Rhopalophrya crassa Kahl, 1926

Most likely ID: n.a.

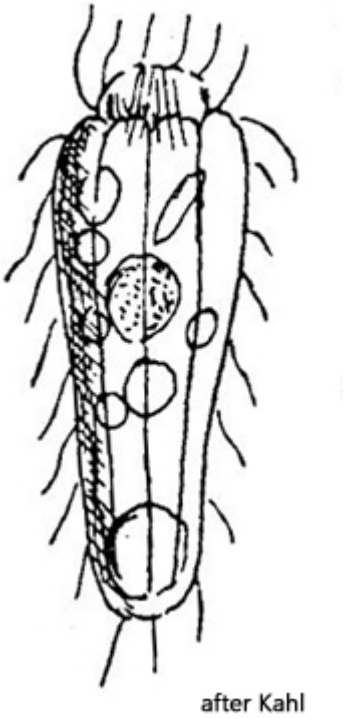
Synonym: n.a.

Sampling location: Bussenried, Simmelried

Phylogenetic tree: *Rhopalophrya crassa*

Diagnosis:

- body club-shaped, bent ventrally
- with longitudinal ribs
- length 40–50 µm
- broad oral bulge with rod-shaped extrusomes (3 µm)
- oral bulge surrounded by elongated cilia
- sparse, long cilia
- macronucleus short ellipsoid
- contractile vacuole terminal



Rhopalophrya crassa

So far, I have found only two specimens of *Rhopalophrya crassa*. I found the first specimen in November 2024 in the Simmelried and the second one also in November in the Bussenried. I have no further records to date.

In the little-studied genus *Rhopalophrya*, Kahl (1926) described small, club-shaped ciliates with a distinct furrowing of the pellicle and long, soft cilia. In all forms, the front end is beak-shaped. Only in the species *Rhopalophrya crassa* is a distinct oral bulge visible.

The two specimens of *Rhopalophrya crassa* swam very slowly, with rowing-like movements of the loosely spaced cilia. The somatic cilia are conspicuously long, measuring 13–15 µm. In the specimen from the Bussenried, I could also observe that the cilia around the oral bulge were significantly longer at 20 µm (s. fig. 3). This is also mentioned by Kahl. In both specimens, I could clearly see longitudinal ribs (s. fig. 1 a-f). The extrusomes in the oral bulge of my specimens were 5–6 µm long. The macronucleus was spherical. I could not identify the micronucleus. The contractile vacuole is terminal.

In 2002, Foissner, Agatha, and Berger described an *Enchelyodon minutus* from Namibia (s. fig. 4), which closely resembles *Rhopalophrya crassa* in almost all

characteristics. However, the authors did not synonymize the species because *Enchelyodon minutus* has an ellipsoid or kidney-shaped macronucleus, whereas *Rhopalophrya crassa* has a spherical one. Whether synonymization is justified can only be determined by further findings.

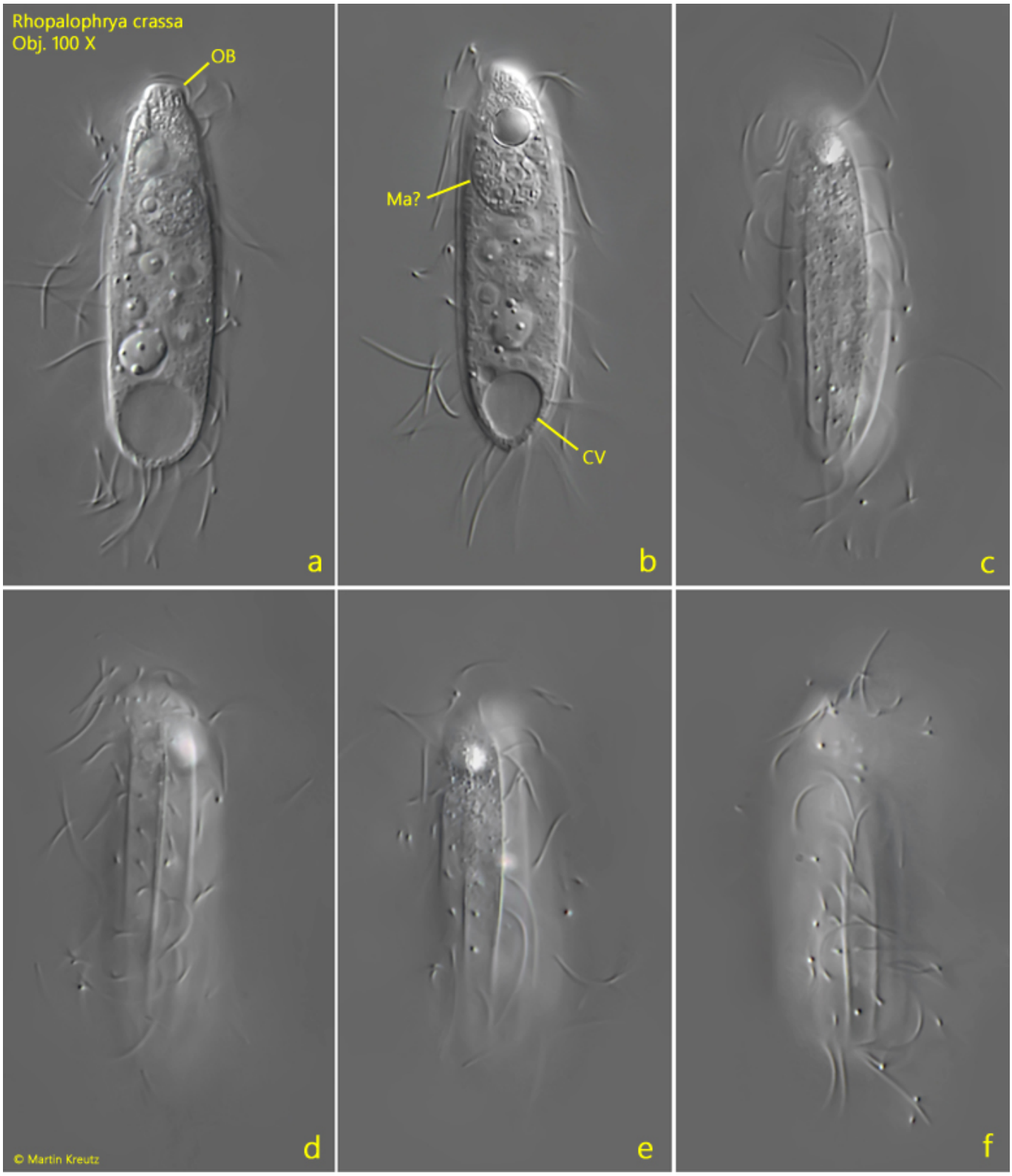


Fig. 1 a-f: *Rhopalophrya crassa*. L = 43 µm. A different focal planes of a freely swimming specimen. The longitudinal ridges of the body are clearly visible. CV =

contractile vacuole, Ma? = probably the macronucleus. Obj. 100 X.

Fig. 2 a-c: *Rhopalophrya crassa*. L = 43 µm. A second specimen found 2014 in the Bussenried. Ma = macronucleus. Obj. 100 X.

Fig. 3: *Rhopalophrya crassa*. L = 43 µm. The cilia around the oral bulge are 20 µm long, while the somatic cilia are 13–15 µm long. The extrusomes in the oral bulge are straight rods with a length of 5–6 µm. Ma = macronucleus. Obj. 100 X.

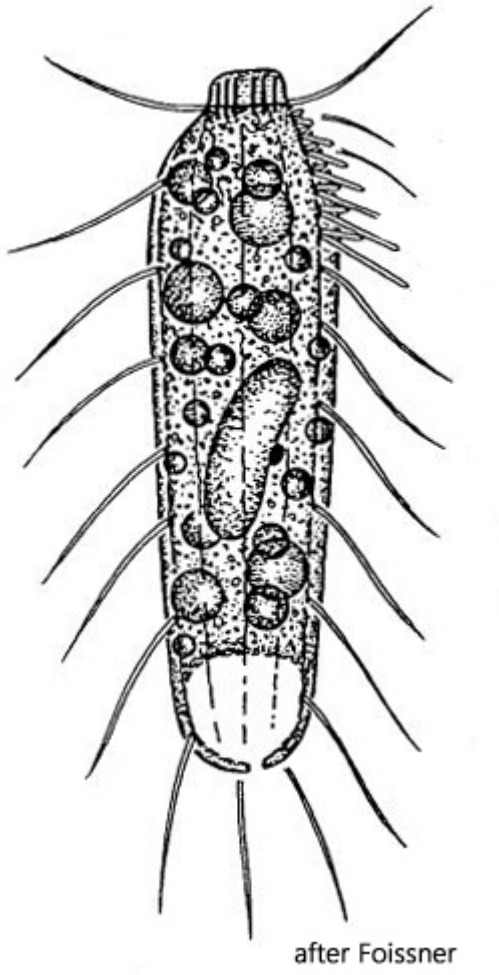


Fig. 4: *Enchelyodon minutus*, described by Foissner, Agatha and Berger (2002), is likely synonym with *Rhopalophrya crassa*.