Phacomyxa sphagnophila Skuja 1956

Most likely ID: n.a.

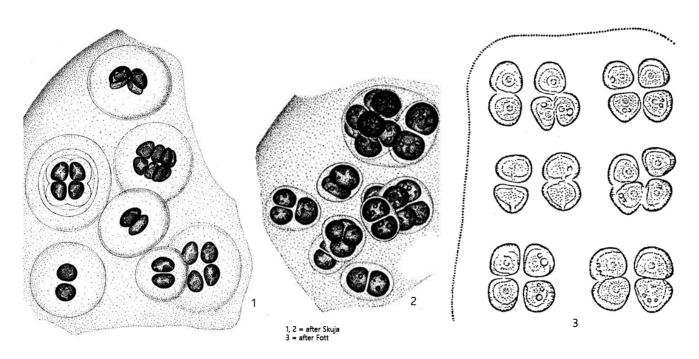
Synonym: n.a.

Sampling location: Simmelried

Phylogenetic tree: Phacomyxa sphagnophila

Diagnosis:

- colonies spherical to irregularls shaped plates
- colonies of 4-16 cells, rarely more,
- cells embedded in mucilaginous envelope
- cells globular, lenticular, ovoid or angular (after cell division)
- diameter 6-10 µm (of cells)
- 3-8 parietal chloroplasts
- pyrenoid abesent
- nucleus central
- cell wall smooth
- reproduction mainly by binary cell division



Phacomyxa sphagnophila

So far I have only found *Phacomyxa sphagnophila* in the Simmelried. This alga appeared there for the first time in 2023. Before that I have no evidence.

Phacomyxa sphagnophila was first described by Skuja (1956). The following authors Komárek & Fott (1983) and F. Hindák & A. Hindáková (2008) incorrectly adopted the name as Phacomyxa sphagnicola.

It was assumed by F. Hindák & A. Hindáková (2008) that *Phacomyxa sphagnophila* is synonymous with the species Dispora speciosa and Dispora crucigenoides. The species are indeed very similar, but it seems that this assumption has been confirmed by F. Hindák & A. Hindáková has not been officially recognized.

Young colonies are usually flat and plate-shaped. Binary cell divisions are often found in them. The daughter cells are often angular in shape, sometimes almost triangular, which is very typical for *Phacomyxa sphagnophila* (s. figs. 1 and 2). Older cells are mostly globular (s. figs. 3 and 5). In my population the older cells had a diameter of 7-9 µm, which fits very well with the description by F. Hindák & A. Hindáková. The cells were described by Skuja (1956) as being somewhat larger with a diameter of 9-15 µm.

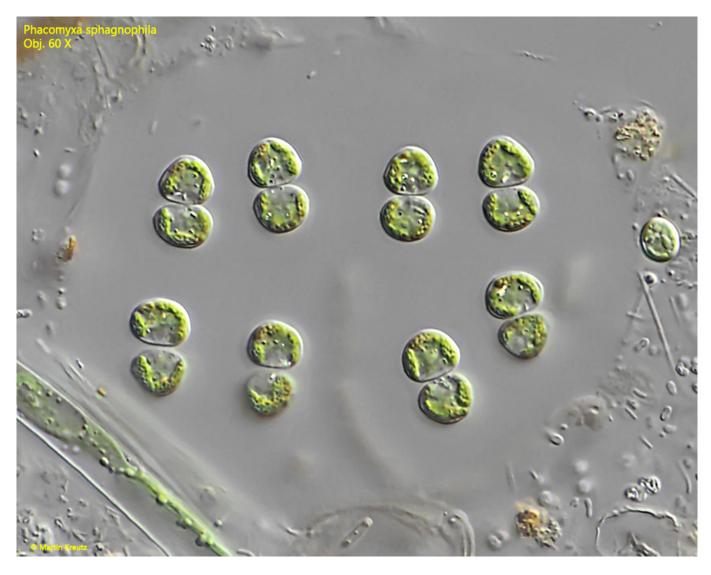


Fig. 1: Phacomyxa sphagnophila. A plate-shaped colony of 8 cells during binary cell division. Note the angular shape of the daughter cells. Obj. 60 X.

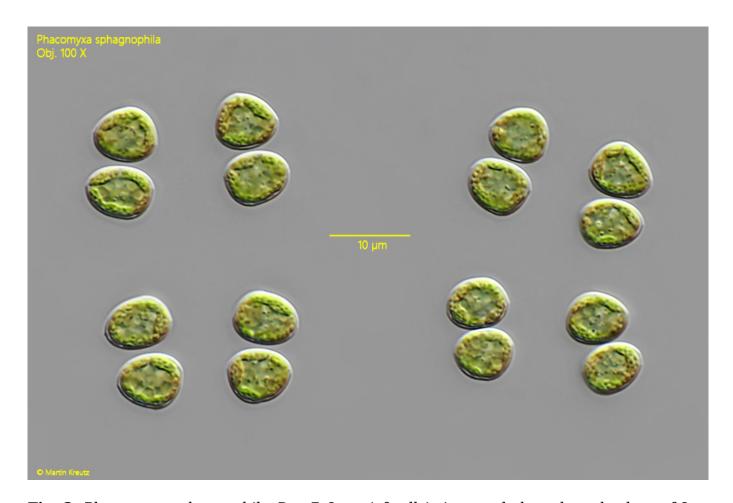


Fig. 2: Phacomyxa sphagnophila. D = 7-8 μm (of cells). A second plate-shaped colony of 8 cells during binary cell division. Obj. 60 X.

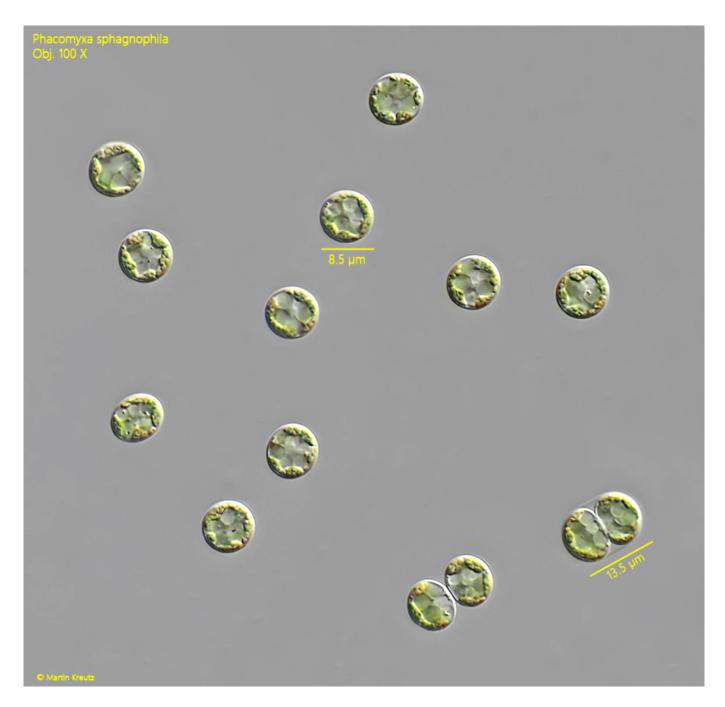


Fig. 3: Phacomyxa sphagnophila. D = 7-9 μ m (of cells). A squashed colony with globular cells and cells during cells division. Obj. 100 X.

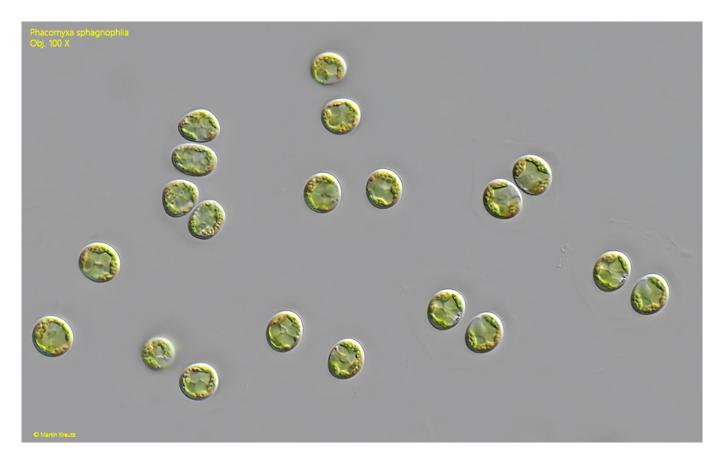


Fig. 4: *Phacomyxa sphagnophila.* $D = 7-9 \mu m$ (of cells). A second squashed colony with ovoid cells and cells during cells division. Obj. 100 X.

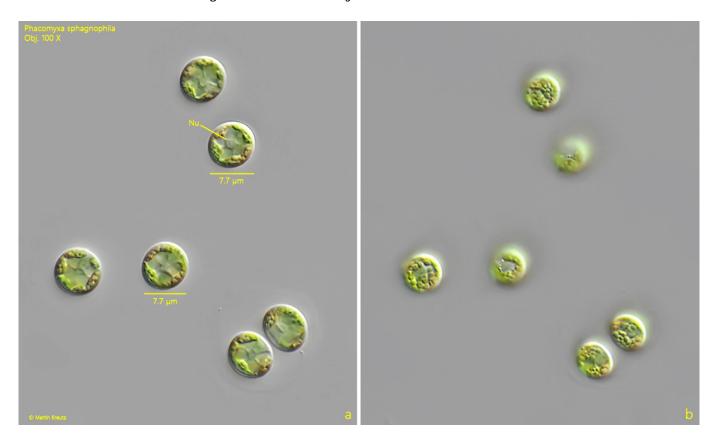


Fig. 5 a-b: *Phacomyxa sphagnophila*. $D = 7-8 \mu m$ (of cells). Two focal planes of 6 cells. Note the central nucleus (Nu). Obj. 100 X.