

after Koste

Albertia naidis

The rotifer *Albertia naidis* is an endoparasite living in the intestine of the Oligochaetes *Nais spec.* and *Stylaria lacustris*. With the pincer-like trophi *Albertia naidis* grasps the papillae of the epithelial cells in the intestinal wall to avoid being flushed out (s. figs. 2 and 4). In the lumen of the intestine, *Albertia naidis* feeds on the epithelial cells (Coineau & Kunst, 1964) and not on the ingested food of the Oligochaetes, which passes through the intestine.

I have found *Albertia naidis* in old samples from the [Simmelried](#), in which a high population of *Nais spec.* was present. In the free-moving Oligochaetes, *Albertia naidis* is difficult to detect because the intestine is often opaque due to ingested food and is also yellow-brown or red-brown in color due to oil droplets in the intestinal wall. Only in the slightly squashed specimens can the worm-like endoparasites be seen (s. fig. 1). In total I could find 4 specimens of *Nais spec.*,

which were infested by *Albertia naidis*. In their intestines 10 -20 specimens of the parasites were present each.

Albertia naidis forms quite large eggs, about 40-60 µm long, which mature in the posterior end and occupy almost one third of the body length (s. fig. 4). The eggs are deposited in the intestinal lumen and then flushed out with the intestinal content (s. fig. 3). Close examination of *Albertia naidis* is not possible until the specimens are flushed out of the intestine by strong pressure (s. fig. 5 a-b). Foot and toes are strongly degenerated. There is only one, conically shaped toe, which is shifted to the ventral side (s. fig. 6). The head is barely separated from the rest of the body. In my population, the specimens of *Albertia naidis* were 120-140 µm long, which is about in the middle of the range of 94-350 µm given by Koste (1978).

I did not observe *Albertia naidis* causing lasting damage to its host. Infested specimens of *Nais* spec. were agile and also not smaller than non-infested specimens.

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

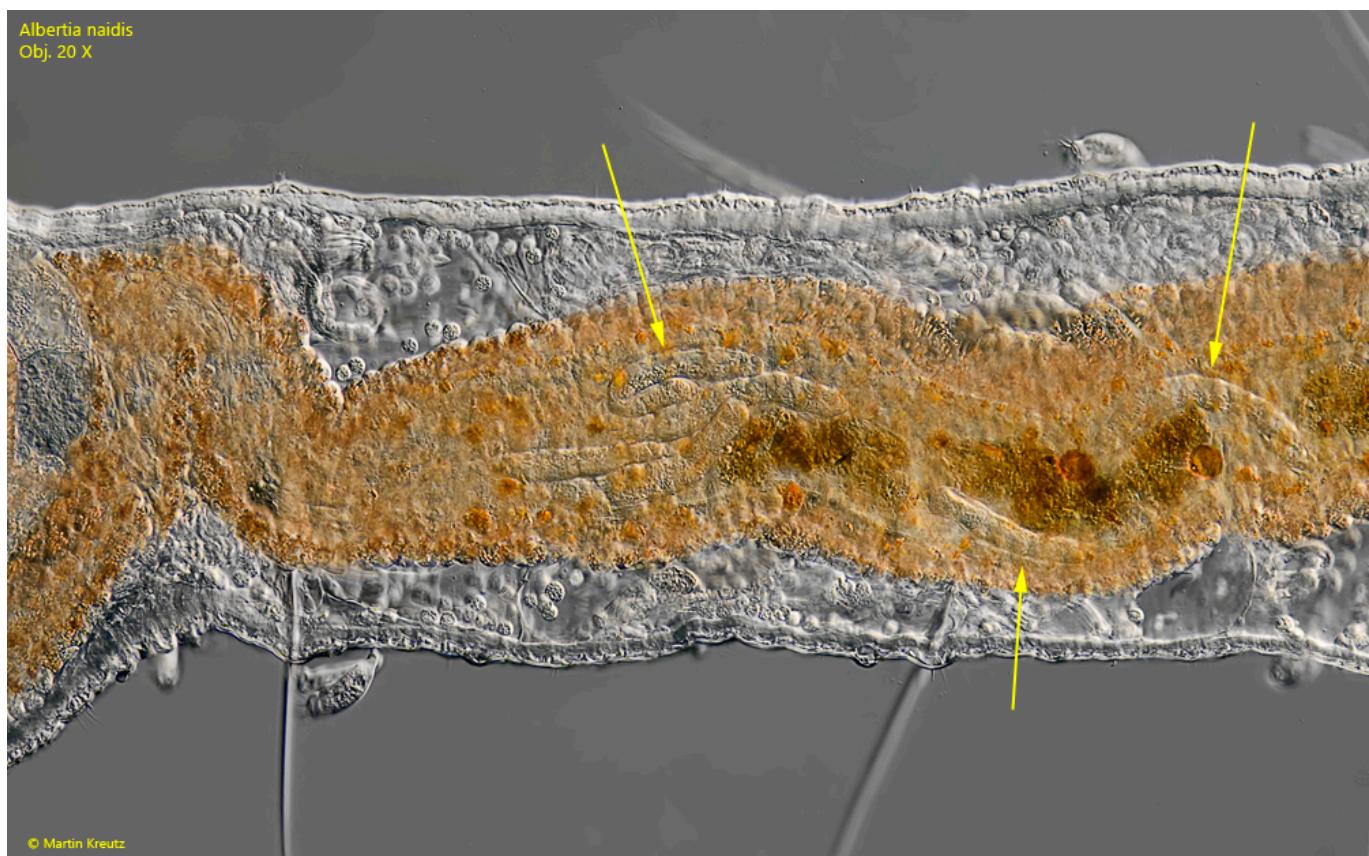


Fig. 1: *Albertia naidis*. Some specimens in the intestine of *Nais spec.* (arrows). Obj. 20 X.



Fig. 2: *Albertia naidis*. L = 164 μ m. A specimen is feeding on the intestinal epithelium of *Nais* spec. (arrow). Note the ventrally bent head what is a characteristic feature of this species. Obj. 40 X.



Fig. 3: *Albertia naidis*. L = 168 μ m. Next to the specimen a deposited egg (EG) in the intestine of *Nais* spec. is visible. The egg is 54 μ m long. Obj. 100 X.

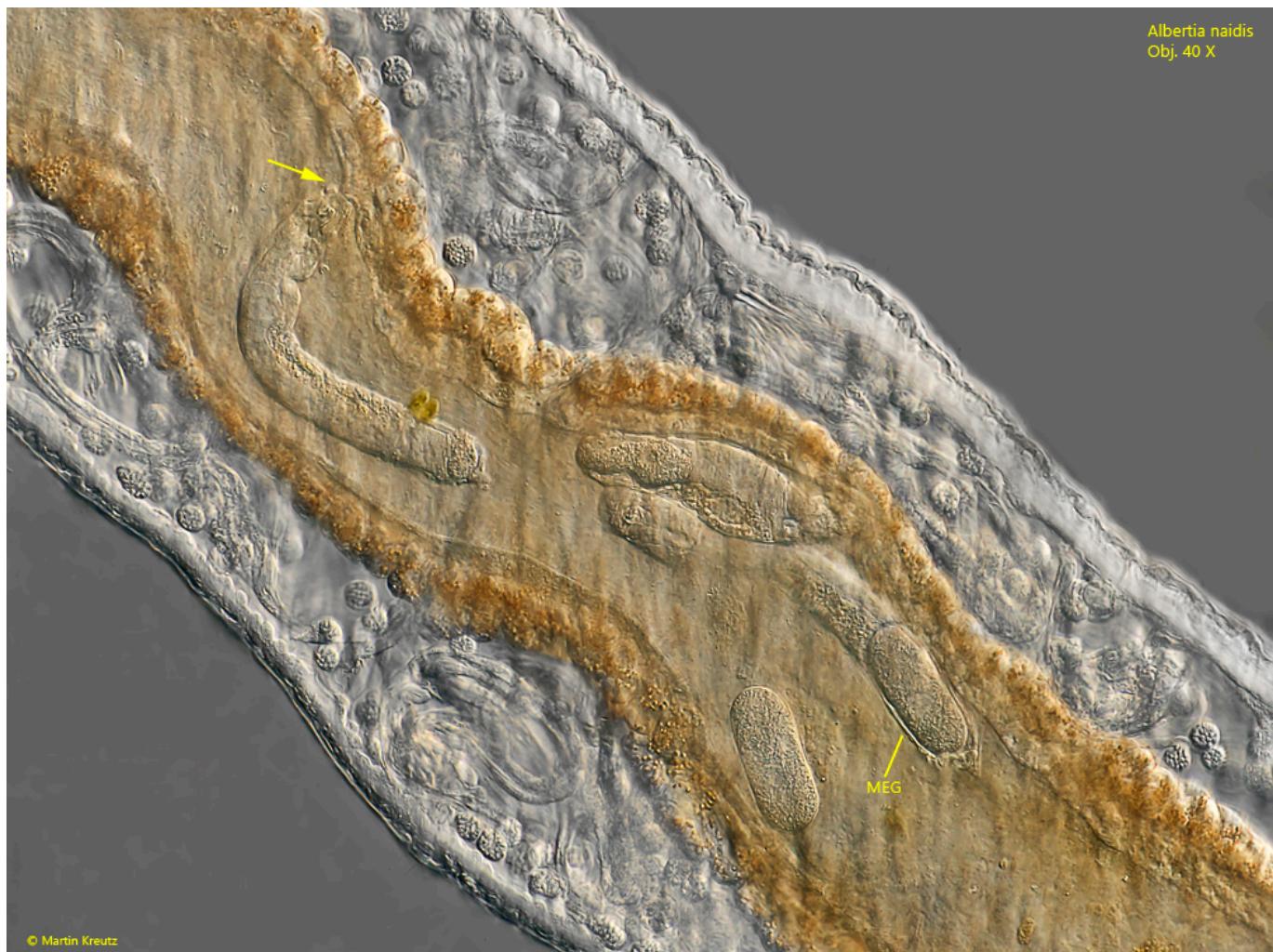


Fig. 4: *Albertia naidis*. A specimen with a mature egg (MEG) in the posterior end of the body. Another specimen is sucking on the intestinal epithelium (arrow). Obj. 40 X.

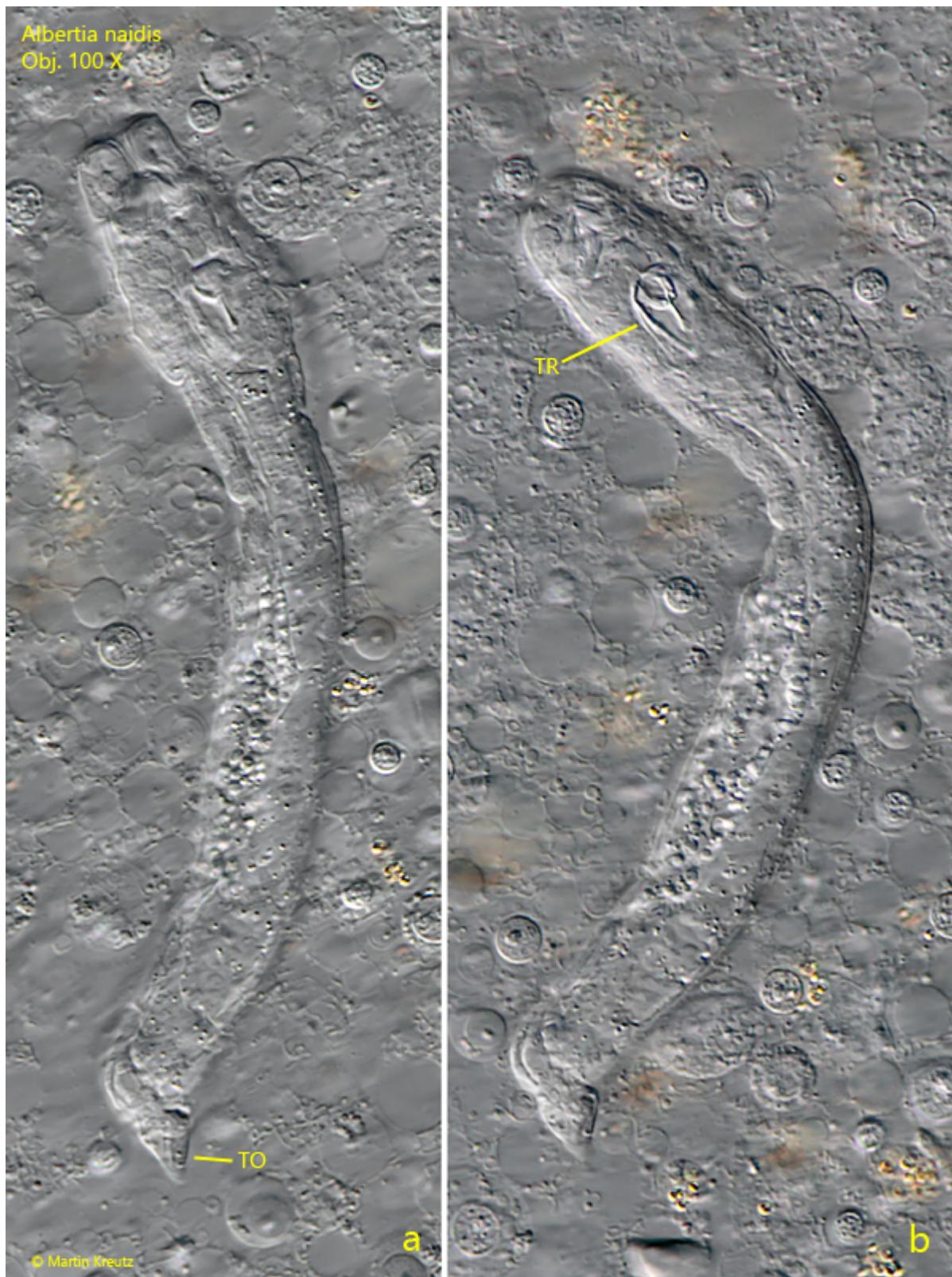


Fig. 5 a-b: *Albertia naidis*. L = 136 μ m. Two focal planes of a specimen flushed out. Note the small, pincer-shaped trophi (TR). TO = toe. Obj. 100 X.



Fig. 6: *Albertia naidis*. The posterior end of a specimen in detail. Note the ventrally shifted toe (TO) and the strongly reduced foot (FT). Vit = vitellarium, St = stomach. Obj. 100 X.