Microthorax tridentatus Penard, 1922

Most likely ID: n.a.

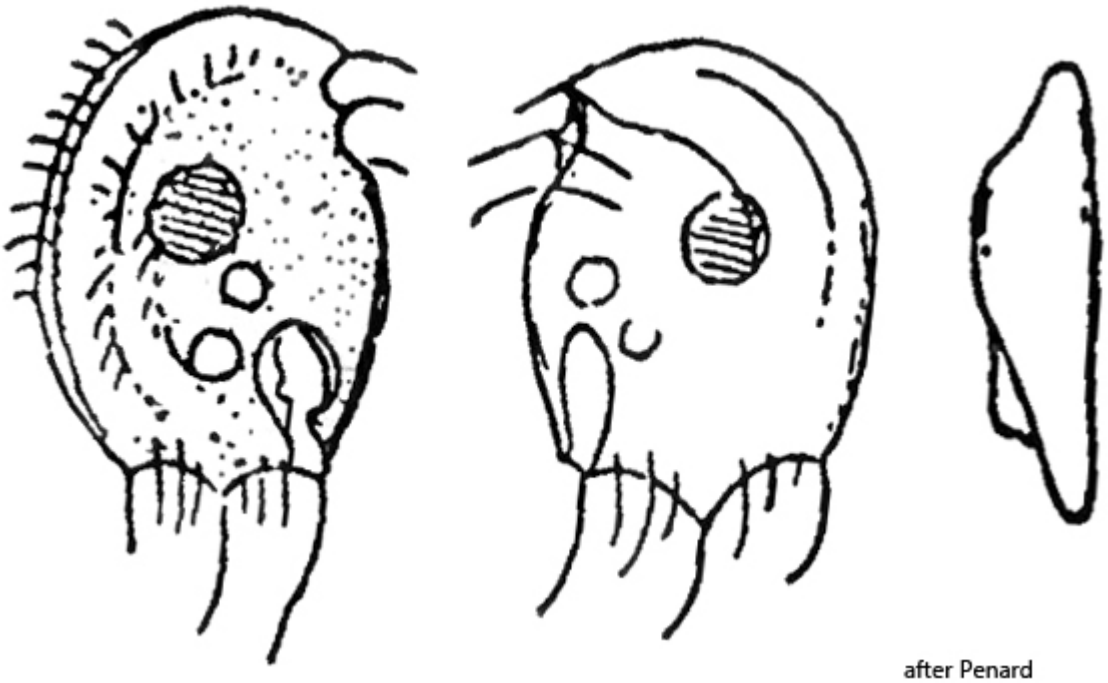
Synonym: n.a.

Sampling location: Simmelried

Phylogenetic tree: *Microthorax tridentatus*

Diagnosis:

- shape irregularly oval, laterally flattened
- posterior end with three teeth
- length 20–25 µm
- ventral and dorsal margin concave
- three rows of cilia on right side parallel to the convex dorsal margin
- all rows of cilia are interrupted in mid-body
- left side naked
- spherical macronucleus in center of cell
- one spherical micronucleus adjacent to macronucleus
- contractile vacuole near mid-body
- oral apparatus at posterior end of cell



Microthorax tridentatus

So far I have only found *Microthorax tridentatus* in the uppermost mud layer in the Simmelried. I rarely but regularly find this species there.

In my population, I have noticed that the three spines at the posterior end can vary in length. Sometimes they are only slightly indicated protrusions. In addition, the spines are arranged in different focal planes, which is why the specimens can easily be confused with the similar species *Microthorax bidentatus*. The spine closest to the dorsal margin (SP 1, s. figs. 1 b and 2) protrudes slightly out of the ventral surface. It is somewhat broader than the other two spines and also has a spindle-shaped extrusoms (s figs. 1 b and 1 g)). Neither Penard (1922) nor Kahl (1935) mention extrusomes. However, I was able to find them in all specimens of my population. They are spindle-shaped with a length of 2.5–2.6 µm.

Kahl assumed that the left row of cilia on the ventral side (CR 3, s. fig. 1 a) is continuous. However, I could clearly see that all three rows of cilia on the ventral side are interrupted or incomplete (s. figs. 1 a and 3 d).

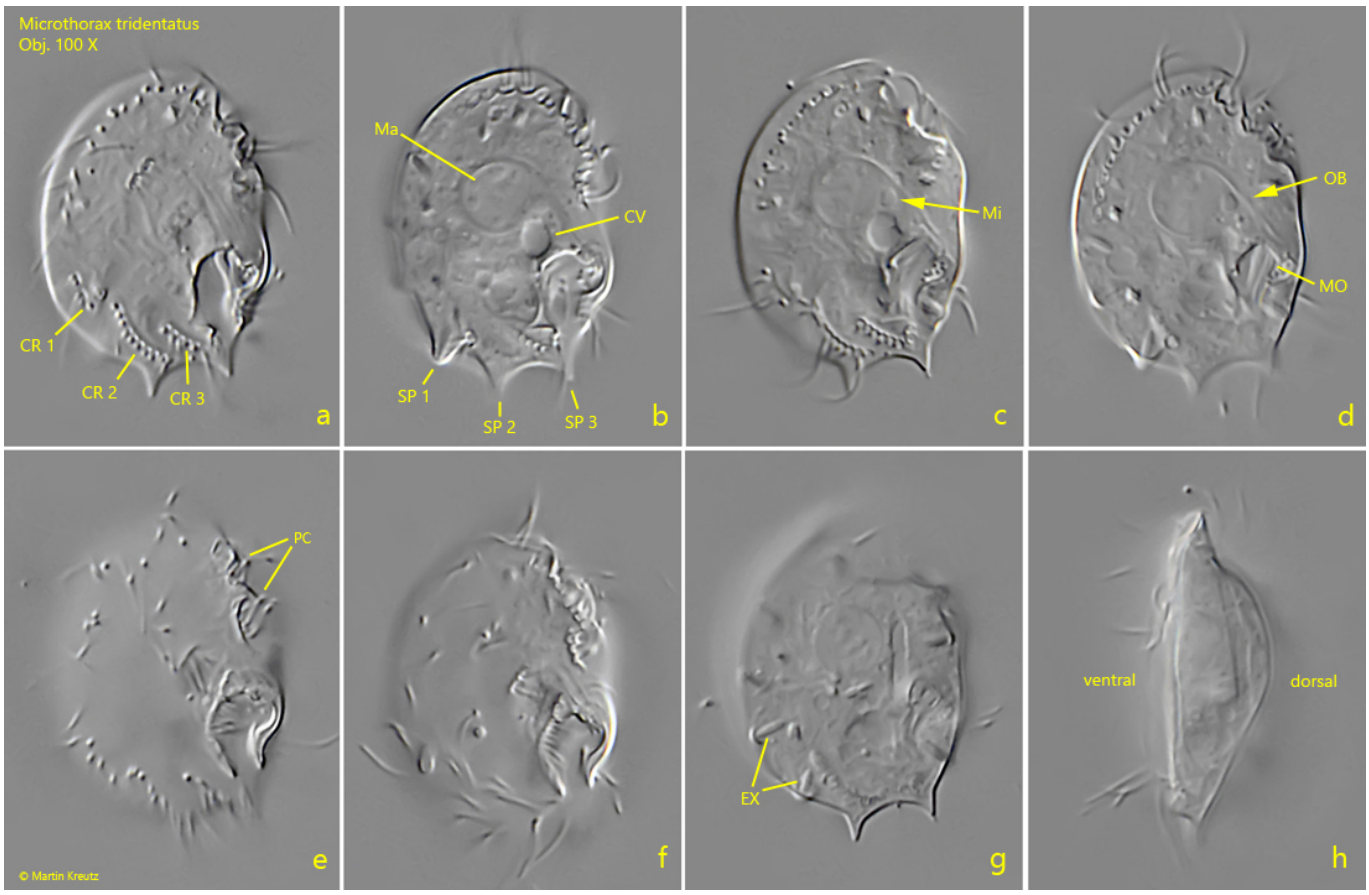


Fig. 1 a-h: *Microthorax tridentatus.* L = 24 µm. Different focal planes of a freely swimming specimen from ventral (a–g) and from left (h). Note the three spines at the posterior end (SP 1–3). The spine 1 is equipped with a spindle shaped extrusome. CR 1–3 = interrupted rows of cilia, CV = contractile vacuole, EX = extrusomes, Ma = macronucleus, Mi = micronucleus, MO = mouth opening, OB = oral basket, PC = preoral rows of cilia. Obj. 100 X

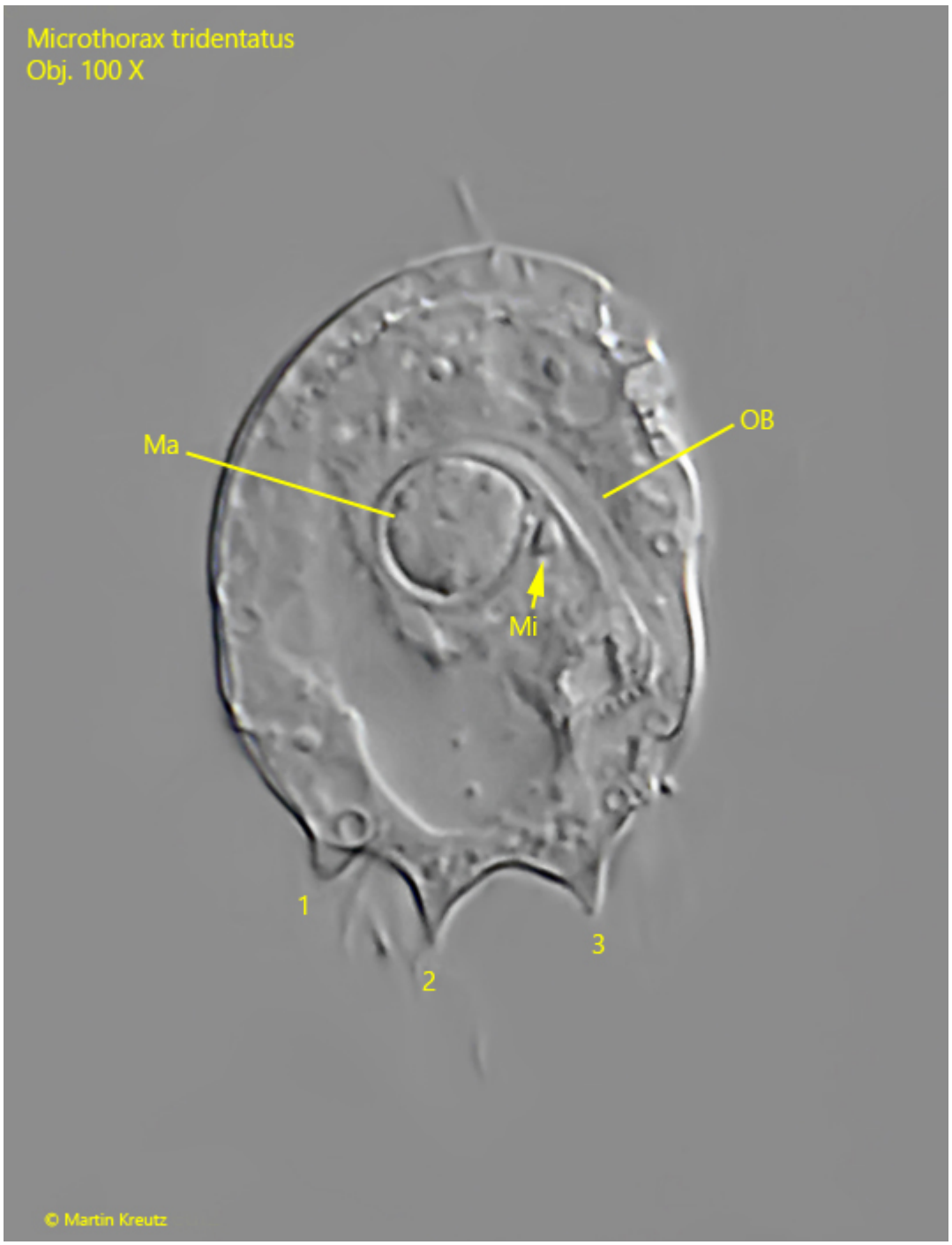


Fig. 2: *Microthorax tridentatus.* L = 24 µm. The squashed specimen as shown in fig. 1 a-h from ventral. The three spines at the posterior end (1–3) only come together in the focal plane in a squashed specimen. Ma = macronucleus, Mi = micronucleus, OB = oral basket. Obj. 100 X

Fig. 3 a-f: *Microthorax tridentatus.* L = 26 µm. Different focal planes of a second freely swimming specimen from ventral (a–e) and from left (f). SP 1–3 = three spines at the posterior end. Obj. 100 X