## Nephrocytium limneticum 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
- planctonic lifestyle



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).

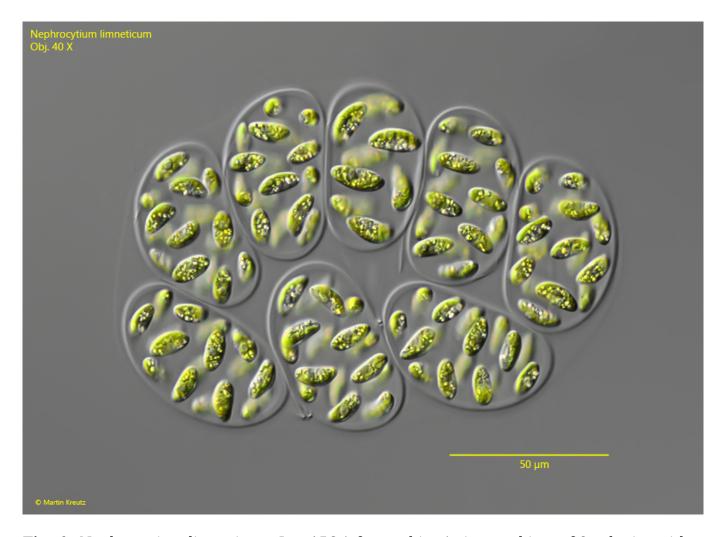
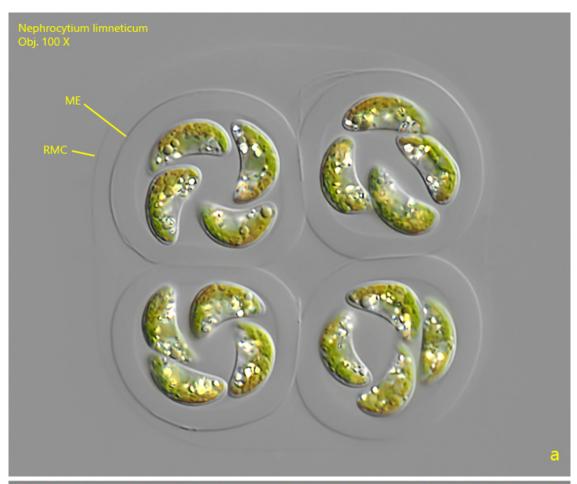
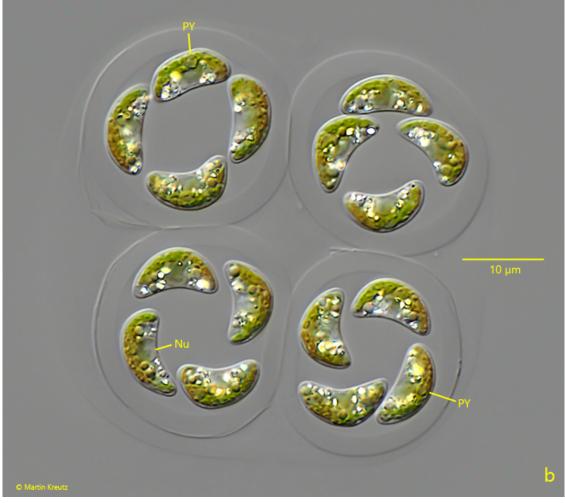


Fig. 1: Nephrocytium limneticum. L = 156 (of coenobium). A coenobium of 8 colonies with 16 cells each within the gelatinized cell wall of the mother cell. Obj. 40 X.





**Fig. 2 a-b:** Nephrocytium limneticum.  $L=10-12~\mu m$  (of the cells). A slightly squashed (a) and a strongly squashed (b) coenobium of 4 colonies with 4 cells each within the remains of the mother cell (RMC). Each colony is in a thick mucilage envelope (ME). Nu = nucleus, PY = pyrenoid. Obj. 100 X.