Euglenaformis proxima

(Dangeard, 1902) Bennet & Triemer, 2014

Most likely ID: n.a.

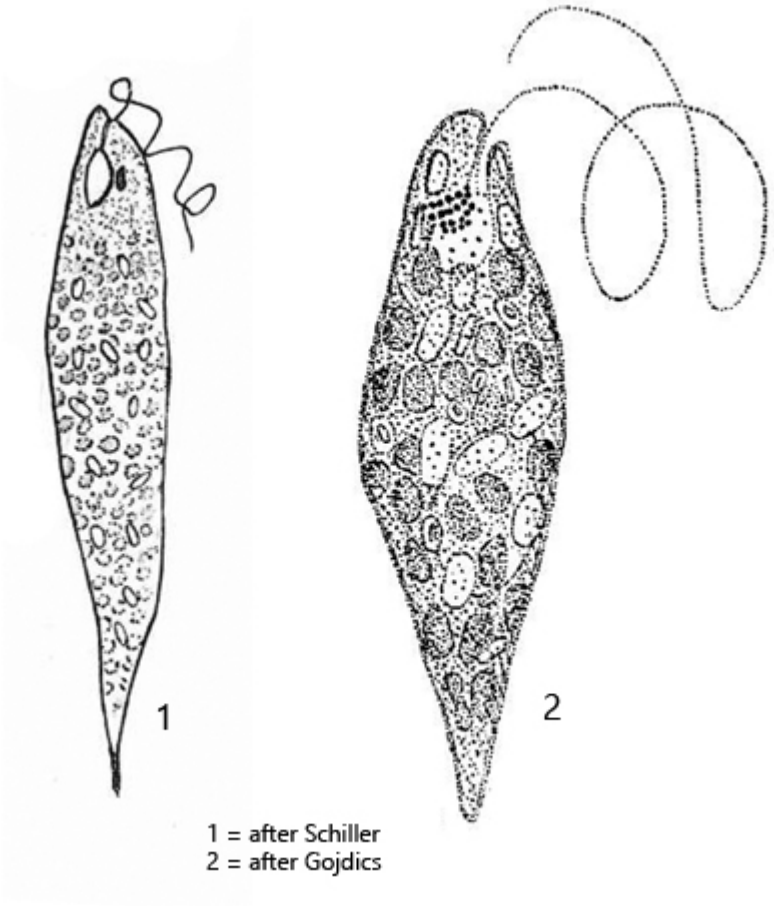
Synonym: *Euglena proxima*

Sampling location: Ziegelhof pond

Phylogenetic tree: *Euglenaformis proxima*

Diagnosis:

- body spindle-shaped, anteriorly bluntly rounded, posteriorly tapered to a point
- euglenoid movement
- length 60–93 µm
- fine, counter-clockwise striation of pellicle
- paramylon bodies ovoid, about 6 µm long
- chloroplasts disc-shaped, without pyrenoids
- one flagellum, two-thirds to 1.5 times body length
- distinct eyespot, about 5 µm long
- globular nucleus central



Euglenaformis proxima

I found *Euglenaformis proxima* in large numbers in the highly polysaprobic Ziegelhof pond. This is heavily overfertilized by the input of horse manure.

Euglenaformis proxima is strongly metabolic and constantly moving (s. fig. 1 a-e). However, the shape and length of the extended form is important for identification (s. fig. 2 a-c). Another important parameter is the shape of the chloroplasts and whether pyrenoids are present. This is best recognized in squashed specimens (s. fig. 3 a-c). In the squashed specimens the shape of the paramylon grains can also be determined well. In most identification keys, the shape and number of chloroplasts is used as the most essential parameter. If the shape of the chloroplasts is known, the number of possible species can already be narrowed down considerably. To determine their shape, it is almost always necessary to squash the specimens. It is only then possible to determine whether pyrenoids are present.

In case of *Euglenaformis proxima* the chloroplasts are disc-shaped without pyrenoides (s. fig. 3 b). The paramylon bodies are ovoid or ellipsoid and almost all of the same size.

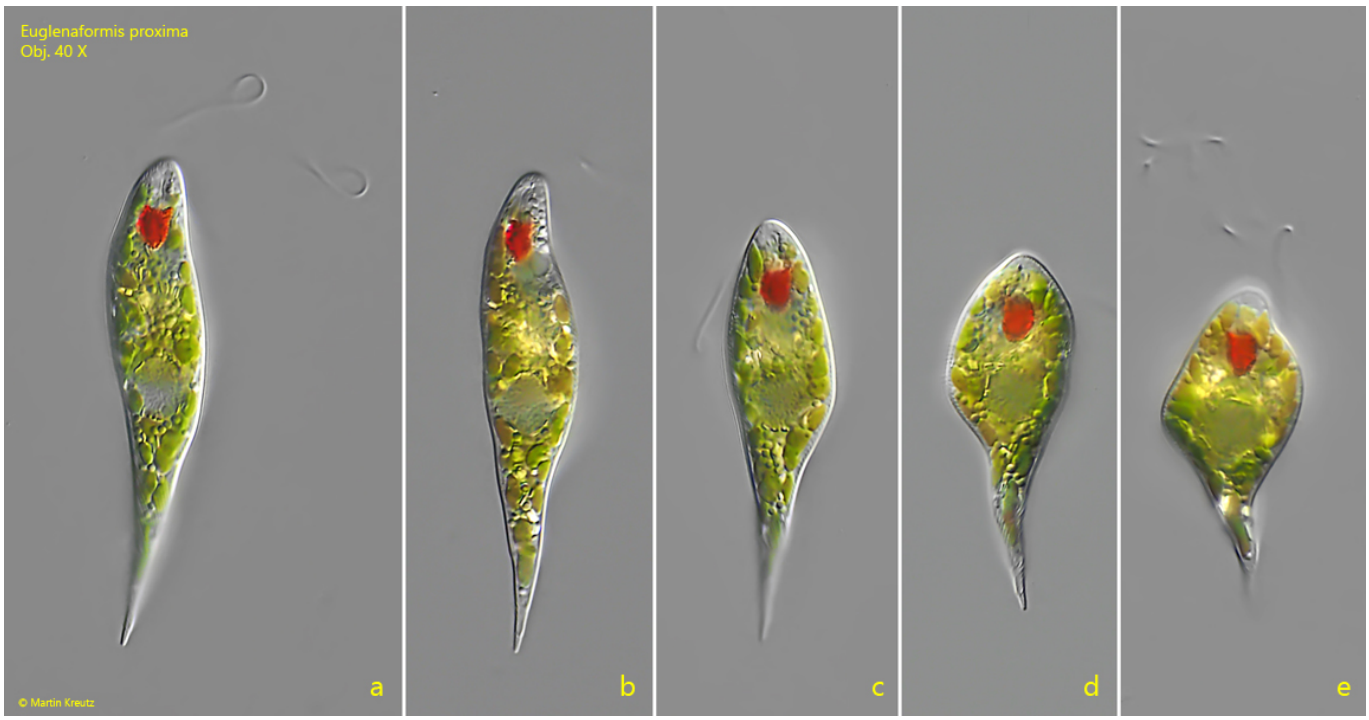


Fig. 1 a-e: *Euglenaformis proxima*. L = 88 µm. The euglenoid movement of a freely swimming specimen. Obj. 40 X.

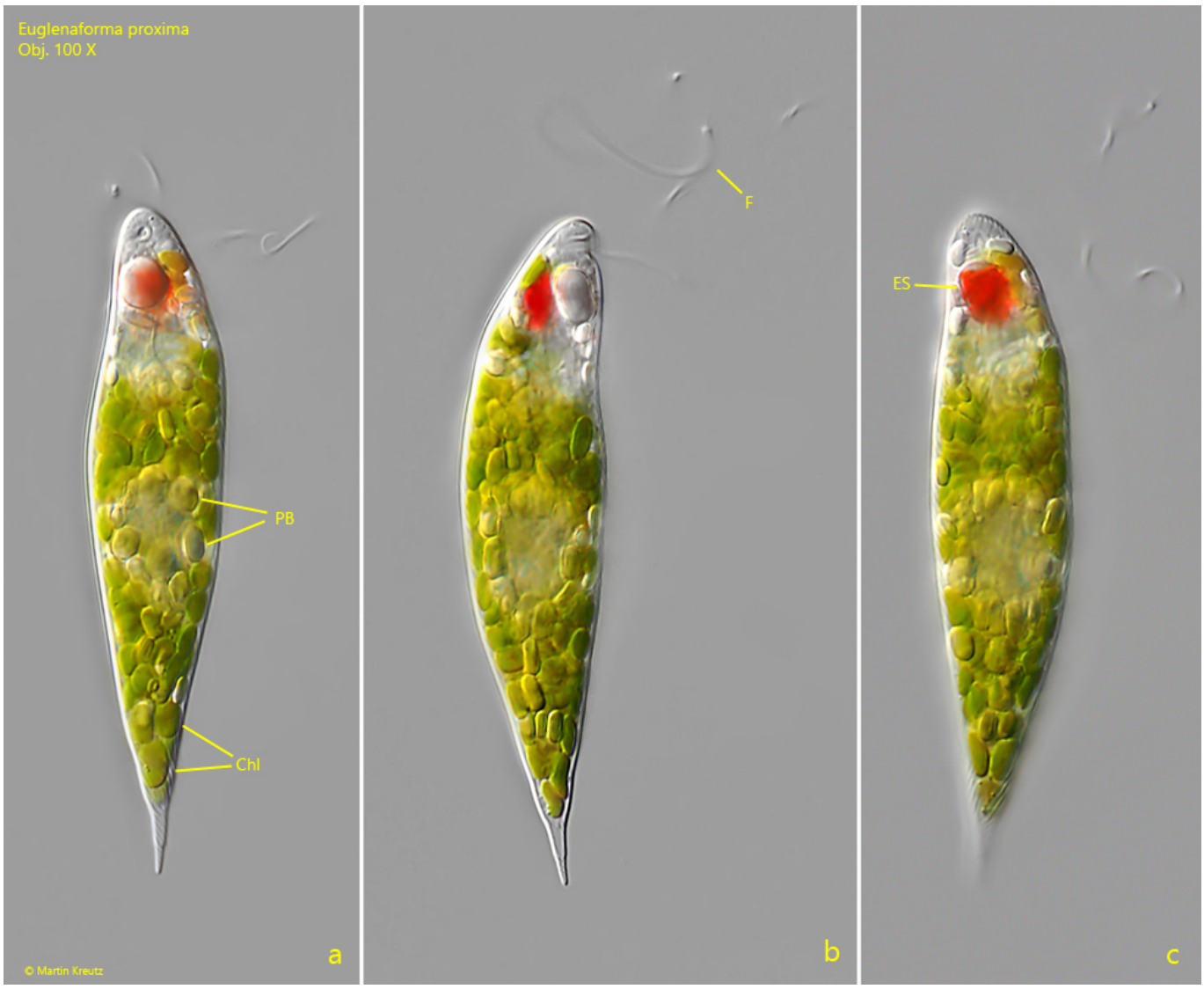


Fig. 2 a-c: *Euglenaformis proxima*. L = 74 µm. A freely swimming specimen from ventral (a), right (b) and from dorsal (c). Chl = disc-shaped chloroplasts, ES = eyespot, F = flagellum, PB = paramylon bodies. Obj. 100 X.

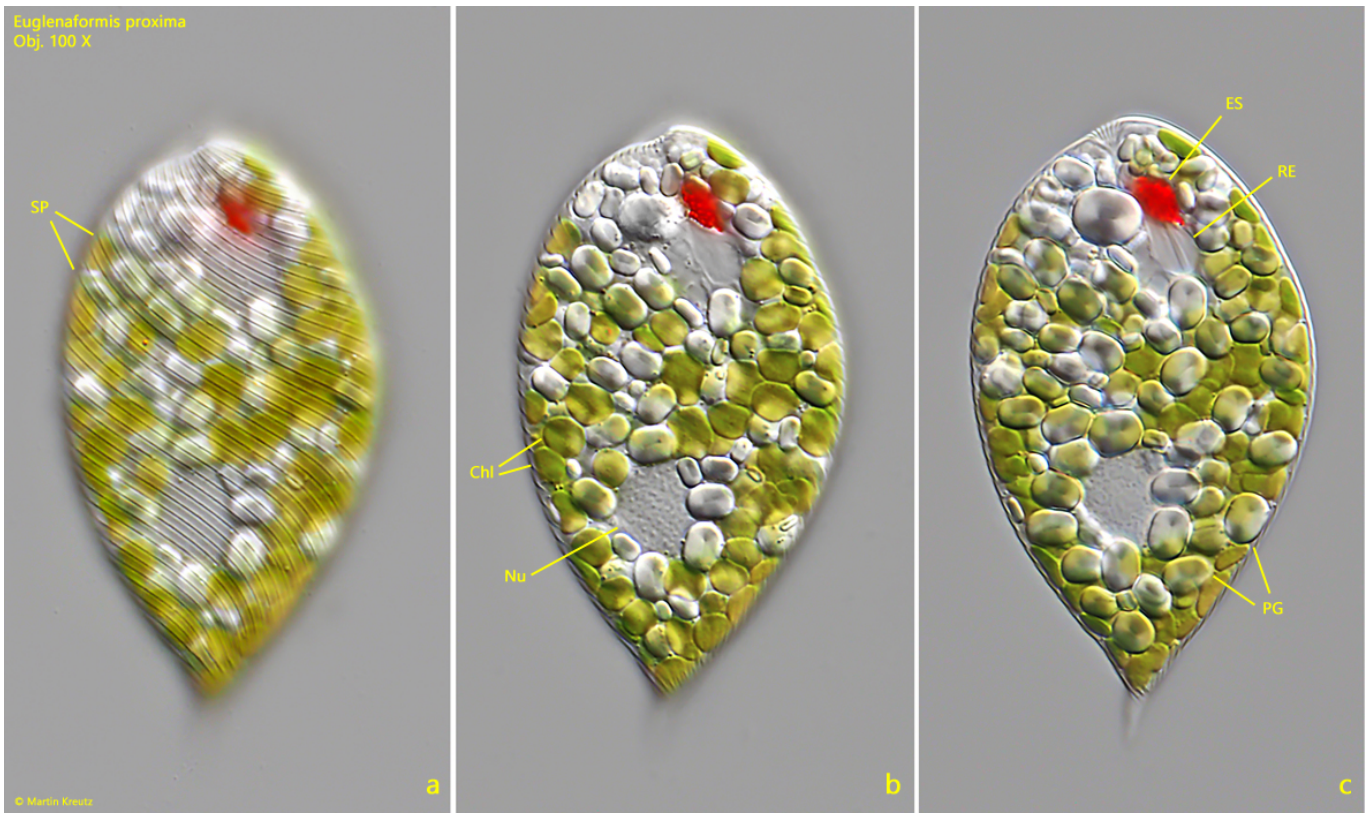


Fig. 3 a-c: *Euglenaformis proxima*. Three focal planes of a strongly squashed specimen on the counter-clockwise striation of the pellicle (SP, a), the disc-shaped chloroplasts (Chl, b) and the paramylon grains (PG, c). ES = eyespot, Nu = nucleus, RE = reservoir. Obj. 100 X.