Setopus tongiorgii Balsamo, 1983

Most likely ID: n.a.

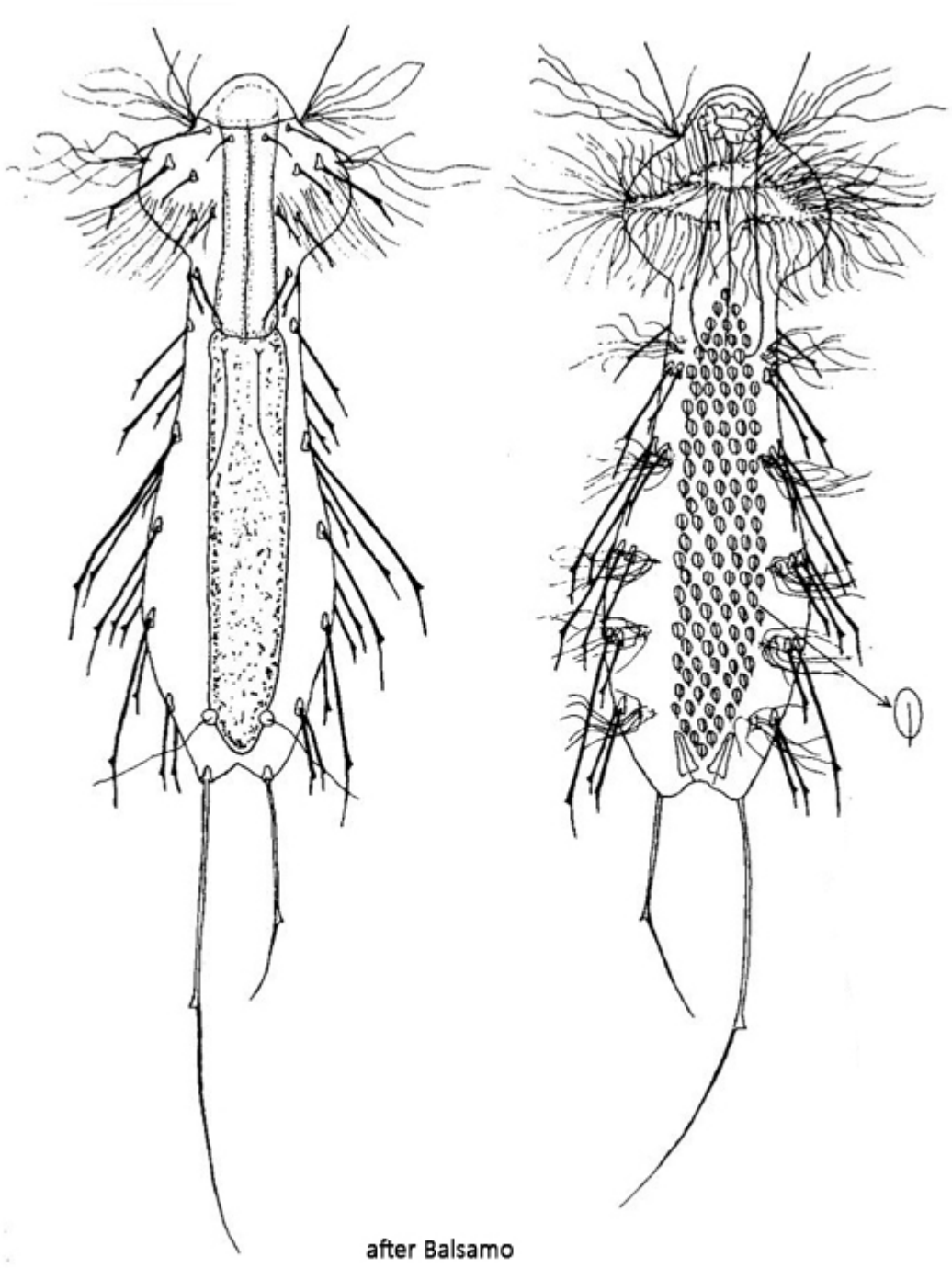
Synonyms: *Dasydytes tongiorgii*, *Setodytes tongiorgii*

Sampling location: Simmelried

Phylogenetic tree: *Setopus tongiorgii*

Diagnosis:

- body shoe-sole-shaped, slender
- length 84–101 µm, width 26–34 µm
- head trilobed with lateral lobes and rounded cephalion
- neck narrow, smooth
- pharynx cylindrical
- numerous dorsal and ventrolateral trunk spines each with secondary spine
- 21 trunk spines on each side, head 6, neck 3, body 12
- dorsal two pair of setolae, posterior on rounded scales
- dorsal side naked (apart from spines)
- ventral side with 8–9 rows of oval, keeled scales with short spines
- two terminal scales on ventral side
- terminal scales slightly trinangular with keel and short spine
- two caudal spines of unequal length, each with secondary spine



Setopus tongiorgii

I find *Setopus tongiorgii* rarely but regularly in the Simmelried. I have not yet been able to find this species in my other sampling sites. In the last 10 years the number of finds has increased significantly. I find *Setopus tongiorgii* mainly in the siltation zone, where aerobic and anaerobic zones are close together.

Setopus tonigiorgii can be recognized even at small magnifications by the different lengths of the caudal spines (s. fig. 6). The left spine is always shorter than the right. In the similar species *Setopus bisetosus*, both caudal spines are the same length. In addition, the spines of *Setopus tonigiorgii* all have a secondary spine,

including the spines on the trunk, neck and head. This also distinguishes *Setopus tonigirogii* from *Setopus chatticus*, whose spines have two secondary spines.

In my population of *Setopus tonigirogii*, I found deviations from the description by Balsamo (1983). On the one hand, my specimens were about 20 % longer (without caudal spines) than indicated by Balsamo and on the other hand, the terminal scales of my specimens were all oval or elliptical with a keel and not triangular with a keel and short spine. However, as the species has only rarely been found and studied so far, these findings may also be within the range of natural variability.

More information and images on *Setopus tonigiorgii*: Michael Müller-The small world of freshwater gastrotrichs-*Setopus tongiorgii*

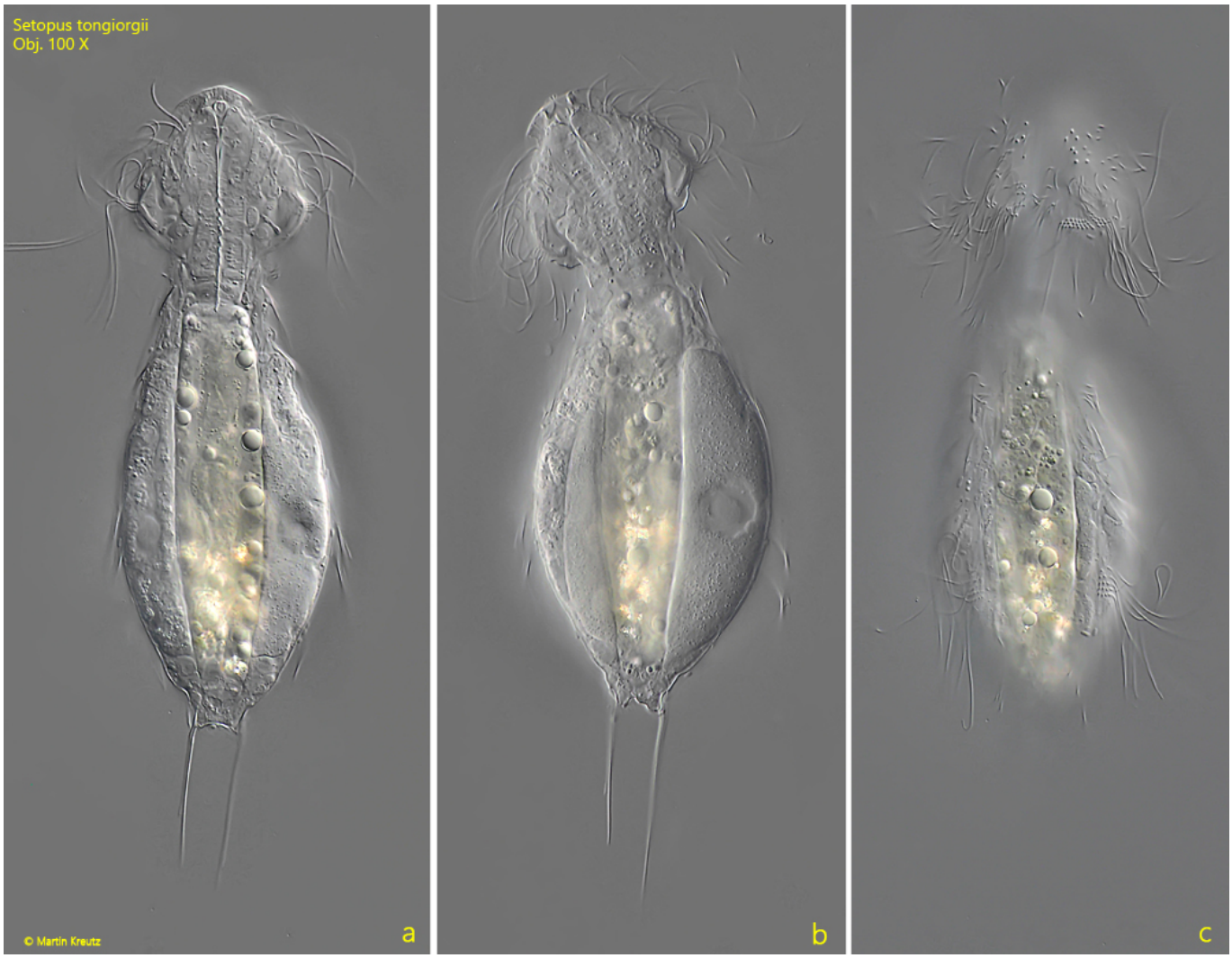


Fig. 1 a-c: *Setopus tongiorgii*. L = 138 µm (without caudal spines). A freely swimming specimen from ventral. Note the caudal spines of different length. Obj. 60 X.

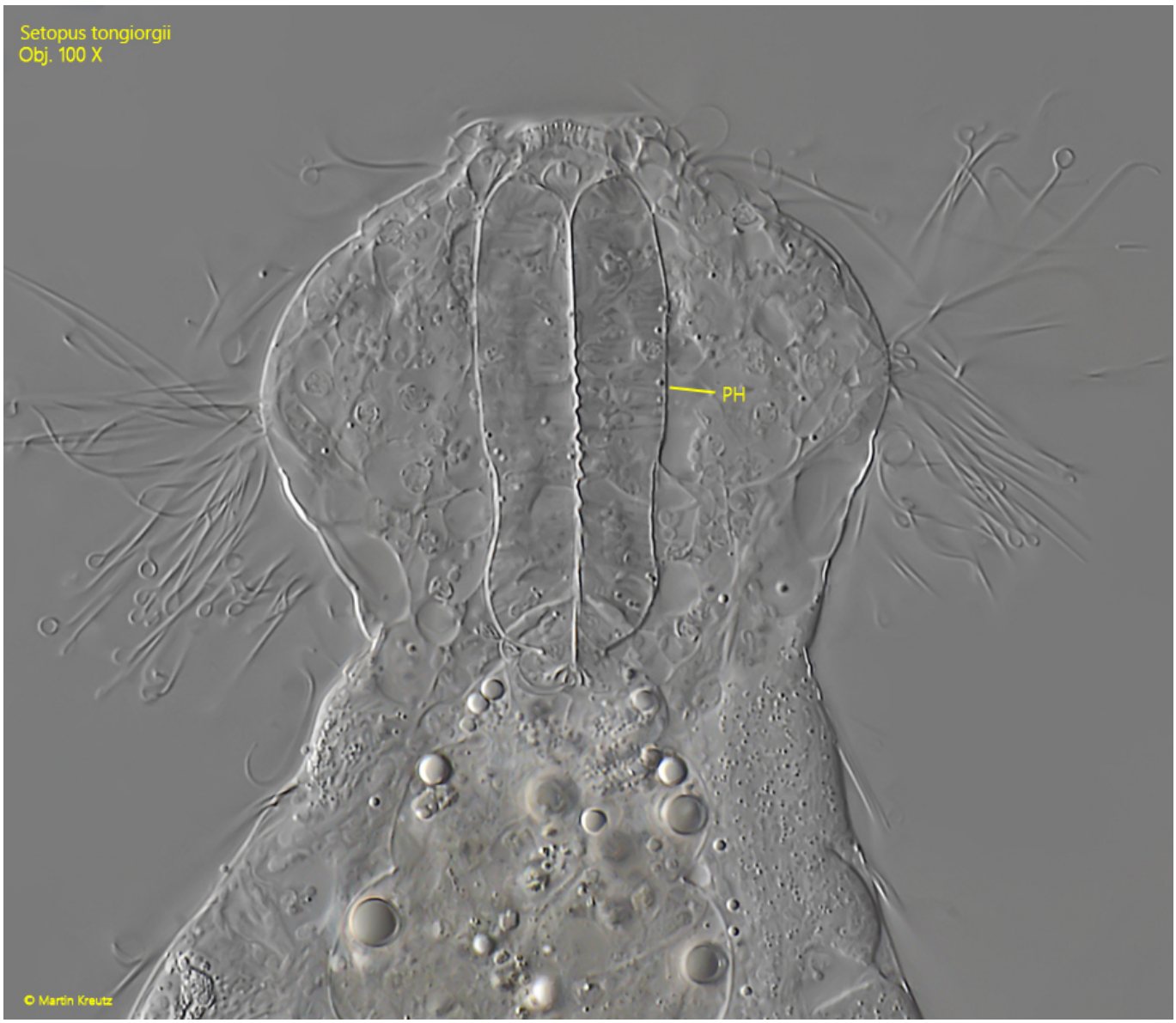


Fig. 2: *Setopus tongiorgii*. The pharynx (PH) in a squashed specimen. Obj. 100 X.

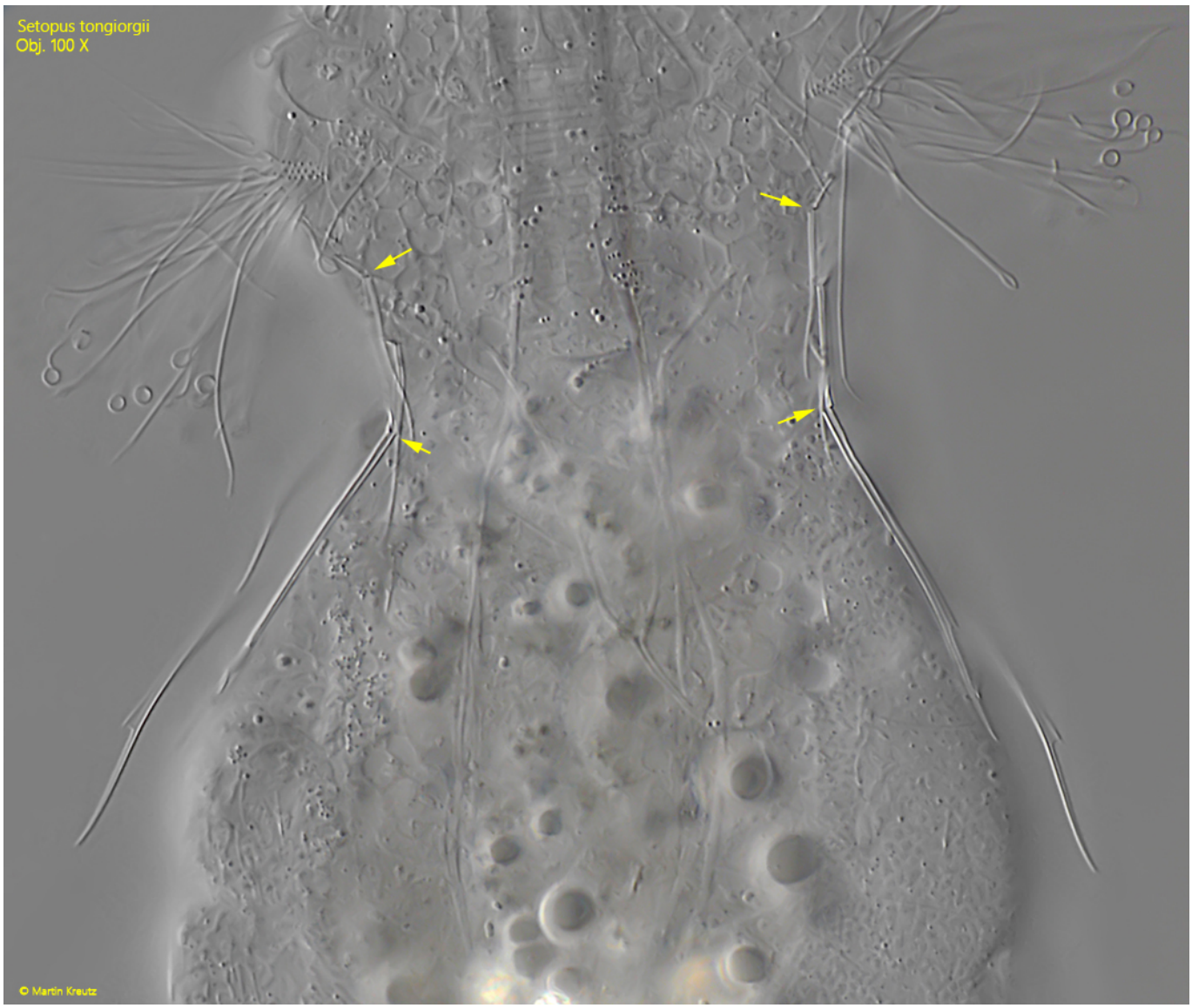


Fig. 3: *Setopus tongiorgii*. A squashed specimen in ventral view. The spines of head and neck arise from rudimentary scales with an angle (arrows). Obj. 100 X.

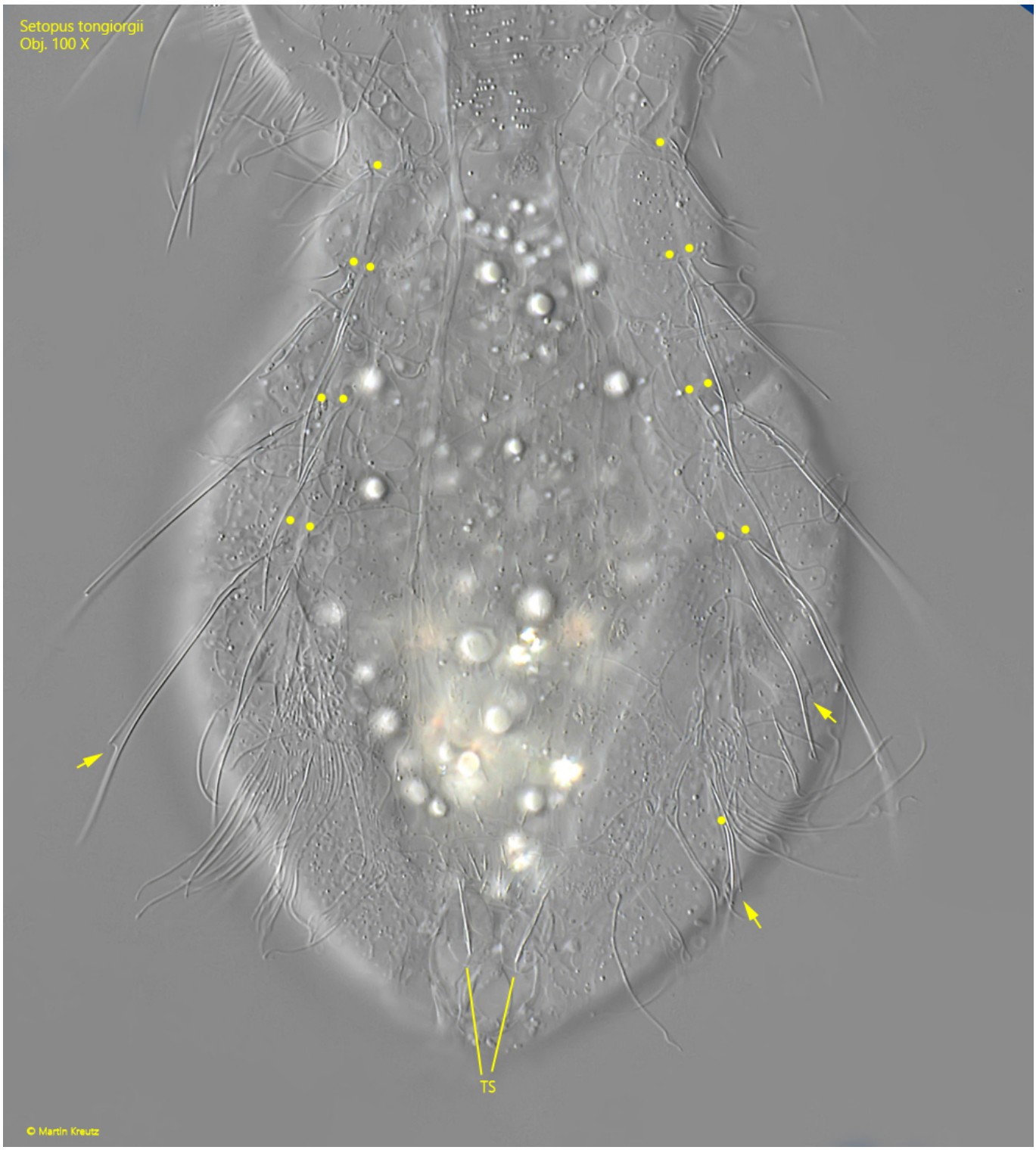


Fig. 4: *Setopus tongiorgii*. The trunk region in ventral view. All spines have a secondary spine (arrows). The origin of the spines is marked with a dot. Note the two keeled terminal spines (TS). Obj. 100 X.

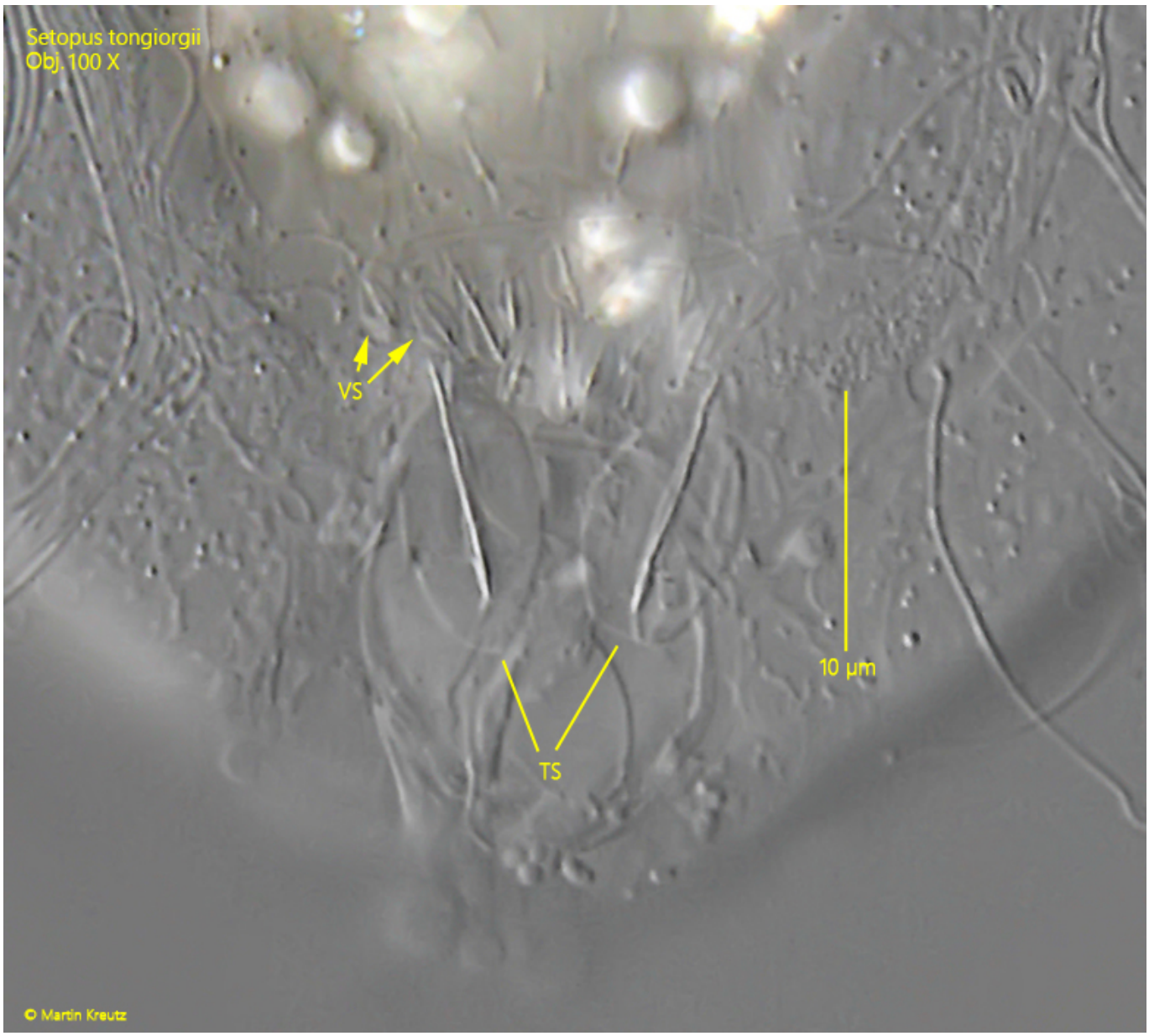


Fig. 5: *Setopus tongiorgii*. The keeled terminal scales (TS) and the tiny ventral scales (VS) in detail. Obj. 100 X.

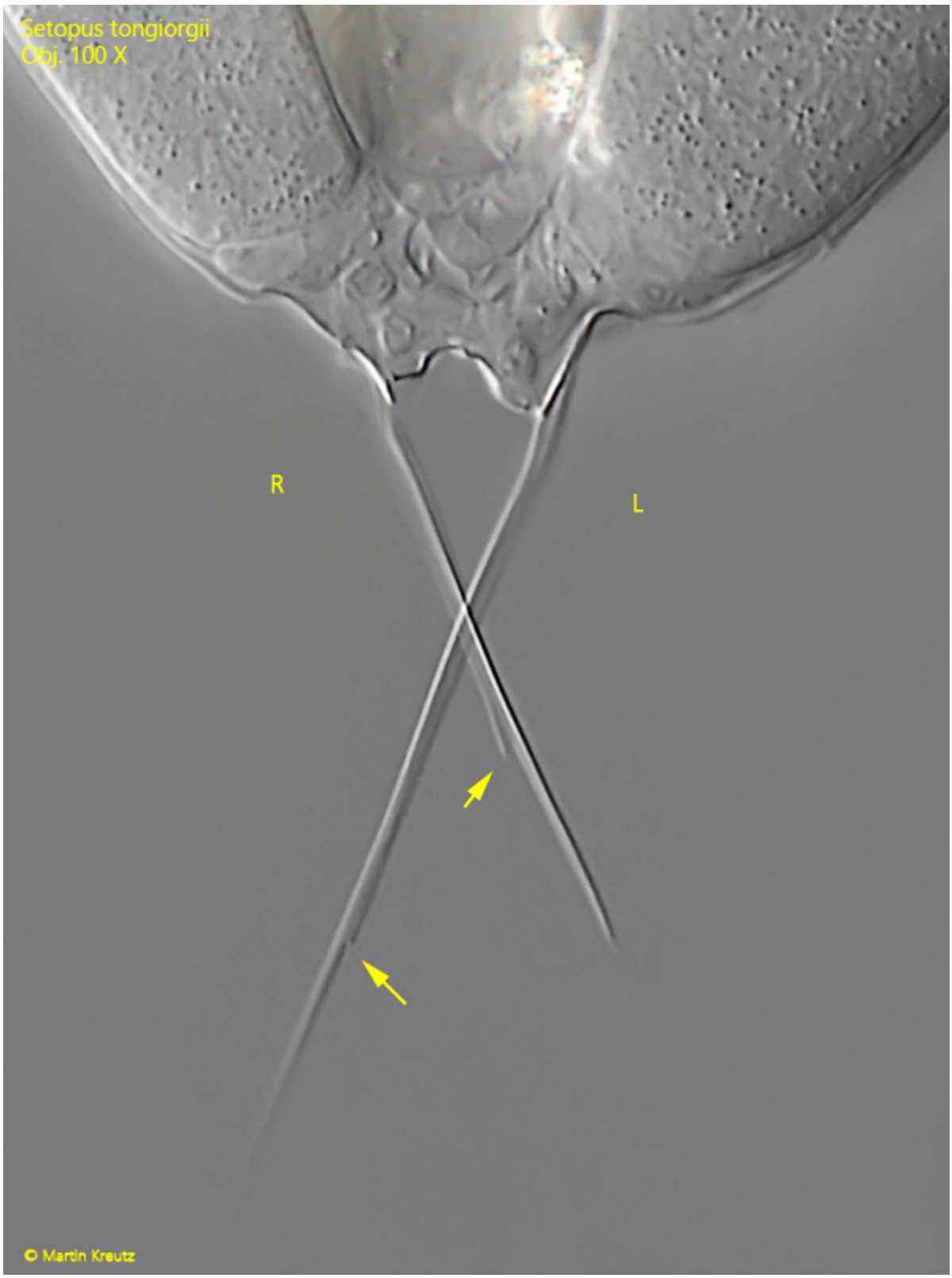


Fig. 6: *Setopus tongiorgii*. The two caudal spines of unequal length in ventral view. Both spines have a secondary spine (arrows). The right spine is always shorter than the left. Obj. 100 X.