Coleps amphacanthus Ehrenberg, 1833

Most likely ID: n.a.

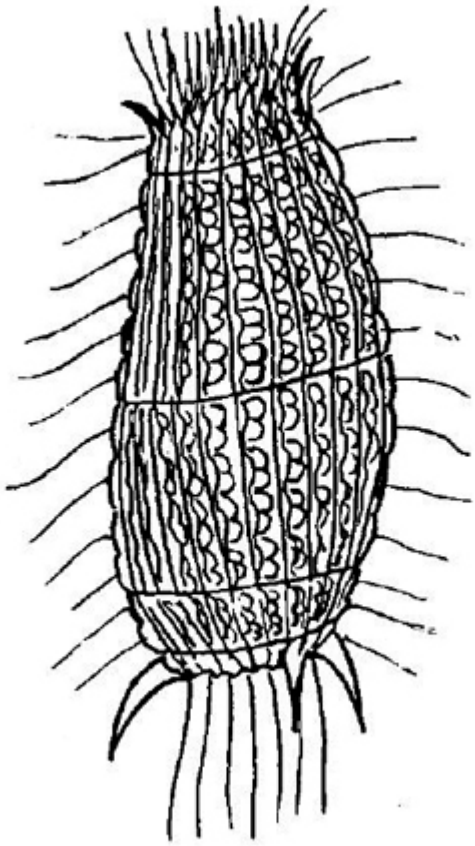
Synonym: n.a.

Sampling location: Simmelried, Purren pond, Mainau pond, Bussenried, Bündtlisried, Ulmisried, Mühlhalden pond

Phylogenetic tree: *Coleps amphacanthus*

Diagnosis:

- body asymmetrically sac-shaped, sometimes barrel-shaped
- length 70–90 µm
- 3 posterior spines
- 4 anterior spines
- uniform ciliation
- 24–28 longitudinal rows of plates
- “windows” in armour pretzel-shaped
- anterior main plate with 5 “windows”
- posterior main plate with 4 “windows”
- 4–8 caudal cilia
- macronucleus spherical in mid-body
- apical mouth opening with basket of pharyngeal trichites
- contractile vacuole subterminal



Coleps amphacanthus

I find *Coleps amphacanthus* is very common in almost all of my sampling locations. This member of *Coleps* is slightly larger than the other *Coleps* species and is conspicuous by its sac-shape, even at low magnifications. Furthermore, this species has 4–8 caudal cilia (s. figs. 1 a and 2 b). The windows in the armour are pretzel-shaped as in *Coleps hirtus*. However, *Coleps amphacanthus* has 5 windows in the anterior main plate and only 4 windows in the posterior main plate (s. fig. 4 a) while *Coleps hirtus* has only 4 windows in each of the two main plates.

Coleps amphacanthus is a scavenger that quickly gathers on dead or injured protozoans or metazoans. This process is probably controlled by chemotaxis, with *Coleps amphacanthus* following the concentration gradient to the prey.

Fig. 1 a-d: *Coleps amphacanthus*. L = 85 µm. A freely swimming specimen. AS = anterior spines, CC = caudal cilia, Ma = macronucleus. PS = posterior spines. Obj. 40 X.

Fig. 2 a-b: *Coleps amphacanthus*. L = 83 µm. A second freely swimming specimen. CC = caudal cilia. Obj. 40 X.

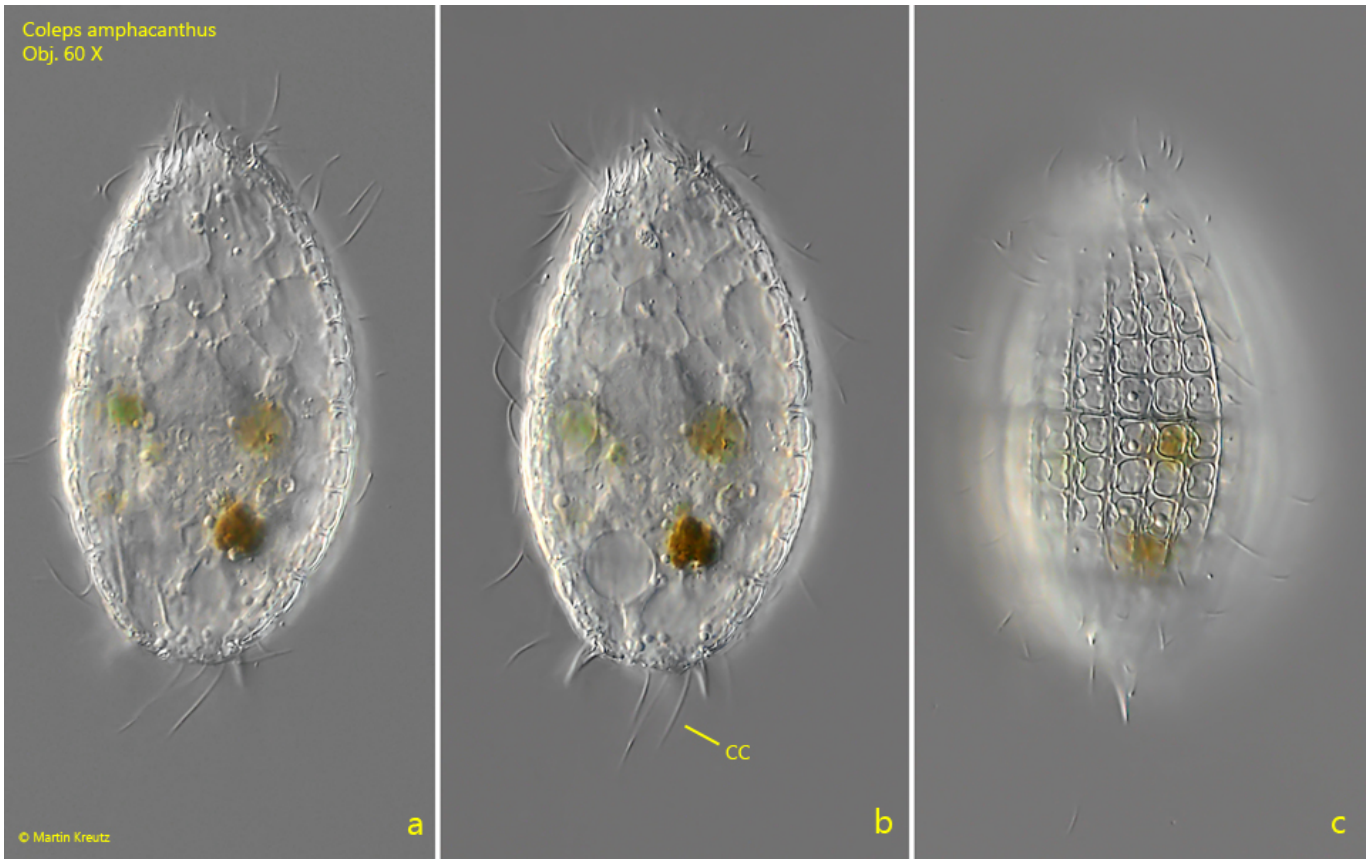


Fig. 3 a-c: *Coleps amphacanthus*. L = 80 µm. Different focal planes of a slightly squashed specimen. CC = caudal cilia. Obj. 60 X.

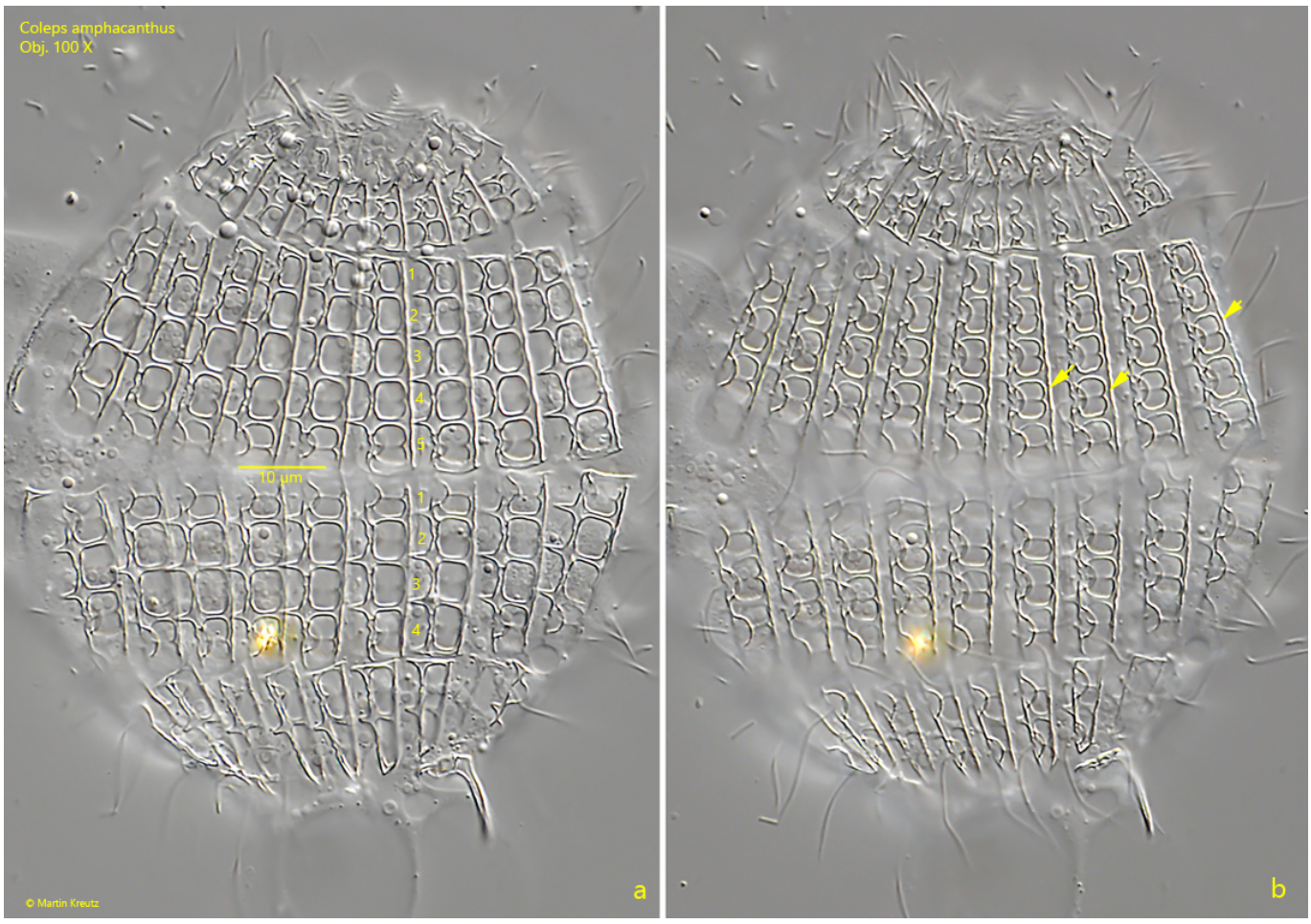


Fig. 4 a-b: *Coleps amphacanthus*. Two focal planes of the armour in a strongly squashed specimen. The anterior main plate has 5 “windows” (1–5) while the posterior main plate has only 4 “windows” (1–4). The windows are pretzel-shaped (arrows). Obj. 100 X.