Pediastrum angulosum

Ehrenberg ex Meneghini, 1840

Most likely ID: n.a.

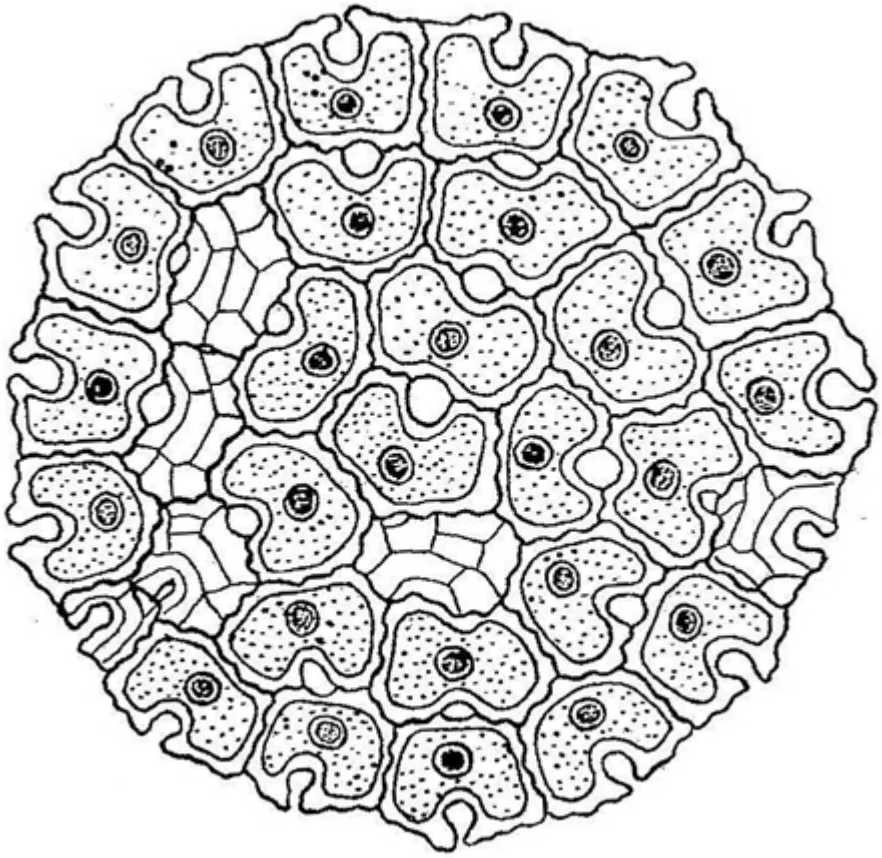
Synonym: *Pediastrum angulosum* var. *coronatum*

Sampling location: Schwemm Moor (Austria)

Phylogenetic tree: *Pediastrum angulosum*

Diagnosis:

- coenobium circular, flat and single-Iayered
- diameter coenobium 60–320 µm
- coenobium of 16, 32 or 64 cells (rarely 128)
- without holes between cell or small, irregular holes
- cells 8–26 X 10–24 µm, cell wall smooth or finely granulated
- inner cells with a depression, shape rectangular or polygonal
- marginal cells deeply indented, with 2 short lobes
- cell wall with distinct, net-like polygonal ridges
- chloroplast parietal
- single pyrenoid



Pediastrum angulosum

I found only a few specimens of *Pediastrum angulosum* in the Schwemm Moor in Austria. Most specimens were irregular in shape, but some were oval or round (s. fig. 1 a-b).

Important identifying features of *Pediastrum angulosum* are the short, barely visible lobes of the marginal cells and the distinct, net-like pattern of the cell wall. This pattern of net-like ridges makes the coenobia look almost “wrinkled.” There are no or only very small holes between the inner cells. The coenobium is therefore almost closed.

Komárek & Jankovská (2001) described coenobia with a round shape as *Pediastrum angulosum* var. *coronatum*. However, this variety has not yet been fully accepted (s. AlgaeBase), which is why I prefer the name *Pediastrum angulosum*, especially since I found irregularly shaped and round coenobia in parallel in the samples. It therefore does not seem sensible to me to distinguish the round shape as a variety.

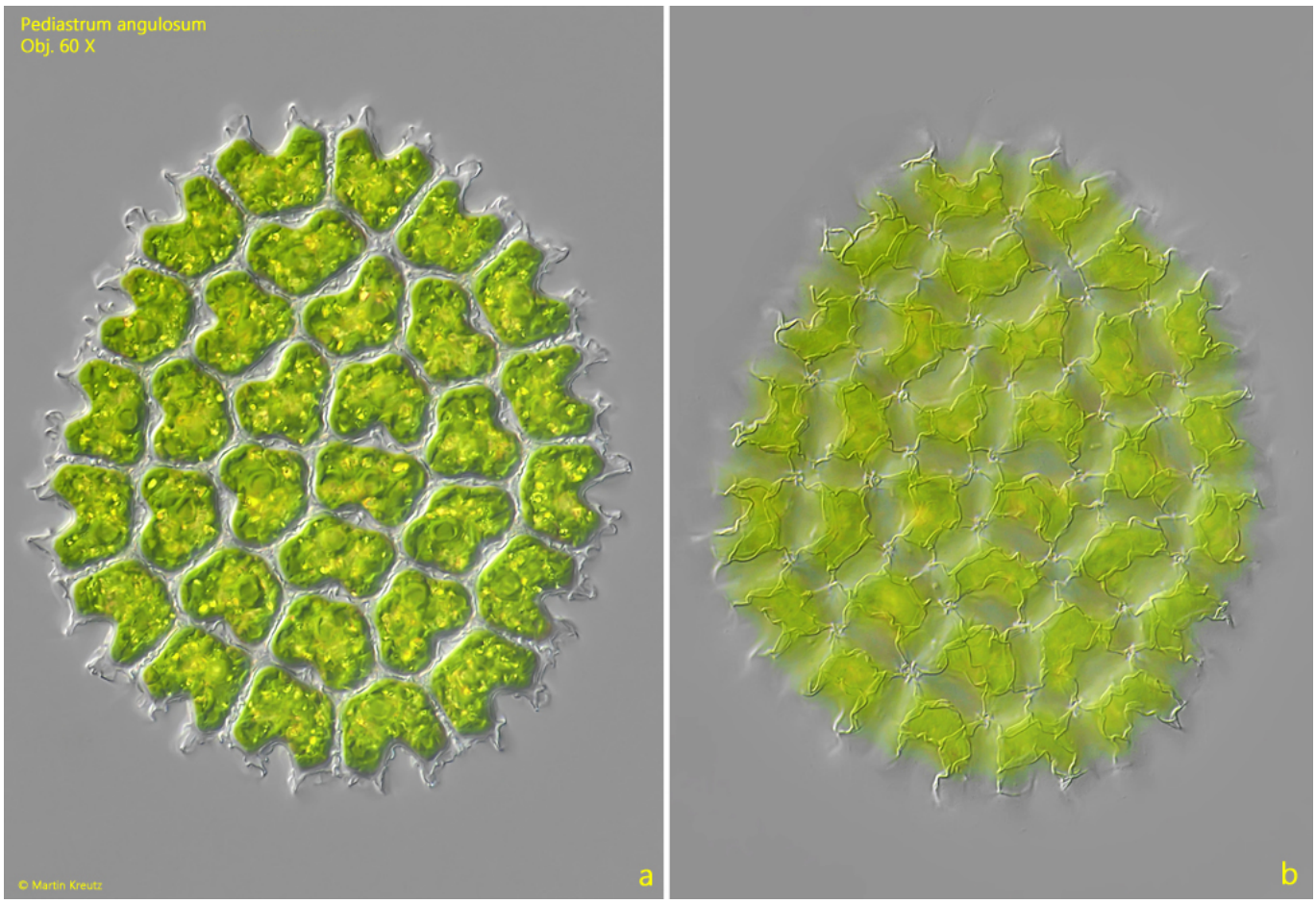
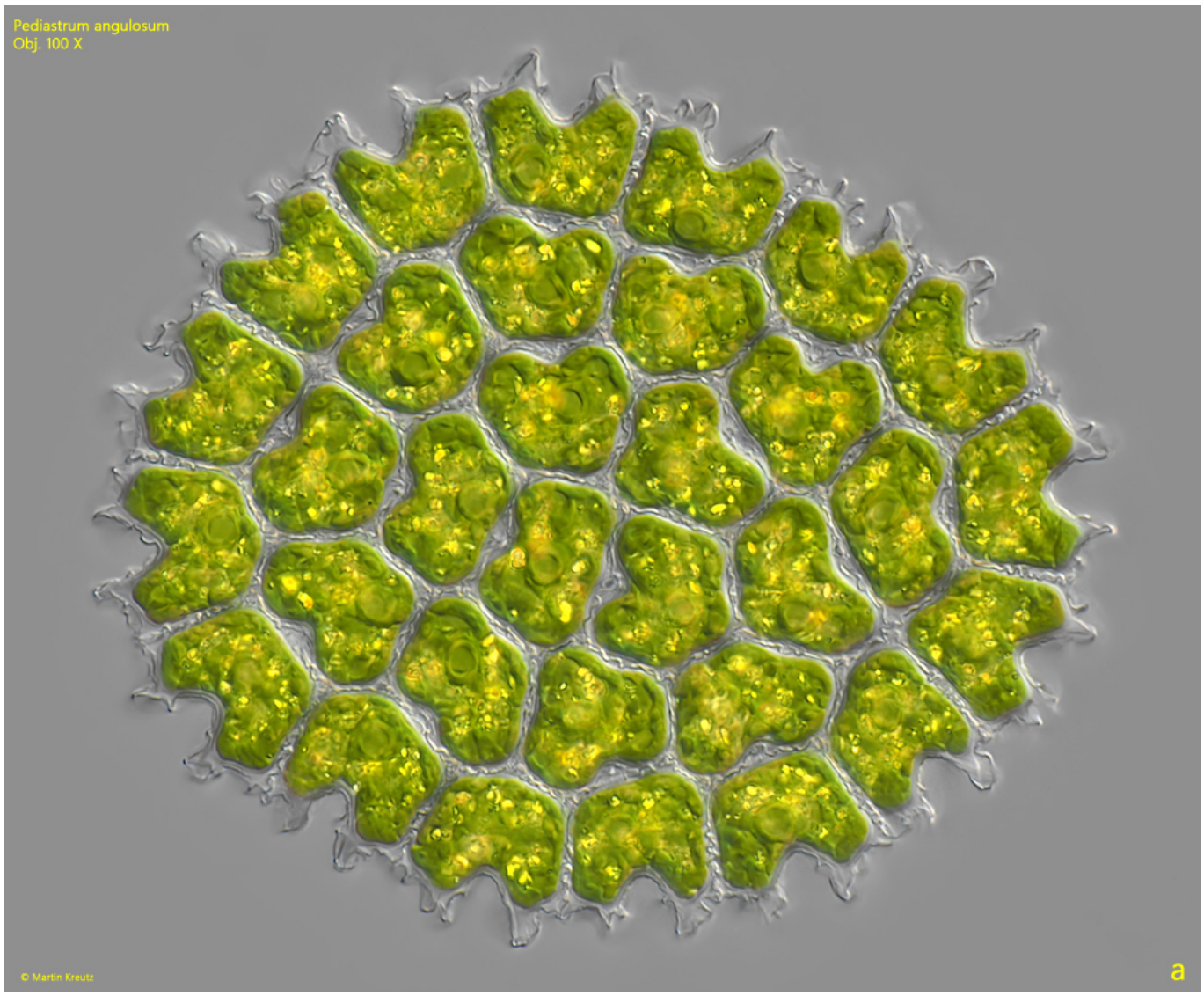


Fig. 1 a-b: *Pediastrum angulosum*. D = 134 µm (of coenobium). Two focal planes of a coenobium of 32 cell. Note the distinct net-like ridges of the cell wall (b). Obj. 60 X.


Pediastrum angulosum
Obj. 100 X
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a

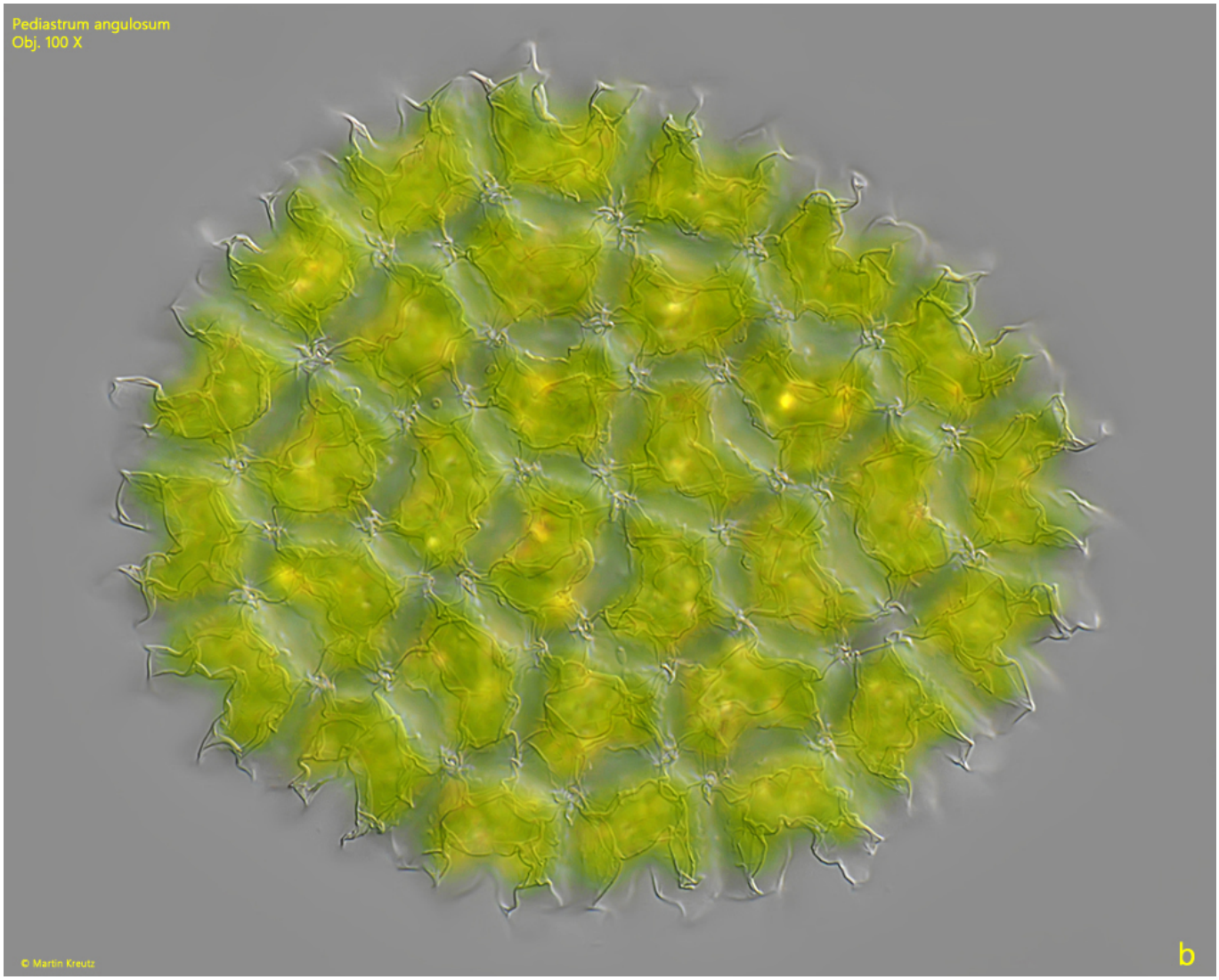

Fig. 2 a-b: *Pediastrum angulosum*. D = 134 µm (of coenobium). The same specimen as shown in fig. 1 a-b in detail. Obj. 100 X.