Collotheca ornata var. *cornuta*

Dobie, 1849

Most likely ID: n.a.

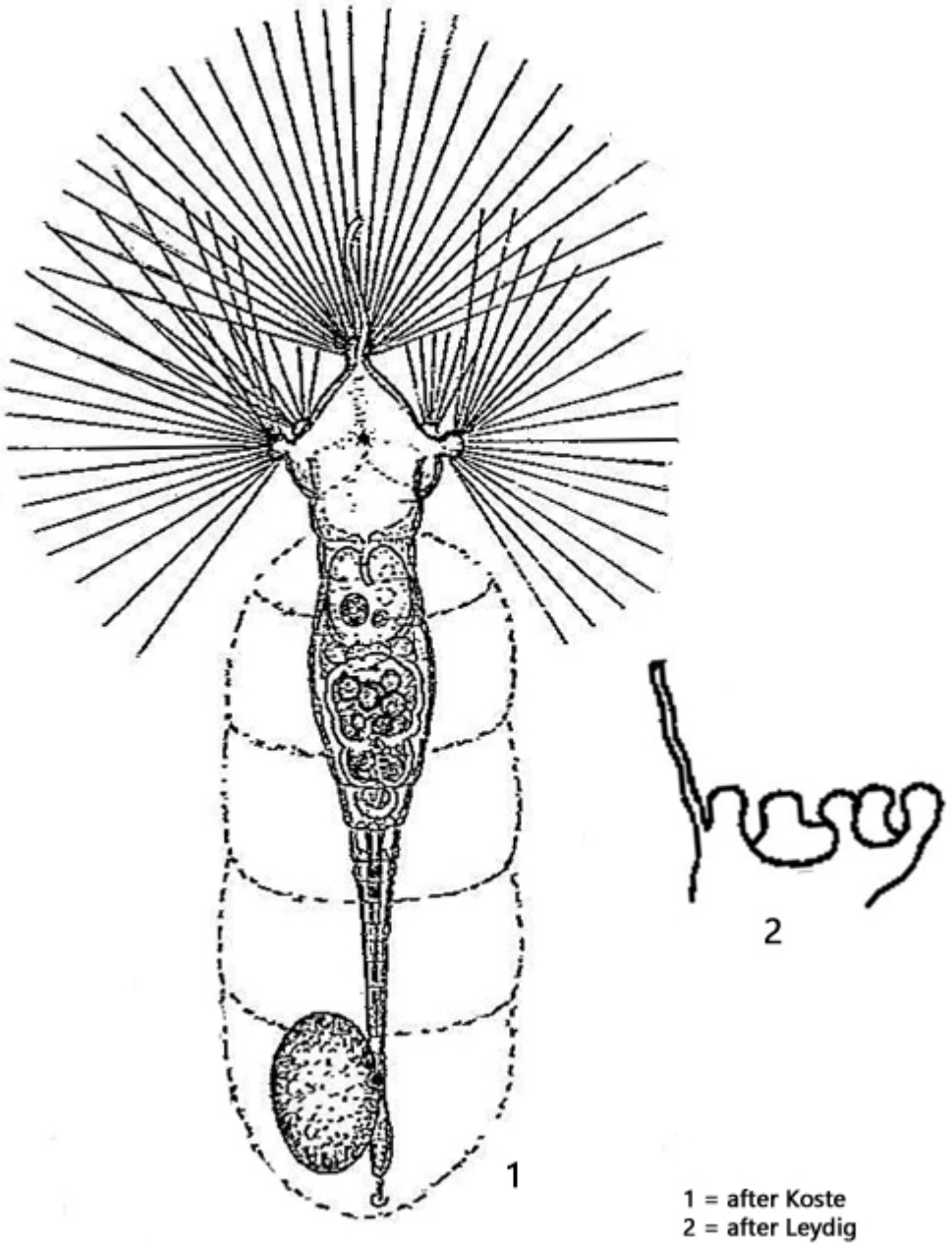
Synonym: n.a.

Sampling location: Simmelried

Phylogenetic tree: *Collotheca ornata* var. *cornuta*

Diagnosis:

- corona bowl-shaped, with five lobes
- lobes with knobs at distal end
- dorsal lobe the longest with a worm-like projection
- interspace between lobes naked
- length 240–650 µm
- with long setae arise from the knobs
- foot slender and long, sometimes thickened distal end
- oval eggs deposited in gelatinous tube
- in a gelatinuous tube
- eyespots absent



Collotheca ornata var. cornuta

So far I have only found *Collotheca ornata* var. *cornuta* in the Simmelried. There the specimens are mainly found in the floating plant masses. In older samples, the specimens also colonize the wall of the sample containers.

Collotheca ornata var. *cornuta* has 5 lobes, which are thickened like buttons at the distal end. This is where the 80-120 µm long, completely straight cilia emerge, which form the catching apparatus for prey. The species differs from the parent form *Collotheca conuta* by a worm-like projection located on the dorsal, longest lobe (s. figs. 1 b and 4). Its function is unknown. In my population, this projection varied in length in the specimens. Sometimes the projections were only short and stump-shaped.

Collotheca ornata var. *cornuta* lives in a self-constructed, gelatinous tube. This is very transparent and can often only be recognized by the adhering bacteria or detritus particles (s. fig. 3 a.b). The oval, smooth eggs, which are slightly brownish, are deposited in the tube. The larvae that hatch from the eggs are completely different in appearance from the adults. They are worm-shaped with an apical fringe of cilia and two distinct eye spots (s. fig. 7 a-b). After the juvenile specimens have found a suitable place, they settle down and begin to build the gelatinous tube. As the young animals grow, the eyespots are then broken down and are no longer present in the adult animals.

More images and information on *Collotheca ornata* var. *cornuta*: Michael Plewka-Freshwater life-*Collotheca ornata* var. *cornuta*

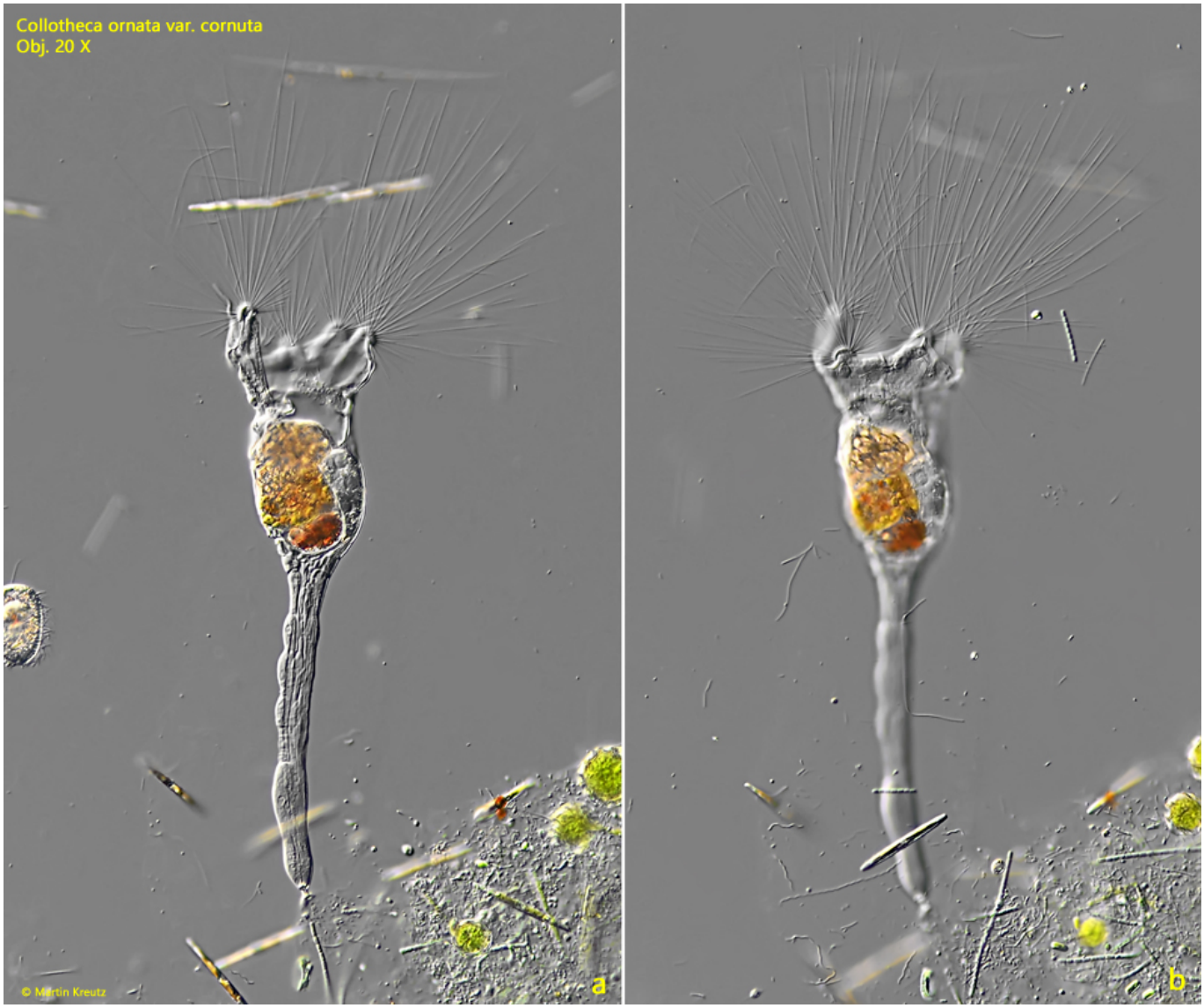


Fig. 1 a-b: *Collotheca ornata* var. *cornuta*. L = 278 µm. Two focal planes of a fully

extended specimen. Obj. 20 X.

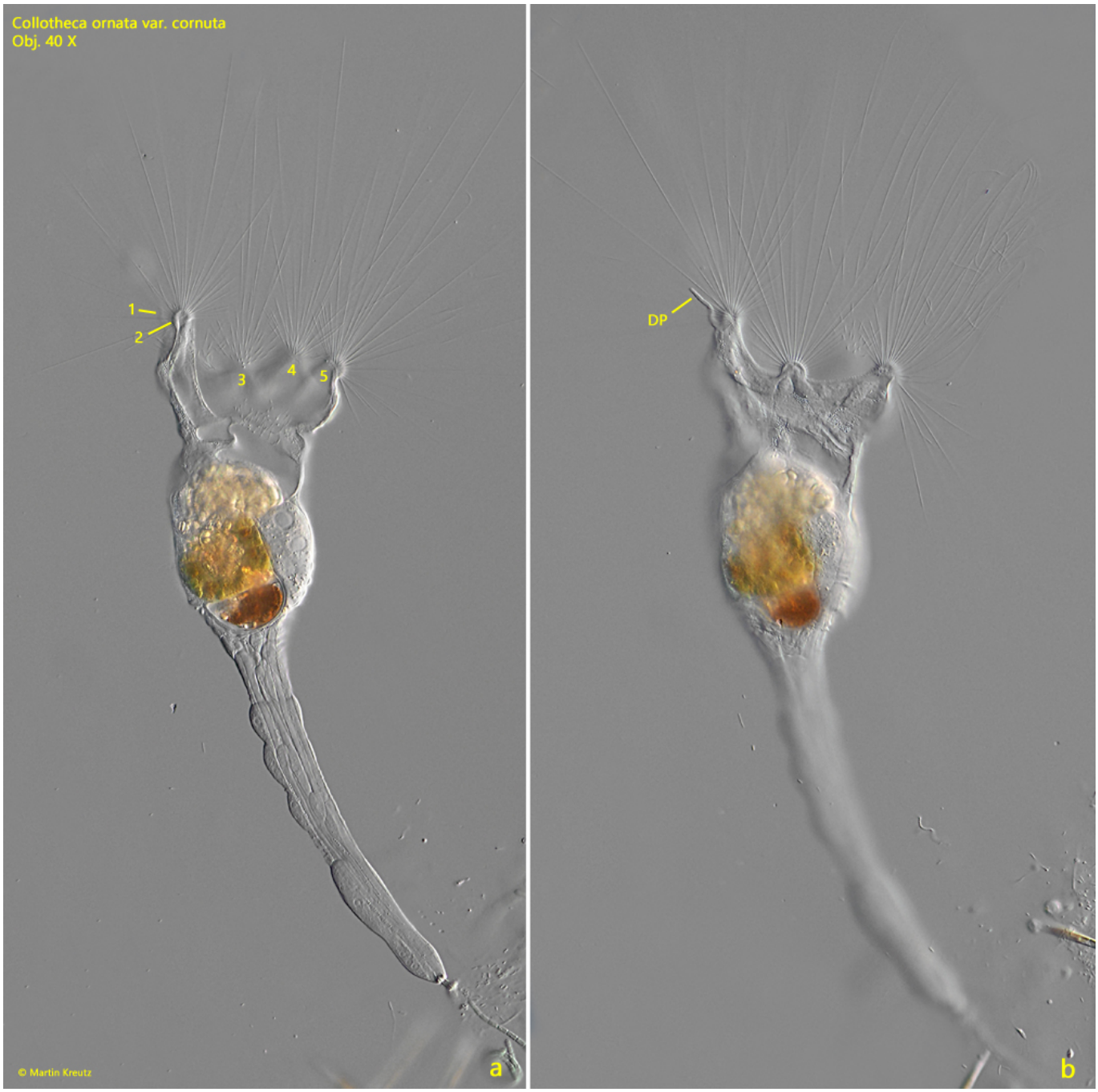


Fig. 2 a-b: *Collotheca ornata* var. *cornuta*. L = 278 µm. Two focal planes of the specimen as shown in fig. 1 a-b. Note the 5 lobes with knobs (1-5) and the the dorsal, worm-like projection (DP) of the dorsal lobe. Obj. 40 X.



Fig. 3 a-b: *Collotheca ornata* var. *cornuta*. L = 475 µm. A second, fully extended specimen. The gelatinous tube (GT) of this specimen is covered with adhering bacteria. DP = dorsal, worm-like projection. Obj. 20 X.

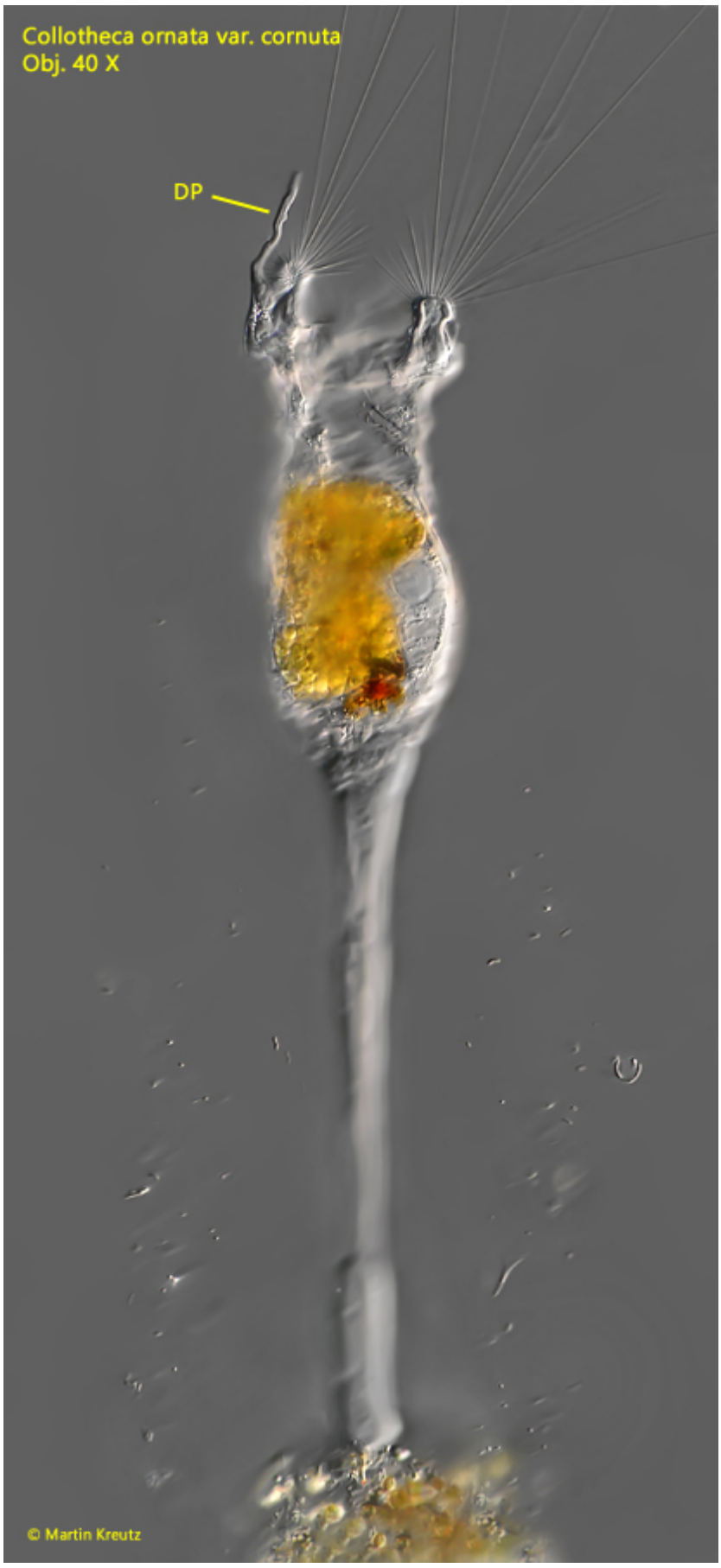


Fig. 4: *Collotheca ornata* var. *cornuta*. L = 338 µm. A third specimen with a clearly visible dorsal projection (DP). Obj. 40 X.


Collotheca ornata var. cornuta
Obj. 40 X
© Martin Kreutz

Fig. 5: *Collotheca ornata* var. *cornuta*. L = 406 µm. Total view of a fourth specimen. Obj. 40 X.

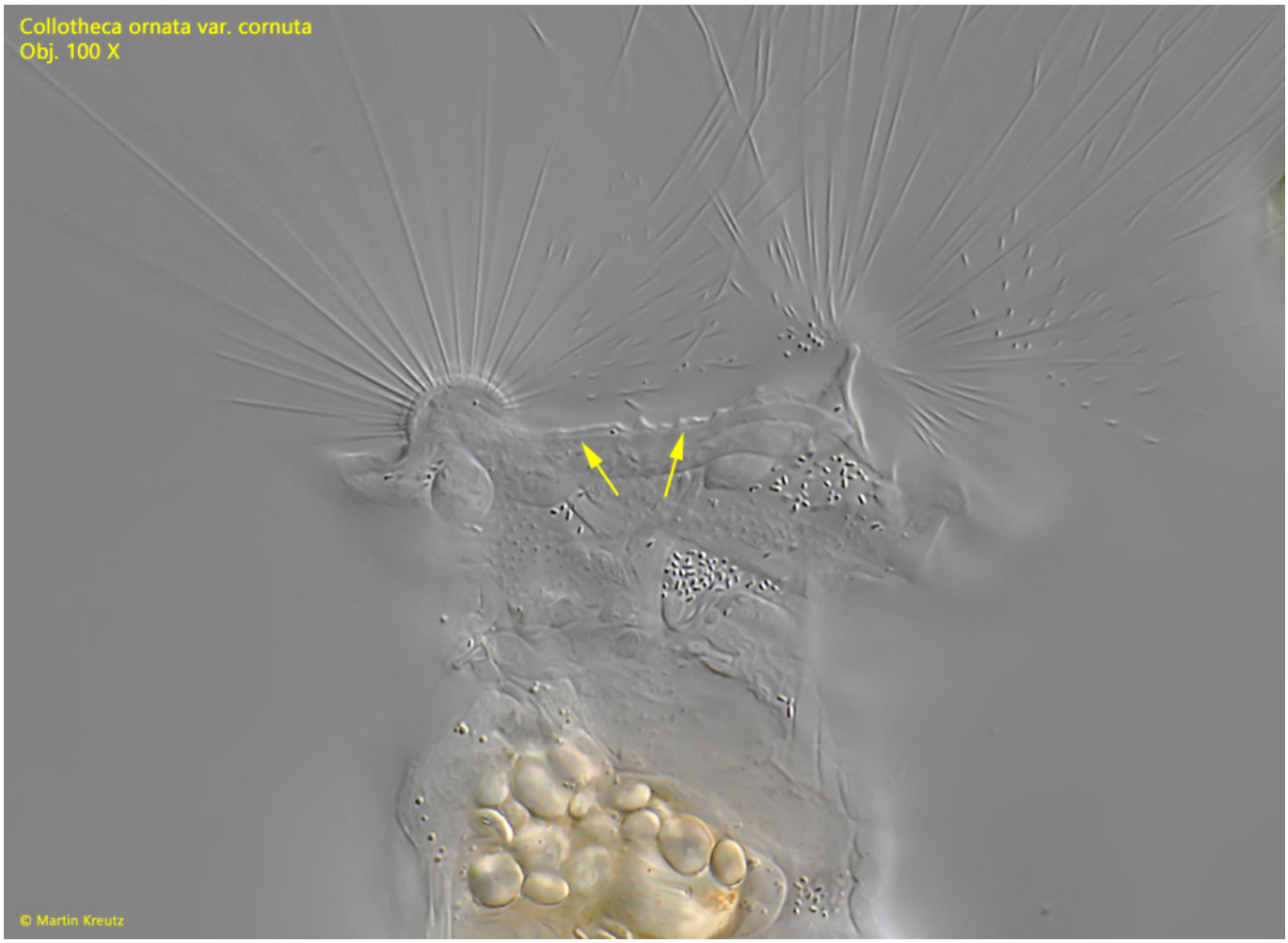


Fig. 6: *Collotheca ornata* var. *cornuta*. The interspaces between the lobes with knobs are naked without cilia (arrows). Obj. 100 X.



Fig. 7 a-b: *Collotheca ornata* var. *cornuta*. L = 87 µm. A juvenile specimen with a worm-like body and 2 clearly visible eyespots. The eyespots are broken down in the adult specimens and are then no longer detectable. Obj. 60 X.