Trochiliopsis opaca Penard, 1922

Most likely ID: n.a.

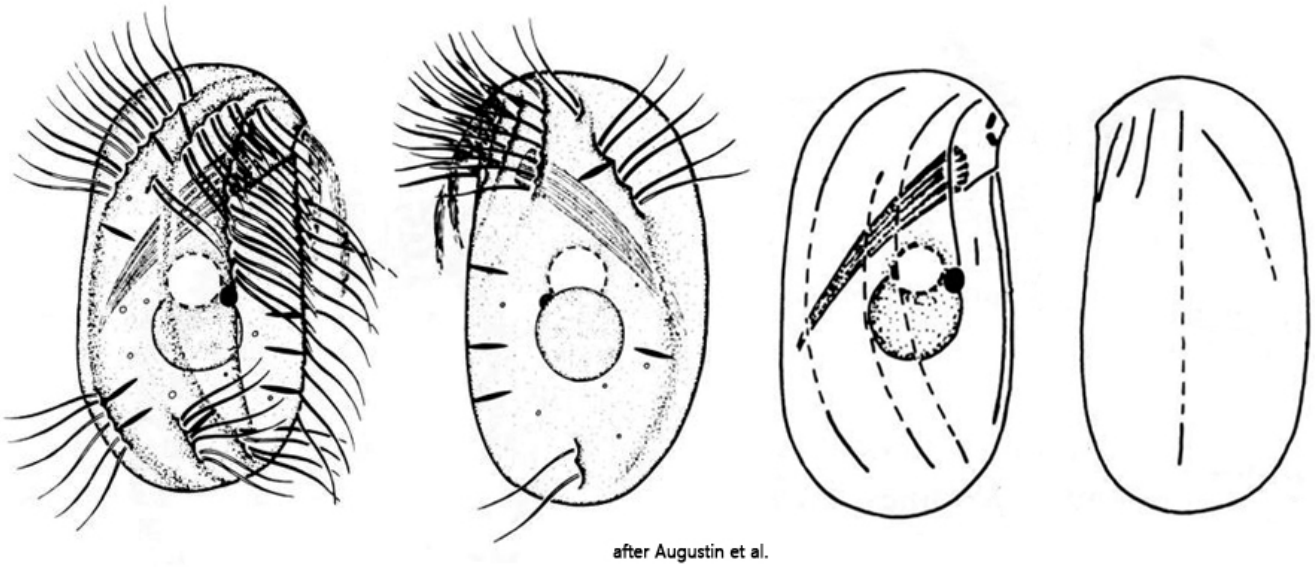
Synonym: n.a.

Sampling location: Simmelried

Phylogenetic tree: *Trochiliopsis opaca*

Diagnosis:

- body oval, laterally flattened
- ventral side is more flattened than convex dorsal side
- anteriorly beak-like
- length 30–50 µm, width 17–20 µm
- oral basket in anterior third, invisible in life
- macronucleus globular, hard to see
- one micronucleus, adjacent to macronucleus
- extrusomes fusiform, 3 µm long
- 3 interrupted kineties on right side
- 2 kineties on right side in anterior half
- 1 ventral kinety, hard to see
- 3 preoral kineties
- contractile vacuole central, with short canal to ventral side



Trochiliopsis opaca

In May 2023 I found *Trochiliopsis opaca* in the Simmelried. So far, however, only a single specimen. It was found in samples from the uppermost mud layer, which was interspersed with many colonies of rhodobacteria.

Trochiliopsis opaca is very similar to representatives of the genus *Drepanomonas*, but lacks the typical mouth cavity in the middle of the ventral side. Instead, the mouth opening, which is located in the anterior third, cannot be seen laterally, nor can the oral basket (cyrthos). However, there are long, brush-shaped adoral membranelles at the front end (s. fig. 1 a). Both on the right and on the left side of the body there are a total of 5 kineties, which are all interrupted in the middle of the body. A sixth kinety runs ventrally, but is difficult to recognize. The kinety, which runs in the middle of the left side (K4), ends at the posterior end with two clearly separated cilia, which are easy to recognize (s. fig. 1 f). In contrast, the macronucleus and the micronucleus can hardly be contrasted even in the DIC. The macronucleus is at most dimly visible (s. fig. 1 d). The contractile vacuole is located in the middle of the body and is connected to the ventral side via a short canal (s. fig. 1 b).

The specimen I found was 28 µm long, somewhat smaller than indicated by Augustin et al. (1987) and I was also unable to detect any spindle-shaped extrusomes. Whether this is the case for all specimens in my population remains to be seen.

More images and information on *Trochiliopsis opaca*: Jeffrey Silverman-iNaturalist-

Trochiliopsis opaca

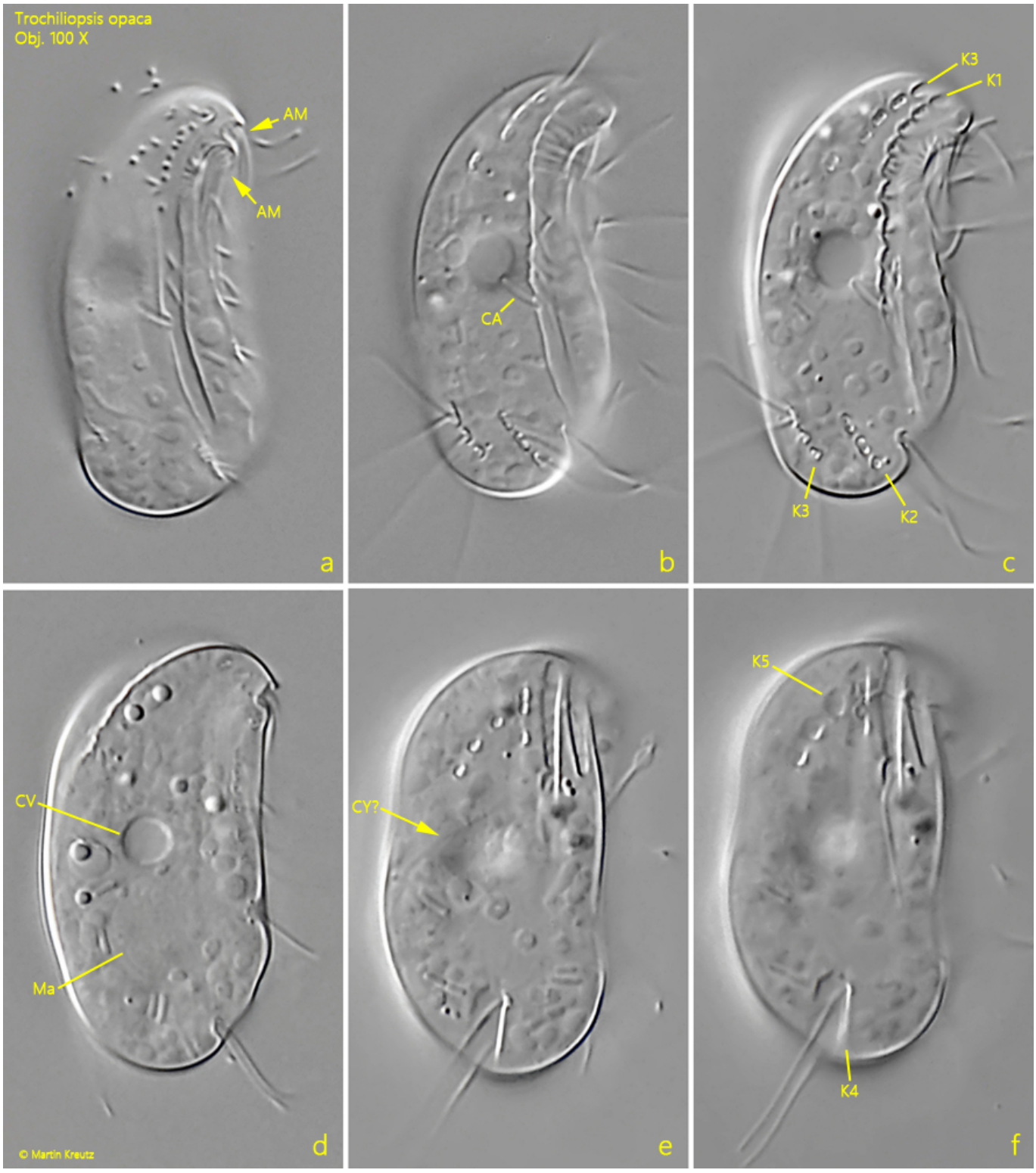


Fig. 1 a-f: *Trochiliopsis opaca*. L = 28 µm. A slightly squashed specimen from right (a-d) and focal on plane on the left side from right (e, f). Note the long, brush-shaped adoral membranelles (AM) and the short canal (CA) between the contractile vacuole (CV) and the ventral side (b). The kinety 4 (K4) on the left side has two clearly separated cilia at the posterior end (f). The spherical macronucleus (Ma) appears only weakly contrasted in DIC (d). CY? = probably the cyrthos, K1-K5 =

kinieties on the right and left side. Obj. 100 X.