

Cosmarium connatum

Brébisson ex Ralfs, 1848

Most likely ID: n.a.

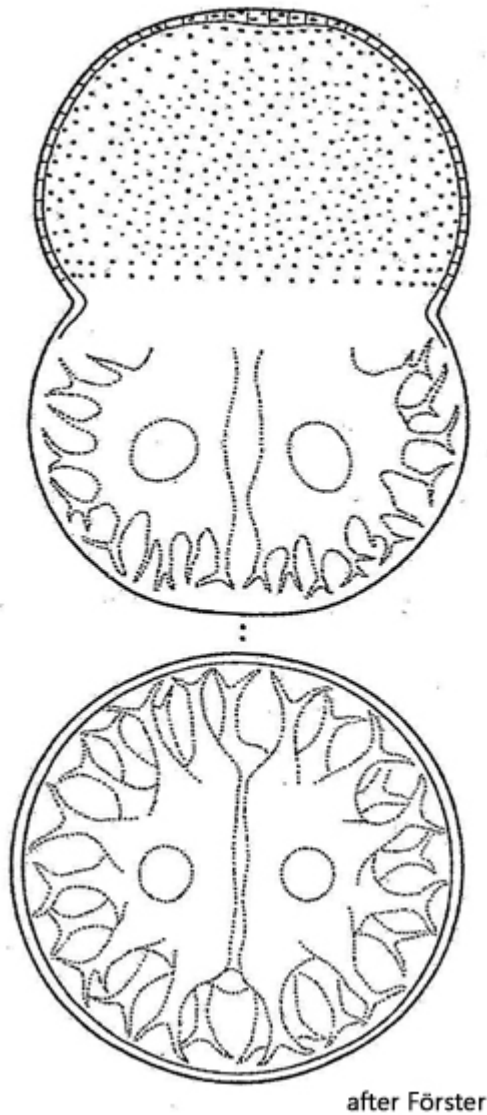
Synonym: n.a.

Sampling location: [Simmelried](#)

Phylogenetic tree: [Cosmarium connatum](#)

Diagnosis:

- semi-cells sub-circular with slightly narrowed base
- apical view circular
- length 50–90 µm, width 42–74 µm
- very broad isthmus
- sinus widely open
- cell wall covered with fine pores
- a ring of larger pores near isthmus
- 2 pyrenoids per semi-cell



Cosmarium connatum

I frequently find *Cosmarium connatum* in the [Simmelried](#) between floating aquatic plants and in the uppermost mud layer. The cells are very easy to identify due to their very wide isthmus. The semi-cells are broad elliptical. The cell wall is finely punctured, and the semi-cells have a ring of larger pores only at their base, near the isthmus (s. fig. 1 b).

Cosmarium connatum can only be confused with *Cosmarium pseudoconnatum*. However, this species is somewhat smaller (30–75 µm) and contains four pyrenoids in each semi-cell.

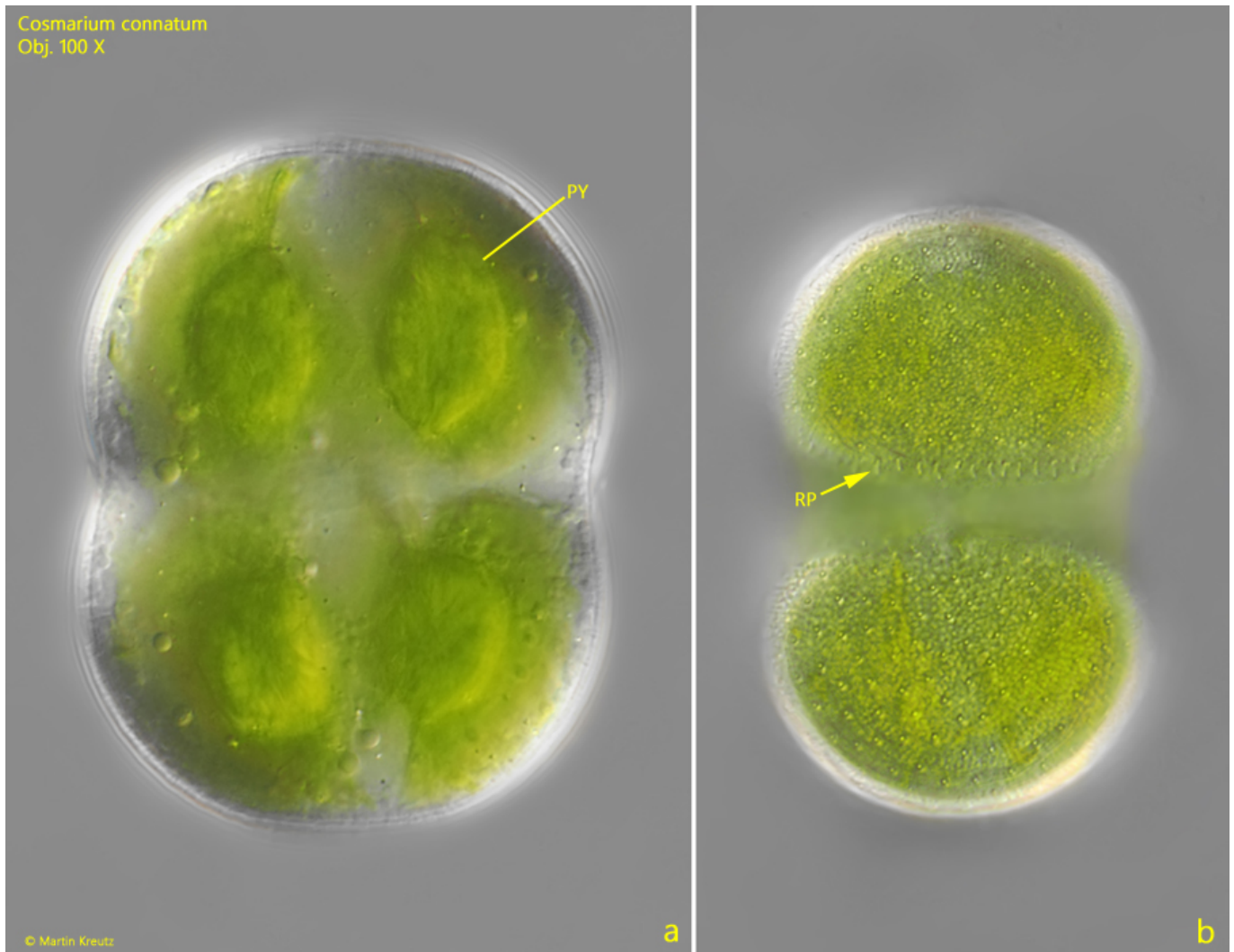


Fig. 1 a-b: *Cosmarium connatum*. L = 68 μm. Two focal planes of a specimen in DIC. Near the isthmus each semi-cell has a ring of larger pores (RP). PY = pyrenoids. Obj. 100 X.



Fig. 2 a-b: *Cosmarium connatum*. L = 68 μm . The same specimen as shown in fig. 1 a-b in brightfield illumination. Obj. 100 X.