***Selenastrum bibraianum* Reinsch 1866**

Most likely ID: n.a.

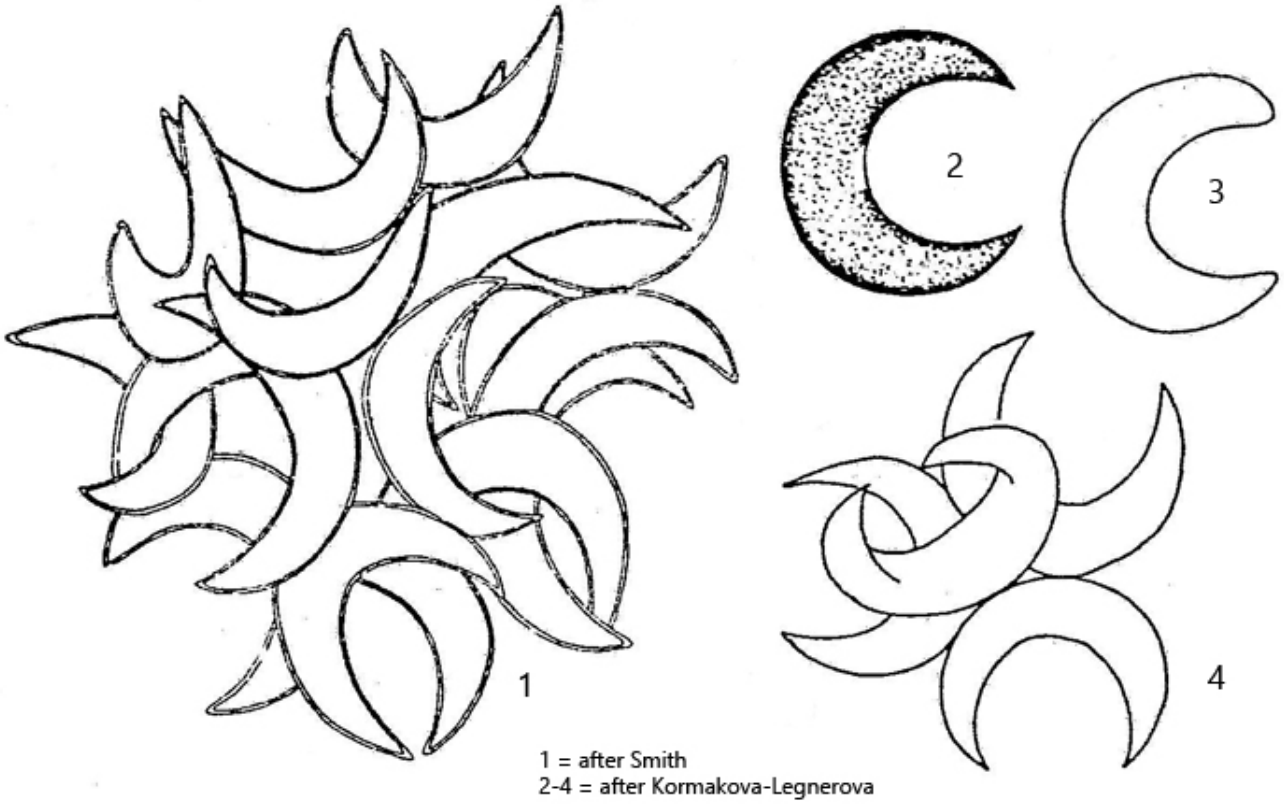
Synonym: *Ankistrodesmus bibraianus*

Sampling location: Simmelried

Phylogenetic tree: *Selenastrum bibraianum*

Diagnosis:

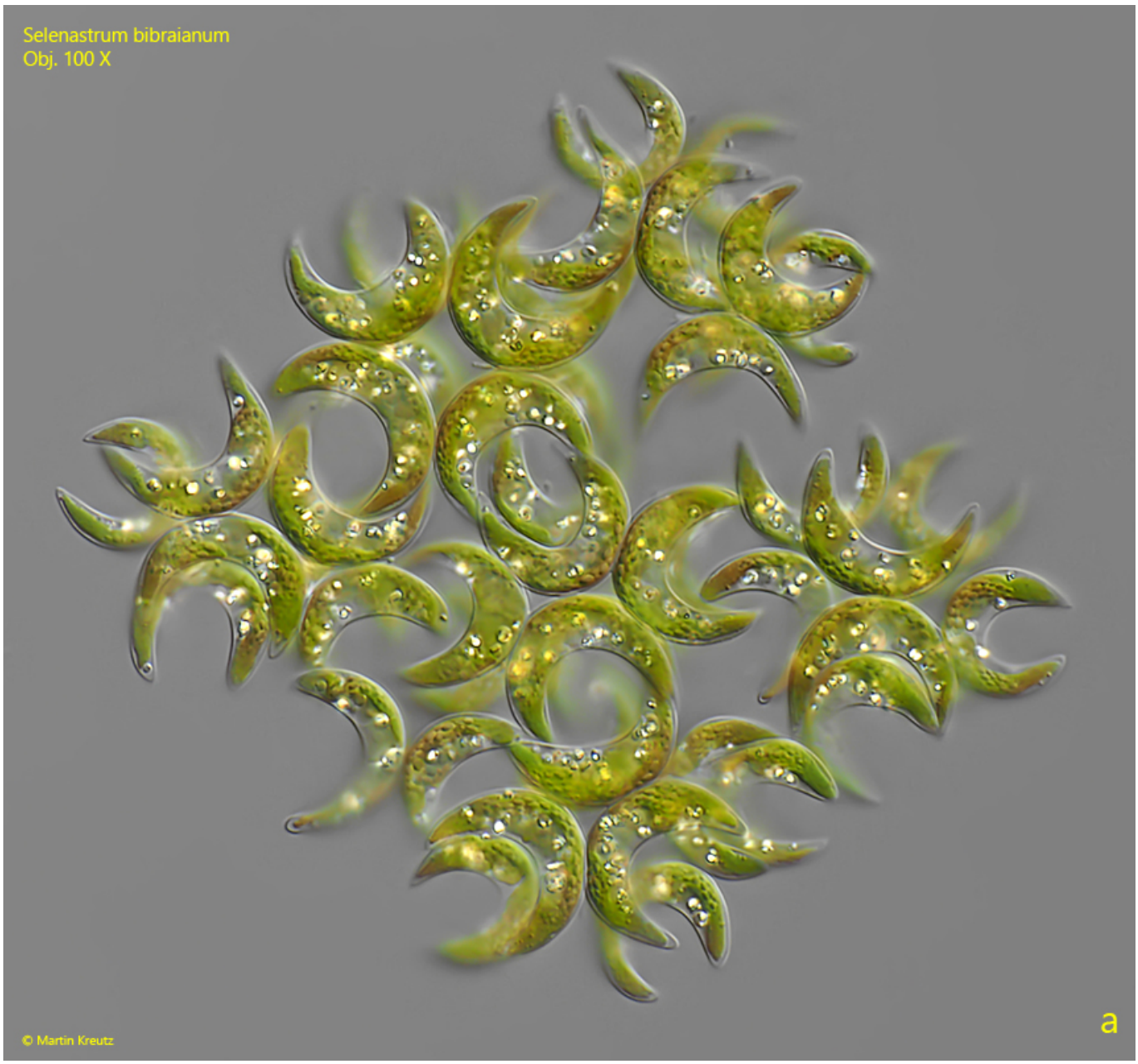
- coenobia of 4–16 cells, sometimes more cells
- coenobia covered by mucilaginous envelope (hard to see)
- in young coenobia cells connected by convex sides
- cells bent in a crescent shape with tapered ends
- length 16–40 µm (of cells), from end to end about 20 µm
- one parietal chloroplast without pyrenoid
- often small starch grains present



Selenastrum bibraianum

So far I have only found *Selenastrum bibraianum* in the Simmelried between floating and decaying plant masses. The crescent-shaped cells make the coenobia easy to recognize.

Selenastrum bibraianum is often confused with *Massastrum gracile* (syn. = *Selenastrum gracile*), whose cells, however, are much slimmer and also longer. The cells of the genus *Kirchneriella* are also curved, but the cells are only half the size of those of *Selenastrum bibraianum* and the inner curvature is not uniform, but more U-shaped. Another important characteristic of *Selenastrum bibraianum* is the arrangement of the cells in older coenobia. Here the cells are disordered and no longer touch each other with their convex sides. This is only the case in young colonies with few cells (s. drawing 4 above).


Selenastrum bibraianum
Obj. 100 X
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a

Fig. 1 a-b: *Selenastrum bibraianum*. D = 98 µm (of coenoebium). A slightly squashed coenobium of about 40 cresent-shaped cells in DIC (a) and brightfield illumination (b). Obj. 100 X.

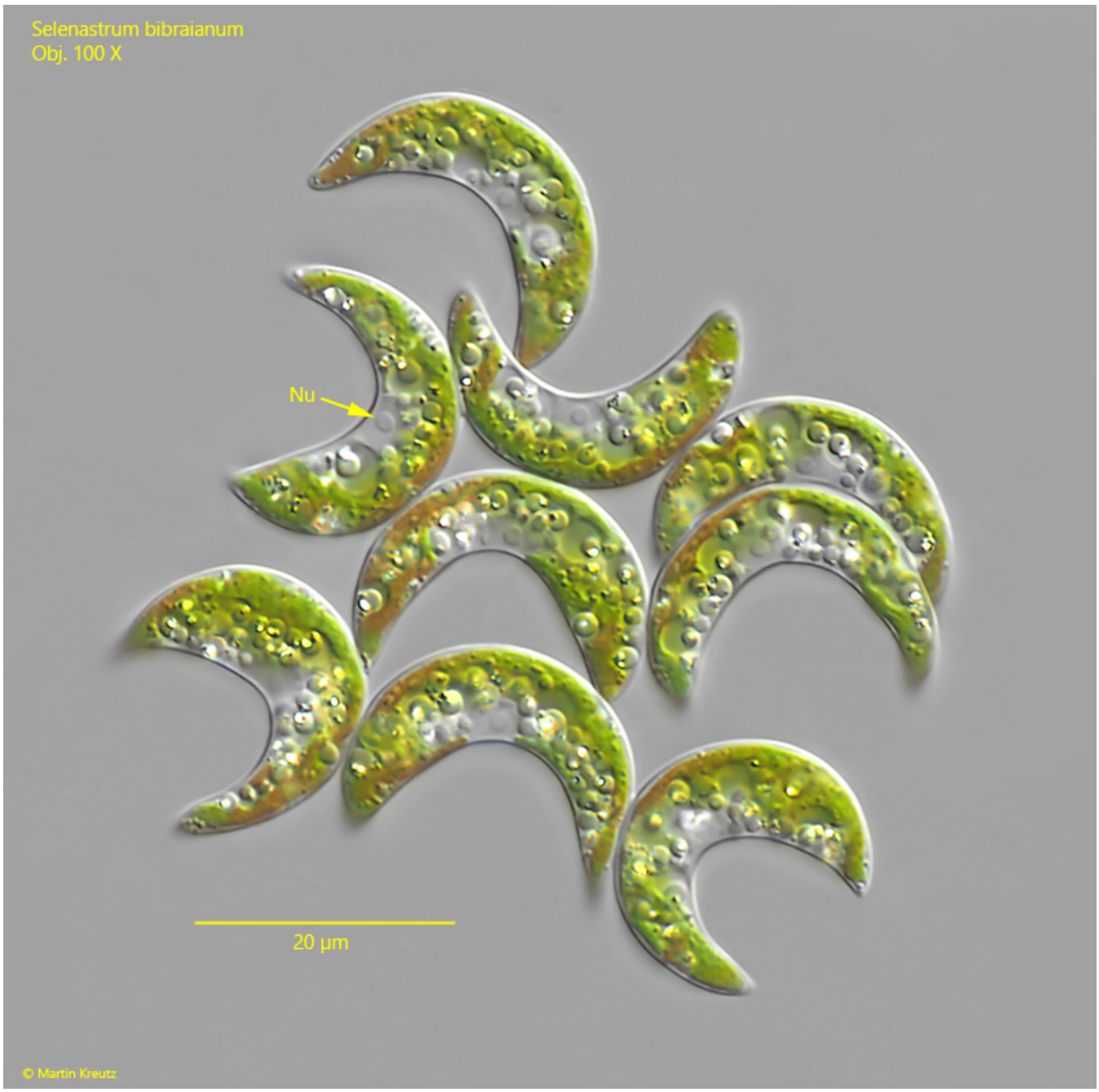

Fig. 2: *Selenastrum bibraianum*. L = 28–34 µm (of cells). A squashed coenobium of 9 cells in detail. The chloroplast without pyrenoid fills out almost the cell. The nucleus (Nu) is central. The bright spots in the cells are refractive starch grains. Obj. 100 X.