig. 1:** *Aphanothece saxicola*. L = 110 µm (of colony). A colony found in the [Simmelried](#). Ob. 60 X.



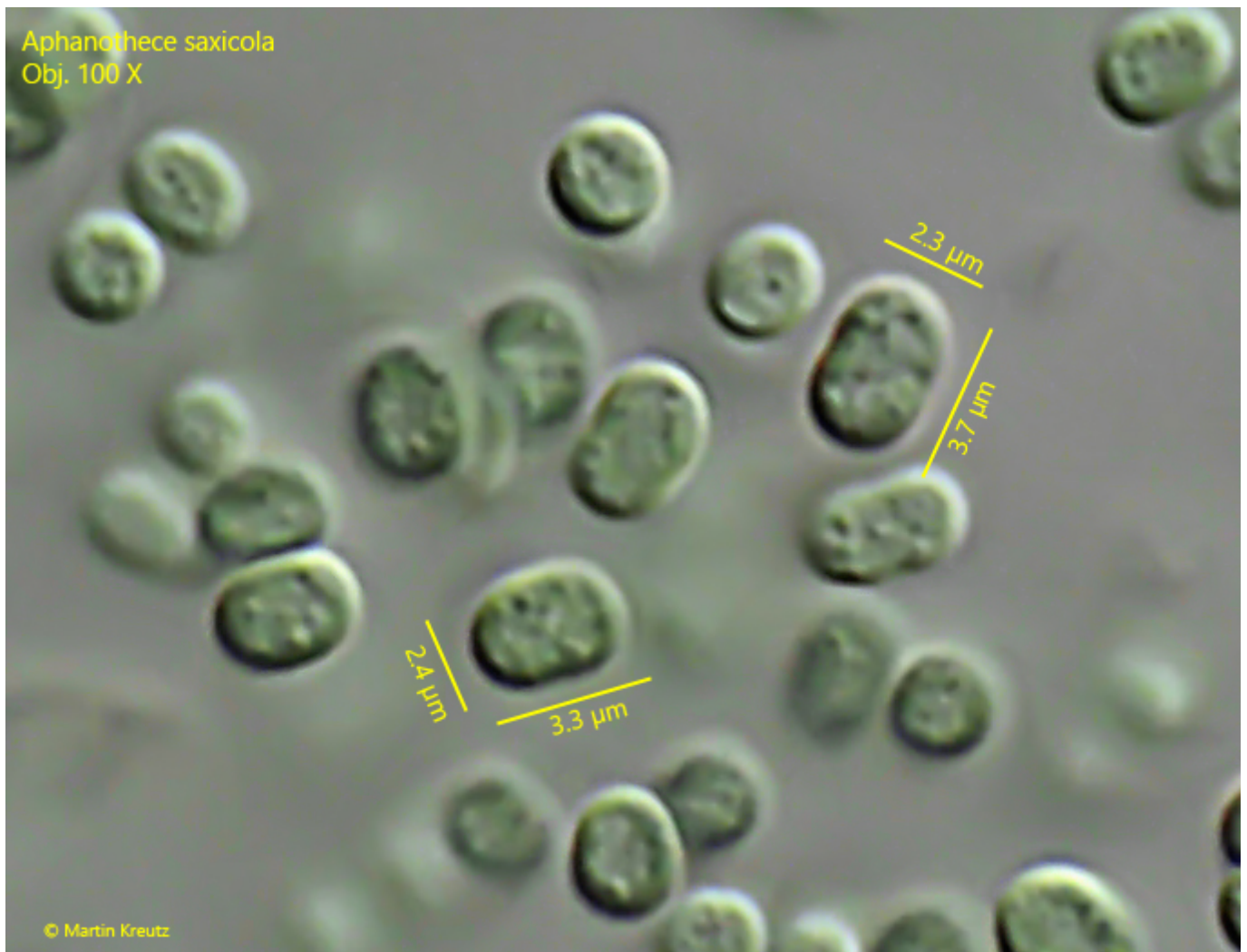


**Fig. 2:** *Aphanothece saxicola*. L = 3.0-3.8  $\mu\text{m}$  (of cells). The cells are broadly oblong. In the cytoplasm some granules or crystals are visible. Obj. 100 X.



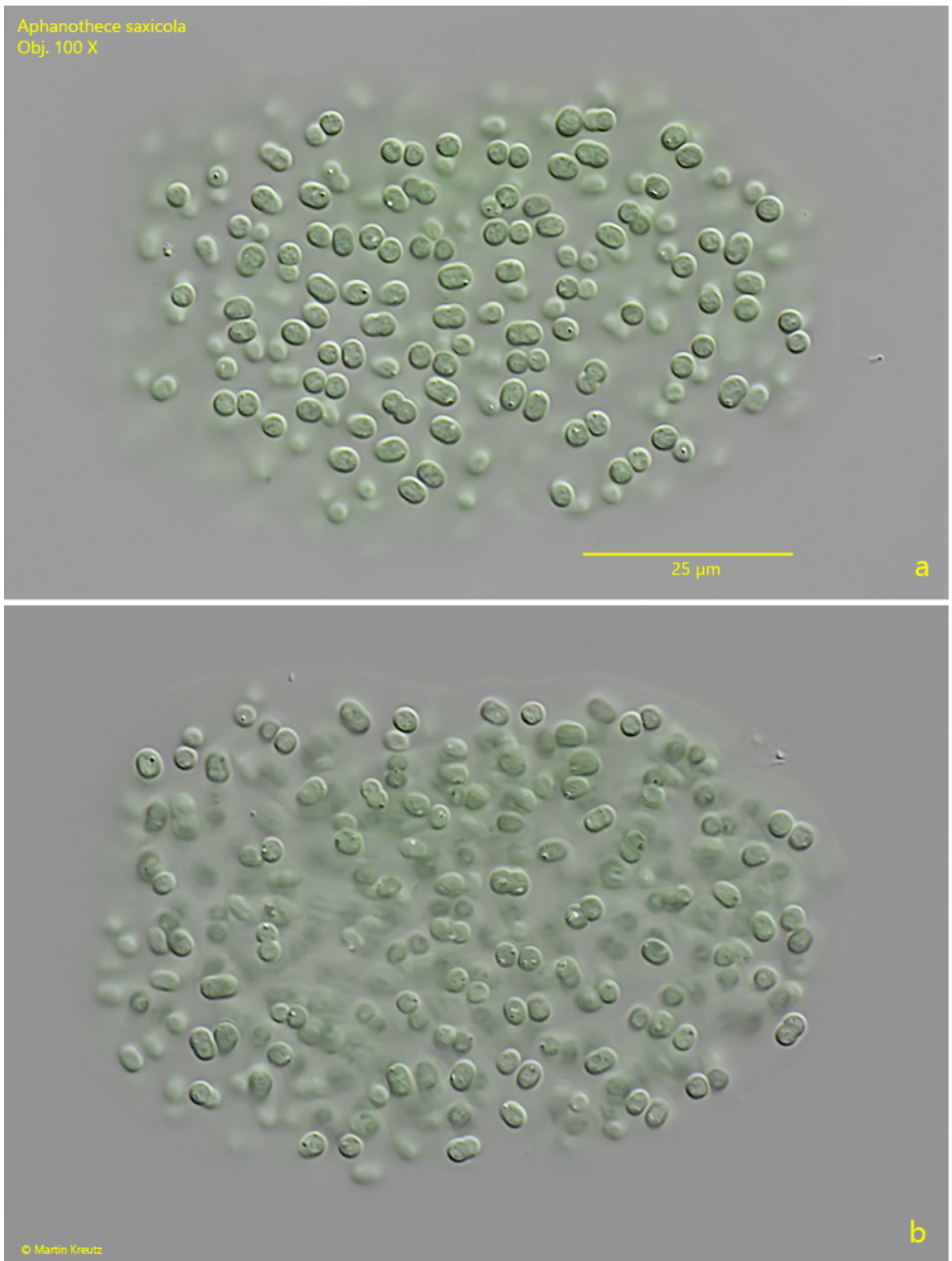


**Fig. 3 a-b:** *Aphanothece saxicola*. L = 70  $\mu\text{m}$  (of colony). Two focal planes of a colony from the [pond of the convent Hegne](#). Obj. 100 X.

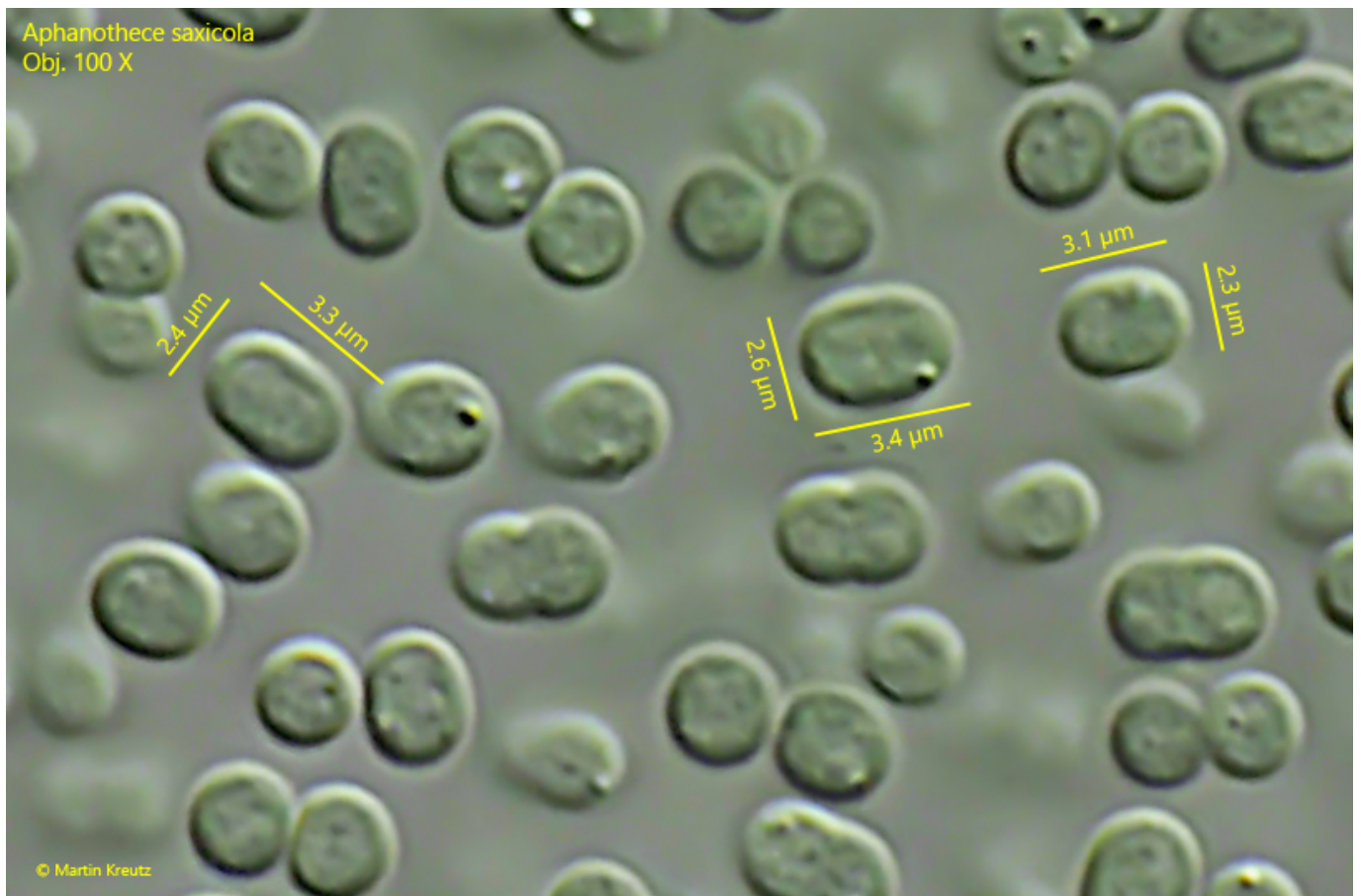


**Fig. 4:** *Aphanothece saxicola*. L = 3.3–3.7  $\mu\text{m}$  (of cells). Image section of fig. 3 a. Obj. 100 X.





**Fig. 5 a-b:** *Aphanothece saxicola*. L = 77 µm (of colony). Two focal planes of a second colony from the [pond of the convent Hegne](#). Obj. 100 X.



**Fig. 6:** *Aphanothece saxicola*. L = 3.1-3.4 µm (of cells). Image section of fig. 5 a. Obj. 100 X.