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 Simmelried. In my other localities I could not detect *Metopus tenuis* so far.

The first specimen with 170 µm length was clearly longer than the range of 100-110 µm given by Kahl. However, we do not know on how many observations Kahl's length data are based. Therefore 170 µm 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 *Metopus spinosus*. 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.

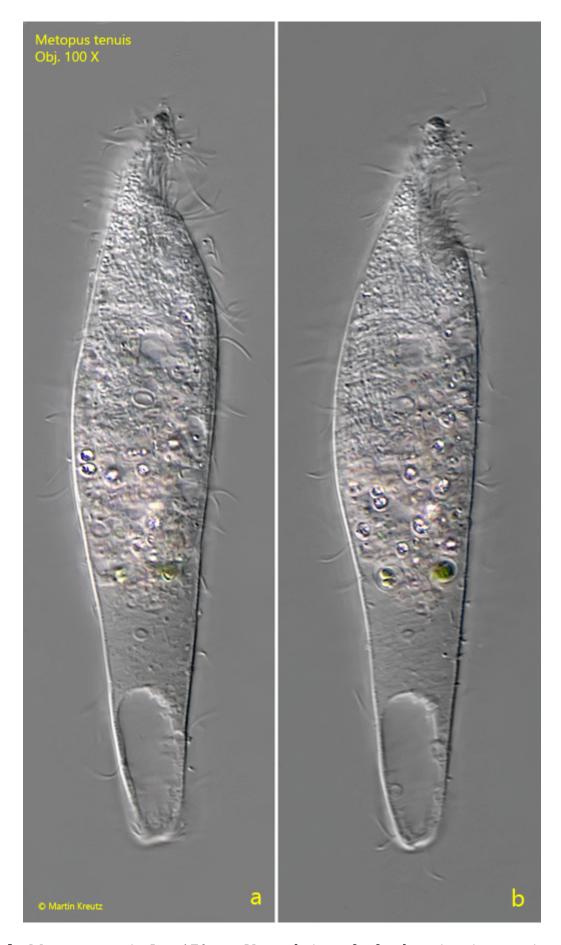


Fig. 2 a-b: Metopus tenuis. L = 170 μm . Ventral view of a freely swimming specimen found in February 2008. Obj. 100 X.

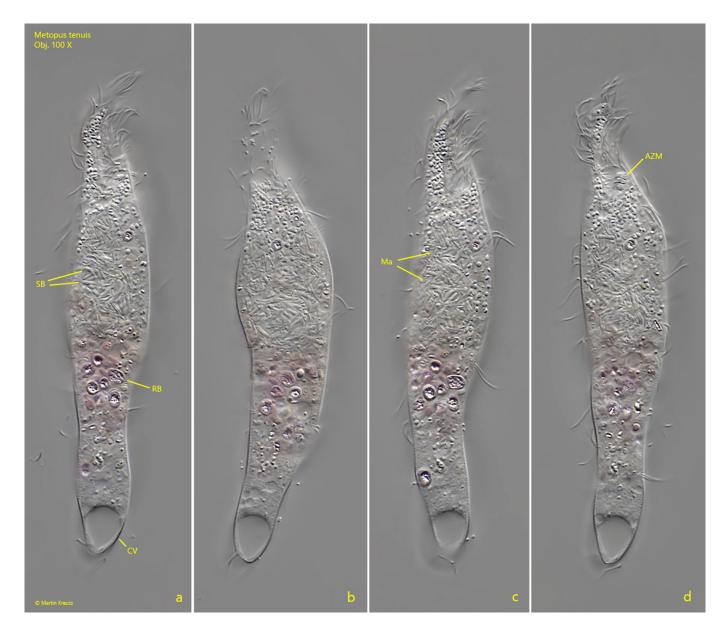


Fig. 3 a-d: Metopus tenuis. $L = 102 \mu m$. Ventral view of a freely swimming specimen found in February 2022. Note the symbiotic bacteria (SB) covering the macronucleus (Ma). AZM =adoral zone of membranelles, RB = ingested rhodobacteria. Obj. 100 X.