Xanthidium armatum

Brébisson ex Ralfs, 1848

Most likely ID: n.a.

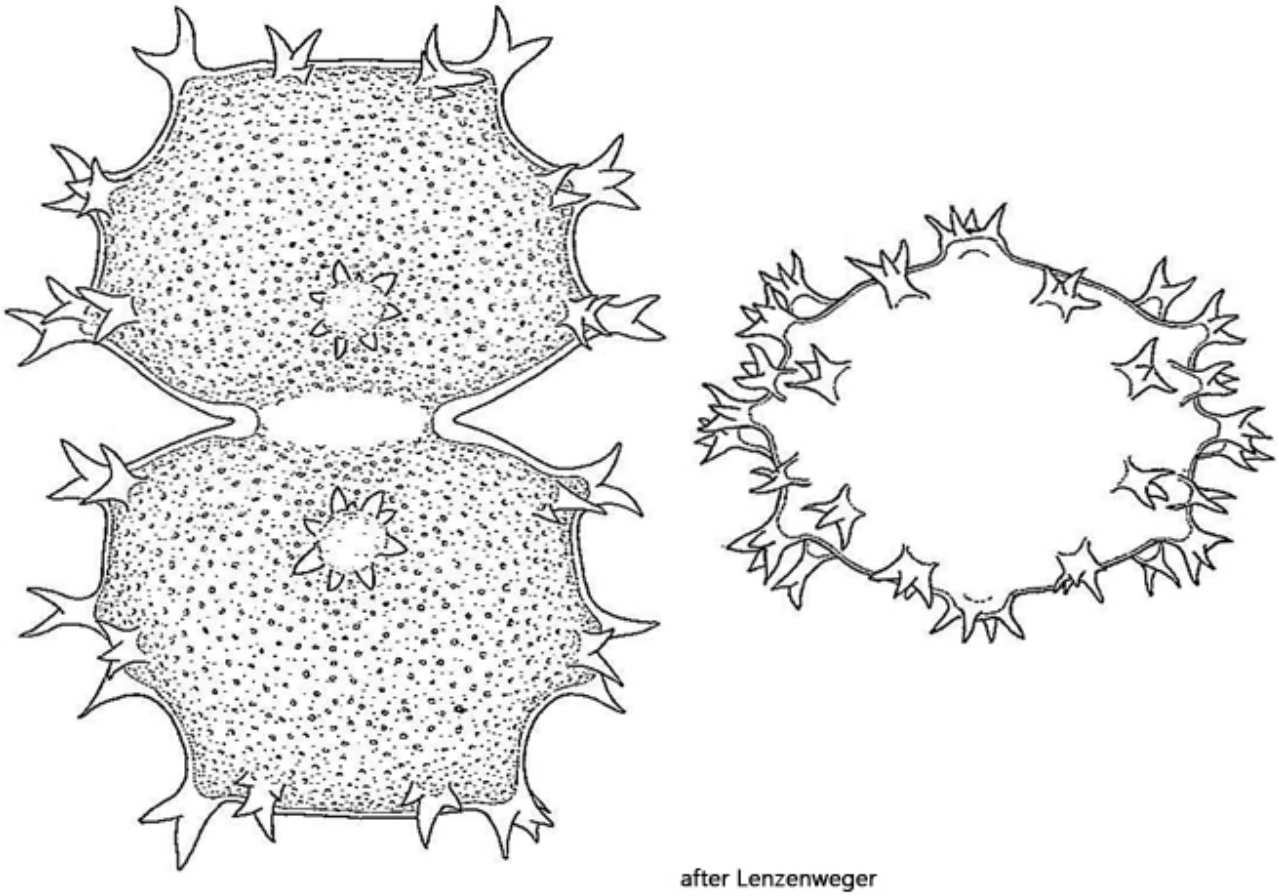
Synonym: n.a.

Sampling location: Jackl Moor (Austria), Paradieswiesen (Austria), Schwemm Moor (Austria)

Phylogenetic tree: *Xanthidium armatum*

Diagnosis:

- semi-cells roughly octogonal
- apices flat
- length 120–180 µm, width 90-120 µm (with spines)
- branched spines at all lateral and apical angles
- in center of semi-cells a ring of simple spines (crown-shaped)
- 4 chloroplasts in each semicell with a separate pyrenoid



Xanthidium armatum

So far, I have only found *Xanthidium armatum* in moors in Austria. This alga occurs very frequently there, sometimes in large quantities. Its approximately octagonal semi-cell with branched spines at each corner give it a distinctive appearance. In the center of each semi-cell there is also a ring of simple spines that looks like a crown. The spines are often yellowish, brownish, or orange-brown in color. The cell wall is covered with a pattern of fine pores. Each semi-cell is said to contain four chloroplasts, each with one pyrenoid (John et al., 2002). However, I have also observed semi-cells with more pyrenoids.

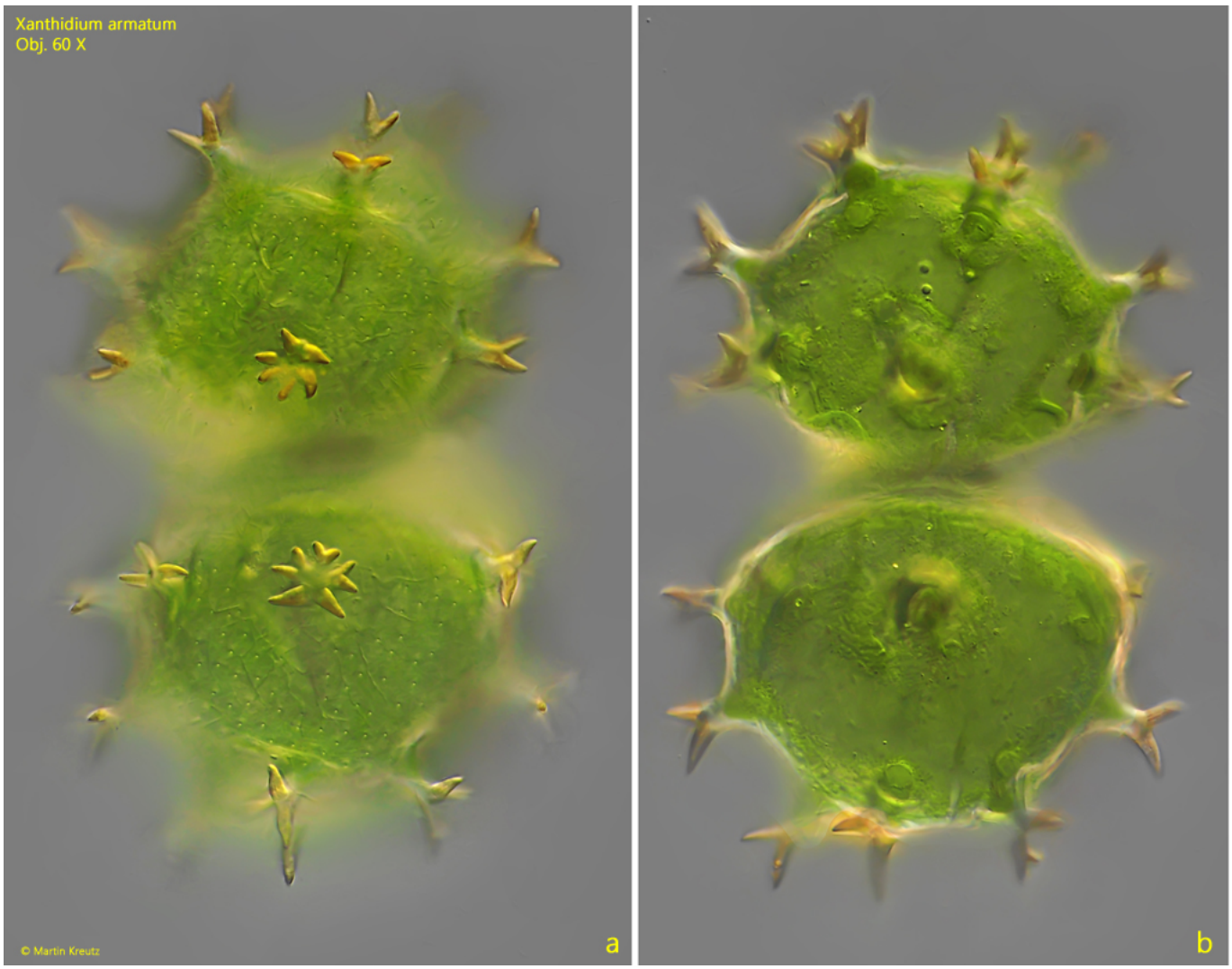


Fig. 1 a-b: *Xanthidium armatum*. L = 142 µm (with spines). Two focal planes of a specimen found in the Paradieswiesen in DIC. Obj. 60 X.

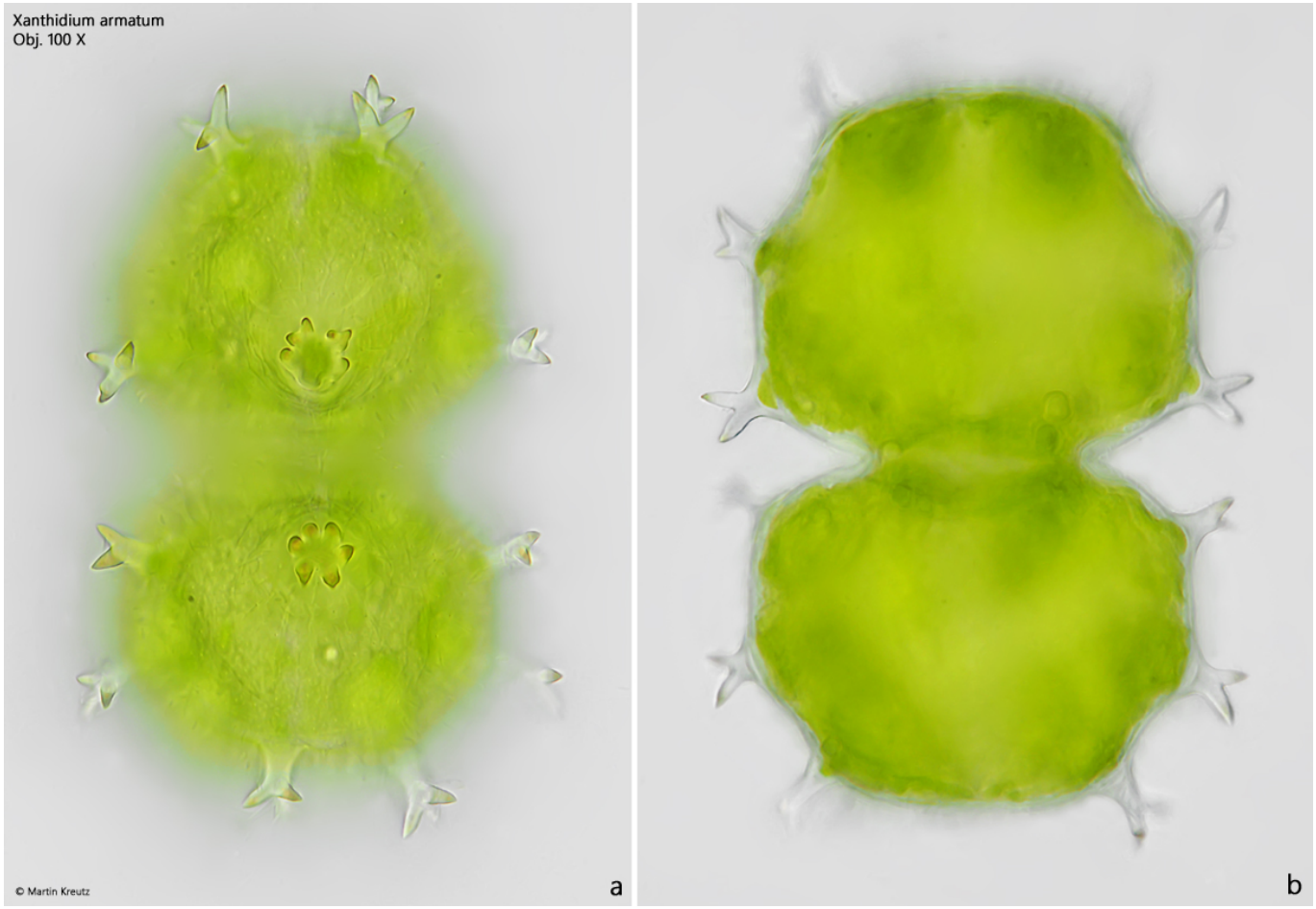


Fig. 2 a-b: *Xanthidium armatum*. L = 128 µm (with spines). A second specimen in brightfield illumination. Obj. 100 X.