Enteroplea lacustris Ehrenberg, 1830

Most likely ID: n.a.

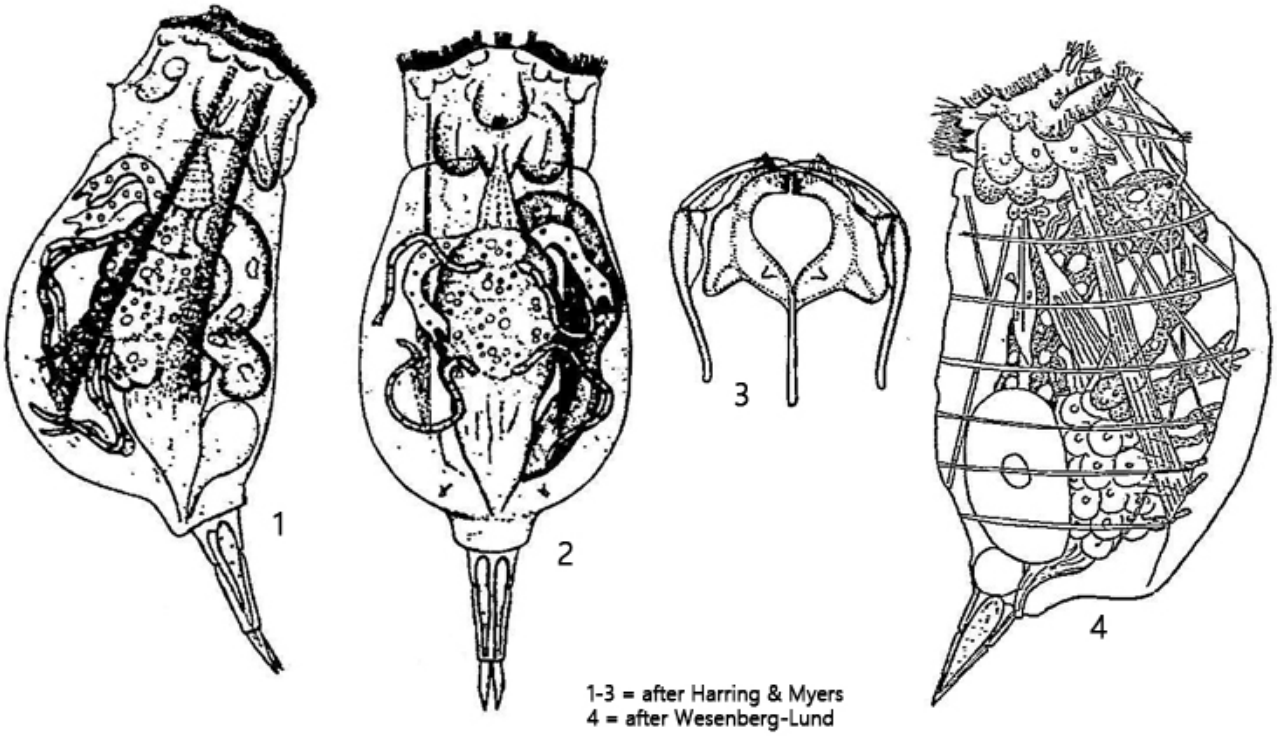
Synonym: n.a.

Sampling location: Suploch (Island Hiddensee)

Phylogenetic tree: *Enteroplea lacustris*

Diagnosis:

- body stout and saccate
- head short and broad
- length 500–600 µm
- two eyespots
- gastric glands long, ribbon-shaped, with bifurcated ends
- stomach with 4 tubular appendages
- foot short, indistinctly two-jointed
- toes short, blade-shaped
- foot glands slender and long



Enteroplea lacustris

So far I have only found *Enteroplea lacustris once*, in a pond called Suploch on the island Hiddensee. The samples contained masses of this rotifer.

Enteroplea lacustris is very large at around 500 µm in length and is immediately noticeable. The specimens swim quickly and are constantly on the move. The body appears very plump and is described as sac-shaped. The cuticle is soft and elastic. The main characteristic of *Enteroplea lacustris* is the unusual structure of the stomach. In addition to the usual pair of gastric glands, it has 4 further tubular appendages, which are easily recognizable even in slightly squashed specimens (s. fig. 4). Their function is not clearly understood, but it is very likely that they are also glands that produce digestive secretions. The two gastric glands are also conspicuous, as they are not spherical or ellipsoidal in shape, as in most other rotifers, but are flattened and ribbon-shaped. They are also bifurcated at the distal end, similar to the tongue of a snake. This can be clearly seen in squashed specimens (s. fig. 5).

More images and information on *Enteroplea lacustris*: Michael Plewka-Freshwater life-*Enteroplea lacustris*

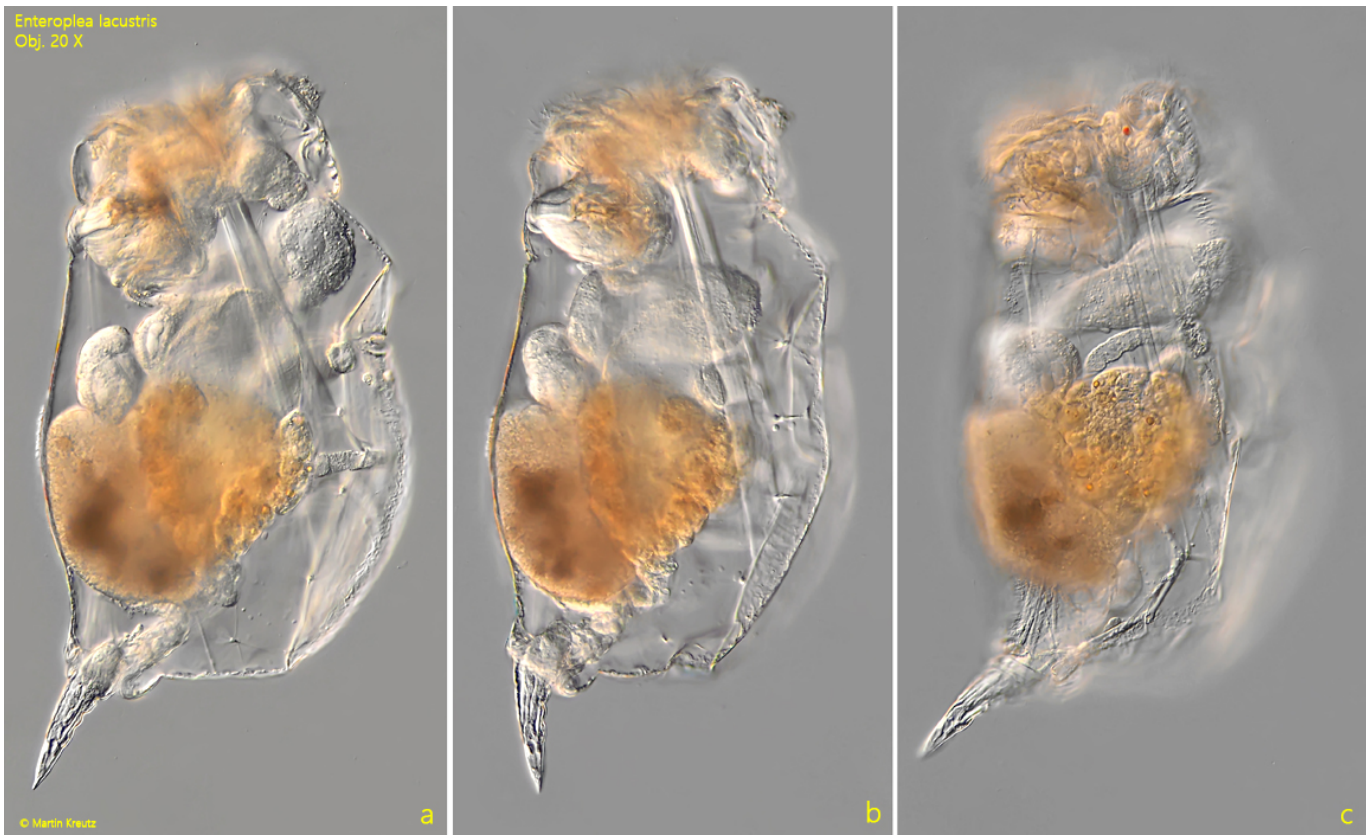


Fig. 1 a-c: *Enteroplea lacustris*. L = 495 µm. A freely swimming specimen from left. Obj. 20 X.



Fig. 2: *Enteroplea lacustris*. L = 511 µm. A freely swimming specimen from dorsal. Obj. 20 X.


Enteroplea lacustris
Obj. 40 X
RM
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Fig. 3: *Enteroplea lacustris*. The bundle of retracting muscles (RM). Obj. 40 X.

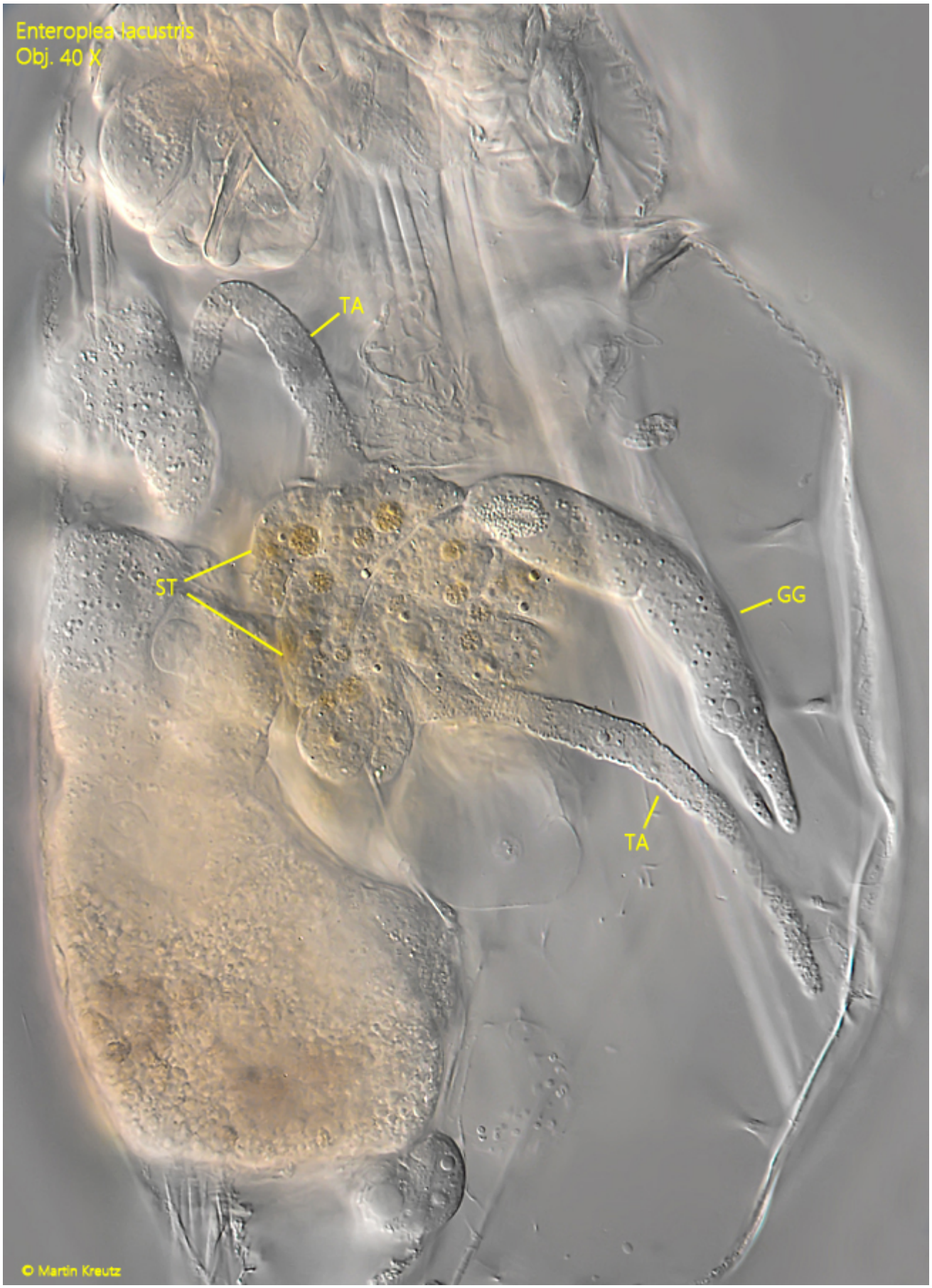

Fig. 4: *Enteroplea lacustris*. The stomach (ST) with two of the four tubular appendages (TA) and one of the two gastric glands (GG). Obj. 40 X.



Fig. 5: *Enteroplea lacustris*. The two gastric glands (GG 1, GG 2) with bifurcated

distal ends (arrows). ST = stomach, TA = tubular appendages. Obj. 100 X.

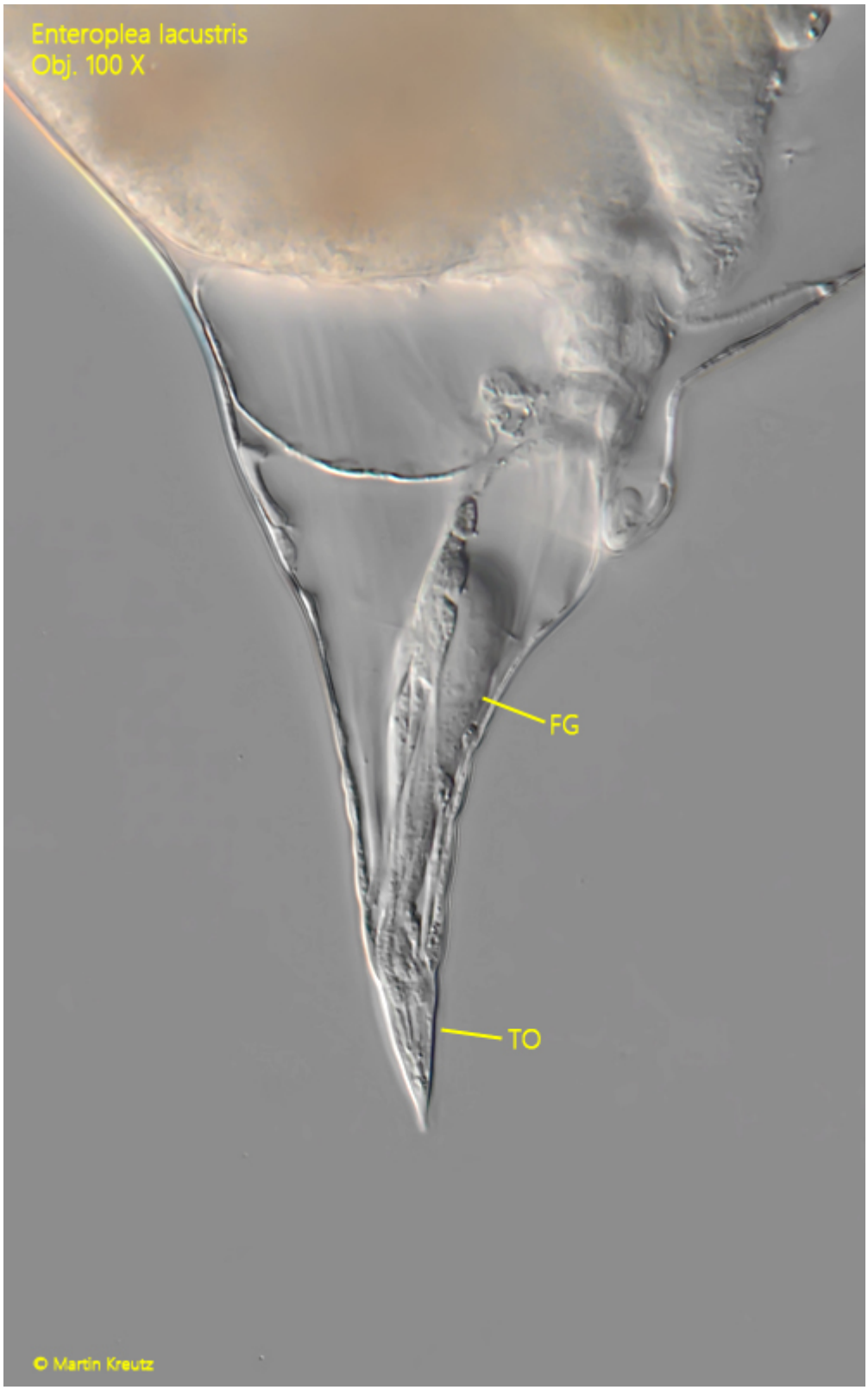

Fig. 6: *Enteroplea lacustris*. The foot with toes (TO) and the slender foot glands (FG). Obj. 100 X.

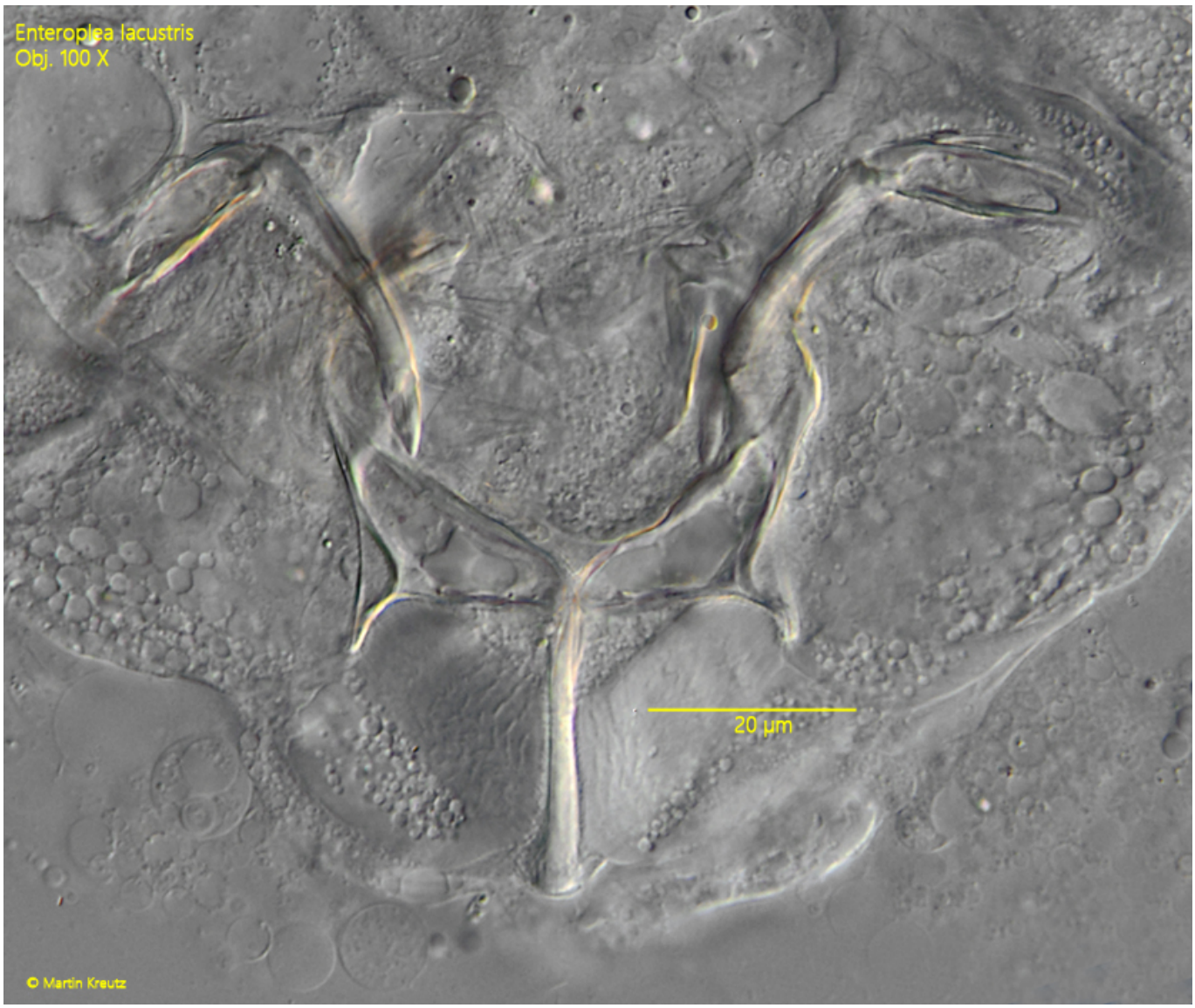

Fig. 7: *Enteroplea lacustris*. The trophi in a strongly squashed specimen. Obj. 100 X.