Cyclidium glaucoma Müller, 1773

Most likely ID: n.a.

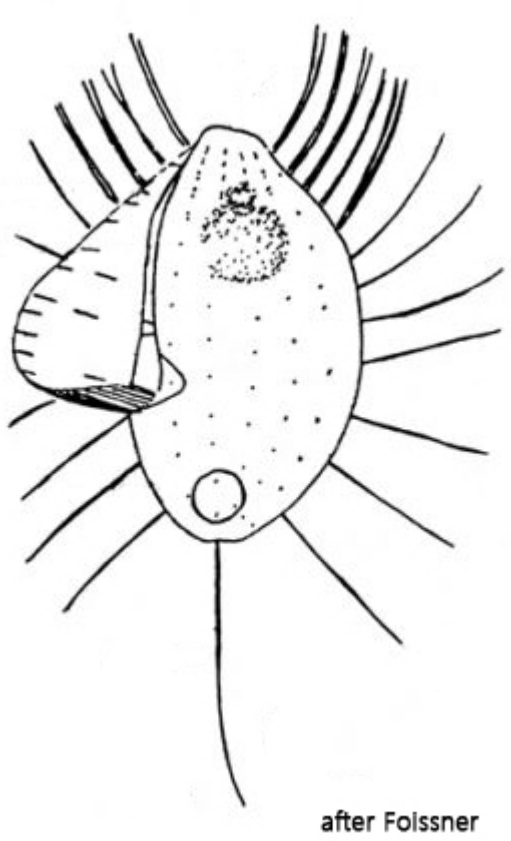
Synonym: n.a.

Sampling location: Ulmisried, Purren pond, Pond of the convent Hegne, Bündtlisried, Bussenried, Mainau pond, Simmelried

Phylogenetic tree: *Cyclidium glaucoma*

Diagnosis:

- body ovoid, sometime barrel- or spindle-shaped
- distinct frontal plate
- length 14–30 µm
- oral apparatus half body length
- on right side L-shaped undulating membrane
- very small adoral zone (hard to see)
- somatic cilia are paired in anterior half
- extrusome rod-shaped, very inconspicuous
- one spherical macronucleus in anterior third
- one spherical micronucleus adjacent to macronucleus
- contractile vacuole terminal
- one caudal cilium, at distal end often bent



Cyclidium glaucoma

Cyclidium glaucoma is one of the most common ciliates that I find in almost all my sampling sites. In nutrient-poor waters, the specimens are only found sporadically, but mass developments can occur, especially in samples with decomposing plant masses (s. fig. 1). *Cyclidium glaucoma* is also almost always found in hay infusions.

Cyclidium glaucoma is usually around 20 µm long. It is easy to observe, as it always takes longer resting phases between the fast swimming phases, in which it stretches out the undulating membrane like a sail. The exact structure of the oral apparatus is difficult to recognize, as *Cyclidium glaucoma* rests either on the left or on the right side (s. figs. 2 a and 2 b). The oral apparatus can therefore usually only be seen in lateral view. Only rarely does it rotate and allow a ventral view (s. fig. 2 d). Another striking feature is the distinct frontal plate (s. fig. 2 c) and the caudal cilium, which is almost always bent at the distal end.

The body shape of *Cyclidium glaucoma* is subject to a certain variability. There are stocky as well as almost spindle-shaped specimens. The frontal plate can sometimes protrude almost like a snout. Foissner et al. (1994) therefore assume that *Cyclidium glaucoma* could be synonymous with *Cyclidium citrullus*. However, as a thorough redescription of *Cyclidium citrullus* is still lacking, this is only a conjecture.



Fig. 1: *Cyclidium glaucoma*. L = 15–24 µm. A mass development in a samples with decpmposing plant masses. Obj. 100 X.

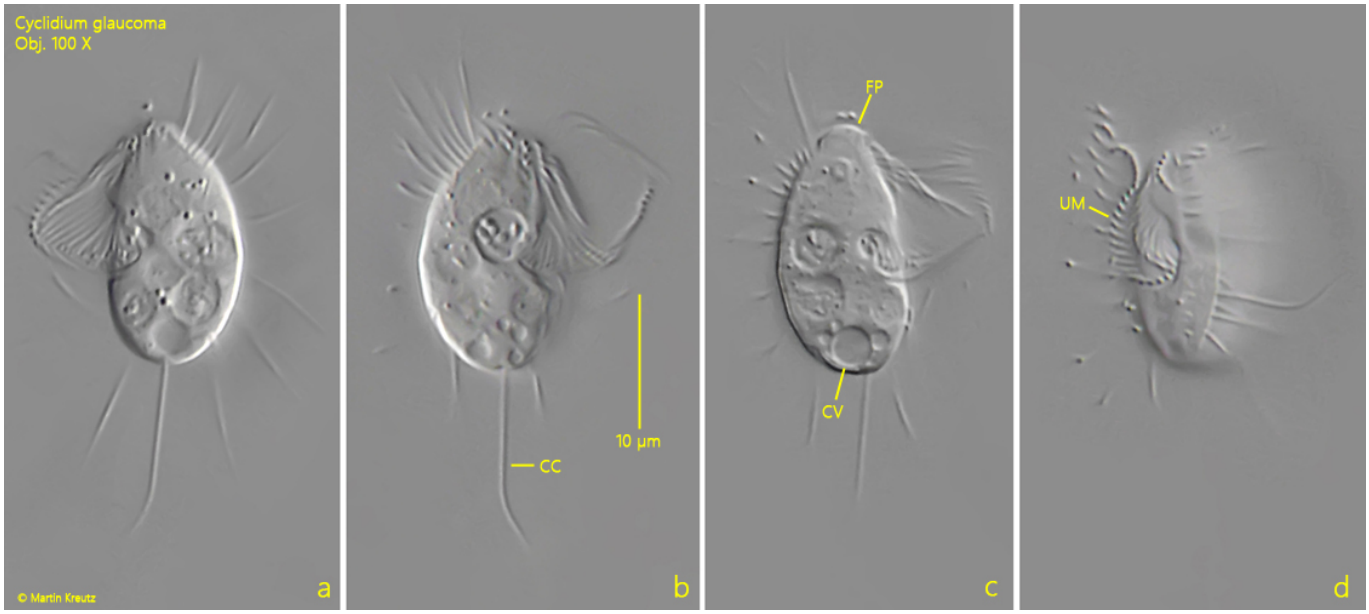


Fig. 2 a-d: *Cyclidium glaucoma*. L = 18 µm. A feeels swimming specimen from left (a) and from right (b,c) and from ventral (d). CC = caudal cilium, CV = contractile

vacuole, FP = frontal plate, UM = undulating membrane. Obj. 100 X.



Fig. 3: *Cyclidium glaucoma*. The macronuclus (Ma) with a central nucleolus and the micronucleus (Mi) in a squashed specimen. Obj. 100 X.