Chaetonotus arquatus Voigt, 1903

Most likely ID: n.a.

Synonym: n.a.

Sampling location: Simmelried

Phylogenetic tree: *Chaetonotus arquatus*

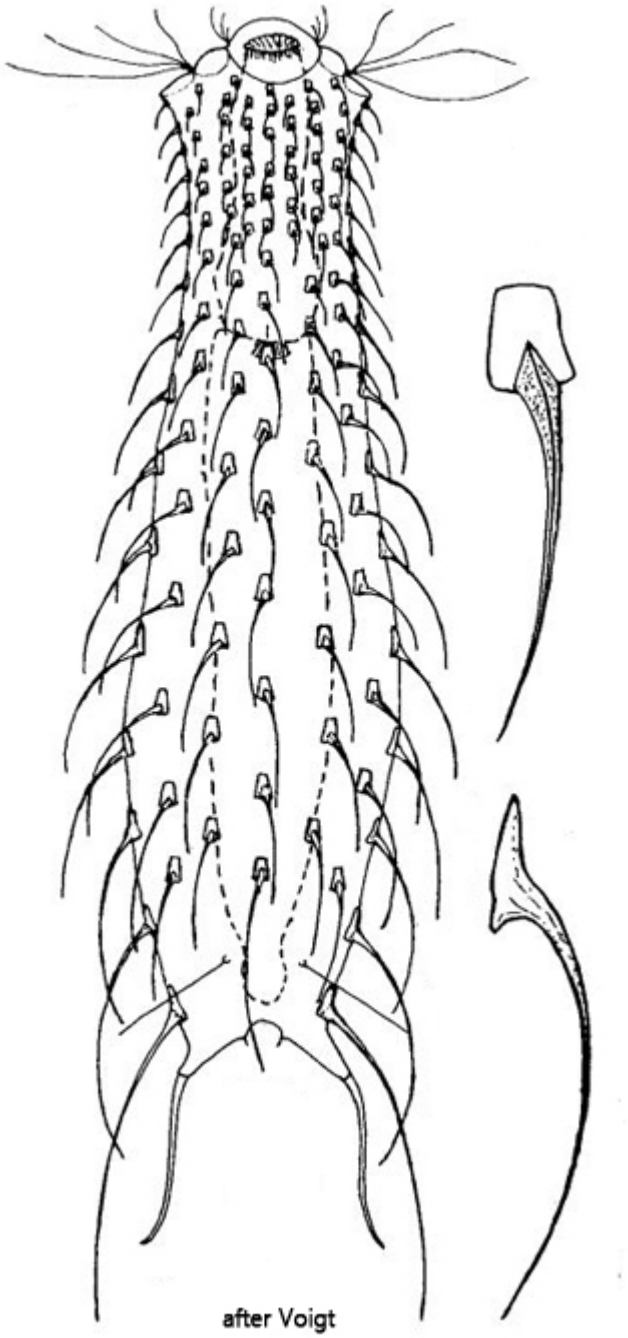
Diagnosis:

- body slender, almost parallel sides
- length 210–250 µm, width 39–48 µm
- head five-lobed, posterior pleural lobes angular
- 4 lateral ciliary tufts

- pharynx 53–55 µm long, terminally swollen

- dorsally 4–7 rows of quadrangular scales, not overlappping

- alle scales with curved simple spine, spines with thickened base
- dorsal anal region naked
- posterior 2 elongated spines, protruding toes
- ventrally 7 rows of small keeled skales with spines
- posteriorly two oval terminal scales with short spines
- toes with short naked base
- furcae thin, S-shaped



Chaetonotus arquatus

I only very rarely find *Chaetonotus arquatus* in the mud layer of the Simmelried. I have not yet been able to find the species in my other sampling sites.

The quite strong, curved spines of *Chaetonotus arquatus* are widely separated from each other, which can be recognized even at small magnifications (s. fig. 1 a-d). *Chaetonotus arquatus* also has two elongated spines at the posterior end, which protrude over the toes with furcae (s. fig. 9).

The dorsal spines have no secondary tip and arise from almost square-shaped scales, which do not overlap and are clearly separated from each other (s. fig. 4). The spines are clearly thickened at the base (s. fig. 6). The dorsal scales in the middle of the body of the specimens in my population had clearly rounded corners and were also larger than Voigt drew them (s. fig. 6 and drawing above). The scales on the head have a clear distal incision, while they are more semi-circular in the neck region (s. fig. 5). However, they all have simple spines as in the middle of the body. At the posterior end, however, the scales are more oval and waisted, but with only a keel. I could not recognize a naked area in the anal region, as described by Schwank (1992).

The scales in the middle of the body are cup-shaped, as drawn by Voigt (s. drawing above). This shape can be recognized if the focal plane is on the margin of the body (s. fig. 7). Due to the cup shape, the surface of the body appears “humpy”, making it difficult to recognize the shape of the scales in unsquashed specimens. Unfortunately, I have not yet been able to examine the ventral scales.

More images and information on *Chaetonotus arquatus*: Dr. Michael Müller-Mikroskopie Forum-*Chaetonotus arquatus*

Fig. 1 a-d: *Chaetonotus arquatus*. L = 246 µm. Different focal planes of a freely swimming specimen. Obj. 40 X.

Fig. 2 a-b: *Chaetonotus arquatus*. L = 246 µm. The same specimen as shown in fig. 1 a-d in

detail. Obj. 60 X.

Fig. 3: *Chaetonotus arquatus*. The pharynx (PH) is terminally swollen. Obj. 100 X.

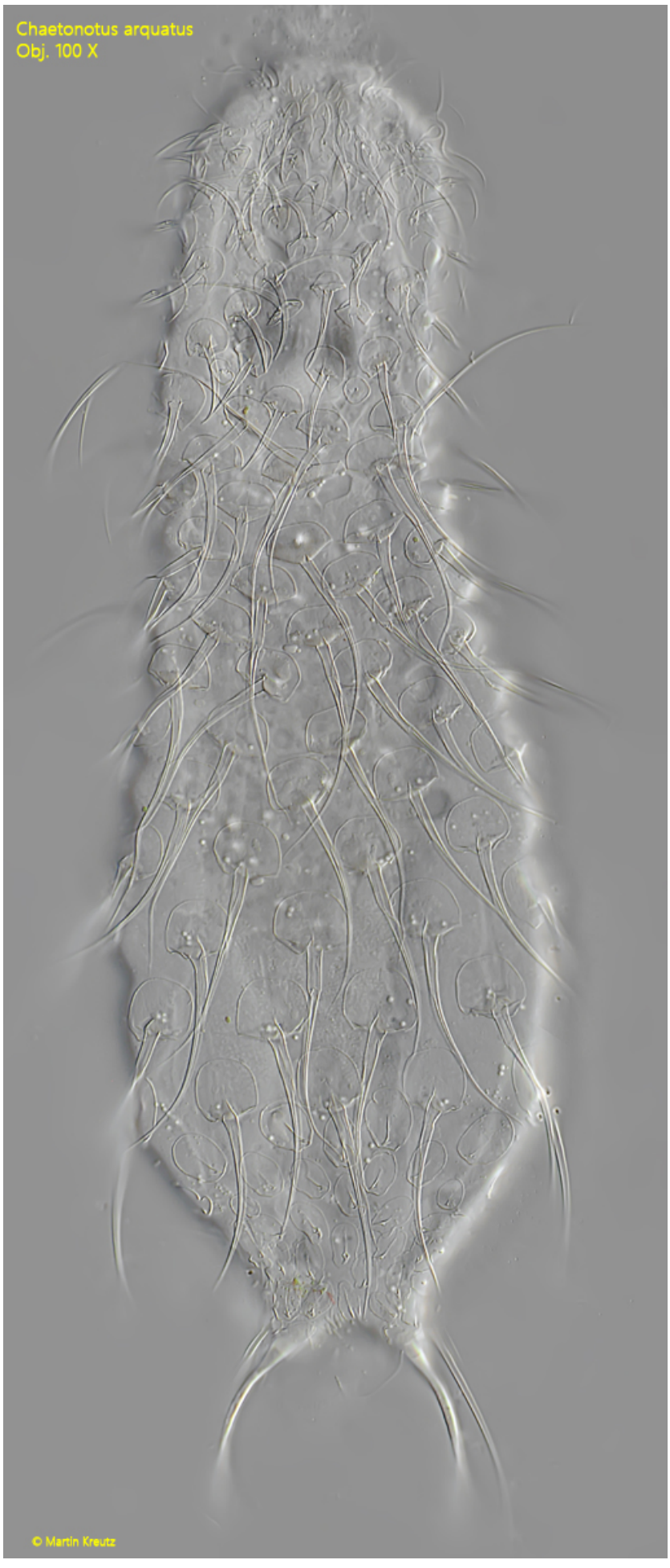

Chaetonotus arquatus
Obj. 100 X
© Martin Kreutz

Fig. 4: *Chaetonotus arquatus*. Total view of the dorsal scales in a squashed specimen. Obj. 100 X.

Fig. 5: *Chaetonotus arquatus*. The dorsal scales of the neck region in detail. Obj. 100 X.

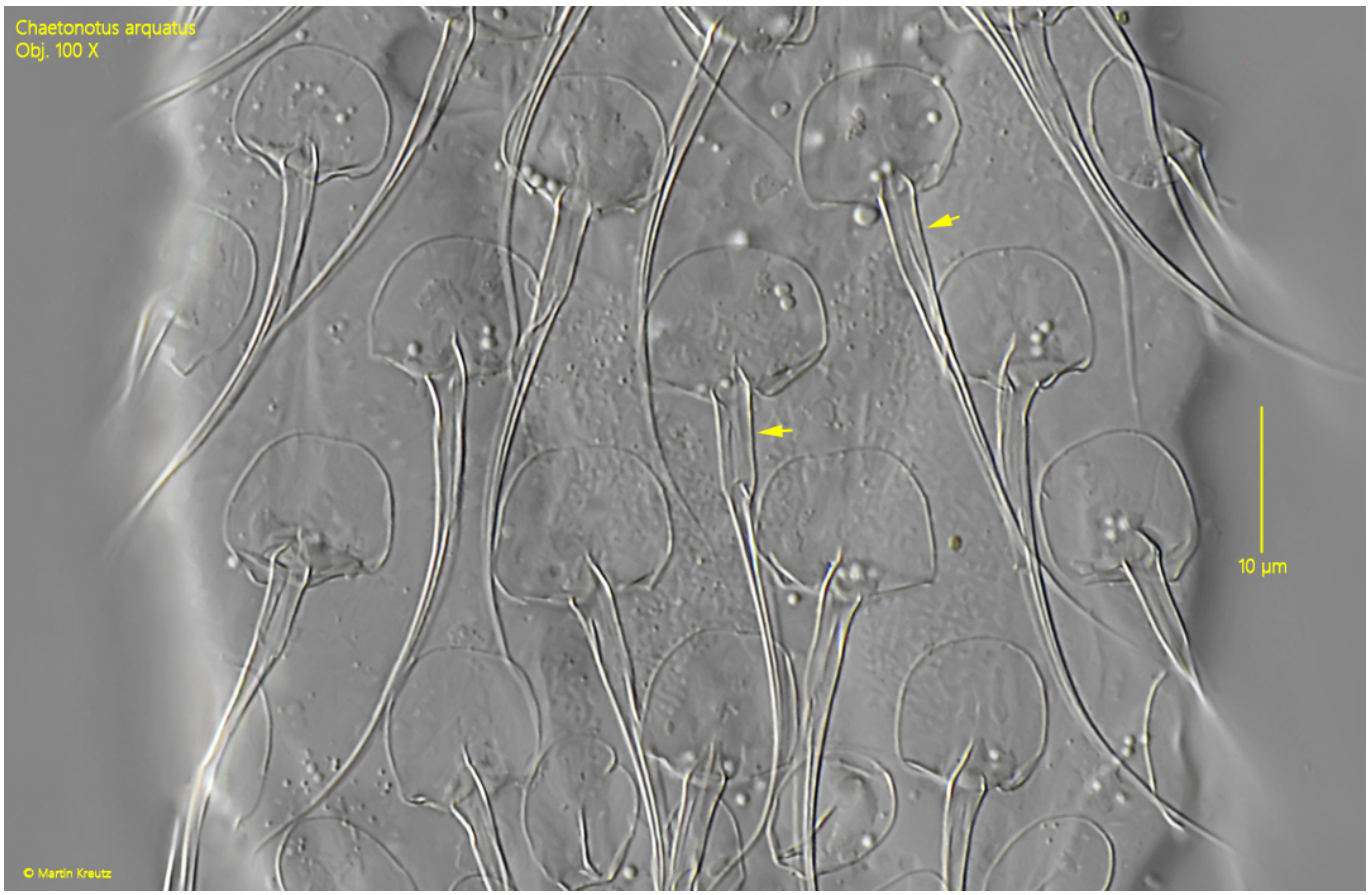


Fig. 6: *Chaetonotus arquatus*. The dorsal scales of the mid-body in detail. Note the thickended base of the curved simples spines (arrows). Obj. 100 X.

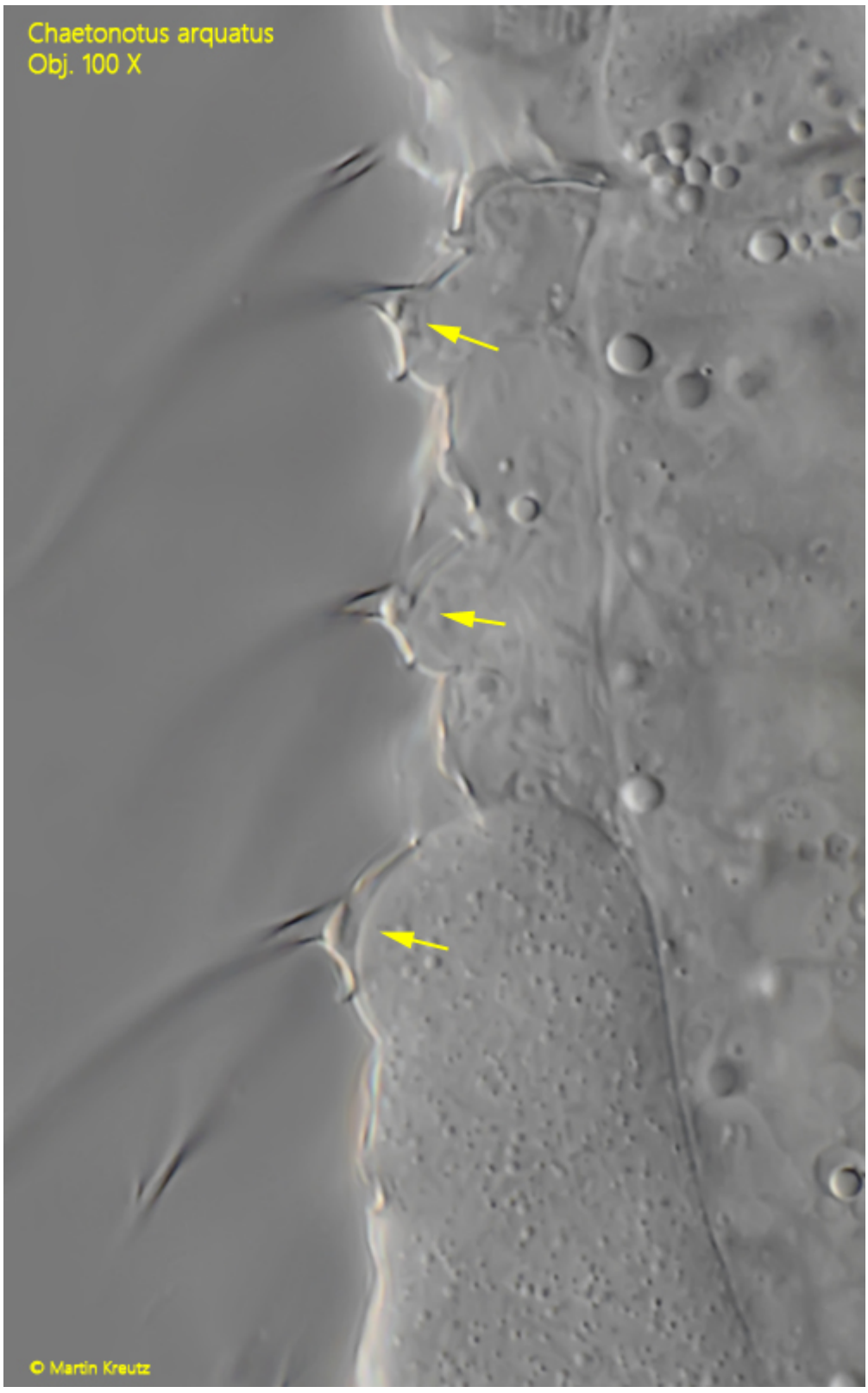


Fig. 7: *Chaetonotus arquatus*. The dorsal scales are cup-shaped, which can be clearly seen in lateral view (arrows). Obj. 100 X.

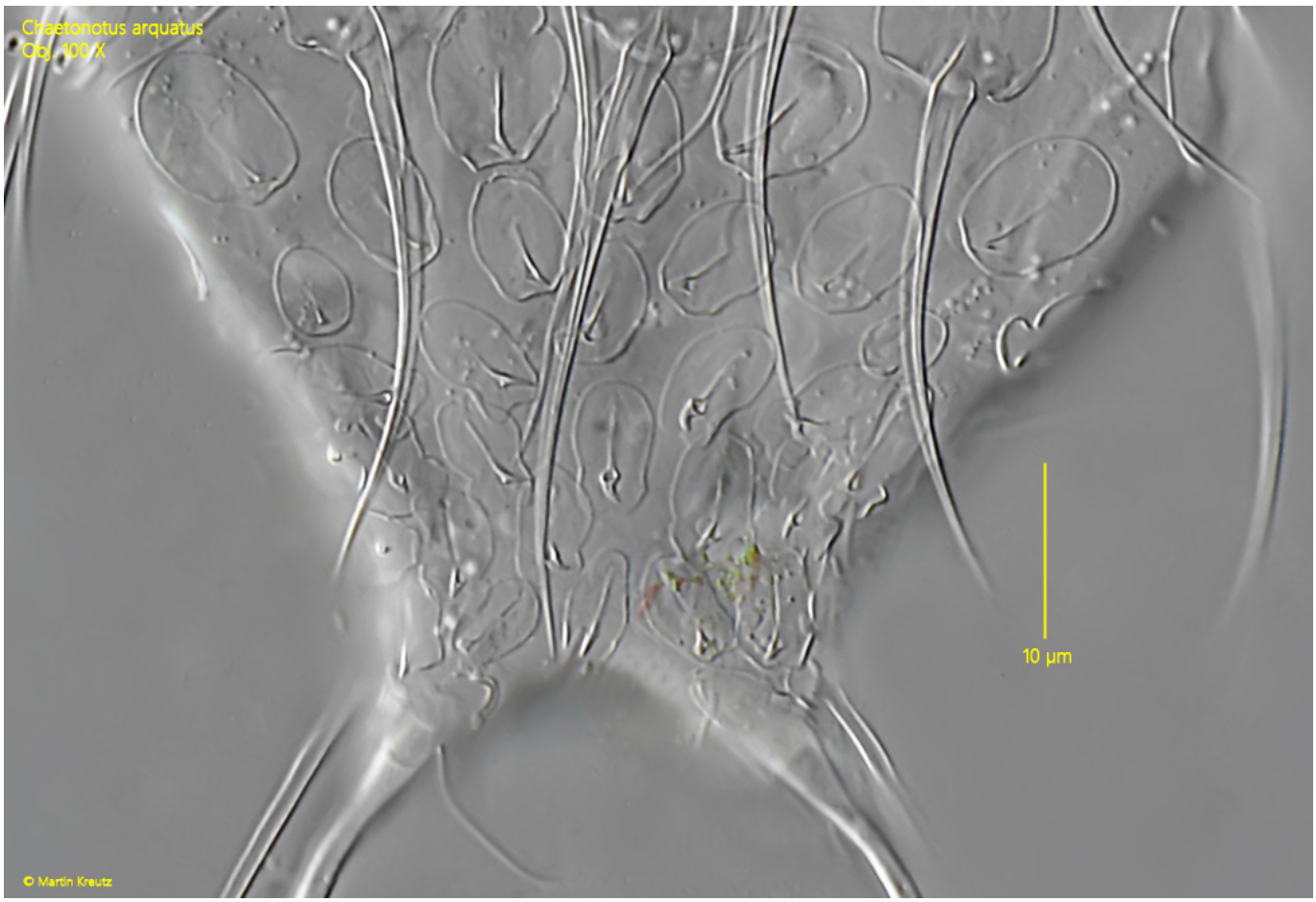


Fig. 8: *Chaetonotus arquatus*. The dorsal scales of the posterior end in detail. Obj. 100 X.

Fig. 9: *Chaetonotus arquatus*. The two elongated posterior spine (EPS) are longer than the furcae (FU). Obj. 100 X.