

Notommata groenlandica

Bergendal, 1892

Most likely ID: n.a.

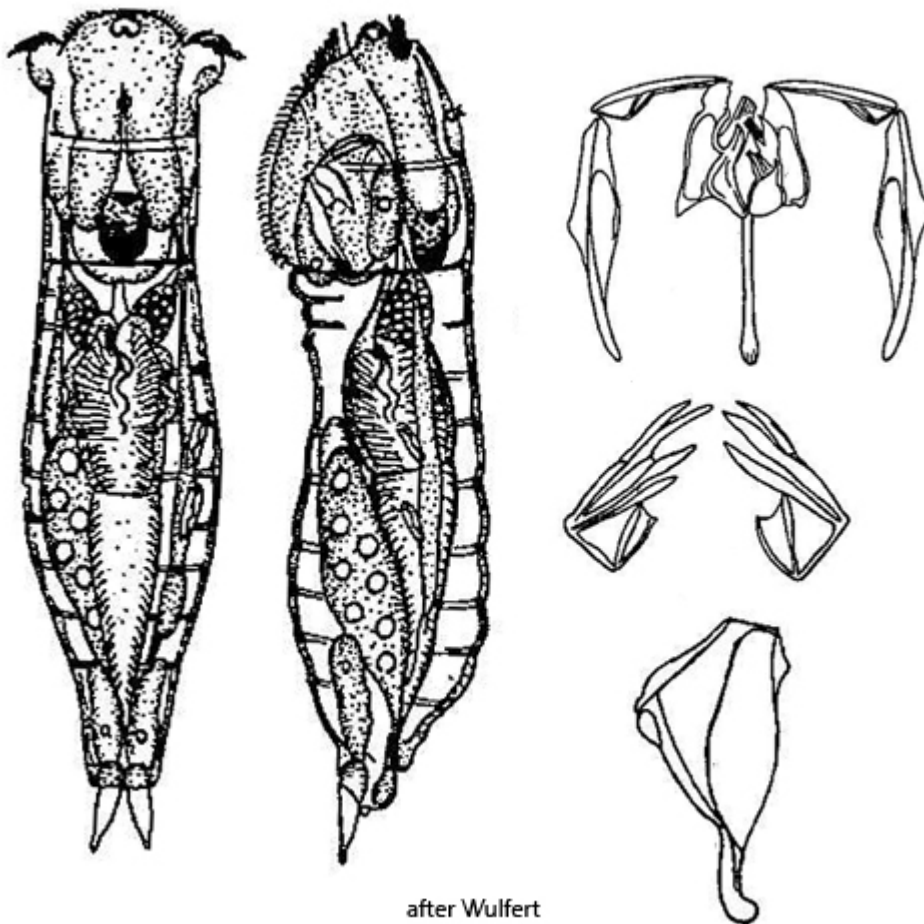
Synonym: n.a.

Sampling location: [Schwemm \(Austria\)](#), [Sima Moor \(Austria\)](#)

Phylogenetic tree: [Notommata groenlandica](#)

Diagnosis:

- body spindle-shaped
- projecting auricle on each side of the head
- below rostrum a kidney-shaped protrusion of cuticle
- length 180–240 µm
- esophagus with long cilia
- body fluid reddish or brownish
- one cervical eyespot, bright red
- retrocerebral organ with refracting bodies, brownish
- foot two-jointed
- toes conical, short, distally tapered
- trophi asymmetrical
- unci with 3–4 tooth



Notommata groenlandica

So far, I have found *Notommata groenlandica* in August 2025 in the [Sima Moor](#) in Austria and in June 2026 in the [Schwemm Moor](#), also in Austria. The locations match the description by Koste (1978), who stated that the species mainly occurs in *Sphagnum* ponds.

Notommata groenlandica possesses some features that allow for clear identification. On the head, below the rostrum, there is a kidney-shaped organ (s. fig. 6 a). It is best seen in ventral view in slightly squashed specimens. In lateral view, it is often not in focus. This organ is described by Koste as a “kidney-shaped crystal.” According to my observations, however, it is not a crystal, but rather a protrusion of the cuticle. If the focus is adjusted a bit deeper, a clamp-shaped structure becomes visible (s. fig. 6 b). It appears to lie beneath the cuticle and is clearly connected to the kidney-shaped organ. Nothing is known about the function of these structures. Possibly, it is related to the feeding behavior of *Notommata groenlandica*, which consists of the contents of algal cells. For this, *Notommata groenlandica* bites a hole in the cell wall of the alga and then sucks out its contents. Algae of the genus *Netrium* are preferably sucked out. I myself was not able to observe this process.

Another special feature of *Notommata groenlandica* is a reddish or brownish colored body fluid, which is particularly observed in older specimens (s. fig. 7). The stomach is usually distinctly yellow, green, and orange in color (s. fig. 4). At the upper end of the stomach, the esophagus ends into the stomach. There is a bundle of long, parallel cilia located there (s. fig. 7).

Between the conically shaped toes, there is said to be a small papilla, which I could not clearly identify, as the specimens mostly presented themselves from the lateral side under the coverslip.

Interestingly, there are differing statements regarding the presence of a bladder in *Notommata groenlandica*. While Voigt (1957) writes that no bladder is present, Koste (1978) mentions one. In the specimens of my population, I could not detect a bladder.

Notommata groenlandica can be confused with *Notommata silpha*. However, this species does not possess a kidney-shaped organ on the forehead, its body fluid is colorless, and the retrocerebral organ is small and without crystals.

More images and information on *Notommata groenlandica*: [Michael Plewka-Freshwater life-Notommata groenlandica](#)

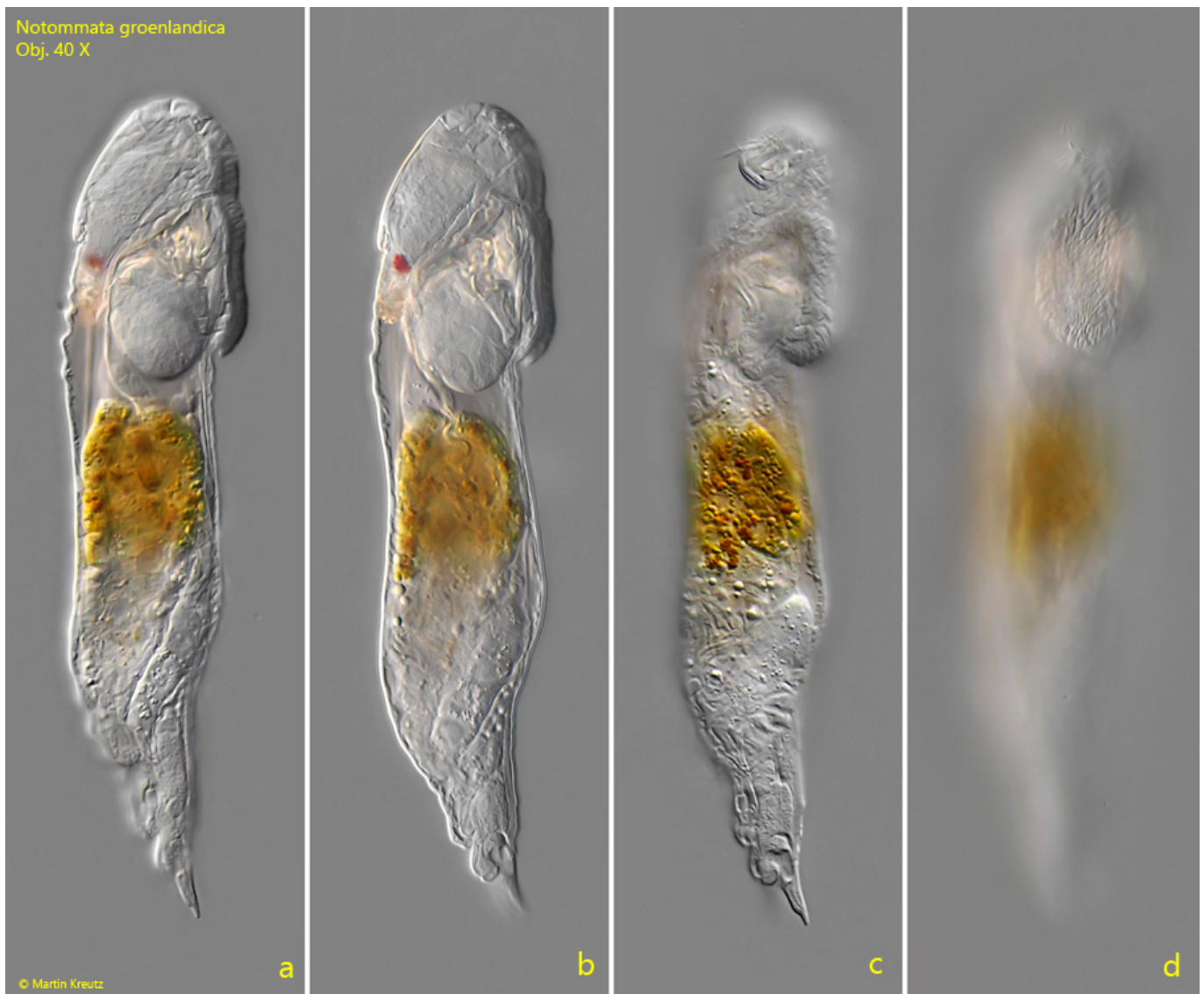


Fig. 1 a-d: *Notommata groenlandica*. L = 218 μ m. A freely swimming specimen from right found in June 2026 in the [Schwemm Moor](#). Obj. 40 X.

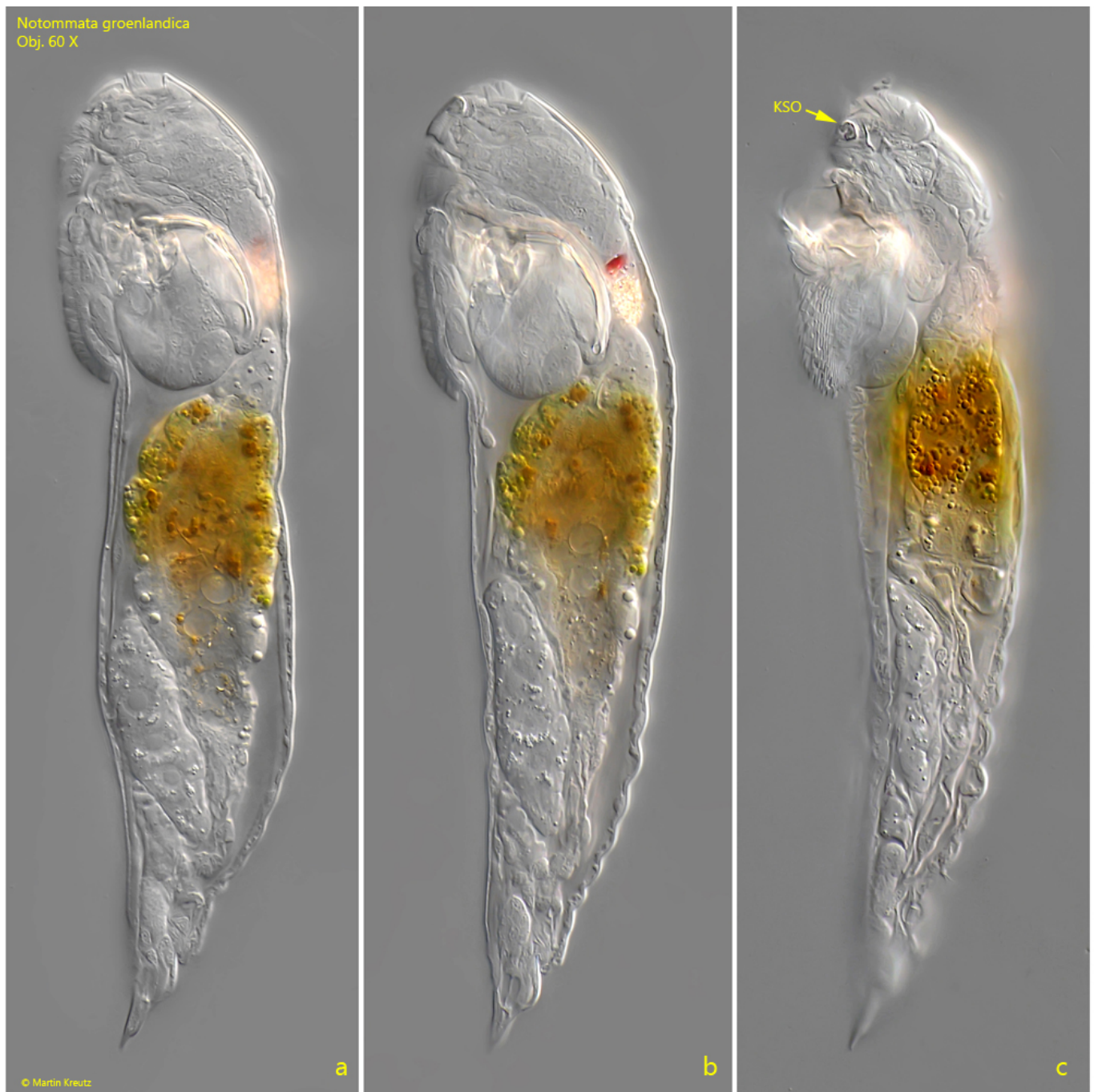


Fig. 2 a-c: *Notommata groenlandica*. L = 218 μ m. The same specimen as shown in fig. 1 a-d from left. Note the kidney-shaped organ (KSO) near the rostrum. Obj. 60 X.

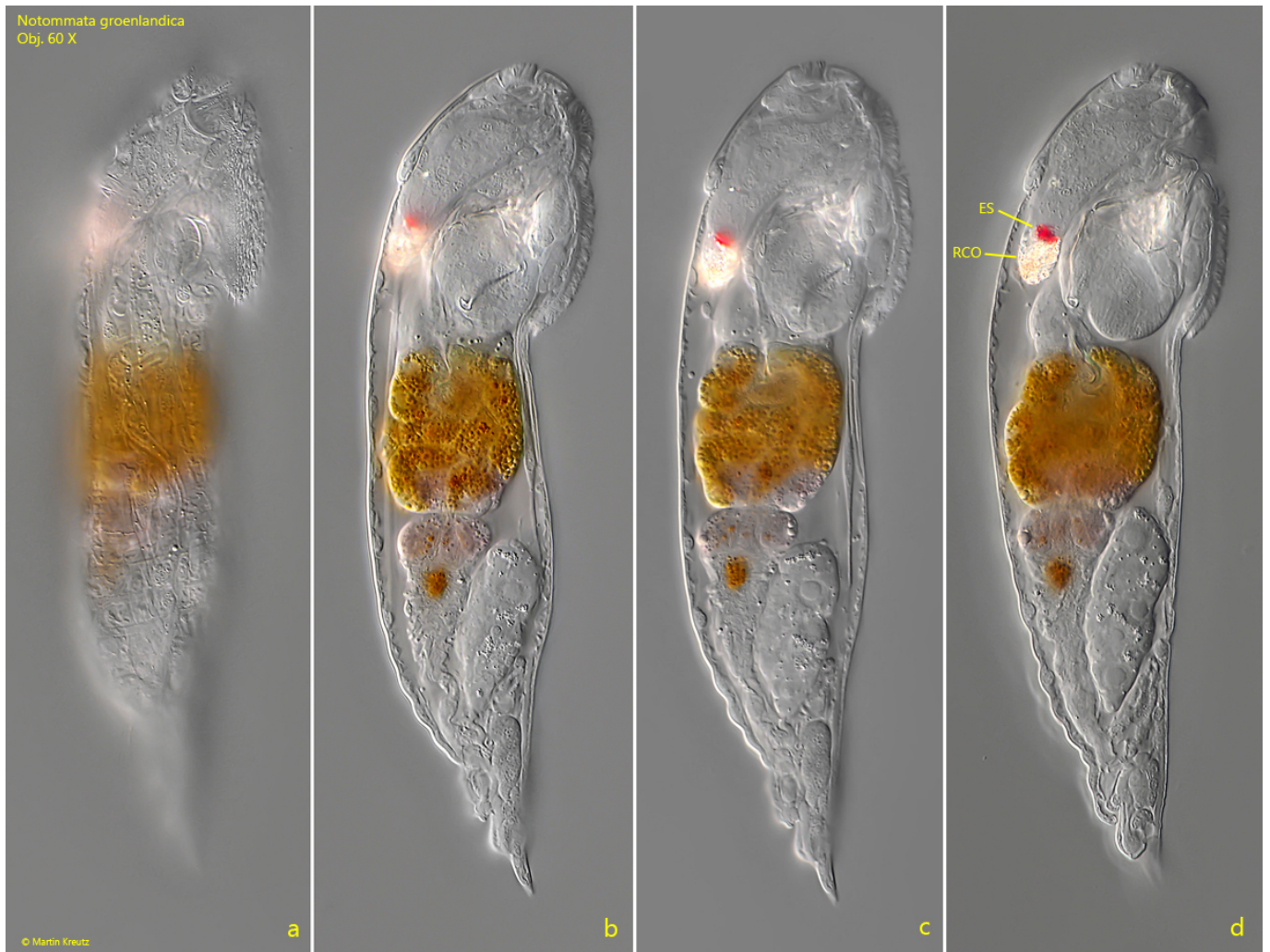


Fig. 3 a-d: *Notommata groenlandica*. L = 194 μ m. A second specimen from right found in August 2025 in the [Sima Moor](#). ES = eyespot, RCO = retrocerebral organ. Obj. 60 X.

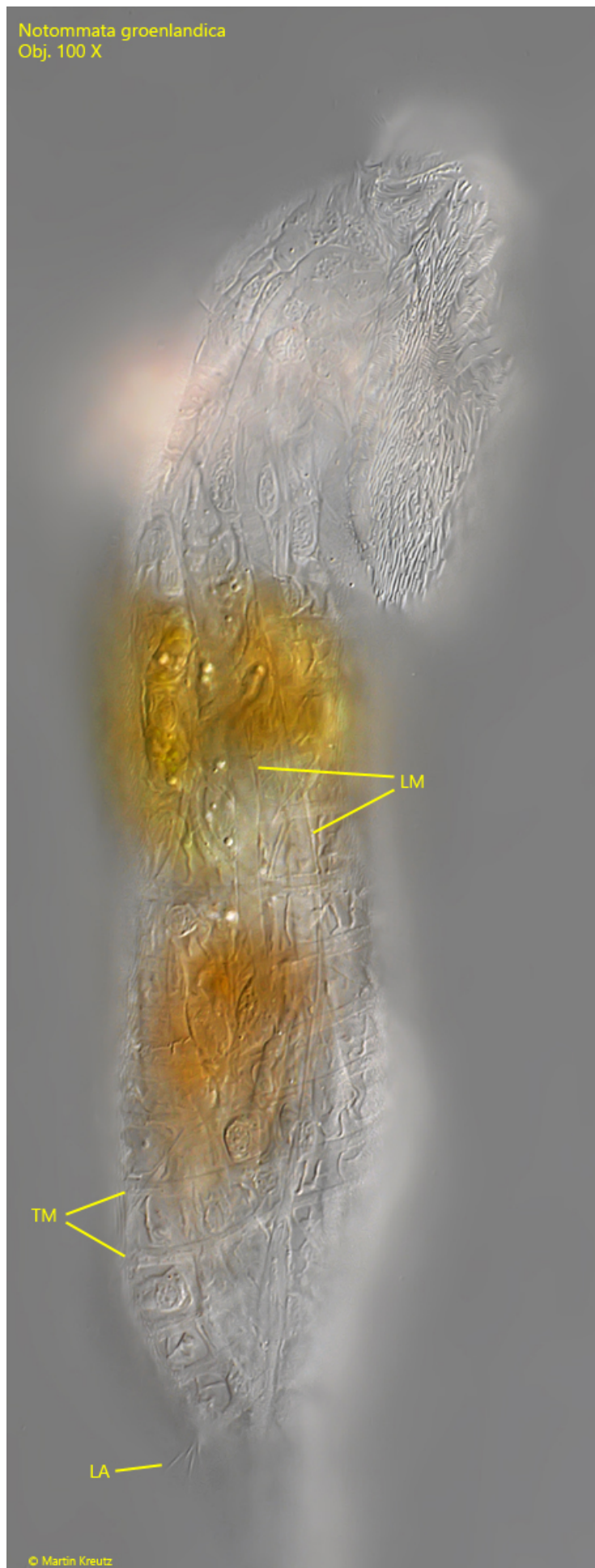
Notommata groenlandica
Obj. 100 X



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Fig. 4: *Notommata groenlandica*. L = 194 μm . The same specimen as shown in fig. 3 a-d in detail. CG = cerebral ganglion, ES = eyespot, GG = gastric gland, Int = intestine, RCO = retrocerebral organ filled with refracting bodies, ST = stomach, Vit = vitellarium. Obj. 100 X.

Notommata groenlandica
Obj. 100 X



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Fig. 5: *Notommata groenlandica*. L = 218 μ m. Focal plane of the mucus beneath the cuticle in a slightly squashed specimen. LA = lateral antenna, LM = longitudinal mucus, TM = transversal mucus. Obj. 100 X.

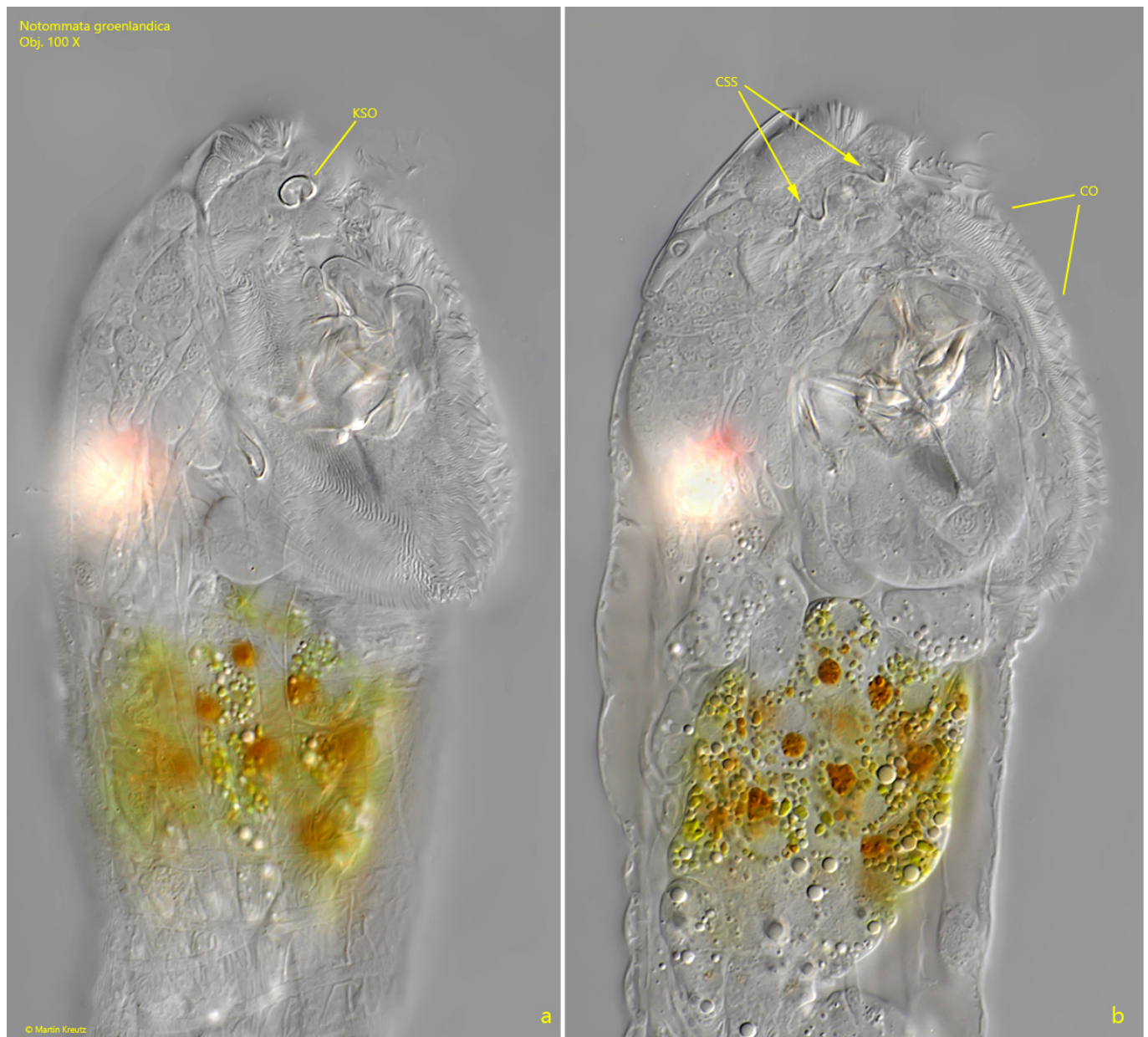


Fig. 6 a-b: *Notommata groenlandica*. Two focal planes on the kidney-shaped organ (KSO) in a squashed specimen. This kidney-shaped organ seems to be connected with a clamp-shaped structure (CSS) beneath the cuticle. CO = corona. Obj. 100 X.



Fig. 7: *Notommata groenlandica*. The esophagus (ES) with a bundle of elongated cilia. Note the orange-brownish color of the body fluid (BF). ST = stomach. Obj. 100 X.



Fig. 8: *Notommata groenlandica*. One of the short, conical shaped toes (TO) in detail. Obj. 100 X.

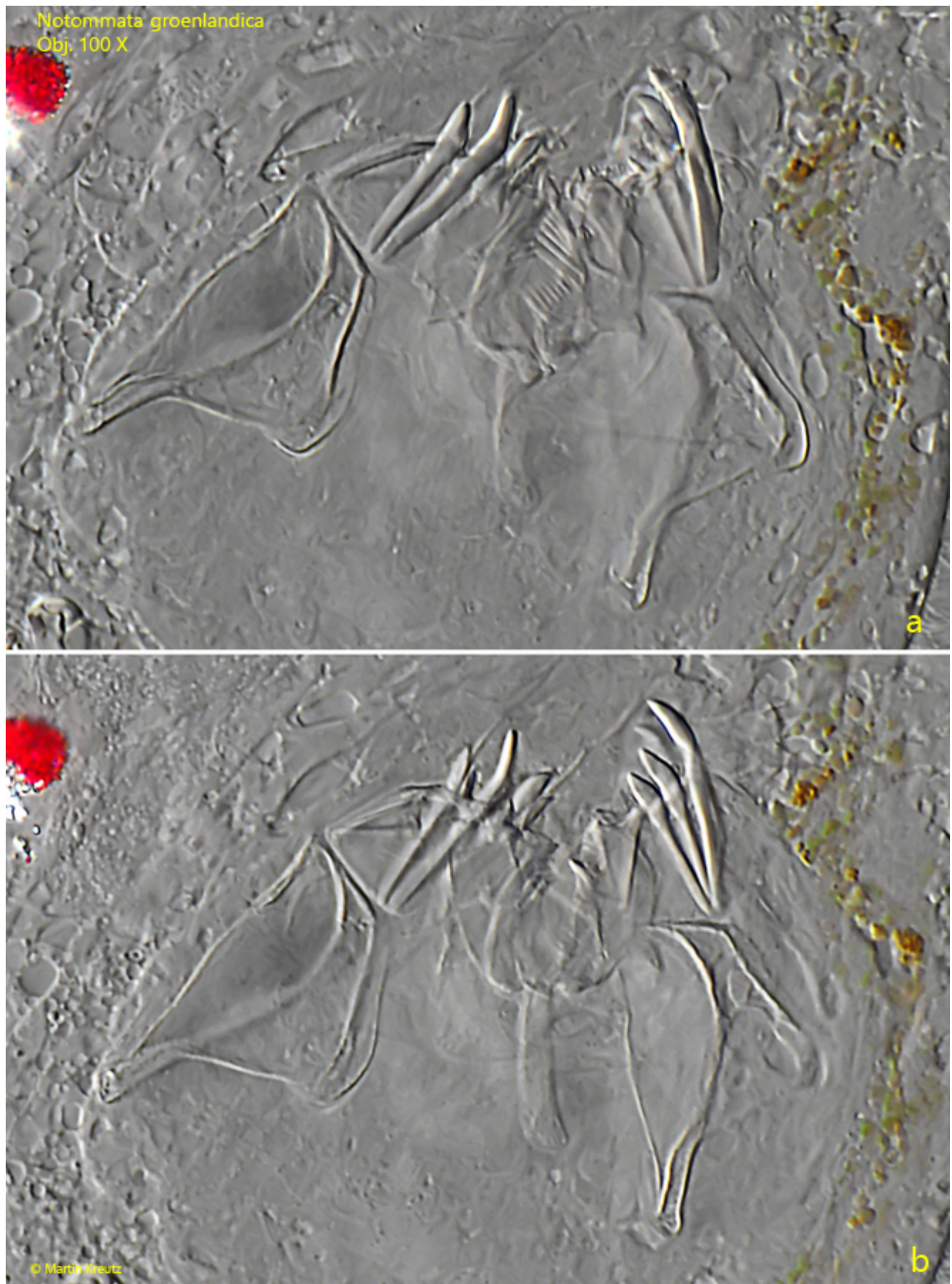


Fig. 9 a-b: *Notommata groenlandica*. Two focal planes of the trophi in a strongly squashed specimen. Obj. 100 X.

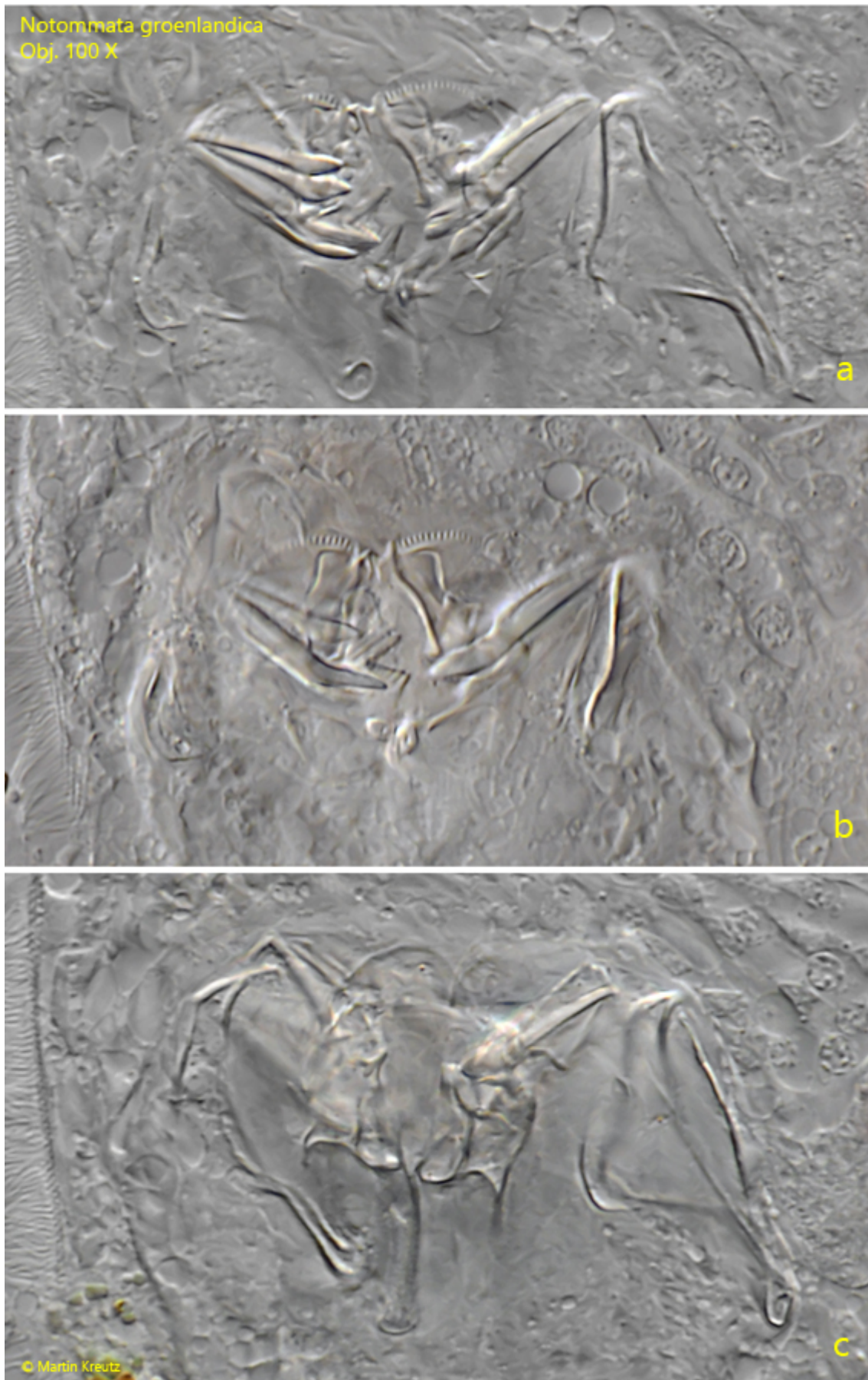


Fig. 10 a-c: *Notommata groenlandica*. Three focal planes of the trophi in a second specimen. Obj. 100 X.