

## ***Tetrasiphon hydrocora* Ehrenberg, 1840**

**Most likely ID:** n.a.

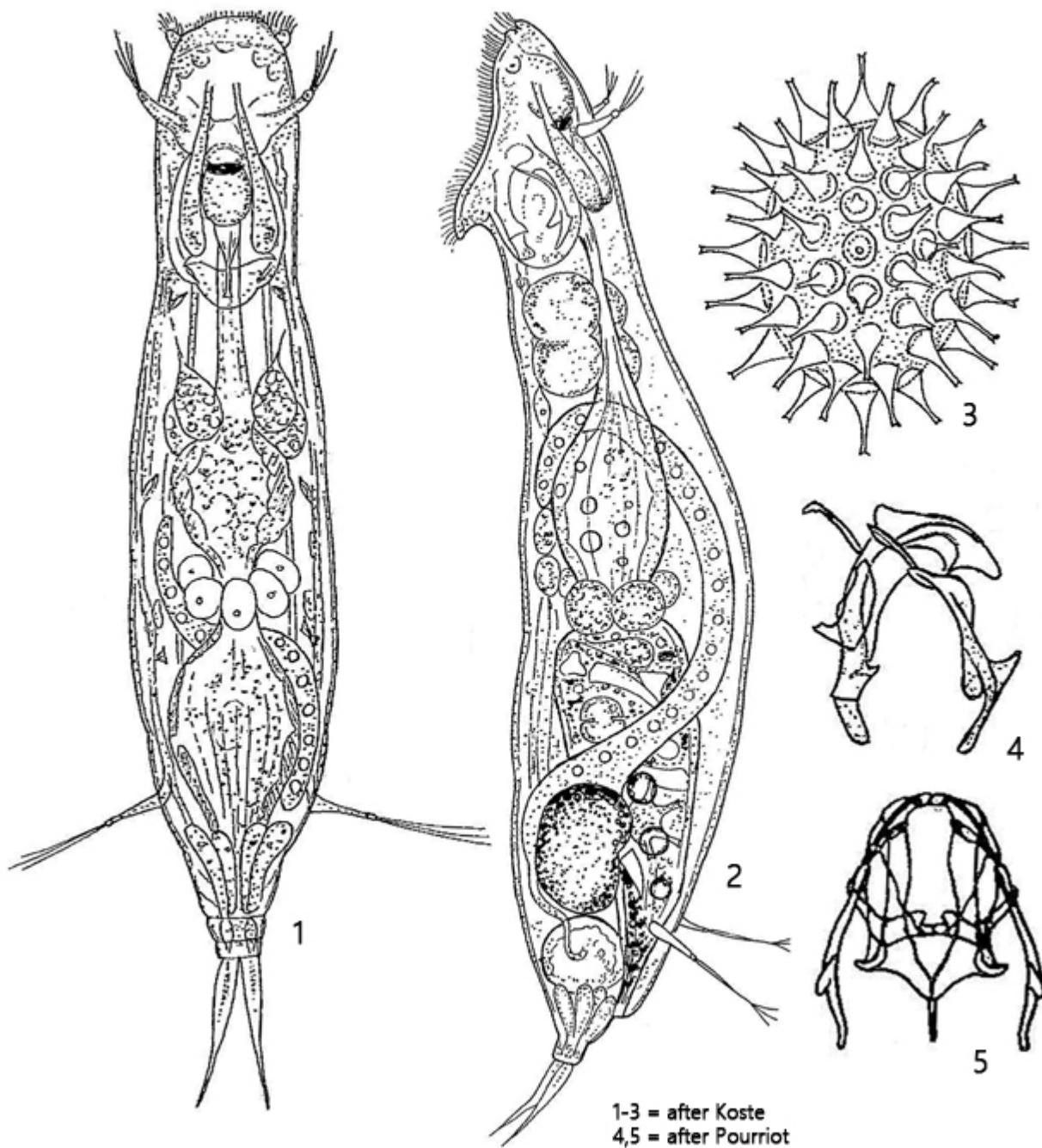
**Synonym:** n.a.

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

**Phylogenetic tree:** [Tetrasiphon hydrocora](#)

**Diagnosis:**

- body fusiform
- length 450-1000 µm
- corona oblique
- retrocrebral organ conspicuous
- two large subcerebral glands with bacterionids
- one eyespot with lens
- gastric glands kidney-shaped or dumbbell-shaped
- vitellarium ribbon-shaped, 20-30 nuclei
- long dorsal antennae
- lateral antennae tentacle-like
- foot short, two-jointed
- slender, pointed toes
- body covered by gelatinous sheath



### Tetrasiphon hydrocora

*Tetrasiphon hydrocora* is described as a rare species. I was able to find *Tetrasiphon hydrocora* only once in June 2025 in the Schwemm, a protected bog area in Austria.

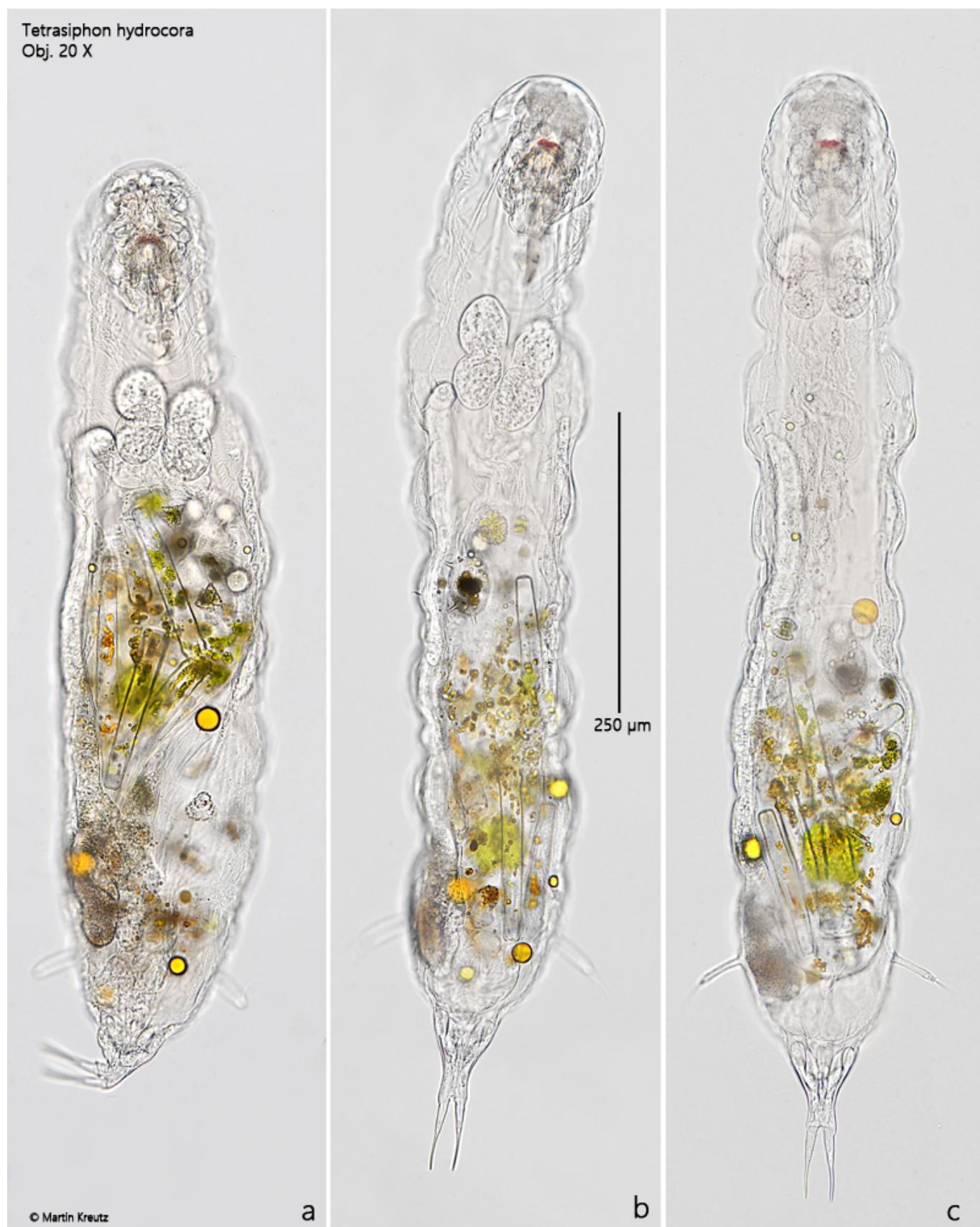
*Tetrasiphon hydrocora* is restricted to sites with a rich flora of desmids, as the species mainly feeds on these algae. Large *Micrasterias* species can also be phagocytized as a whole.

*Tetrasiphon hydrocora* is very large, up to 1 mm in length, and easy to find in the samples. The specimens also crawl or burrow into slimy detritus flakes. The body has a soft cuticle and is very flexible. The specimens move by crawling. I could not observe any free swimming specimens. The lumen in the body appeared slightly yellowish. The long, tubular vitellarium, which takes up about 60-70 % of the body length, is striking (s. figs. 3 and 7). The stomach is large and sac-shaped. In my specimens it contained exclusively desmids. There were often several orange drops of oil on the outer stomach wall (s. fig. 3). The gastric glands are kidney- oder dumbbell-shaped. They lie close together, so that they appear as a pair in the shape of a butterfly (s. fig. 8).

Another striking feature of *Tetrasiphon hydrocora* are the strongly elongated dorsal and lateral antennae. The tactile bristles sit on elongated stalks, in the case of the lateral antennae these are even tentacle-like (s. figs. 5 and 6). There is a cerebral eyespot with a lens, which is plate-shaped. I have found specimens with one lens but also with two lenses (s. fig. 12 a-b). In my population the specimens with two lenses dominated. The body is surrounded by a thick mucous sheath, which appeared finely granular in the DIC (s. fig. 2). Its dimensions can only be recognized by the adhering bacteria.

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

Tetrasiphon hydrocora  
Obj. 20 X



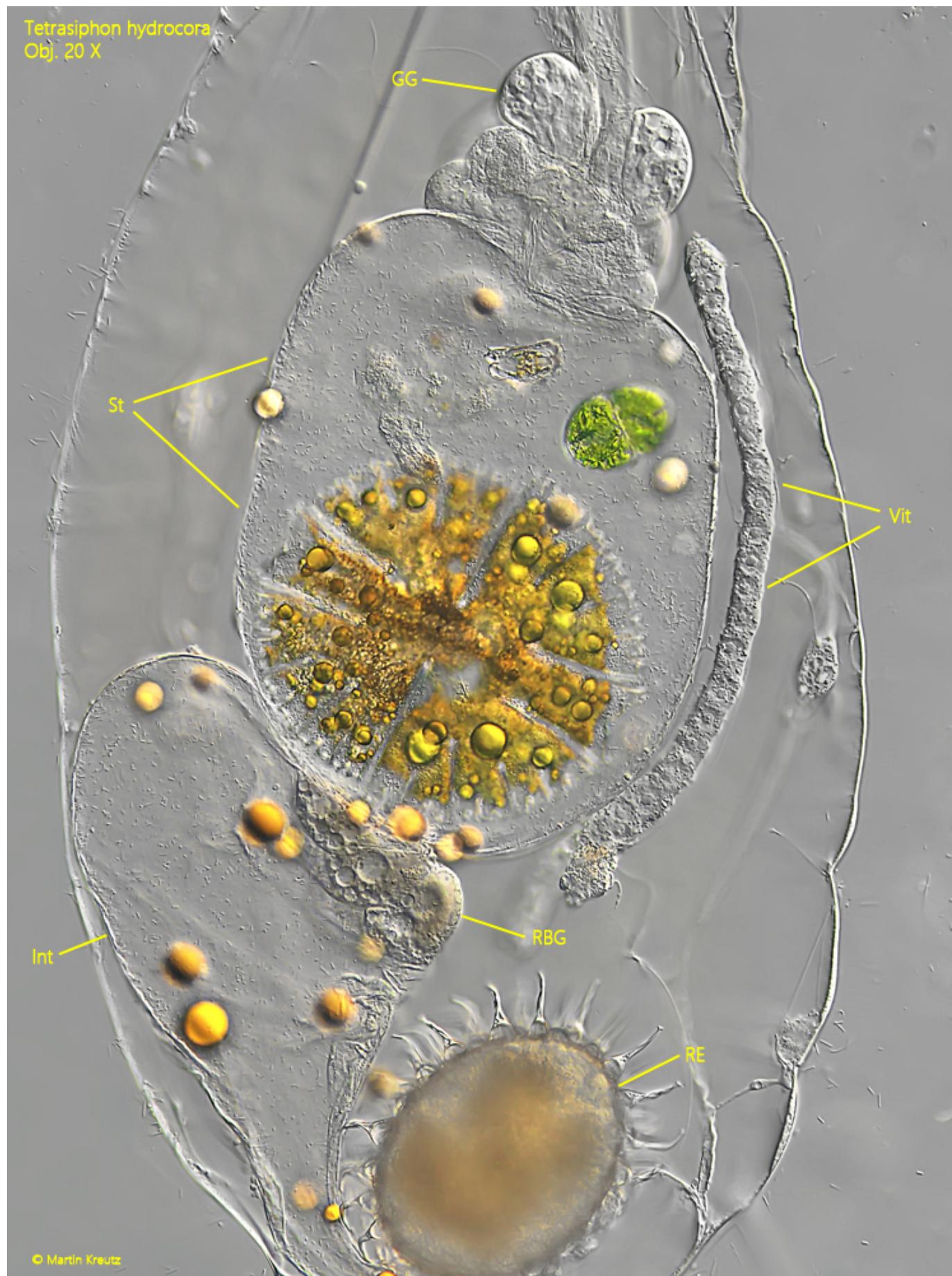
**Fig. 1 a-c:** *Tetrasiphon hydrocora*. L = 960  $\mu$ m. A freely moving specimen from ventral. Obj. 20 X.

Tetrasiphon hydrocora  
Obj. 20 X

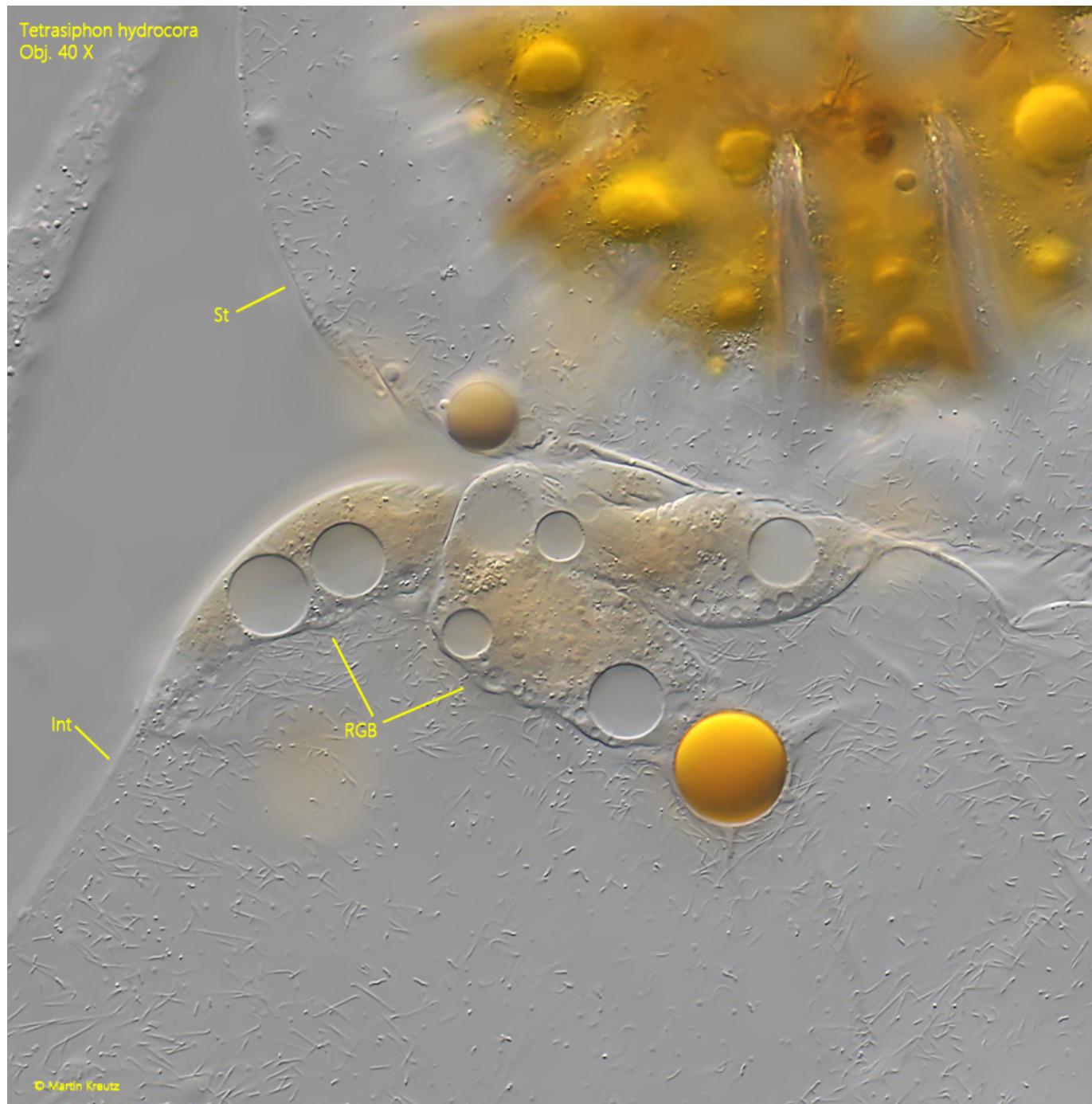


**Fig. 2:** *Tetrasiphon hydrocora*. The gelatinous sheath of this specimen is covered with bacteria. The approximate outline of the sheath is indicated by arrows. Obj. 20

X.

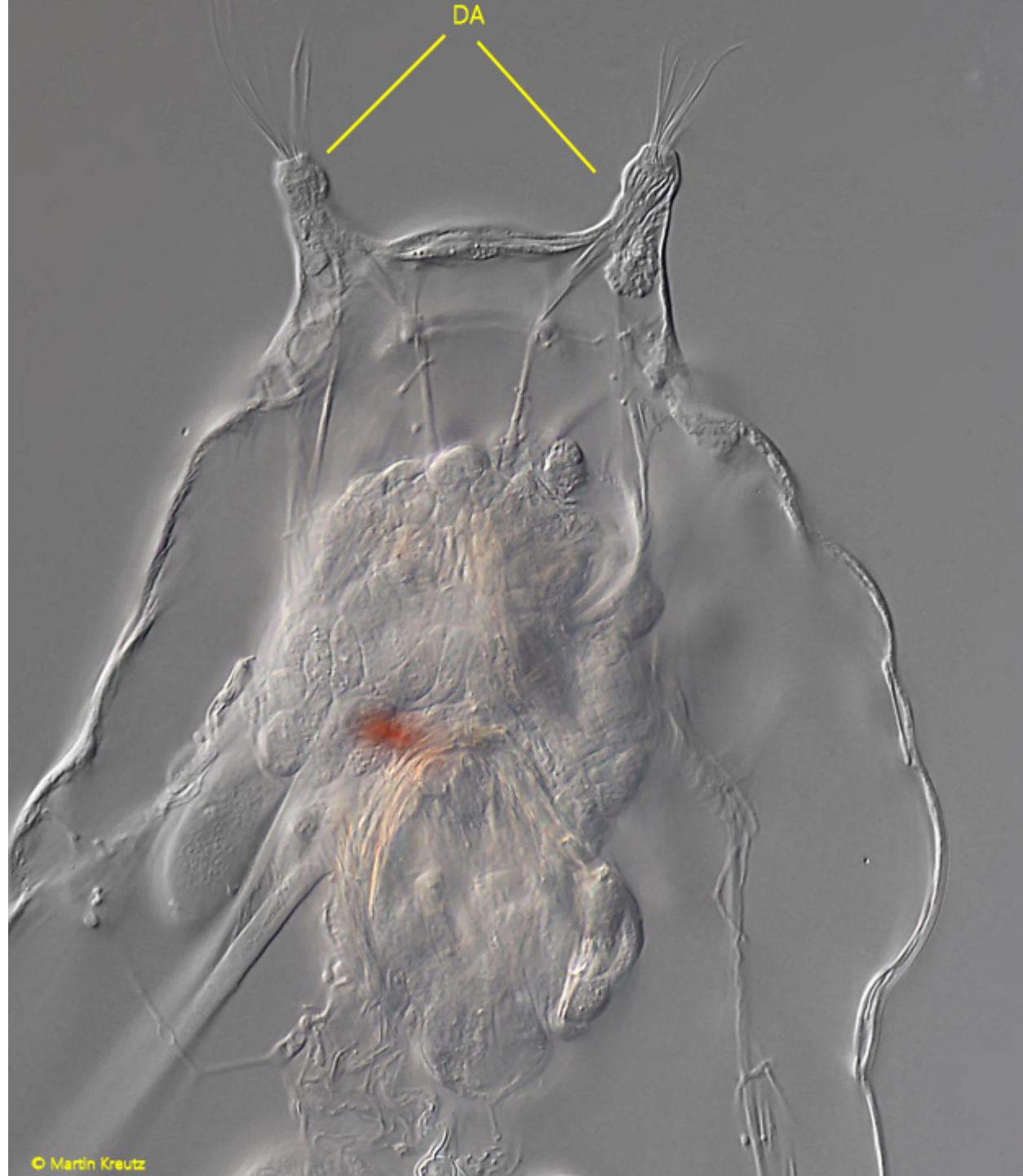


**Fig. 3:** *Tetrasiphon hydrocora*. At the narrow transition between the stomach (St) and the intestine (Int) is a ring of glands located that are brownish in color (RGB). GG = gastric glands, RE = resting egg, Vit = vitellarium. Obj. 20 X.



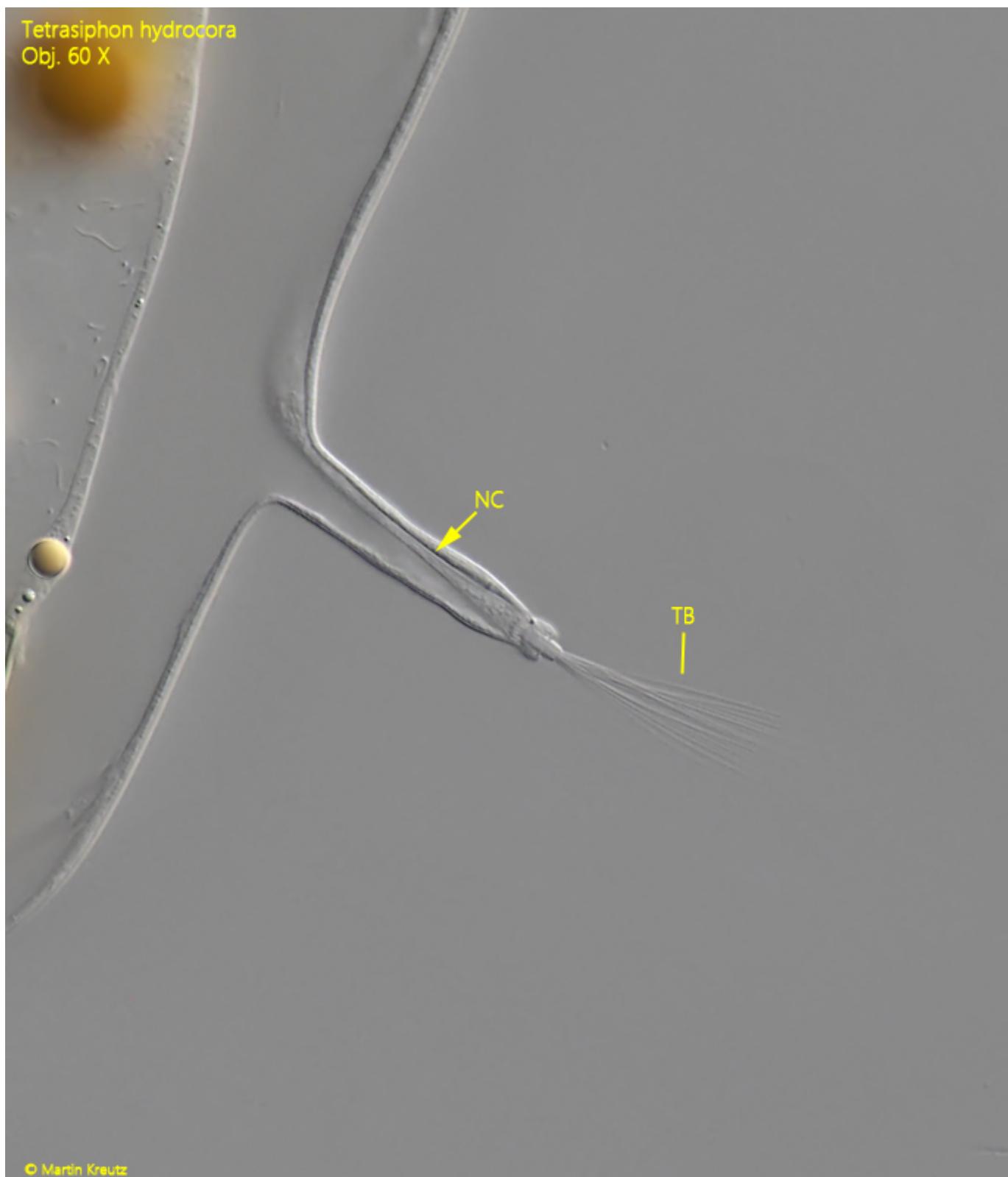
**Fig. 4:** *Tetrasiphon hydrocora*. The ring of brownish colored glands (RGB) located at the transition between the stomach (St) and the intestine (Int) in detail. Obj. 40 X.

*Tetrasiphon hydrocora*  
Obj. 60 X



**Fig. 5:** *Tetrasiphon hydrocora*. The dorsal antennae are elongated and located on the dorsal side of the head. Obj. 60 X.

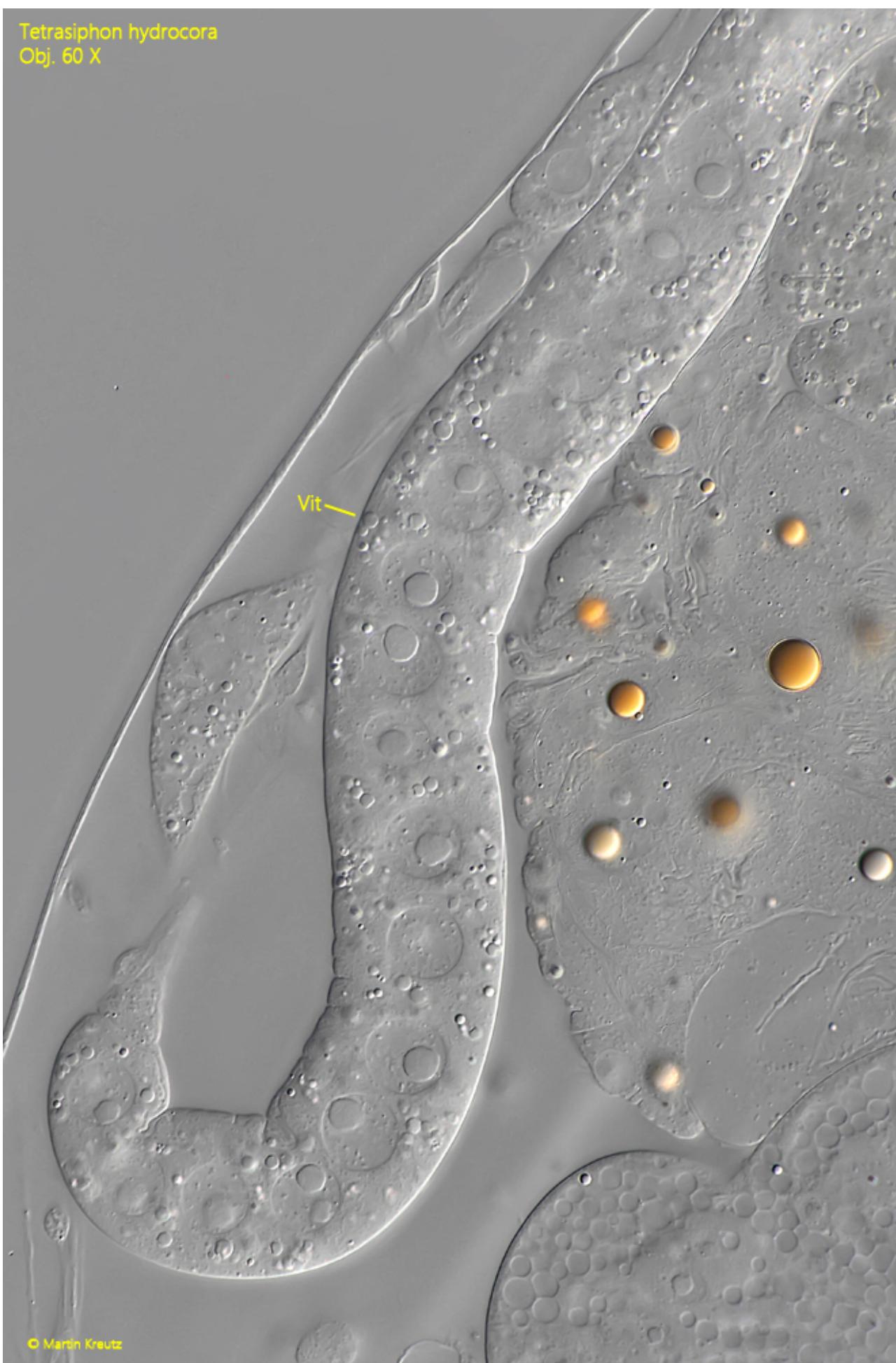
Tetrasiphon hydrocora  
Obj. 60 X



**Fig. 6:** *Tetrasiphon hydrocora*. The lateral antennae are tentacle-like elongated. Note the nerve cell (NC) in the antenna and the tactile bristles (TB). Obj. 60 X.

Tetrasiphon hydrocora  
Obj. 60 X

Vit



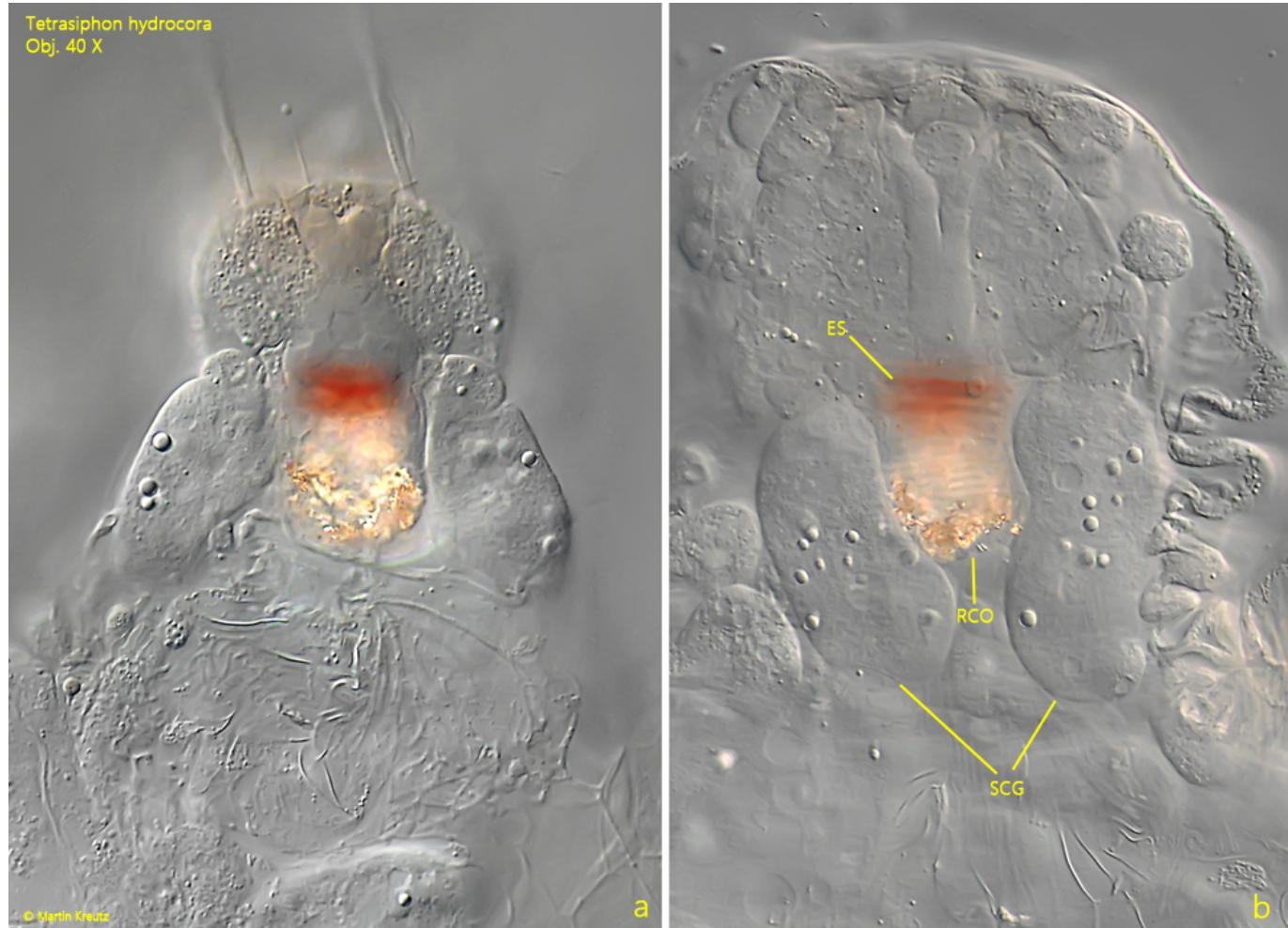
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**Fig. 7:** *Tetrasiphon hydrocora*. The ribbon-shaped vitellarium (Vit) with large nuclei. Obj. 60 X.

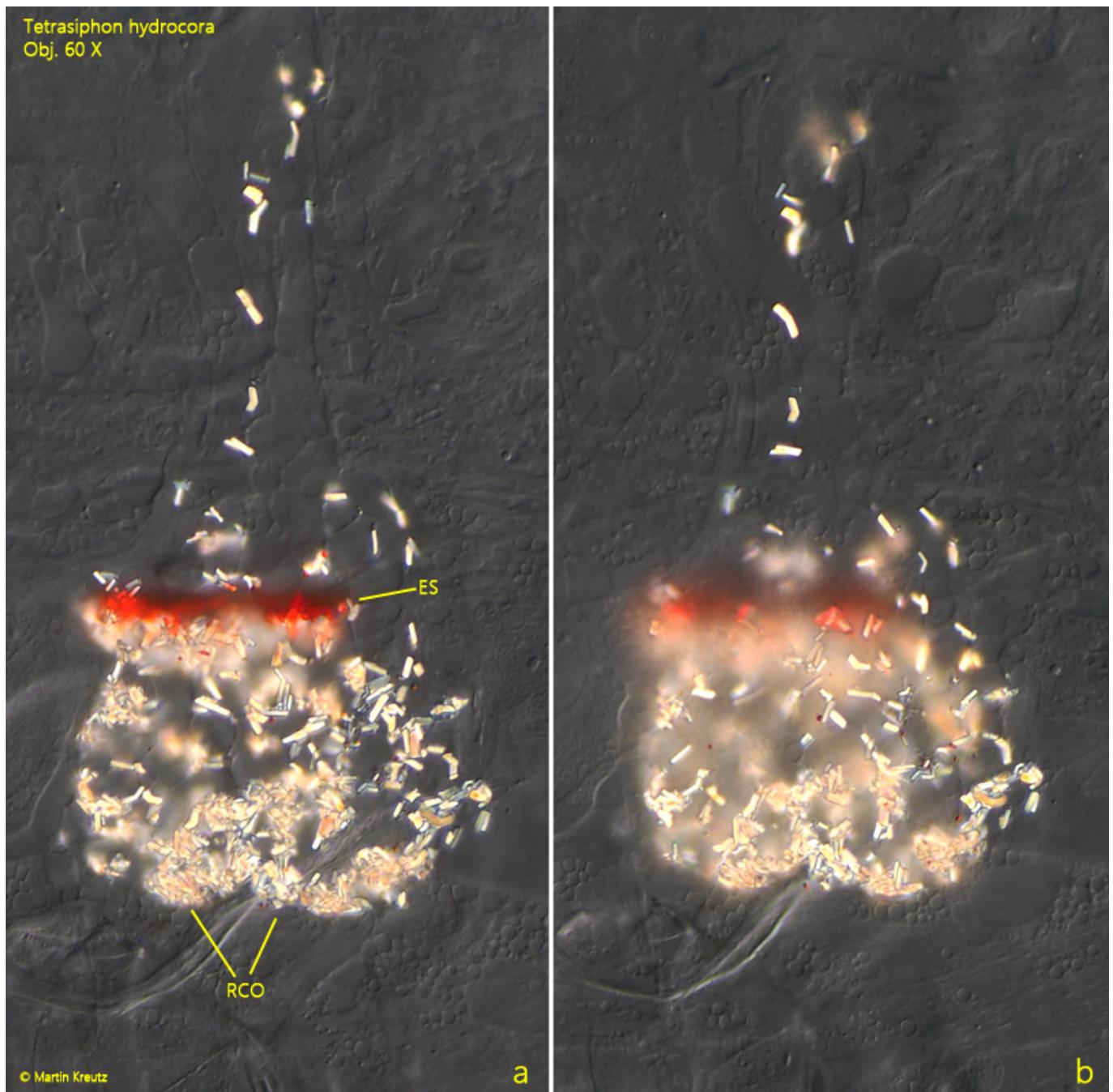


**Fig. 8:** *Tetrasiphon hydrocora*. The gastric glands (GG) of this specimen are dumbbell-shaped and the pair of them are butterfly-shaped. Obj. 60 X.

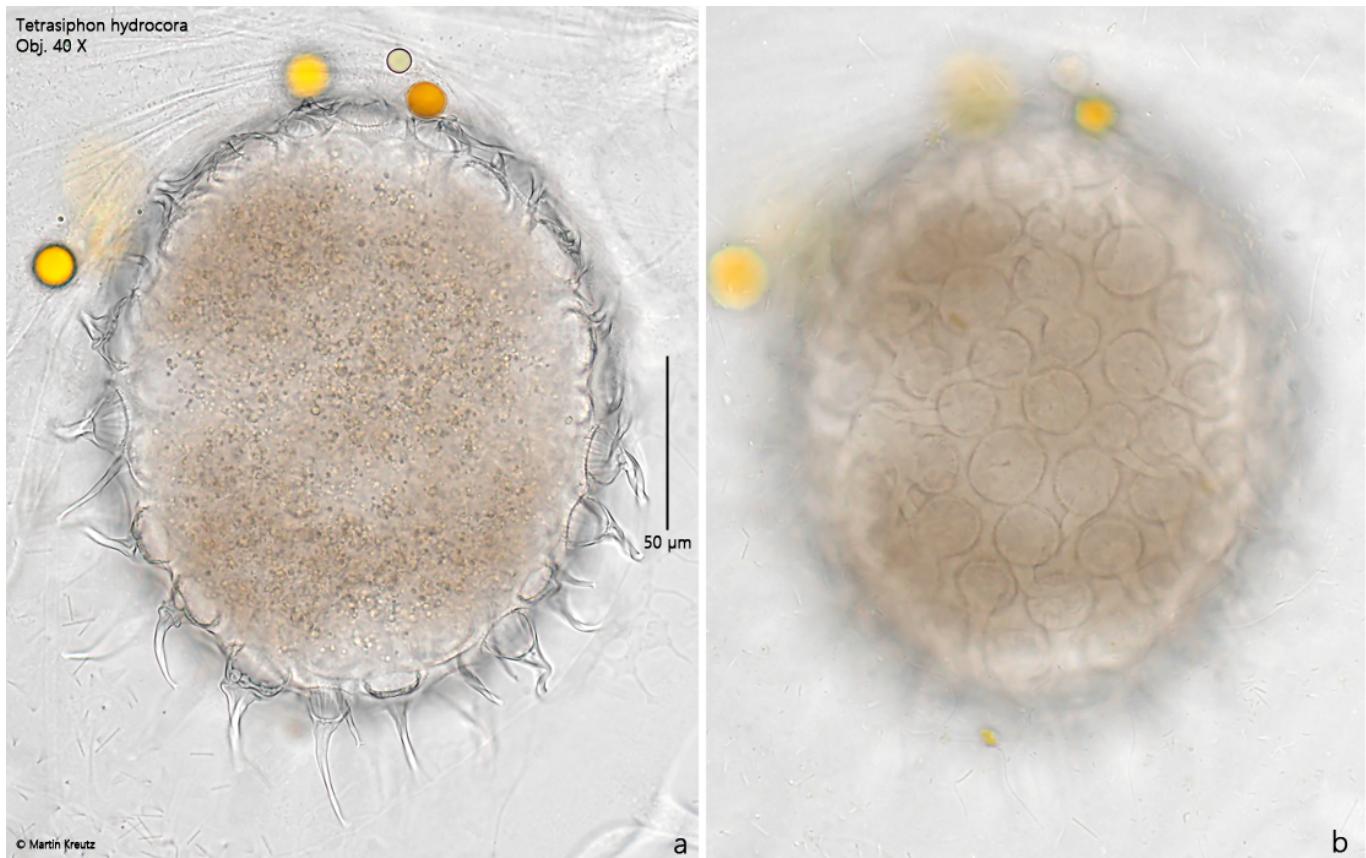
Tetrasiphon hydrocora  
Obj. 40 X



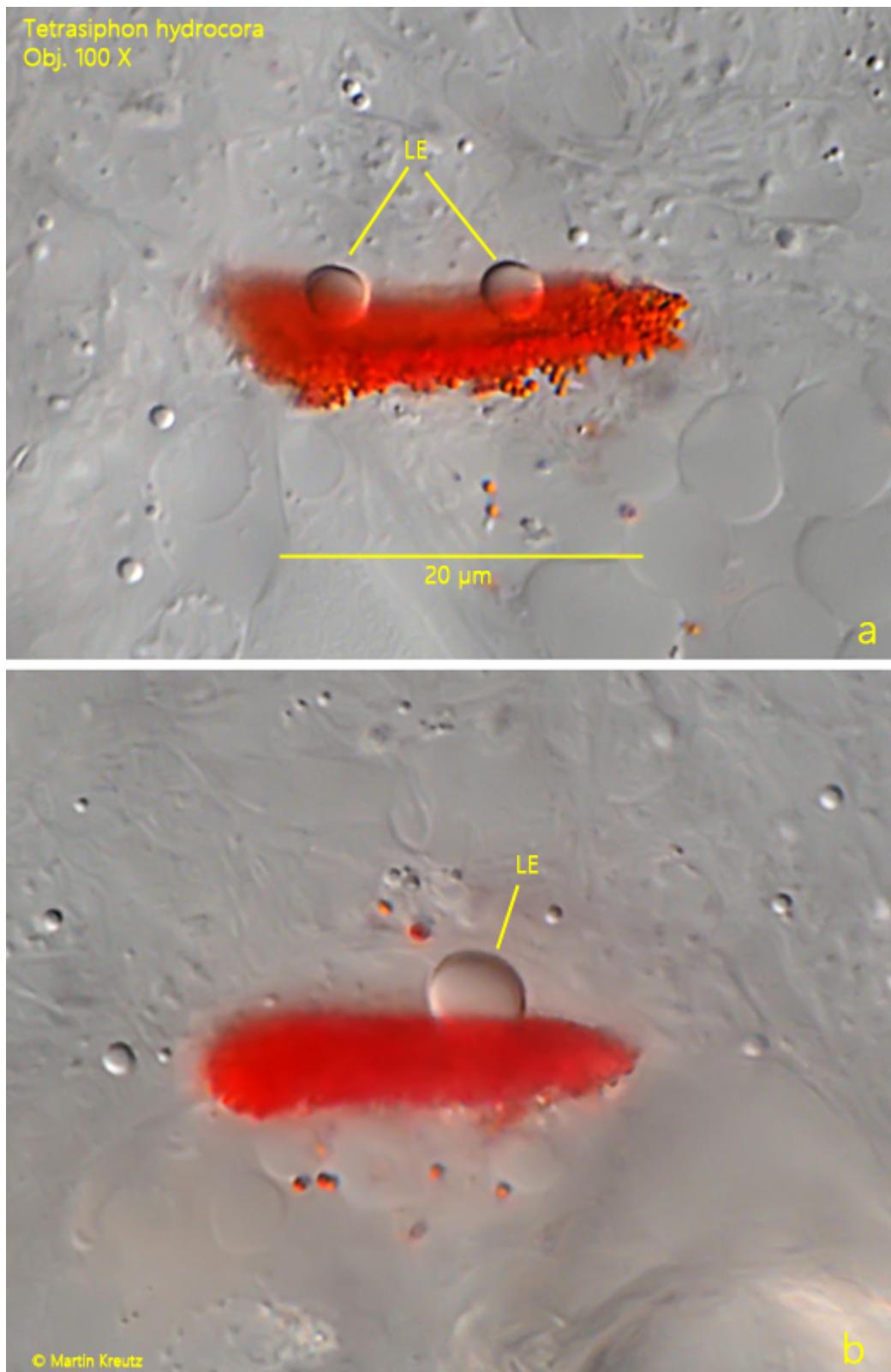
**Fig. 9 a-b:** *Tetrasiphon hydrocora*. Below the eyespot (ES) the pair of sub-cerebral glands (SCG) are visible and the retrocerebral organ (RCO). Obj. 40 X.



**Fig. 10 a-b:** *Tetrasiphon hydrocora*. Two focal planes of the retrocerebral organ (RCO) below the eyespot (ES). The retrocerebral organ is filled with birefringent crystals, which light up brightly in the DIC. Obj. 60 X.



**Fig. 11 a-b:** *Tetrasiphon hydrocora*. Two focal planes of a resting egg (RE). The eggs are covered with spines, which have a circular base (b). The spines end in a very fine double point at the distal end. Obj. 40 X.



**Fig. 12 a-b:** *Tetrasiphon hydrocora*. The eyespot can have two (a) or only one (b) lenses (LE). Obj. 100 X.

Tetrasiphon hydrocora  
Obj. 100 X

50  $\mu$ m

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**Fig. 13:** *Tetrasiphon hydrocora*. The complex structure of the trophi in a strongly squashed specimen. Obj. 100 X.