Chaetonotus soberanus Grosso & Drahg, 1983

Most likely ID: n.a.

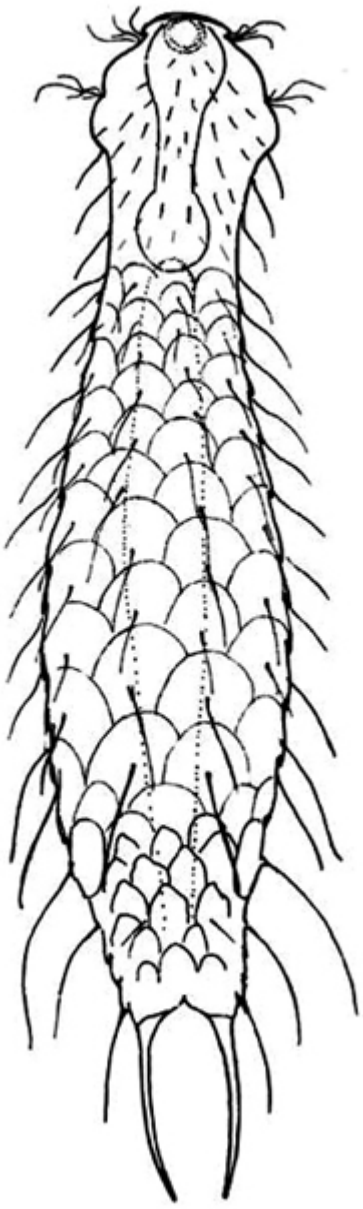
Synonym: n.a.

Sampling location: Simmelried, Drainage ditch Radolfzell industrial area

Phylogenetic tree: *Chaetonotus soberanus*

Diagnosis:

- body shoe-shaped, relatively slender, small
- length about 152 µm
- head five-lobed, posterior pleural lobes more developed
- pharynx dumbbell-shaped
- four lateral ciliate tufts
- hypostomium absent
- two pairs of dorsal setolae
- adhesive tubes elongated and pincer-like pointed
- dorsal neck with crescent-shaped to round scales with short straight simple spines
- dorsal trunk with round to broadly oval scales with straight spines
- scales in girdle region enlarged
- behind the girdle scales much smaller with short spines
- a pair of 30 µm long, parafurcal spines
- posterior five transverse rows of keeled scales
- ventral ciliary bands are separated
- anterior two thirds of ventral side with transverse plates with jagged anterior ornamentation
- posterior third of ventral side covered with roundish and oval with keel
- two terminal ventral scales with short but distinct spines



after Grosso & Drahg

Chaetonotus soberanus

So far I have only found one specimen of *Chaetonotus soberanus* in December 2022 in an old sample of mud from the Simmelried. However, it is possible that I have overlooked other specimens so far.

Chaetonotus soberanus was first described by Grosso & Drahg in Argentina in 1983. Subsequently, the species was recorded in 2013 by Kånneby in Sweden, who also only found 1 specimen. No further records have been documented to date.

I only found the specimen after I had already placed a coverslip on it. I found the

specimen still freely swimming (s. fig. 1 a-c). After reducing the layer thickness, it was fixed with the ventral side facing the coverslip. The anterior two thirds of the ventral side are covered with transversal scales with a jagged ornamentation, while the posterior third is covered with roundish, keeled scales (s. fig. 2 b). This arrangement is characteristic of *Chaetonotus soberanus*. The dorsal side was investigated on a second specimen (s. fig. 3). The scales in mid-body of the dorsal side are broadly elliptical with a distal notch, which is, however, weak and rounded (s. fig. 5). Each scale bears a simple spine.

Chaetonotus soberanus is probably identical with the species *Chaetonotus macrolepidotus macrolepidotus*. This species was raised by Kisielewski because he considered the species *Chaetonotus ophiogaster* and *Chaetonotus macrolepidotus* to be synonymous. *Chaetonotus macrolepidotus macrolepidotus* is said to have the ventral scale pattern of *Chaetonotus ophiogaster* and the dorsal scale pattern of *Chaetonotus macrolepidotus*. In my opinion, however, *Chaetonotus soberanus* is much better defined and also confirmed by the new description by Kånneby (2013). It also coincides with the characteristics of my specimen, which is why I consider the specimen to be *Chaetonotus soberanus*.

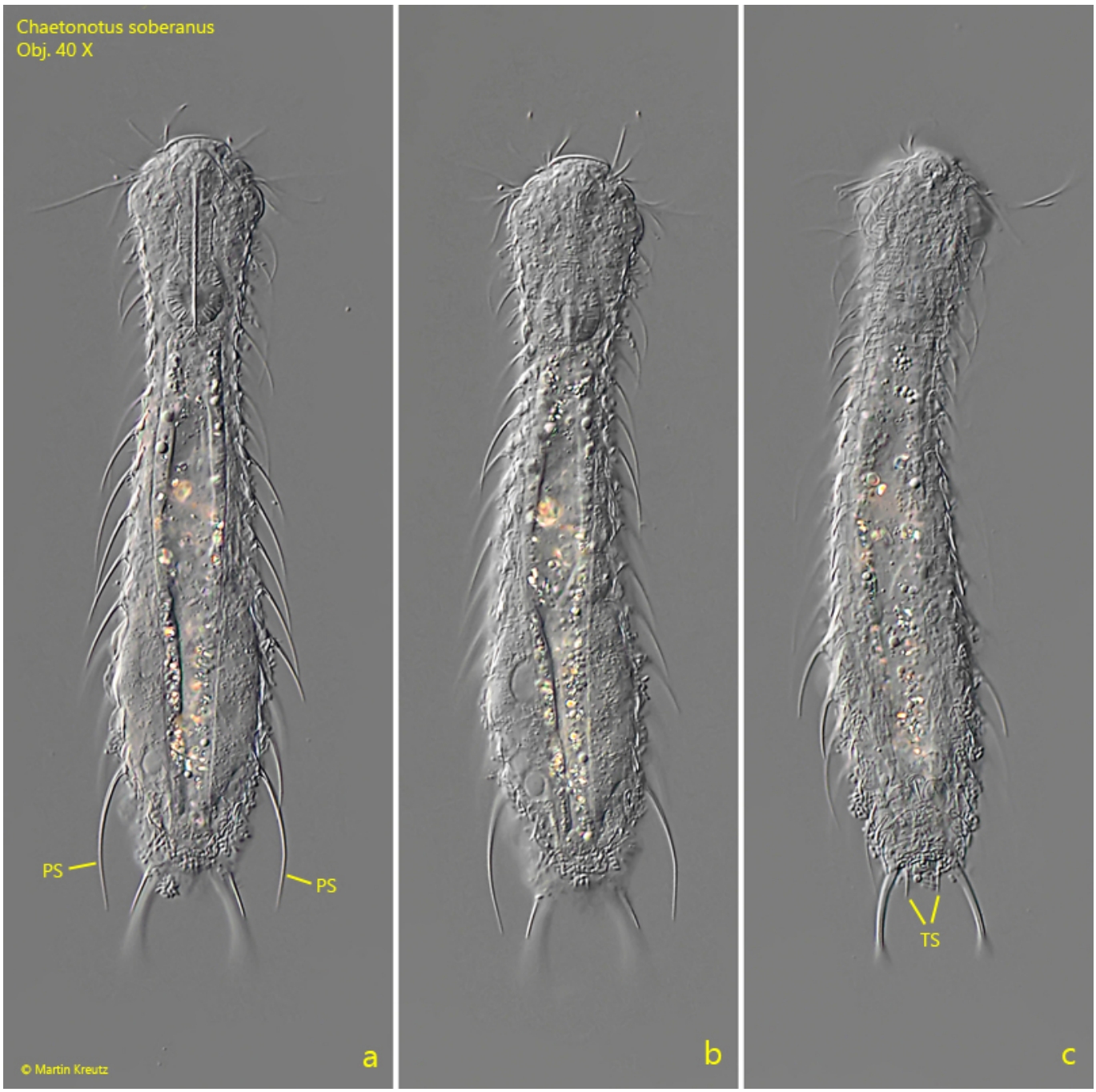


Fig. 1 a-c: *Chaetonotus soberanus*. L = 165 µm. A freely swimming specimen from ventral. Note the two long parafurcal spines (SP) and the pair of short terminal spines (TS) between the furca. Obj. 40 X.

Fig. 2 a-b: *Chaetonotus soberanus*. L = 165 µm. Two focal planes of the specimen

as shown in fig. 1 a-c from ventral. Note the dumbell-shaped pharynx (PH) and the transversal scales (TS) with a jagged ornamentation. Obj. 100 X.

Chaetonotus soberanus
Obj. 100 X
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Fig. 3: *Chaetonotus soberanus*. L = 160 µm. Total view of the dorsal side. Obj. 100 X.

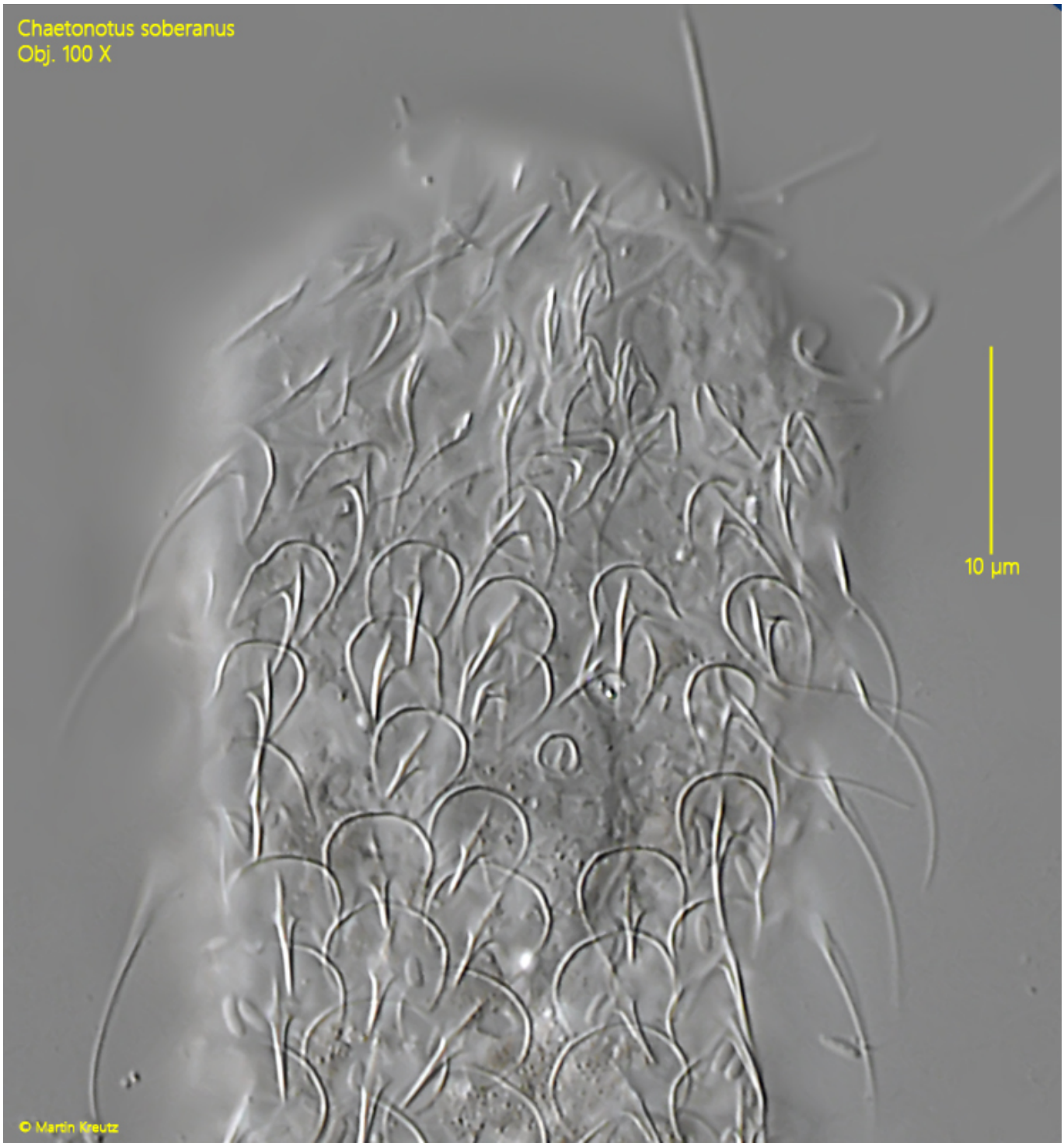

Fig. 4: *Chaetonotus soberanus*. The scales of the dorsal head and neck region in detail. Obj. 100 X.

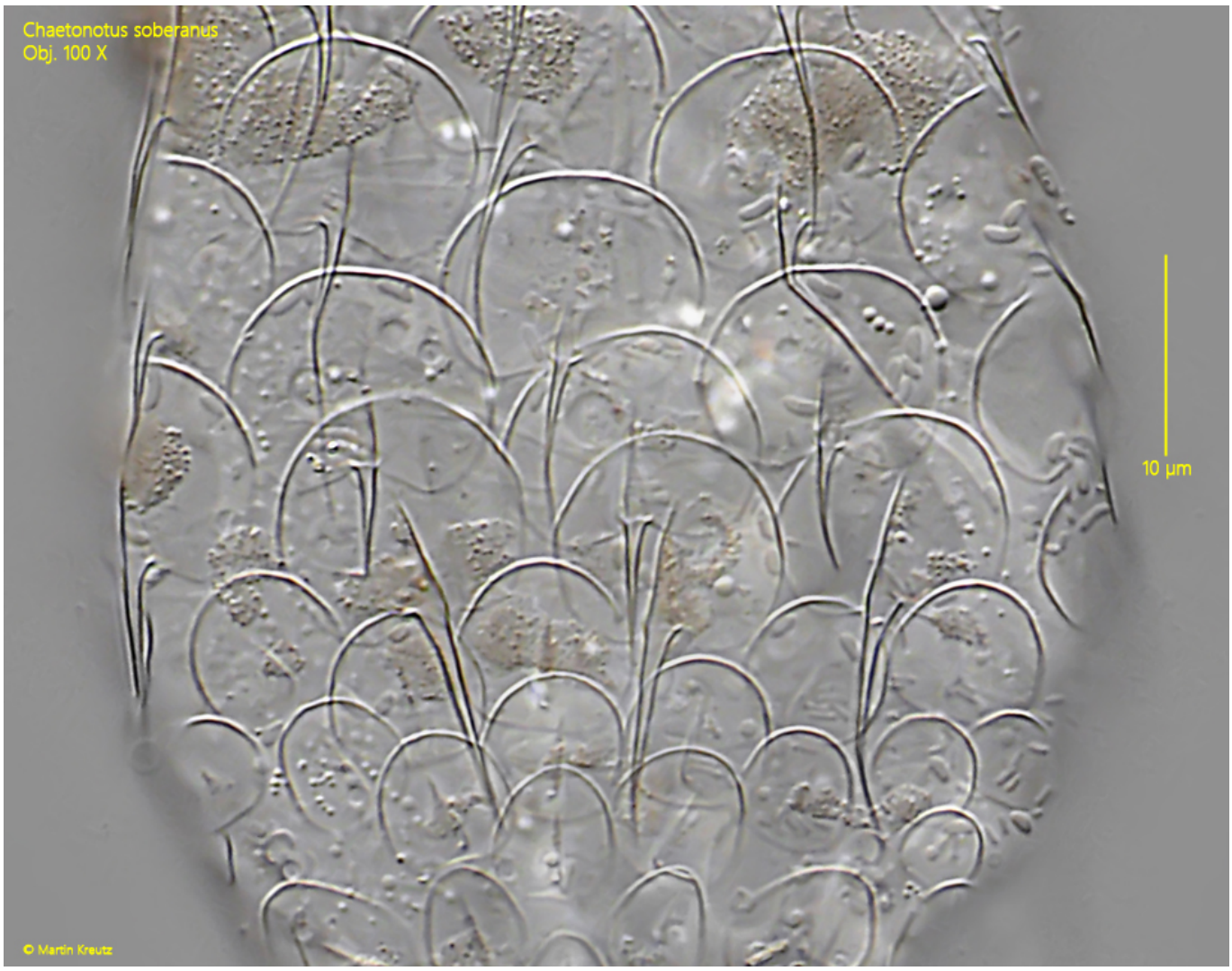

Fig. 5: *Chaetonotus soberanus*. The scales of the dorsal mid-body region in detail. Obj. 100 X.

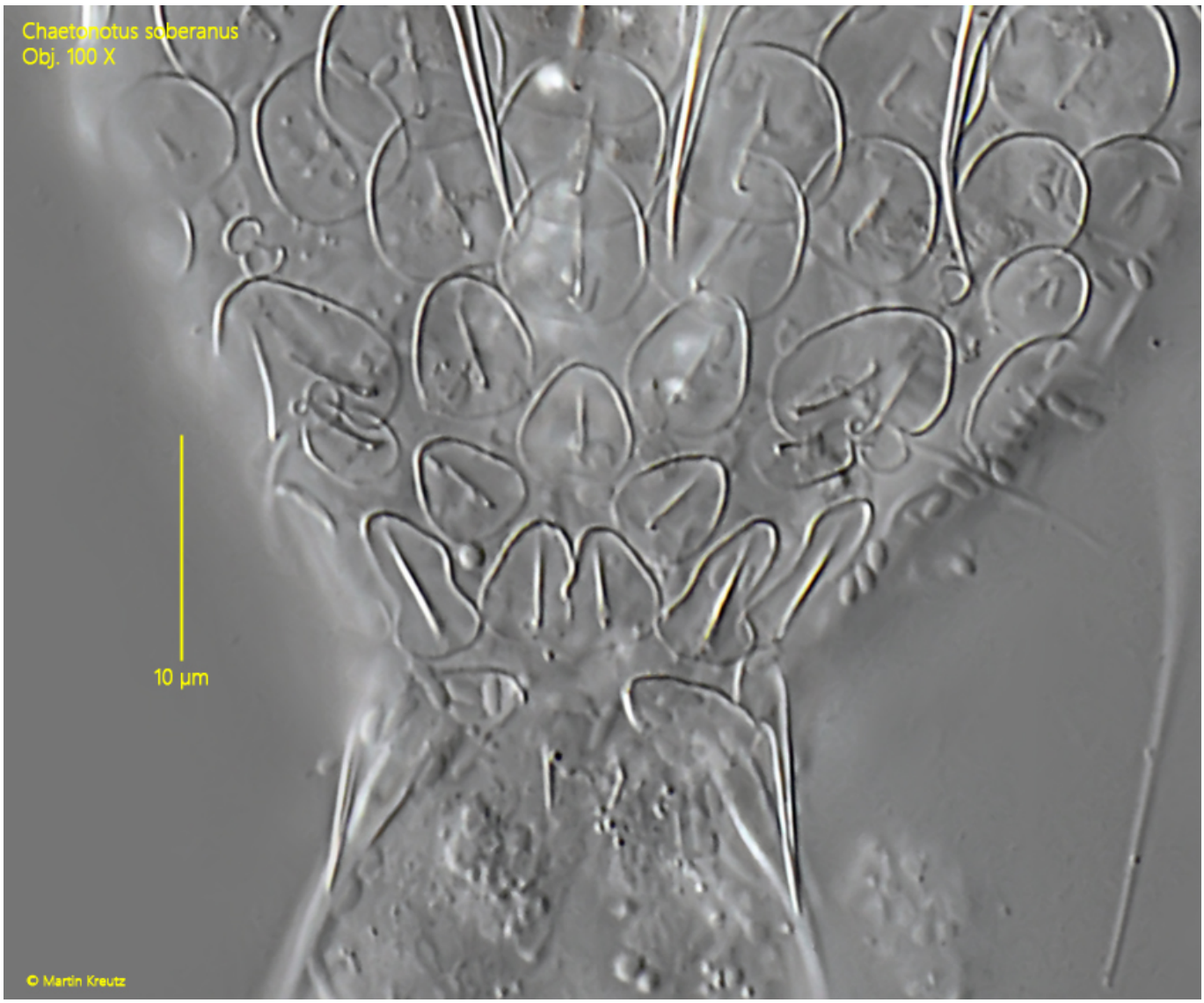

Fig. 6: *Chaetonotus soberanus*. The scales of the dorsal posterior end in detail. Obj. 100 X.

Fig. 7: *Chaetonotus soberanus*. The X-bodies (XB) of the specimen shown in fig. 3. Obj. 100 X.