Microthorax costatus Kahl, 1926

Most likely ID: n.a.

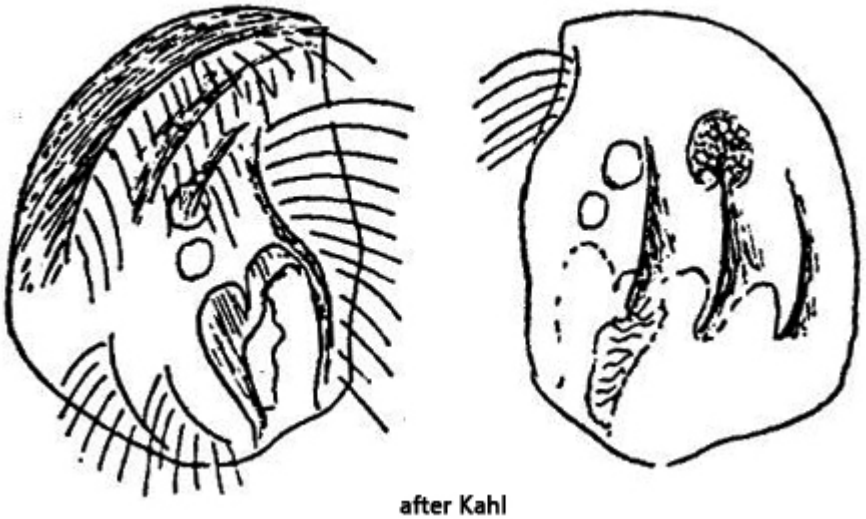
Synonym: n.a.

Sampling location: Simmelried

Phylogenetic tree: *Microthorax costatus*

Diagnosis:

- shape broadly oval, laterally flattened
- length about 25 µm
- ventral margin almost straight with indentation near posterior end
- left side with three distinct ribs
- spherical macronucleus in center of cell
- one spherical micronucleus
- contractile vacuole near mid-body
- three ciliary rows on right side parallel to the convex dorsal margin
- oral apparatus at posterior end near ventral margin



Microthorax costatus

So far I have only found *Microthorax costatus* in the Simmelried. However, the records are

very sparse. On average, I find a few specimens every 4 years. Because the mall size of the species, it is possible that I have overlooked finds.

Microthorax costatus is usually found on gelatinous colonies of bacteria, rhodobacteria or cyanobacteria, which are obviously being grazed. In the literature I have only found the very brief description and drawings by Kahl (1926), who also found *Microthorax costatus* only occasionally and described it first. Obviously there are no further records of this species after that.

With a length of 16-22 µm, my specimens were somewhat smaller than described by Kahl (about 25 µm). Very characteristic, however, are the 3 ribs on the left side, which end nose-shaped towards the posterior end (s. figs. 2 a-c and 3 a-c). In addition, the end of the middle rib is slightly bent ventrally. The right side has the typical structure of the genus *Microthorax*. Three longitudinal rows of cilia run parallel to the convex posterior margin (s. fig. 1 a). The two dorsal rows are interrupted in the middle. The third row is only rudimentary and very short. It is difficult to recognize. The cilia of these rows are conspicuously long (s. fig. 1 a). The macronucleus is round and quite large. I was able to recognize a spherical micronucleus attached to it (s. fig. 1 b). The contractile vacuole is located almost centrally (s. fig. 1 c).

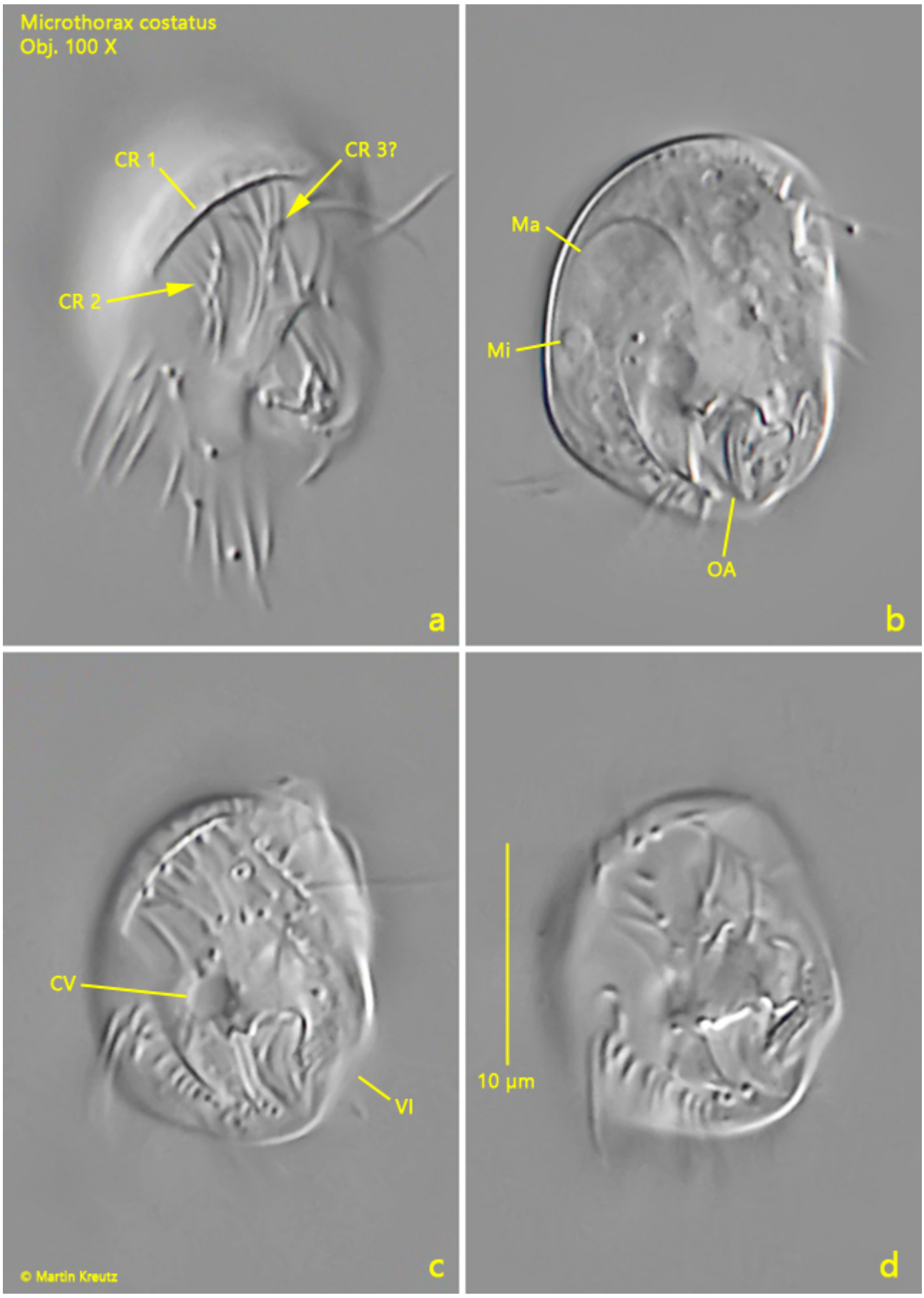


Fig. 1 a-d: *Microthorax costatus*. L = 18 µm. Different focal planes of the right side of a freely swimming specimen. Note the indentation of the ventral margin (VI) near the

posterior end. CV = contractile vacuole, CR 1 = first ciliary row, CR 2 = second ciliary row , CR 3? = probably the third ciliary row, Ma = macronucleus, Mi = micronucleus. Obj. 100 X.

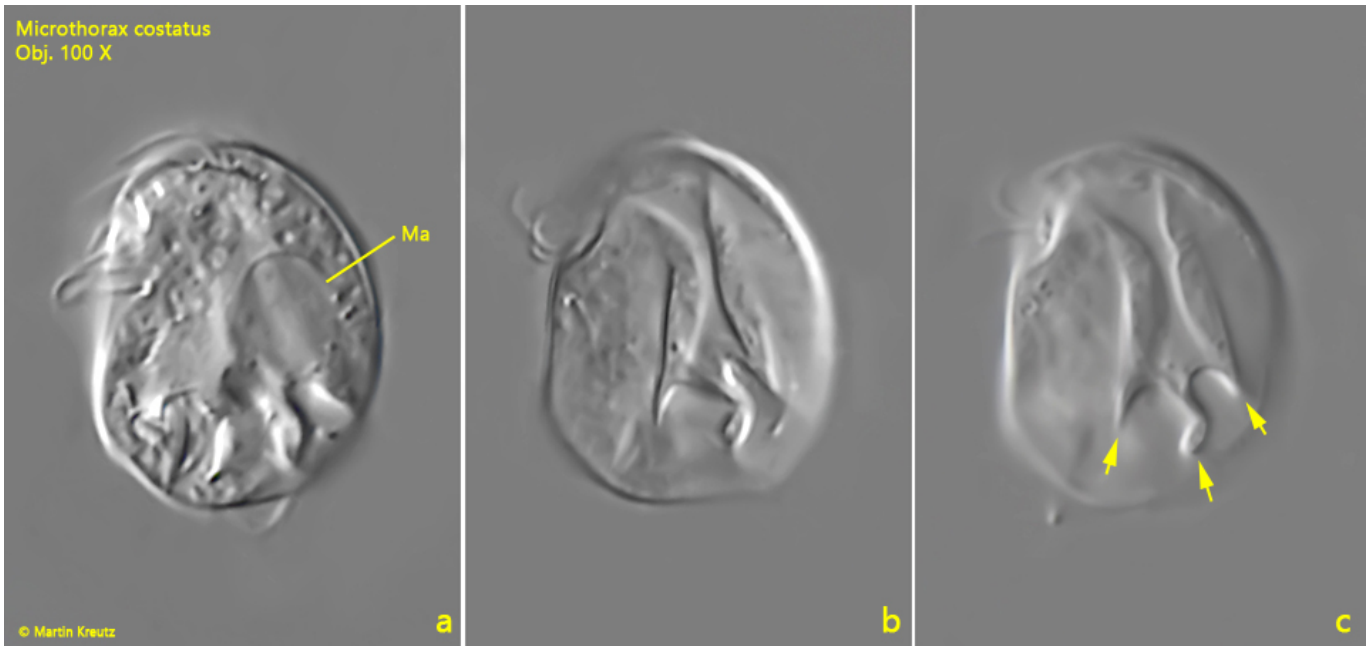


Fig. 2 a-c: *Microthorax costatus*. L = 19 µm. Different focal planes of the left side with the three distinct ribs (arrows). Ma = macronucleus. Obj. 100 X.

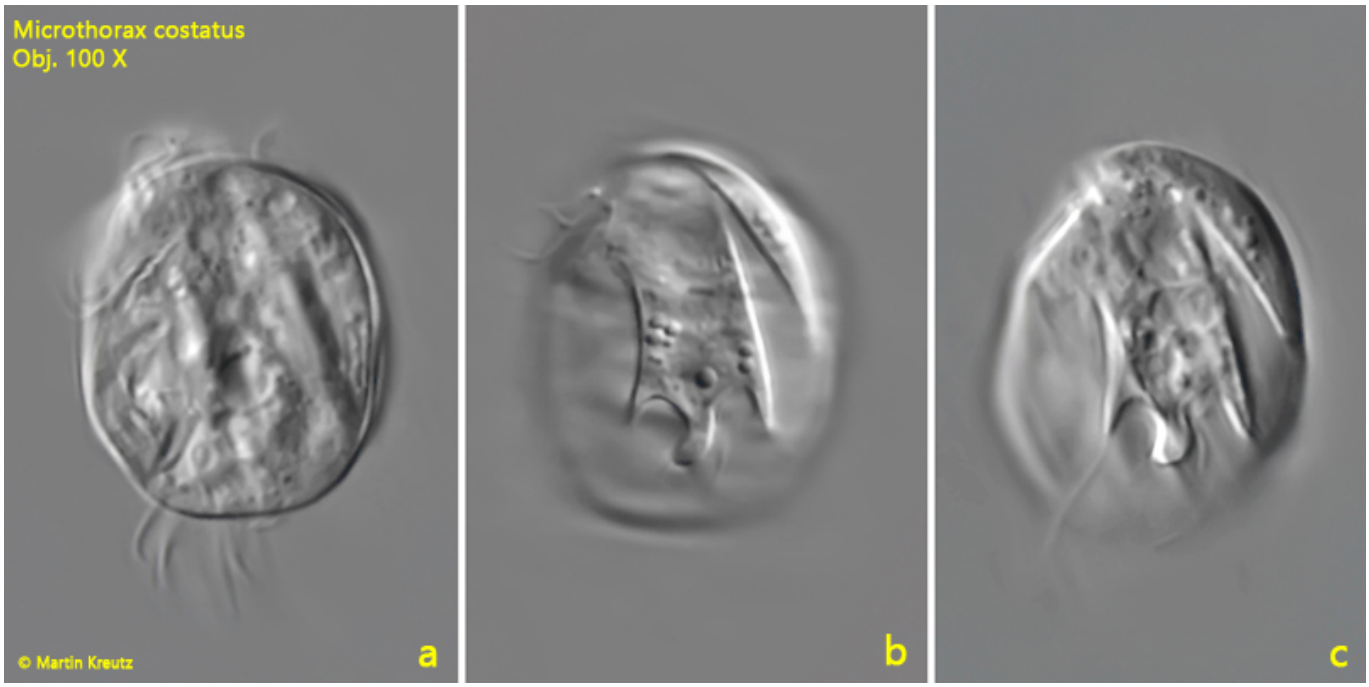


Fig. 3 a-c: *Microthorax costatus*. L = 22 µm. A second specimen from the left side. Obj. 100 X.