Metopus tenuis Kahl, 1927

Most likely ID: n.a.

Synonym: n. a.

Sampling location: Simmelried

Phylogenetic tree: Metopus tenuis

Diagnosis:

- body slender cylindrical, slightly flattened, slightly tapered posterior end
- often deformed by ingested food (separately ingested rhodobacteria)
- anterior end flattened, tongue-shaped
- length 100-110 μm
- short adoral zone of 6 membranelles, reaching to the first sixth
- cilia loosely arranged, slow swimming style
- attaches thigmotactically to substrate
- macronucleus short elliptic
- contractile vacuole terminal



after Kahl Metopus tenuis

Kahl describes *Metopus tenuis* as "very rare". Also I could detect *Metopus tenuis* only twice. The first finding was in February 2008 (s. fig. 1 a-b) and two further specimens in February 2022 (s. fig. 3 a-c) and April 2022 (s. fig. 1 a-d). All findings are from the <u>Simmelried</u>. In my other localities I could not detect *Metopus tenuis* so far.

The first specimen with 170 μ m length was clearly longer than the range of 100–110 μ m given by Kahl. However, we do not know on how many observations Kahl's length data are based. Therefore 170 μ m may still be within the common range for this species. The second finding was only 102 μ m long and the third 157 μ m. In all specimens I could detect a high concentration of symbiotic bacteria around the macronucleus (s. fig. 3 a-d), which Kahl does not mention in his short description. I already made a similar observation in <u>Metopus spinosus</u>. Whether they are only temporarily present or only occur in certain populations/habitats cannot be said yet without having evaluated further findings.

In all specimens I found ingested rhodobacteria (s. fig. 3 a), which are phagocytosed individually according to Kahl's description. I could not observe phagocytosis itself.

The adoral zone is very short (s. fig. 2 d) and hard to see in a slowly rotating specimen. However, characteristic of Metopus tenuis is the slender body and the elongated and flattened anterior end.



Fig. 1 a-d: Metopus tenuis. $L = 157 \mu m$. A freely swimming specimen found in April 2022. Obj. 40 X.

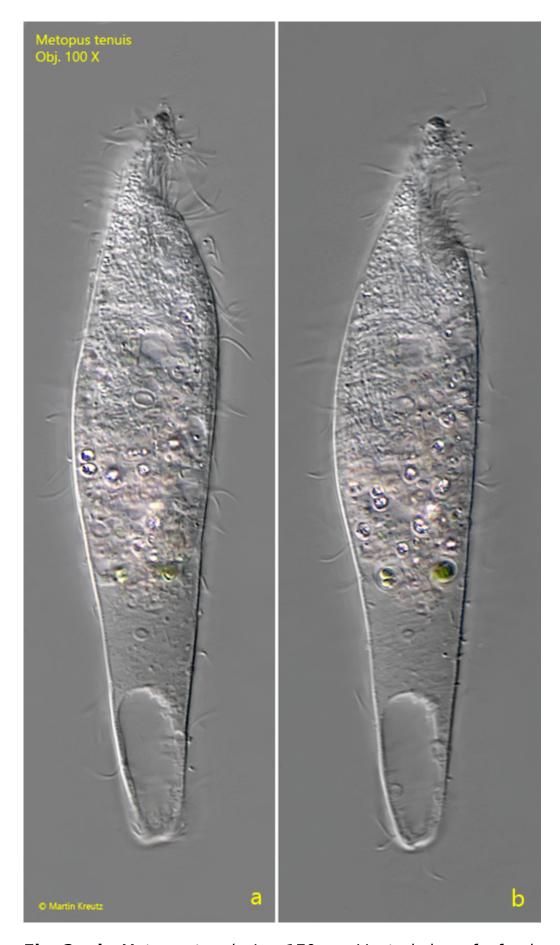


Fig. 2 a-b: Metopus tenuis. L = 170 μm . Ventral view of a freely swimming specimen found in February 2008. Obj. 100 X.

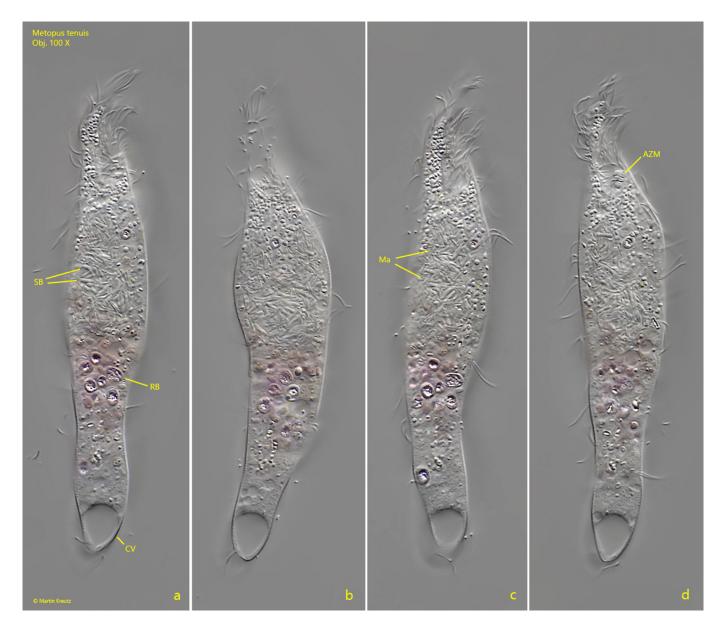


Fig. 3 a-d: Metopus tenuis. $L = 102 \mu m$. Ventral view of a freely swimming specimen found in February 2022. Note the symbiotic bacteria (SB) covering the macronucleus (Ma). AZM = adoral zone of membranelles, RB = ingested rhodobacteria. Obj. 100 X.