Trimyema compressum Lackey, 1925

Most likely ID: n.a.

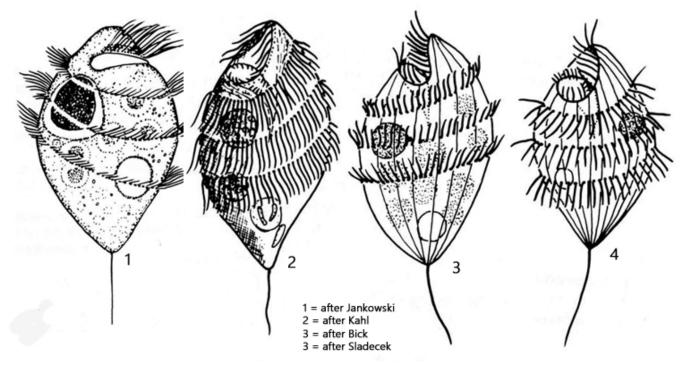
Synonym: n.a.

Sampling location: Purren pond

Phylogenetic tree: <u>Trimyema compressum</u>

Diagnosis:

- body broad spindle-shaped, sometimes sigmoid
- length 25-60 μm, width 15-35 μm
- oral apparatus subapical, funnel-shaped
- about 50-60 longitudinal rows of cilia
- rows of cilia separated in 3 ciliary spirals
- longitudinal ridges between rows of cilia
- macronucleus spherical, mid-body
- one micronucleus (hard to see)
- one contractile vacuole below equator
- one caudal cilium



Trimyema compressum

Although Trimyema compressum is described as a common species, I have only found a few specimens in Purren pond among decomposing leaves.

At low magnifications, the spindle-shaped ciliate appears obliquely truncated at the apical end. Here is the oral apparatus, which, from a ventral view, has the shape of a mirrored "6" (s. fig. 1 c). The anterior two-thirds of the body are covered with 50-60 longitudinal rows of cilia, which are divided into three transverse and slightly spiral bands. Between the longitudinal rows of cilia are longitudinal ribs, which are also divided into 3 bands (s. figs. 2 c and 3 a). This results in the typical ribbed structure of *Trimyema compressum*. The posterior third of the ciliate is naked, except for the caudal cilium.

The macronucleus is round and was difficult to see in the living specimen (s. figs. 3 b and 4). I could not detect the micronucleus at all. It may only be visible after staining. In the cytoplasm, there are elongated structures measuring 3-4 µm in length, which I believe to be mitochondria because they have an irregular shape (s. fig. 4). However, Augustin, Foissner, and Adam (1987) consider these structures to be (symbiotic?) bacteria.

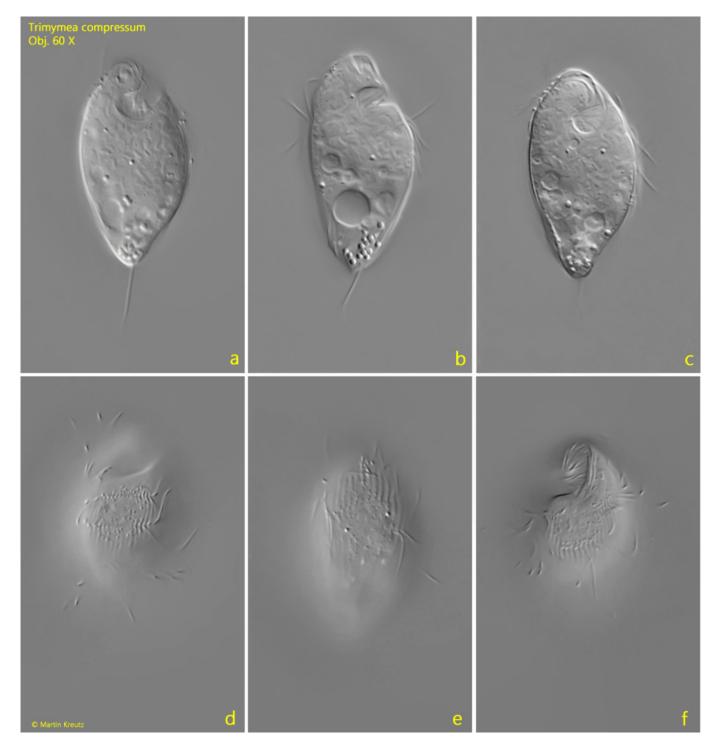


Fig. 1 a-f: Trimyema compressum. L = 45 μ m. A freely swimming specimen from right (a, b), ventral (c, d), dorsal (e) and from left (f). Obj. 60 X.

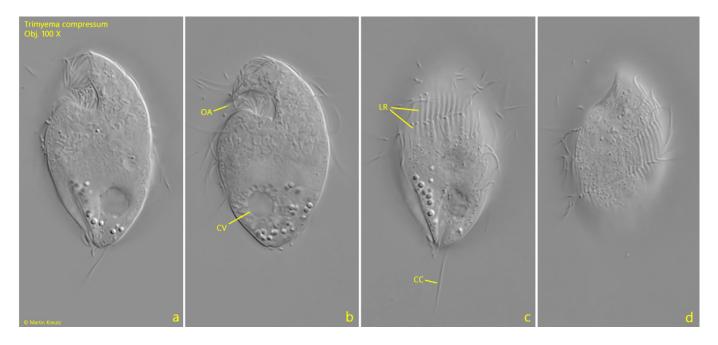


Fig. 1 a-f: Trimyema compressum. $L = 45 \mu m$. The slightly squashed specimen as shown in fig. 1 a-f from left. CC = caudal cilium, CV = contractile vacuole, OA = oral apparatus. Obj. 100 X.

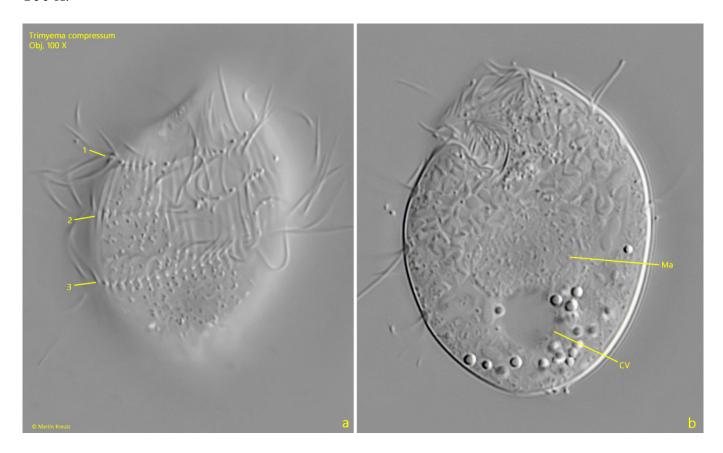


Fig. 3 a-b: Trimyema compressum. A squashed specimen from left. Note the 3 spirally rows of cilia (1-3). CV = contractile vacuole, Ma = macronucleus. Obj. 100 X.

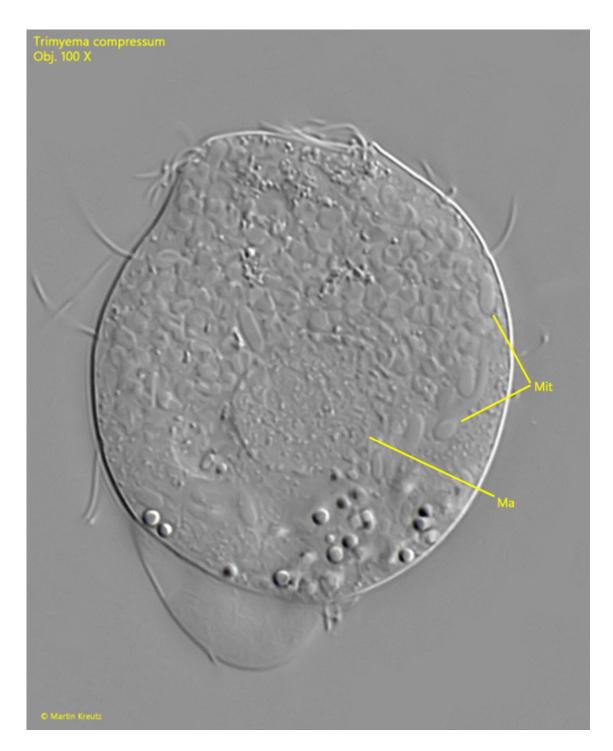


Fig. 4: Trimyema compressum. A strongly squashed specimen. Ma = macronucleus, Mit = mitochondria. Obj. 100 X.