Frontonia elliptica Beardsley, 1902

Most likely ID: n.a.

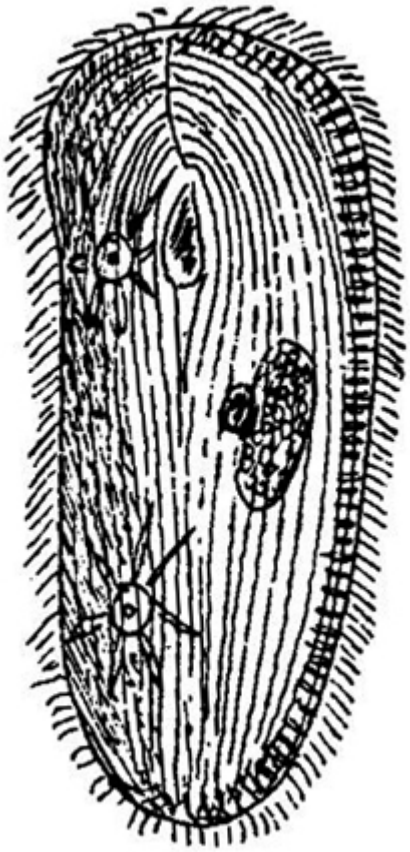
Synonym: n.a.

Sampling location: Dorfteich Kloster (Hiddensee)

Phylogenetic tree: *Frontonia elliptica*

Diagnosis:

- body elliptical, moderately flattened
- cytoplasm colorless, without pigment spot at anterior end
- length 150–200 µm
- two contractile vacuoles with excretion pore each
- macronucleus ellipsoid
- one lenticular micronucleus adjacent to macronucleus
- fringe of spindle-shaped extrusomes, about 5–6 µm long



Frontonia elliptica

I found *Frontonia elliptica* in large numbers in the Dortteich in the village Kloster on the island of Hiddensee. I have never found this species in my other localities.

The main characteristic of *Frontonia elliptica* are the two contractile vacuoles without auxiliary channels. Most other species in the genus *Frontonia* have only one contractile vacuole, which also has auxiliary channels. The contractile vacuoles of *Frontonia elliptica* have each one excretion porus, which is located dorsal on the right side (s. fig. 3 b).

The specimens of my popualtion were about 120 µm long, somewhat smaller than indicated by Kahl. However, Kahl found his specimens in brackish water. The species therefore seems to be very adaptable. Apart from the description by Beardsley and Kahl, there seem to be no further finds and descriptions of *Frontonia elliptica*. So little is known about the size variability. The other characteristics of the specimens of my populations agree with the descriptions of Beardley and Kahl.



Fig. 1 a-d: *Frontonia elliptica*. L = 120 µm. A freely swimming specimen from ventral (a-c) and from left (d). Note the two contractile vacuoles (CV 1, CV 2). Obj. 40 X.



Fig. 2: *Frontonia elliptica*. L = 125 µm. A slightly squashed specimen from ventral. Note the preoral suture (PrS, hard to see) and the postoral suture (PoS). OA = oral

apparatus. Obj. 100 X.

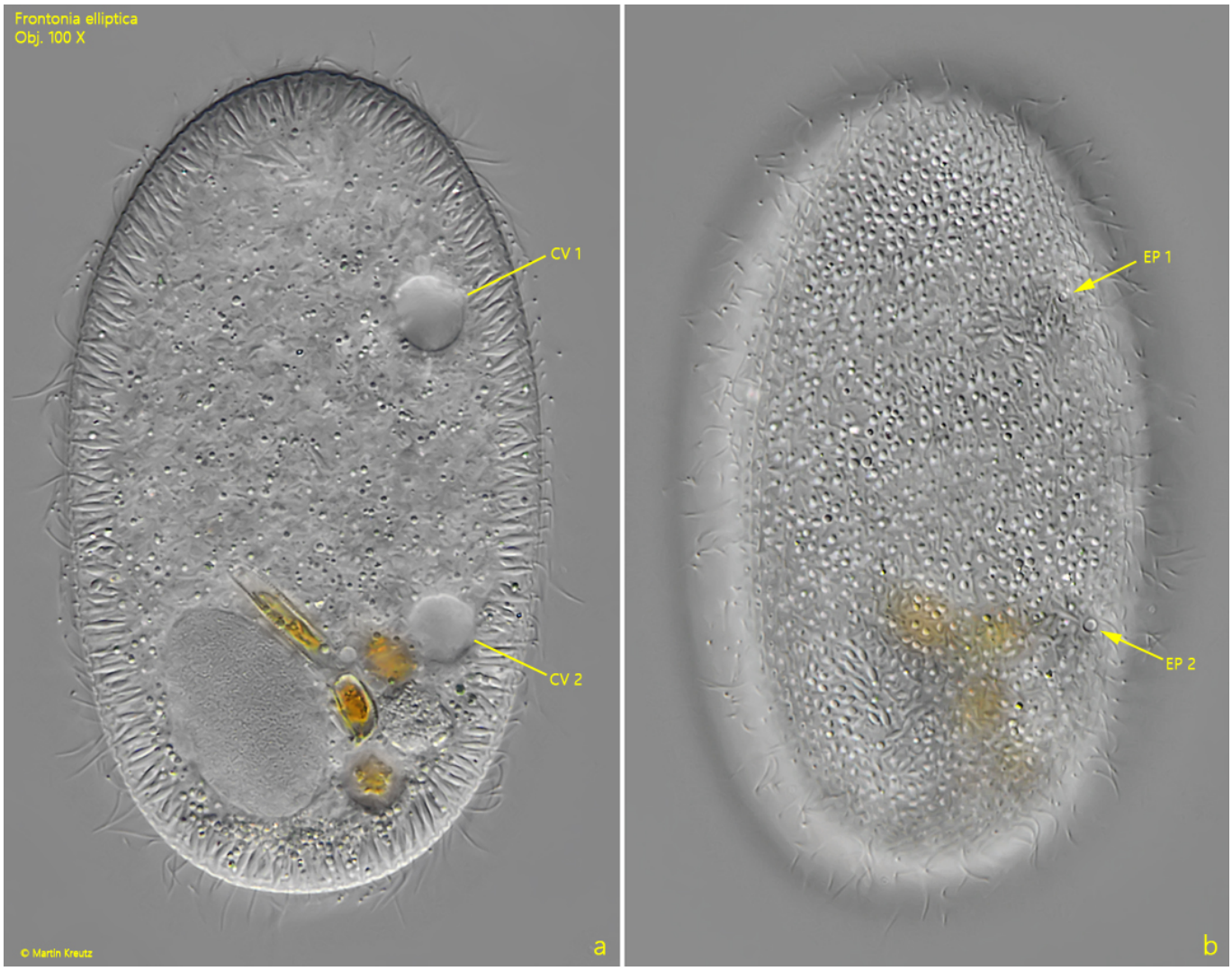


Fig. 3 a-b: *Frontonia elliptica*. L = 125 µm. Zwo focal planes of a slightly squashed specimen from dorsal on the two contractile vacuoles (CV 1, CV 2) and on the two excretion pores (EP 1, EP 2). Obj. 100 X.



Fig. 4: *Frontonia elliptica*. A slightly squashed specimen from ventral with focal plane on the micronucleus (Mi) and the macronucleus (Ma). Obj. 100 X.

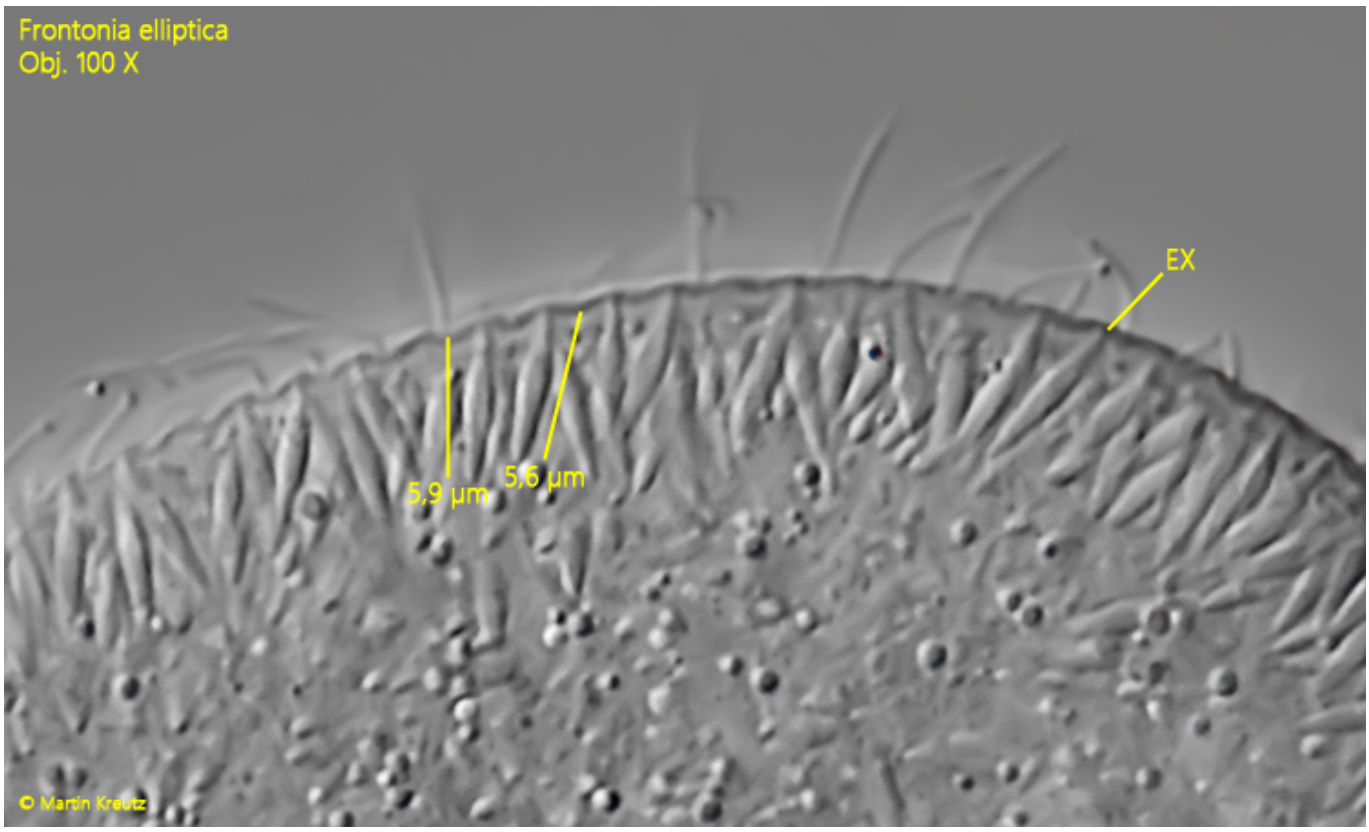


Fig. 5: *Frontonia elliptica*. The extrusomes (EX) are spindle-shaped and 5–6 µm long. Obj. 100 X.