Aspidiophorus tetrachaetus

Kisielewski, 1986

Most likely ID: n.a.

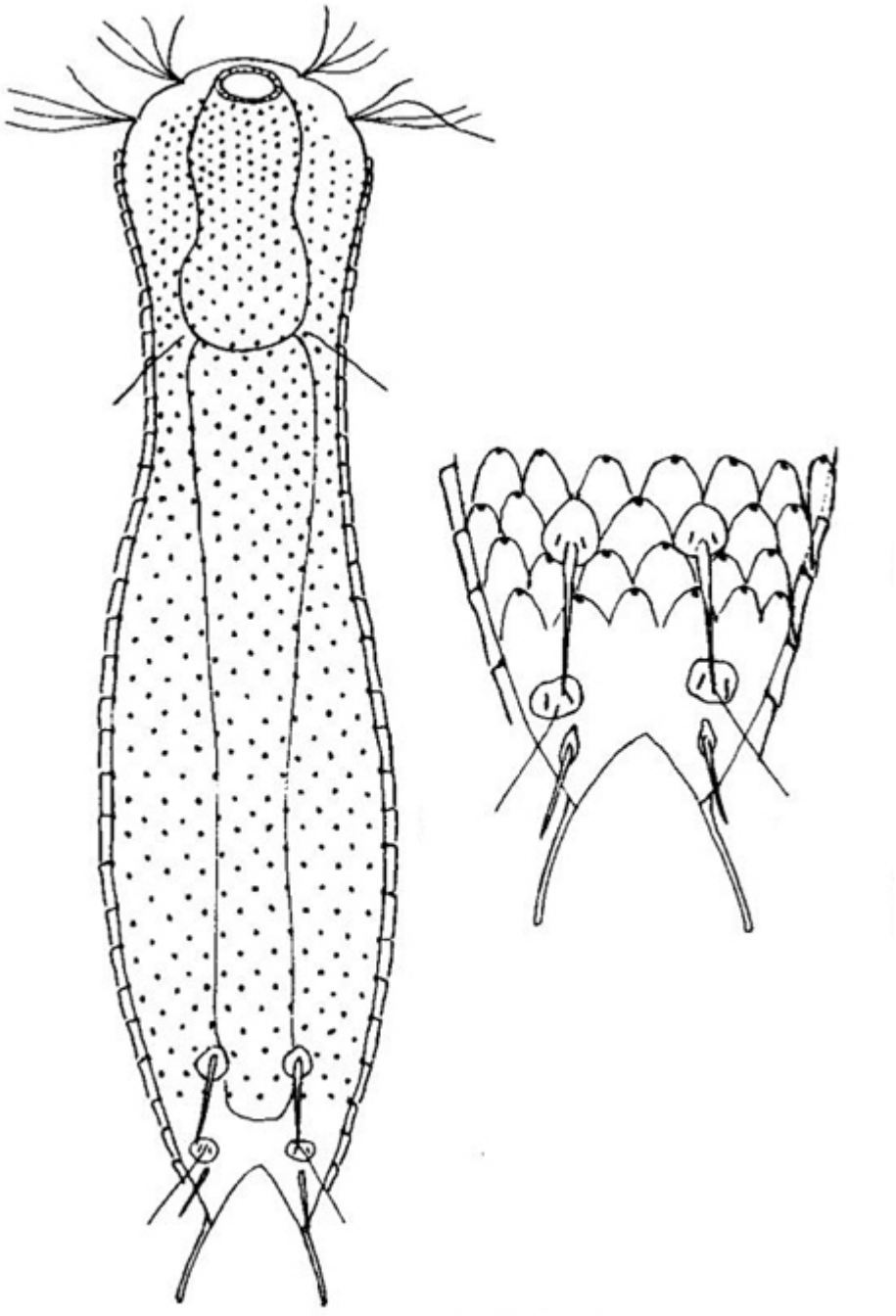
Synonym: n.a.

Sampling location: Schwemm (Austria)

Phylogenetic tree: *Aspidiophorus tetrachaetus*

Diagnosis:

- body small sized, stocky, sole-shaped
- length 128–140 µm
- head weakly 5-lobed
- pleurae absent
- two pairs of sensory bristles
- pharynx dumbbel-shaped
- dorsal 15–17 longitudinal rows of diamond-shaped scales
- dorsal scales about 5 µm long
- two pairs of dorsal spines near posterior end
- ventral field with 8–9 of very small scales (1.5–2.5 µm)
- two ventral terminal scales



Aspidiophorus tetrachaetus

So far I have only been able to find *Aspidiophorus tetrachaetus* once, in a sample from the Schwemm Moor in June 2026. Among several samples from the Schwemm Moor, the specimens were present in only one of these samples. This contained only a thin sediment layer, consisting mainly of algae, cyanobacteria and bacteria.

The gastrotrichs of the genus *Aspidiophorus* can be easily recognized by the stalked scales (s. fig. 7). Due to the stalks, the actual scales stand 1–2 µm away from the body. The species *Aspidiophorus tetrachaetus* is easily identifiable by 4 spines located on the dorsal side at the posterior end (s. fig. 8). This makes the species

unmistakable. These spines sit on 4 oval scales that are keeled at their margins (s. fig. 9).

The stalked dorsal scales are diamond-shaped with rounded corners (s. fig. 6). They overlap each other and do not form any gap. According to my measurements, they are about 5 µm long, which corresponds well with the data given by Schwank (1990). On the ventral side, there are several parallel rows of scales about 3 µm long, whose exact shape is difficult to discern (s. fig. 10). Based on my observations, they appear to be oblong with parallel sides and a delicate keel. At the posterior end on the ventral side, there are 2 terminal scales with a distinct keel and lobe-shaped protrusions (s. fig. 10).

In deviation from the descriptions by Schwank (1990) and Kisielewski (2011), I was able to identify distinct ocelli at the anterior margin of the head in the specimens of my population, which were not mentioned by these authors. The ocelli had a granular character. All other characteristics correspond to the descriptions of *Aspidiophorus tetrachaetus*.



Fig. 1 a-d: *Aspidiophorus tetrachaetus*. L = 134 µm. A freely swimming specimen

from dorsal. Obj. 60 X.

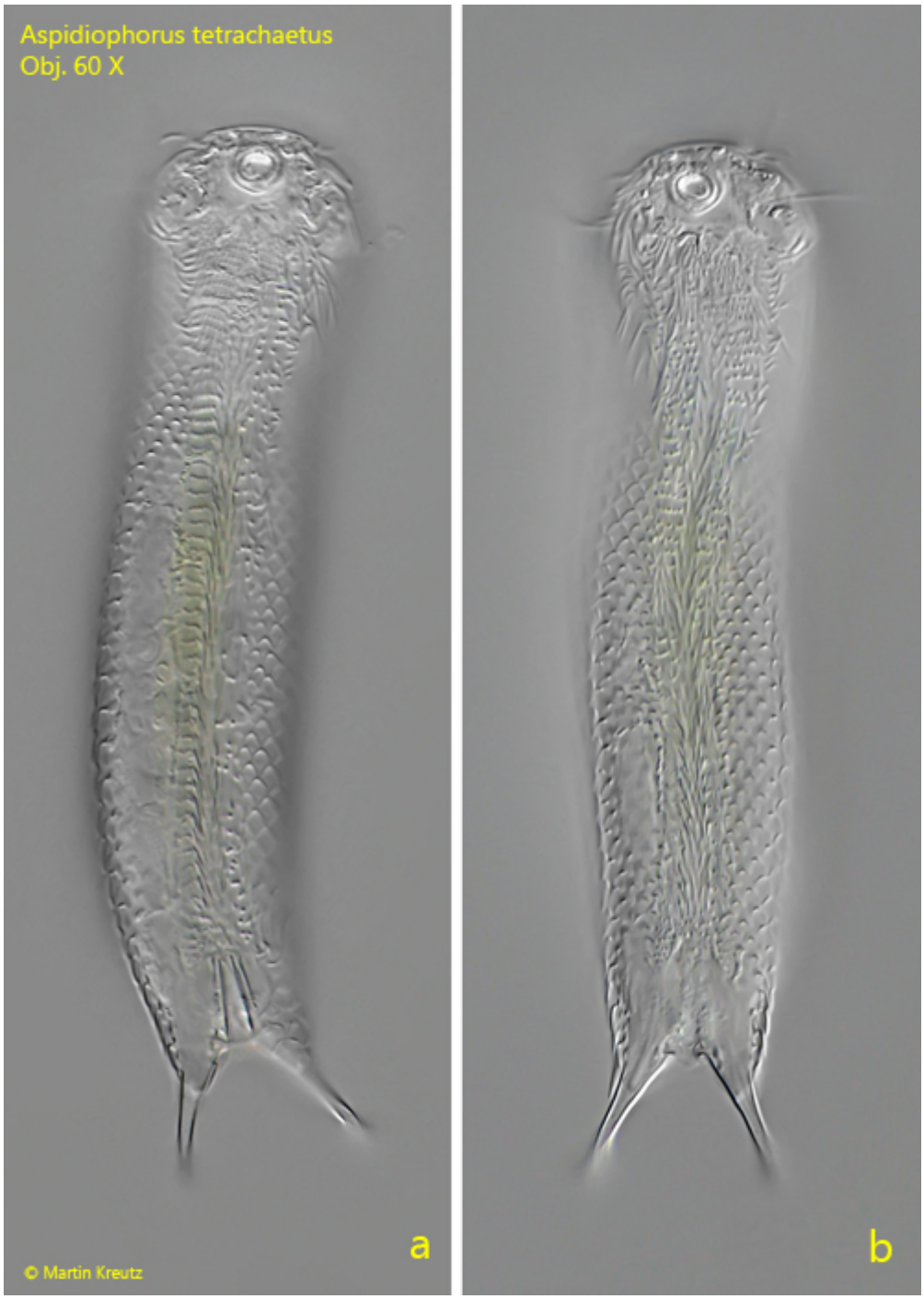


Fig. 2 a-b: *Aspidiophorus tetrachaetus*. L = 130 µm. A second freely swimming specimen from ventral. Obj. 60 X.


Aspidiophorus tetrachaetus
Obj. 100 X
OC
OC
PH

Fig. 3: *Aspidiophorus tetrachaetus*. L = 131 µm. Focal plane on the two ocelli (OC) at the front of the head. PH = pharynx. Obj. 100 X.



Fig. 4: *Aspidiophorus tetrachaetus*. The slightly squashed pharynx. Obj. 100 X.

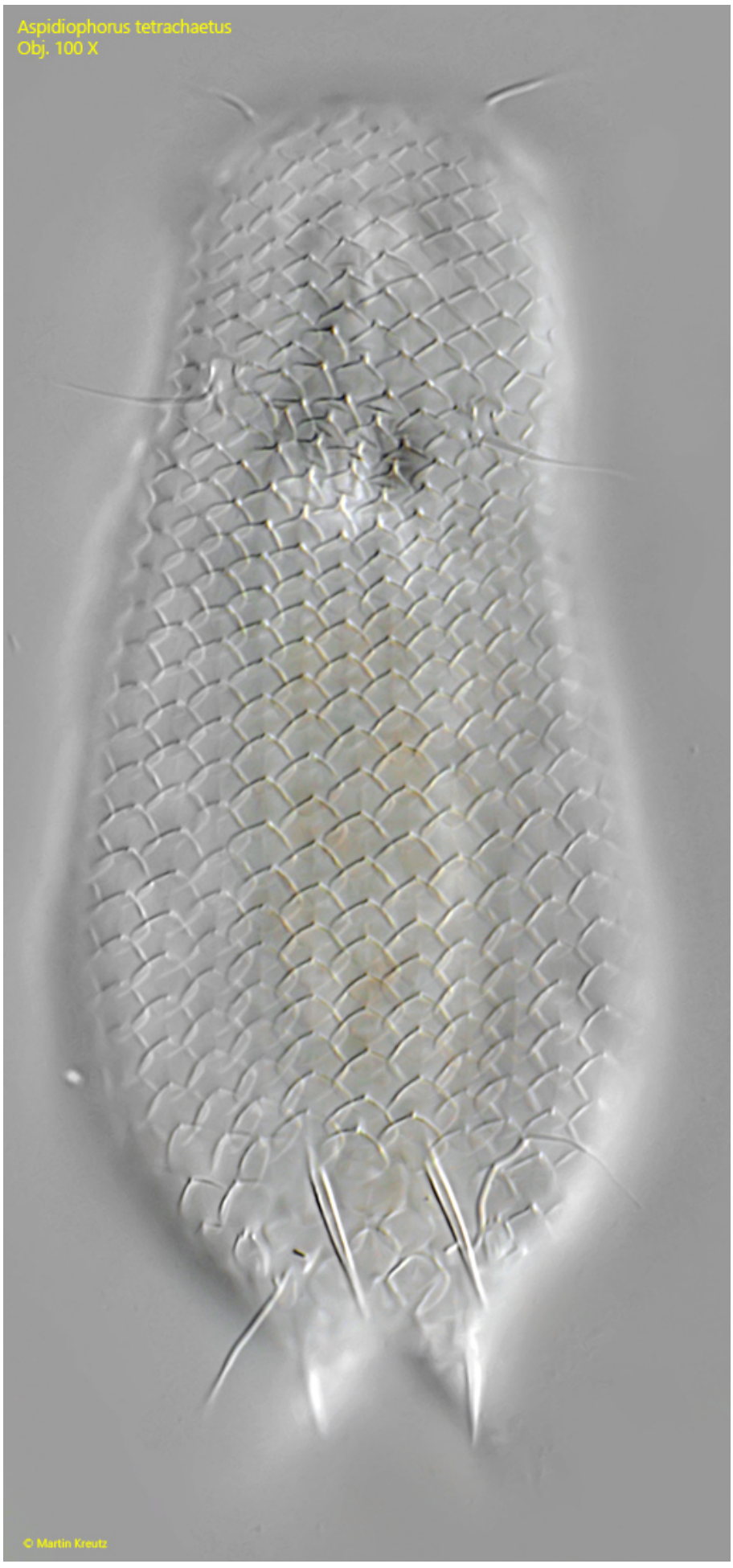

Aspidiophorus tetrachaetus
Obj. 100 X
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Fig. 5: *Aspidiophorus tetrachaetus*. The dorsal scales of a slightly squashed specimen. Obj. 100 X.

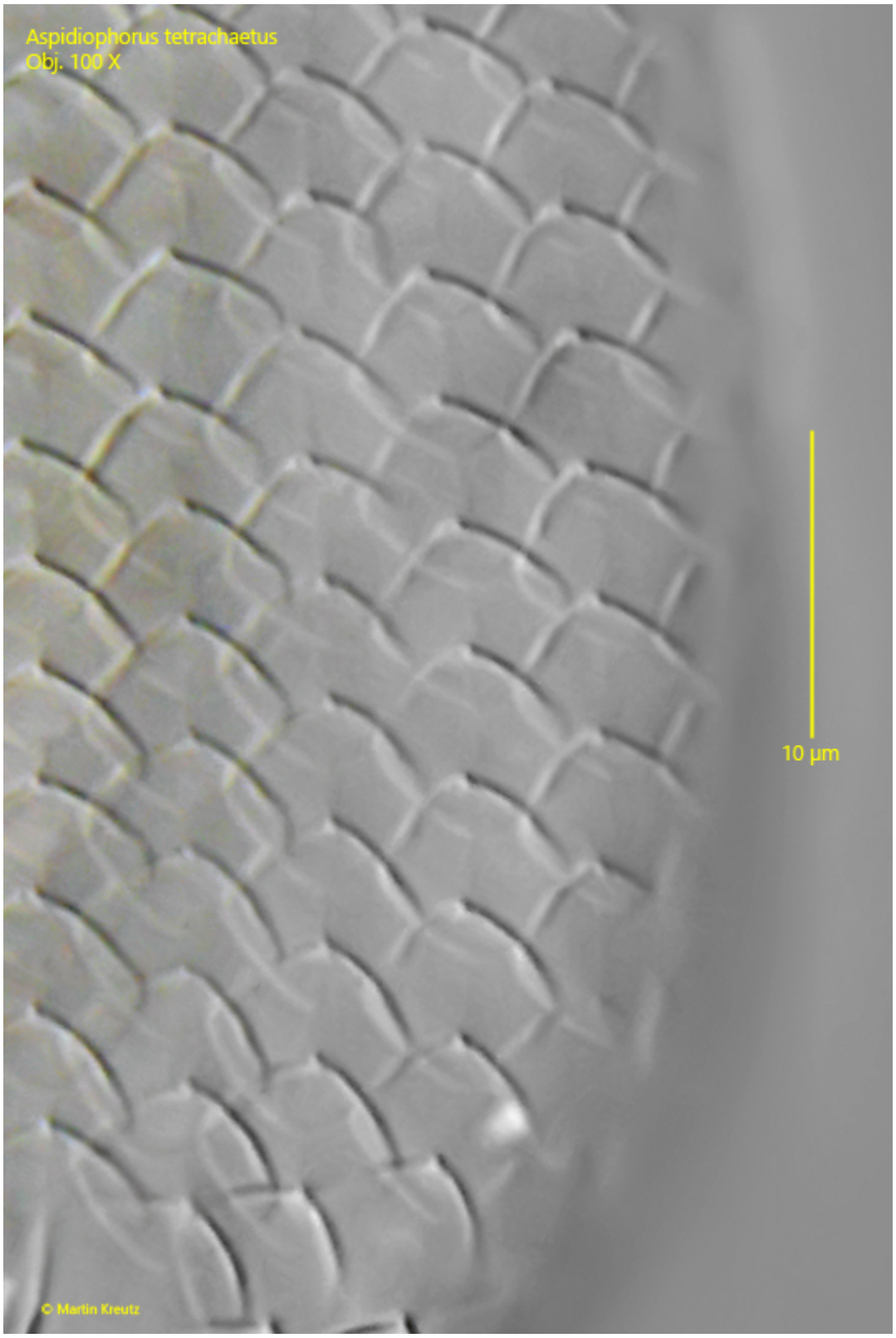


Fig. 6: *Aspidiophorus tetrachaetus*. The dorsal scales are diamond-shaped with rounded edges. The scales are about 5 µm long. Obj. 100 X.

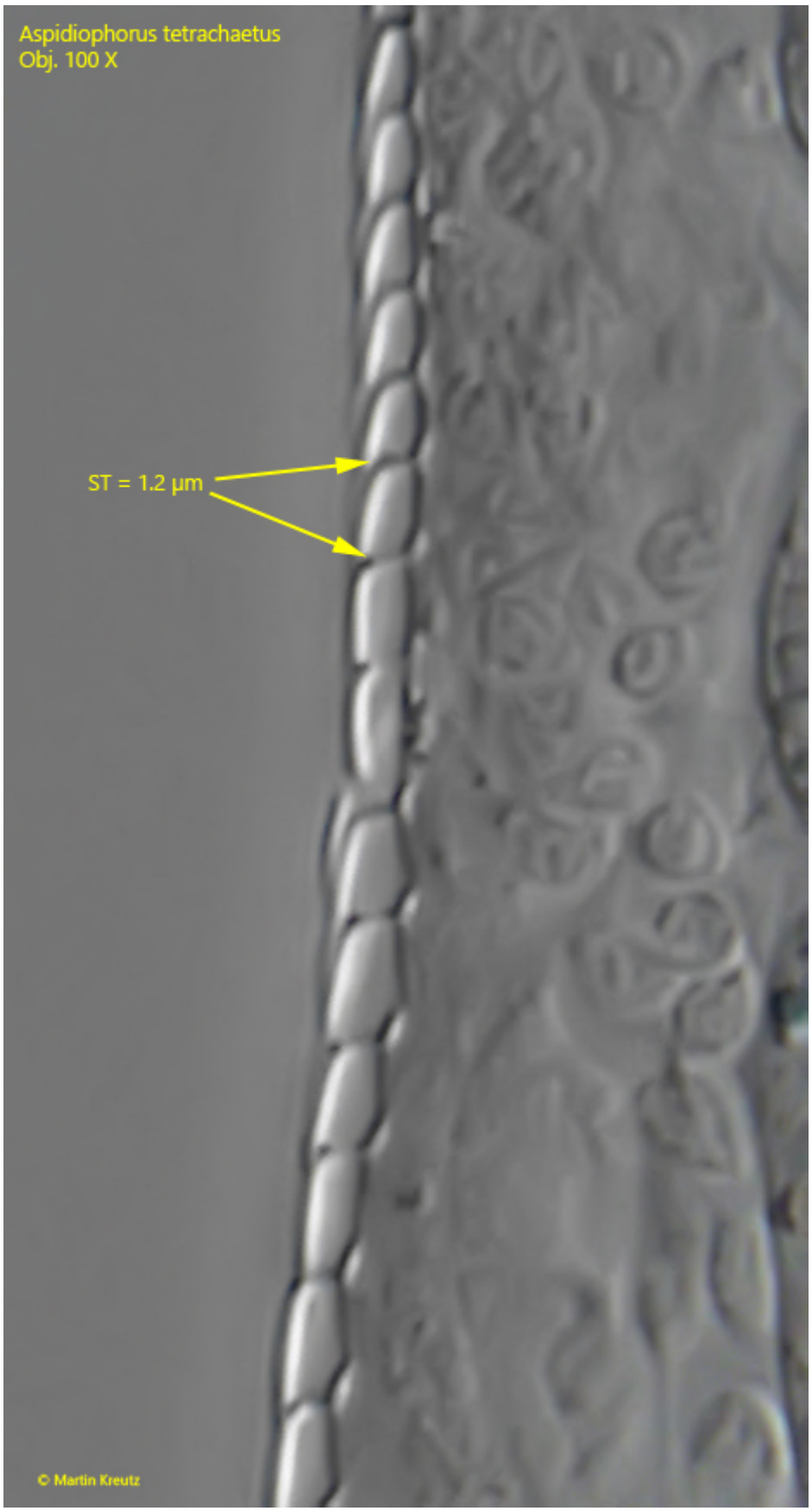


Fig. 7: *Aspidiophorus tetrachaetus*. The dorsal scales sit on short stalks (ST) with a length of 1.2 µm. Obj. 100 X.

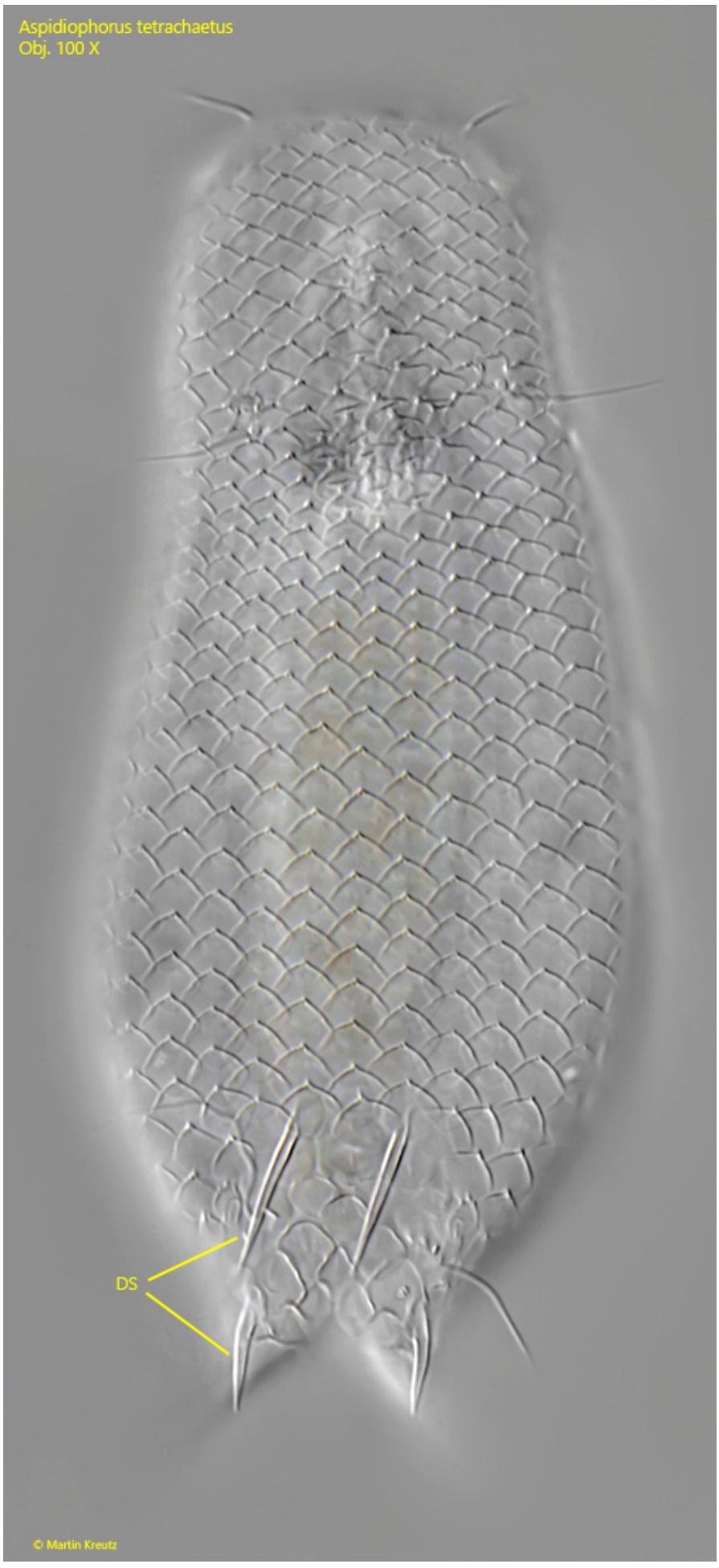

Aspidiophorus tetrachaetus
Obj. 100 X
DS
© Martin Kreutz

Fig. 8: *Aspidiophorus tetrachaetus*. The same specimen as shown in fig. 6 with focal plane on the 4 dorsal spines (DS). The upper spines are 14 µm long while the lower spines are 9 µm long. Obj. 100 X.

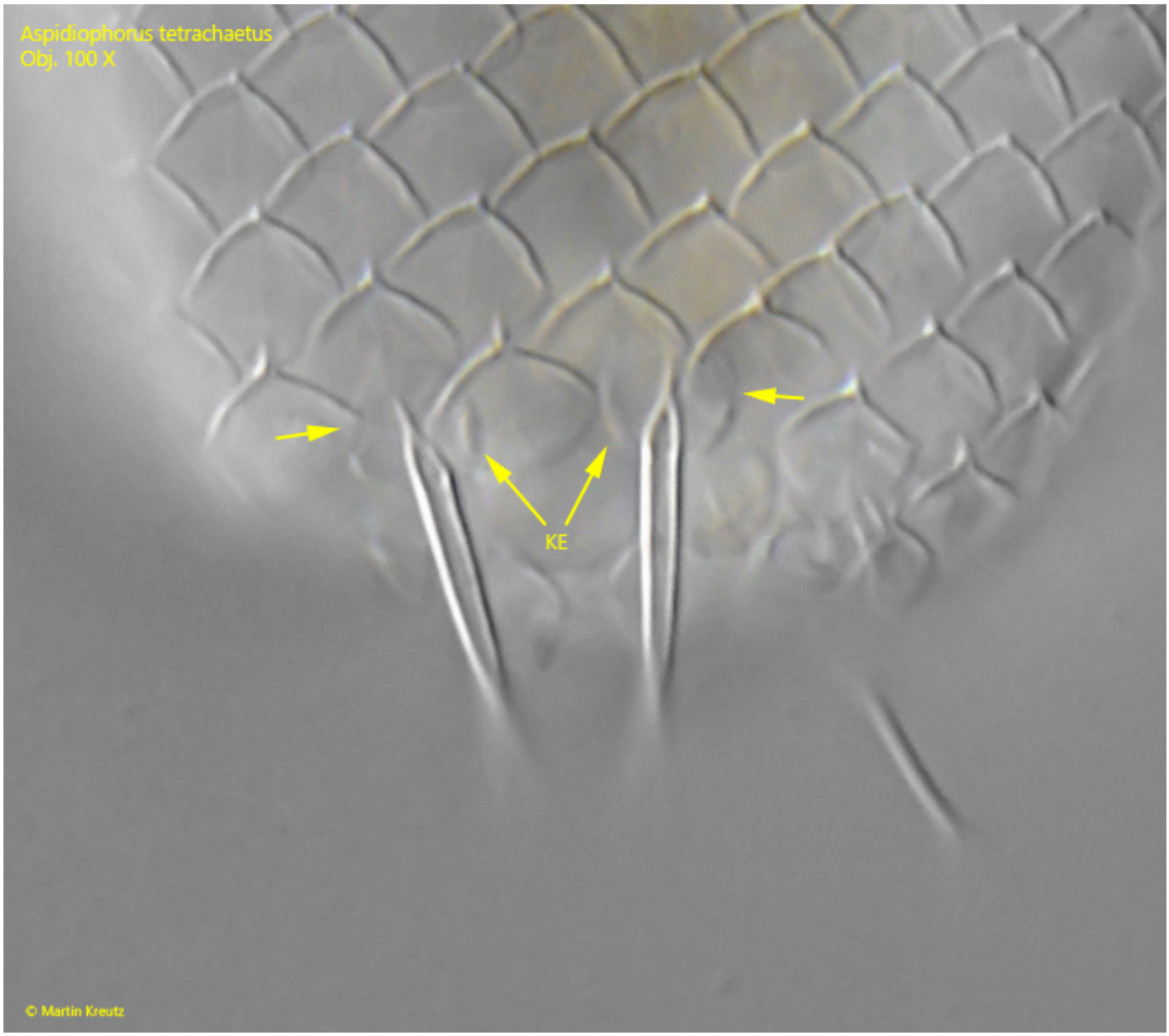


Fig. 9: *Aspidiophorus tetrachaetus*. The upper dorsal spines arise from two oval scales (arrows) with each two small keels (KE). Obj. 100 X.


Aspidiophorus tetrachaetus
Obj. 100 X
VS
TS
© Martin Kreutz

Fig. 10: *Aspidiophorus tetrachaetus*. The ventral scales are very small (about 3 µm) and hard to see. They seems to be oblong with parallel sides and an indistinct keel. At the posterior end two terminal scales (TS) are visible. Obj. 100 X.