

***Nephrocytium limneticum* (G. M. Smith, 1933)**

Most likely ID: n.a.

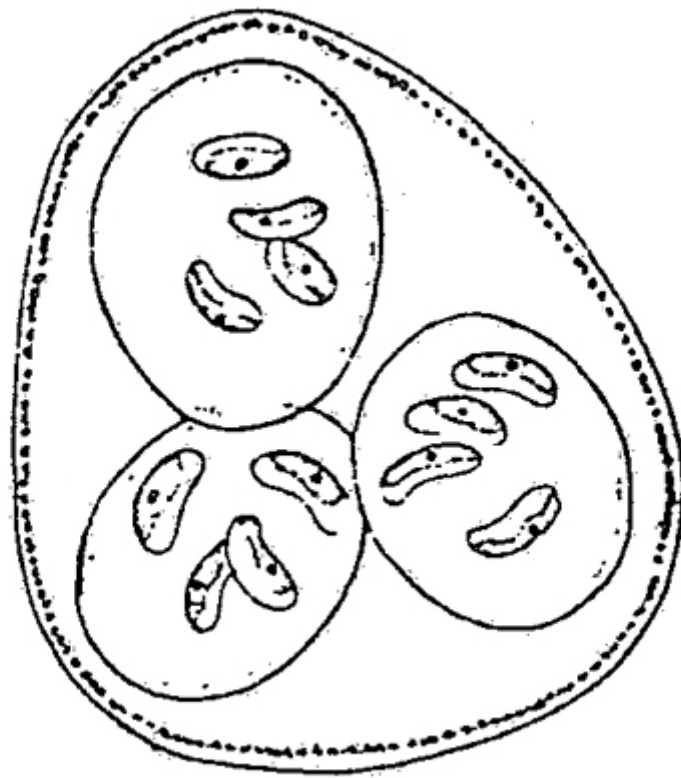
Synonym: *Gloeocystopsis limnetica*

Sampling location: [Hagstaffel pond](#)

Phylogenetic tree: [Nephrocytium limneticum](#)

Diagnosis:

- coenobia of 4–8–16 cells in mucilage envelope
- daughter colonies 20–50 µm in diameter
- daughter cells remain united within gelatinized cell wall of mother cell
- cells 10–15 µm long, kidney-shaped, slightly curved with rounded apices
- one pyrenoid
- one parietal chloroplast
- planktonic life style

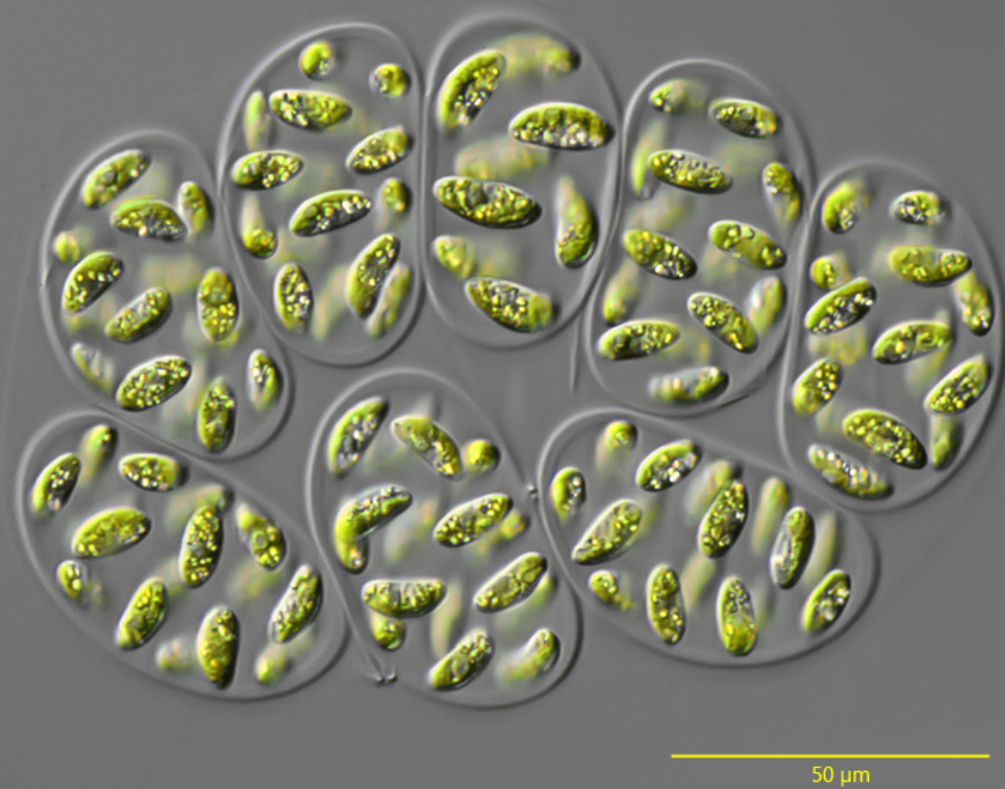


after Guarrera

Nephrocytium limneticum

I find *Nephrocytium limneticum* very rarely in plankton samples, always with several years between them. *Nephrocytium* can be confused with *Kirchneriella*, whose cells are also kidney-shaped or crescent-shaped. However, the colonies of *Nephrocytium* are covered by a distinct and thick layer of mucus, which is absent in *Kirchneriella*. In addition, the daughter colonies of *Nephrocytium* remain united for a long time in the swollen and gelatinized cell wall of the mother cell (s. fig. 2 a).

Nephrocytium limneticum
Obj. 40 X



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Fig. 1: *Nephrocytium limneticum*. L = 156 (of coenobium). A coenobium of 8 colonies with each 16 cells within the gelatinized cell wall of the mother cell. Obj. 40 X.

Nephrocytium limneticum
Obj. 100 X

ME
RMC

a

PY

10 μ m

Nu

PY

b

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Fig. 1: *Nephrocytium limneticum*. L = 10-12 μm (of the cells). A slightly squashed (a) and a strongly squashed (b) coenobium of 4 colonies with each 4 cells within the remains of the mother cell (RMC). Each colonie is in the thick mucilage envelope (ME). Nu = nucleus, PY = pyrenoid. Obj. 100 X.