Encyonema auerswaldii

Rabenhorst, 1853

Most likely ID: n.a.

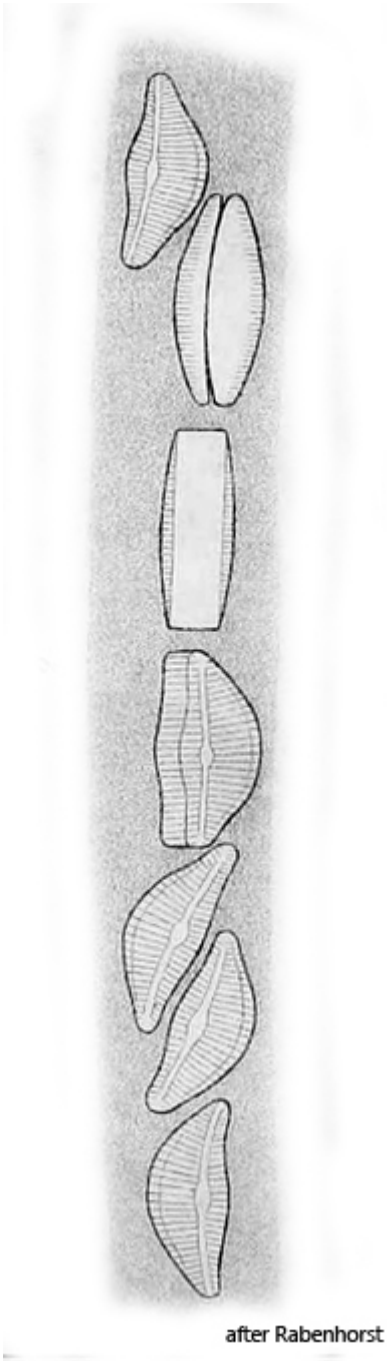
Synonyms: *Encyonema cespitosum* var. *auerswaldii*, *Cymbella ventricosa* var. *auerswaldii*, Cymbella *cespitosa* var. *auerswaldii*, *Cymbella prostrata* var. *auerswaldii*, *Cocconema cespitosum* var. *auerswaldii*

Sampling location: Pond of the waste disposal company Constance

Phylogenetic tree: *Encyonema auerswaldii*

Diagnosis:

- valves almost semi-circular
- convex dorsal margin und slightly convex ventral side
- length 18–58 µm, width 8–13 µm
- forms colonies in branched gelatinous tubes
- raphe shifted to the ventral side
- proximal raphe ends dorsally deflected
- dorsal striae radiate, ventral striae weakly radiate
- one H-shaped chloroplast, golden-brown



Encyonema auerswaldii

I found *Encyonema auerswaldii* in large quantities on the stems of the yellow water lily (*Nuphar lutea*) in the pond of the waste disposal company Constance. The tube-shaped colonies were already macroscopically visible as 1–2 mm long, dark brown filaments on the stems. They could be easily removed by scraping them off the stems and were then easy to examine.

Encyonema auerswaldii forms a tube-shaped, gelatinous tube with a diameter of about 30–40 µm in which cell division takes place. This causes the tube to grow continuously and it can also branch. The cells are approximately semi-circular in valve view and approximately rectangular in girdle view. The raphe on the valve

side is straight and only bends at the apices to the dorsal, convex side. In addition, the raphe is shifted towards the slightly convex, ventral side. The nucleus is centrally located and has a distinct, central nucleolus.

More information and images on *Encyonema auerswaldii*: Diatoms of North America-*Encyonema auerswaldii*


Encyonema auerwaldii
Obj. 40 X
250 µm
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Fig. 1: *Encyonema auerswaldii*. L = about 1 mm (of colony). A branched colony of about 100 cells in a gelatinous tube. Obj. 40 X.

Fig. 2: *Encyonema auerswaldii*. L = 36–38 µm (of cells). A section of the colony as shown in fig. 1. Obj. 60 X.

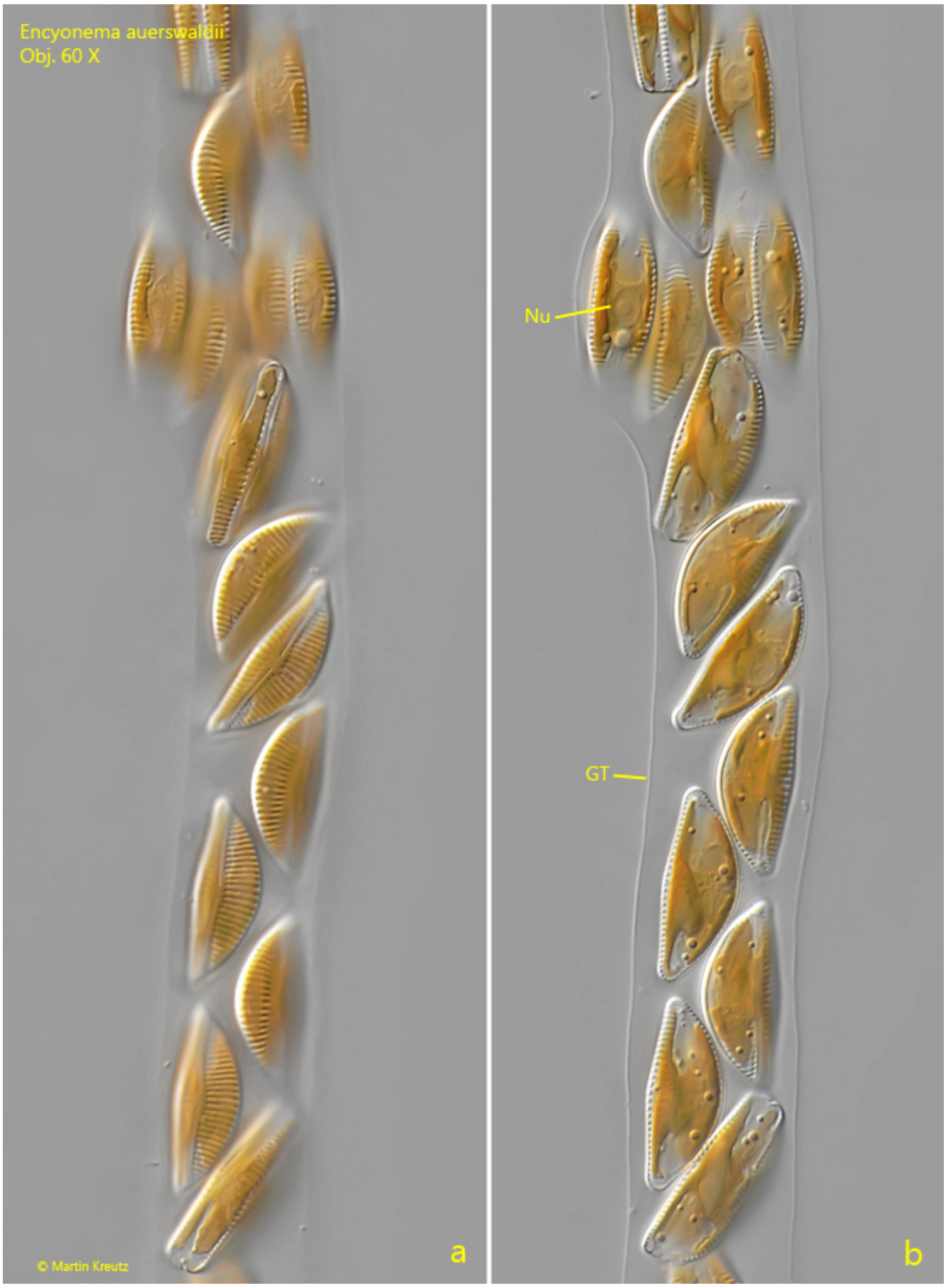

Fig. 3: *Encyonema auerswaldii*. L = 36–39 µm (of cells). A second section of the colony as shown in fig. 1. Note the nucleus (Nu) of the cells with a central nucleolus.

GT = gelatinous tube. Obj. 60 X.

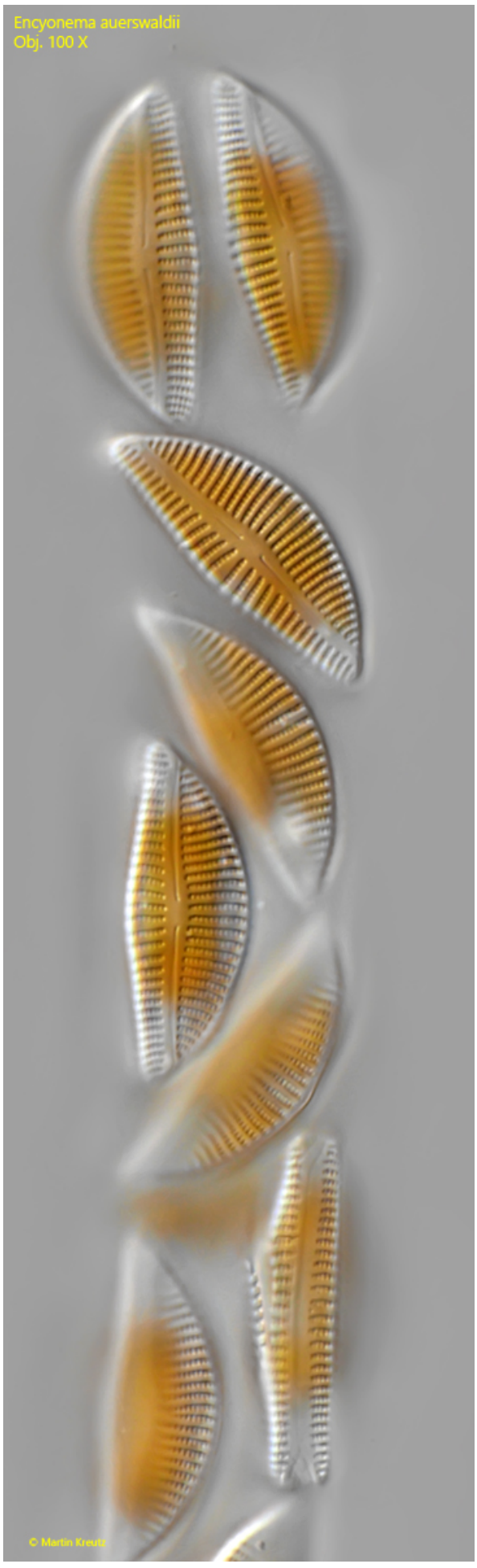
Encyonema auerswaldii
Obj. 100 X
© Martin Kreutz

Fig. 4: *Encyonema auerswaldii*. L = 36–38 µm (of cells). Some cells in the gelatinous tube in valve view. Obj. 100 X.

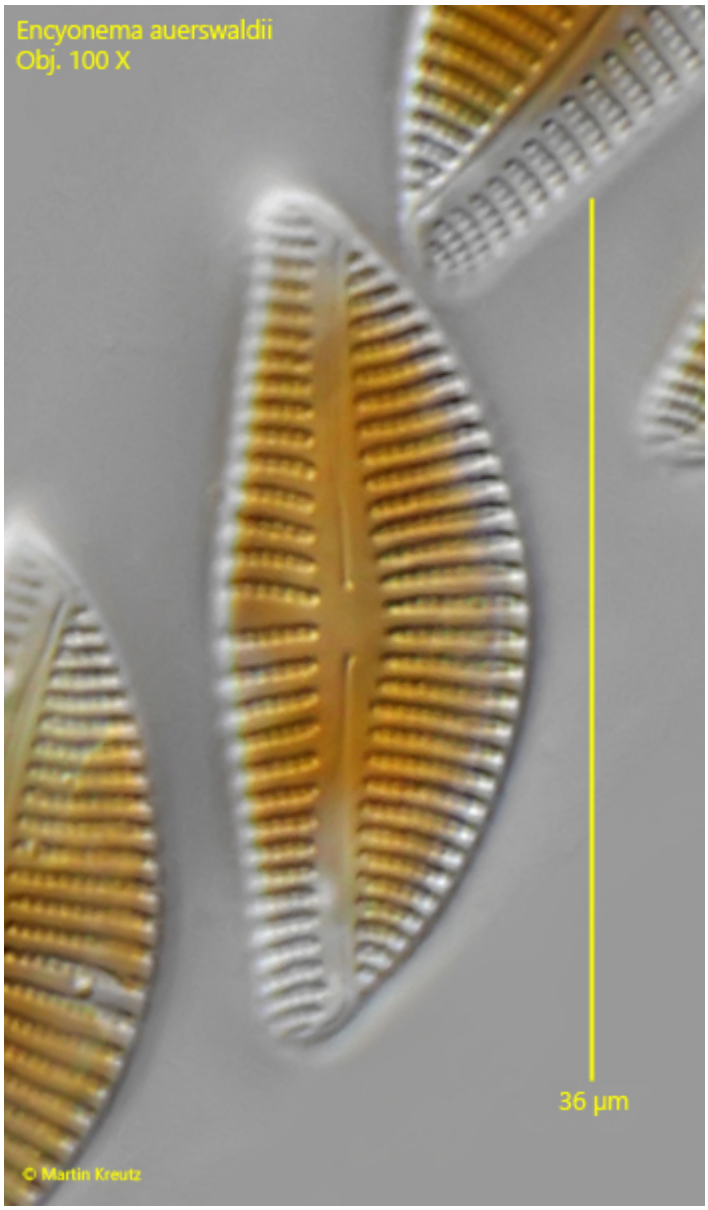

Fig. 5: *Encyonema auerswaldii*. L = 36 µm. The valve view of a cell in detail. Obj. 100 X.