Ankistrodesmus falcatus

(Corda) Ralfs, 1848

Most likely ID: n.a.

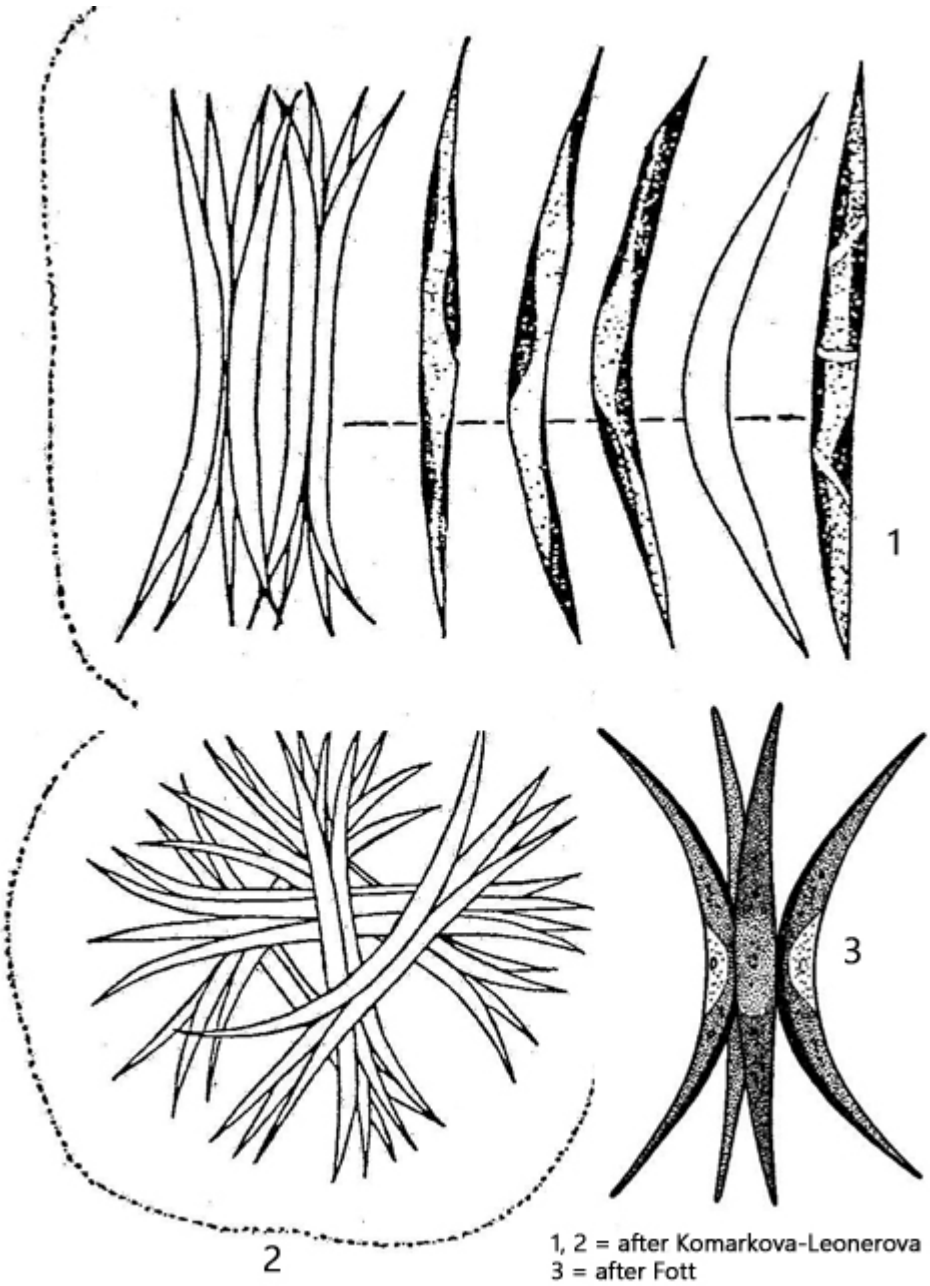
Synonym: n.a.

Sampling location: Simmelried, Pond of the waste disposal company Constance, Ulmisried, Mainau pond, Ziegelhof pond, Mühlhalden pond

Phylogenetic tree: *Ankistrodesmus falcatus*

Diagnosis:

- colonies of 2–128 cells in a gelatinous layer
- cells more or less parallel in bundles, sometimes crossed
- cells connected via the convex sides
- cells spindle-shaped, straight or curved
- length 25–62 µm, width 1.2–4.3 µm
- one parietal chloroplast
- pyrenoid absent
- nucleus central in notch of chloroplast



Ankistrodesmus falcatus

Ankistrodesmus falcatus is a very common algae that I find in many of my locations. The species is quite variable and the colonies can have different appearances. I usually find colonies of 4–16, slightly curved cells that lie approximately parallel and touch each other on their convex side. Colonies with crossed and straight cells are also common (s. fig. 3).

When colonies with straight cells are arranged parallel to each other, they can easily be confused with the genus *Quadrigula*. However, the cells of *Quadrigula* do not touch each other in the colonies and the cells are only slightly pointed.

The cells in my population were mostly 30–50 µm long. The cells were largest in nutrient-rich locations, such as the pond at the waste disposal company Constance. The nucleus is located in a notch of the chloroplast in the center of the cell. Parallel to the chloroplasts, there are often granular, small starch grains that light up in the DIC (s. fig. 2 a).

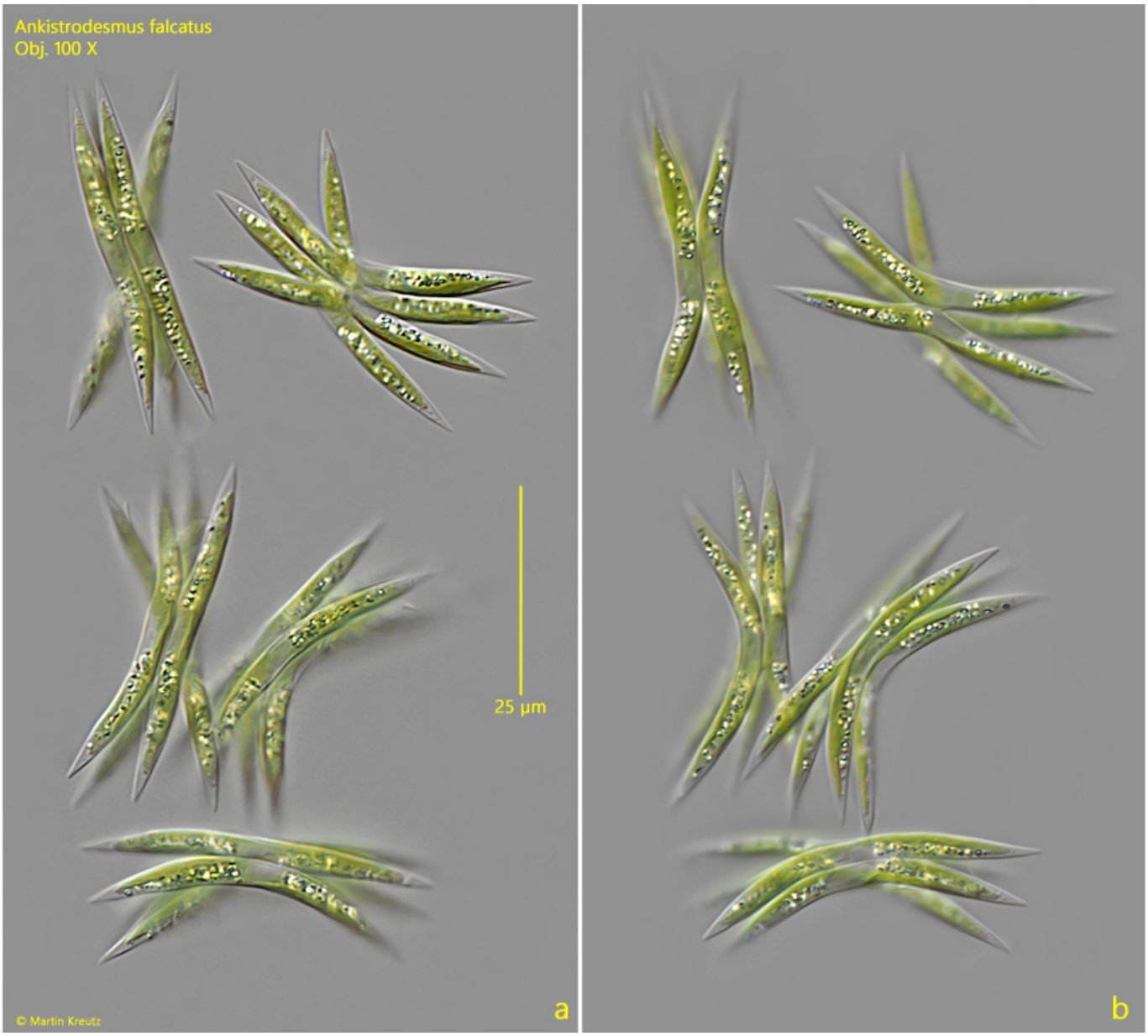


Fig. 1 a-b: *Ankistrodesmus falcatus*. L = 38–45 µm. Two focal planes of several colonies. Obj. 100 X.

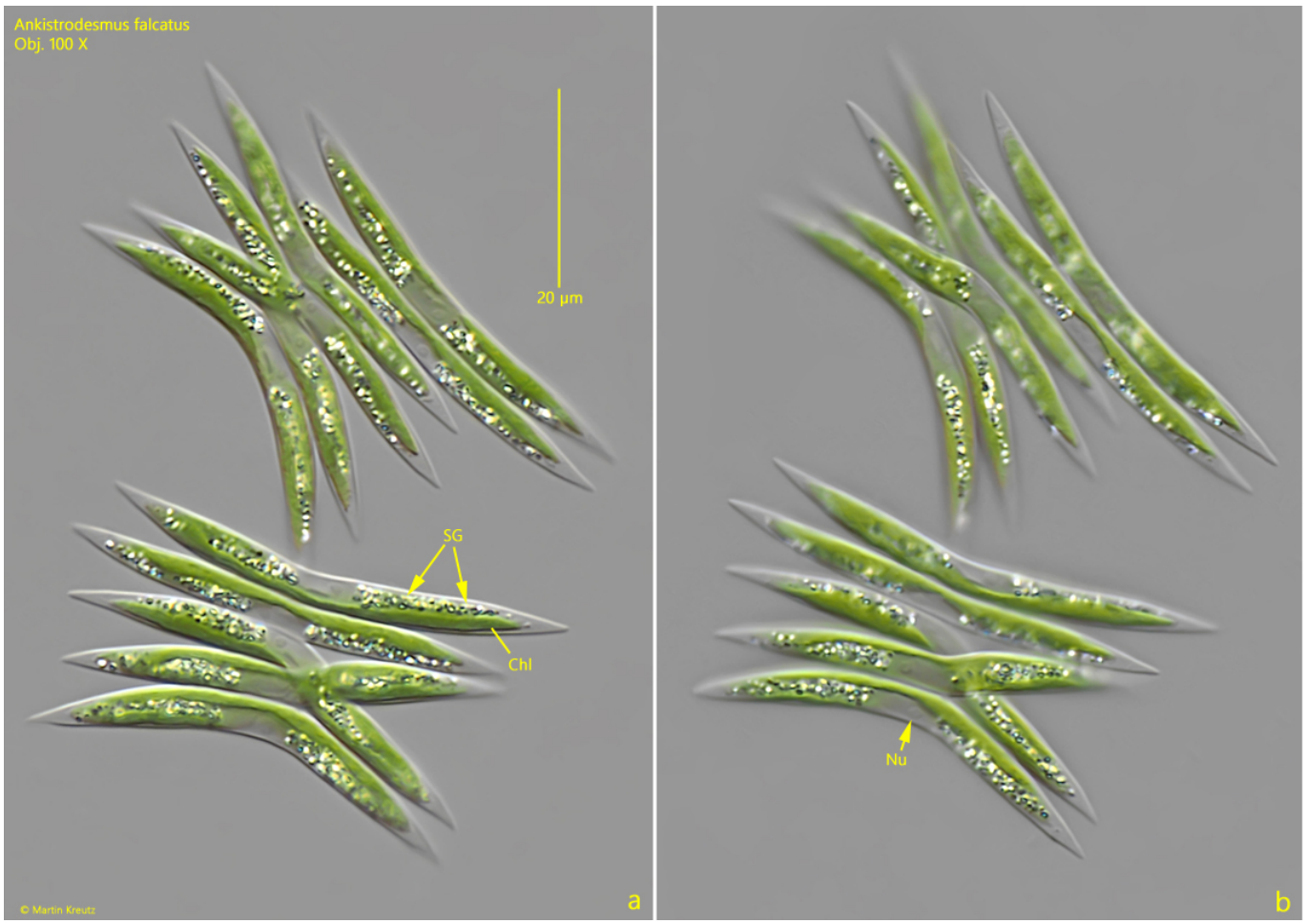


Fig. 2 a-b: *Ankistrodesmus falcatus*. L = 39–48 µm. Two focal planes of two squashed colonies. The cells are slightly curved. In a notch of the chloroplast the nucleus (Nu) is located. Parallel to the chloroplast (Chl) starch granules (SG) are deposited. Obj. 100 X.

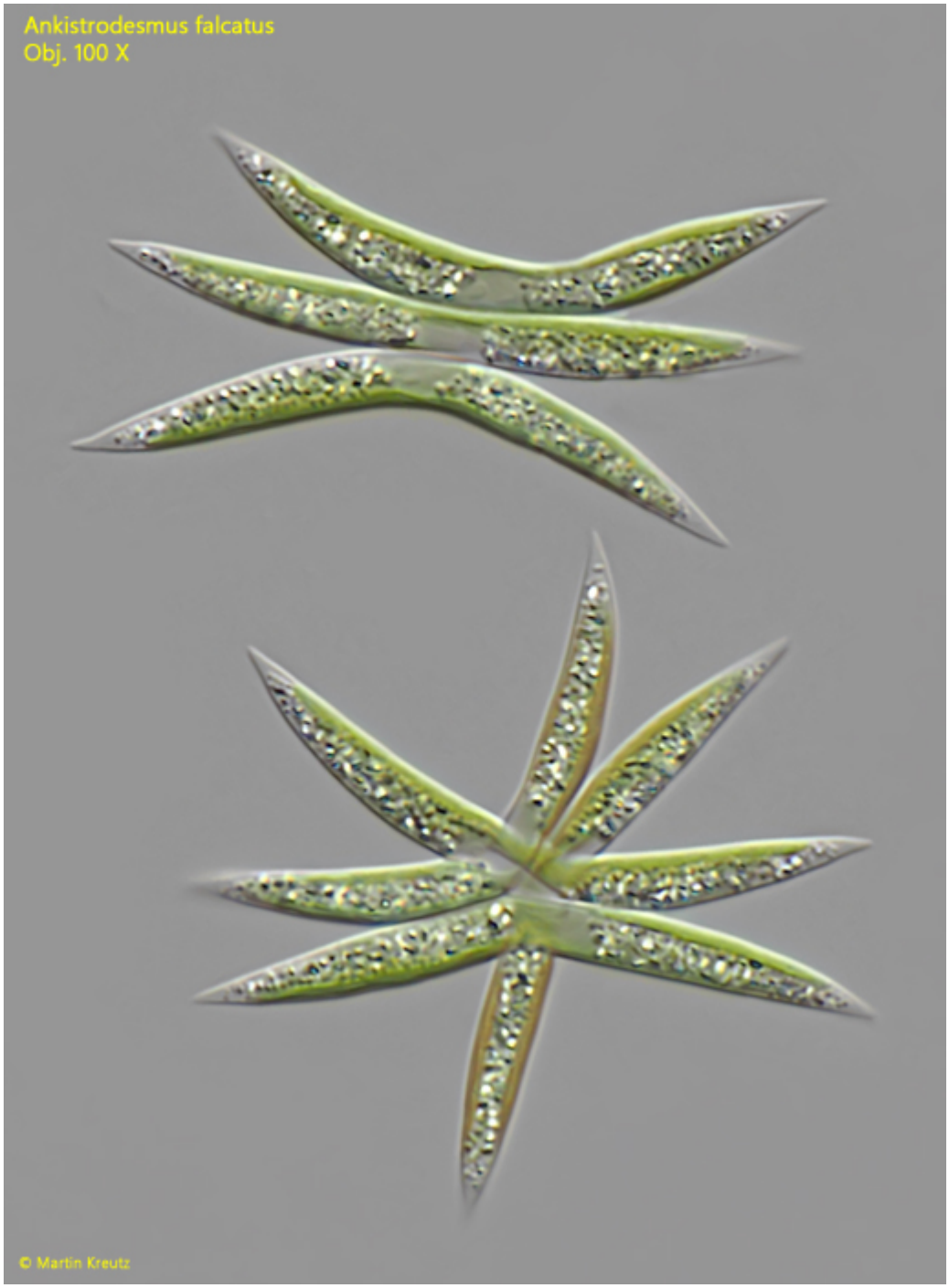


Fig. 3: *Ankistrodesmus falcatus*. L = 42–50 µm. Two colonies with parallel arranged cells and crossed cells. Obj. 100 X.