Clathrostoma viminale Penard, 1922

Most likely ID: n.a.

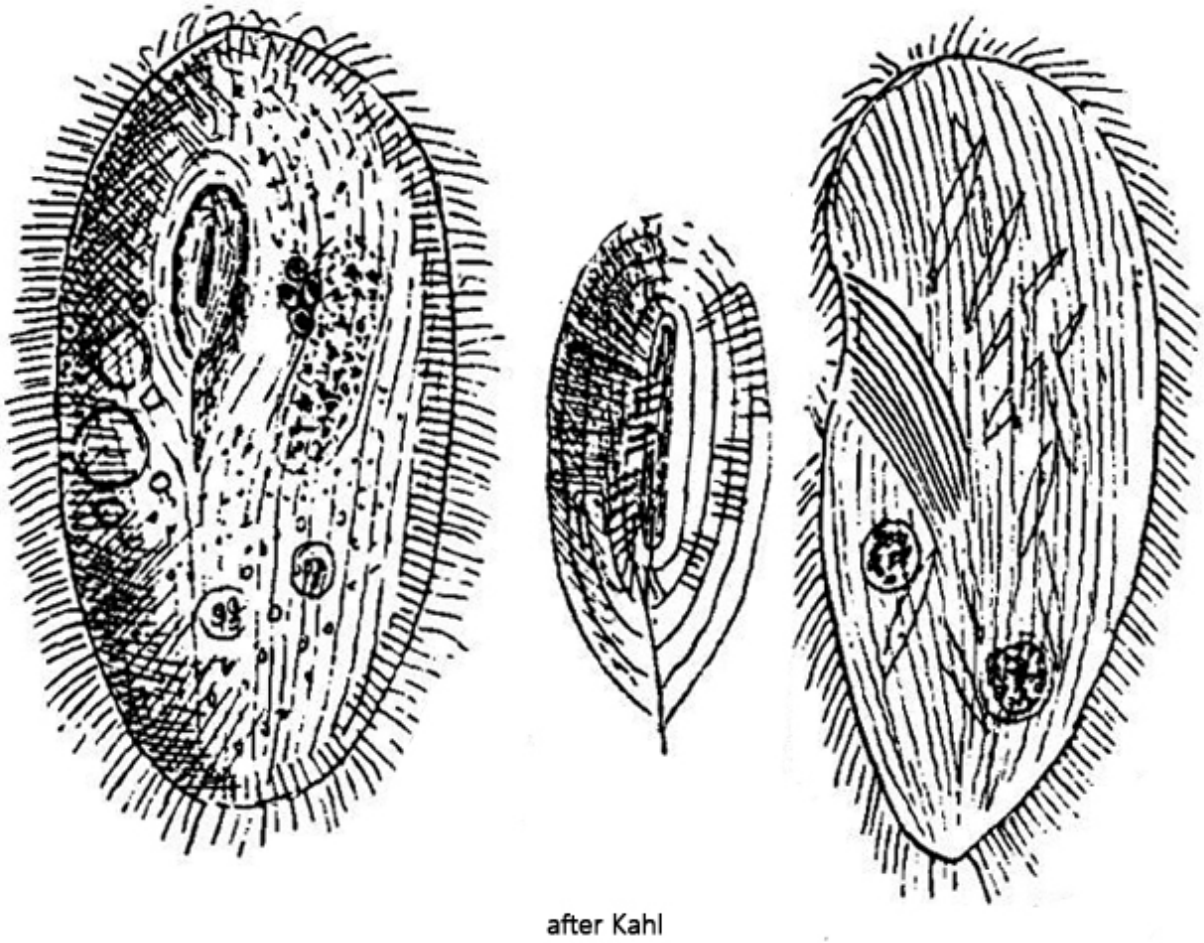
Synonym: n.a.

Sampling location: Pond of the convent Hegne, Simmelried

Phylogenetic tree: *Clathrostoma viminale*

Diagnosis:

- body oval to pyriform, poles broadly rounded
- length 130–180 µm
- oral apparatus slit-shaped in a ventral depression, anterior half
- mouth opening surrounded by basket of long rods
- rods leading into cytoplasm
- macronucleus sausage-shaped
- 1–4 spherical micronuclei, adjacent to macronucleus
- one contractile vacuole in mid-body, with auxiliary vacuoles
- extrusomes spindle-shaped, scatteres beneath pellicle
- often accumulation of crystals posterior



Clathrostoma viminale

I only find *Clathrostoma viminale* very rarely. I have only documented two finds so far. The first is from 2006 from the Simmelried and the second in 2024 from the pond of the convent Hegne. In both cases, the specimens were found among decomposing plant material.

Clathrostoma viminale can easily be confused with *Frontonia leucas* at low magnifications. The body shape, position of the mouth and size are similar. Only at higher magnification can one recognize that the slit-shaped mouth opening of *Clathrostoma viminale* is surrounded by concentric rings of stabilizing rods, which support the entire oral apparatus (s. fig. 3 a-b). These rods reaching deep into the cytoplasm. Like *Frontonia*, *Clathrostoma viminale* has a preoral and a postoral suture above and below the mouth opening (s. fig. 4). However, these are less pronounced than in *Frontonia*. The pellicle is very characteristically reticulated. The macronucleus is sausage-shaped with tapered ends (s. figs. 7). It denatures quickly under coverslip pressure. In my population there were always 2 micronuclei. According to Kahl there can be up to 4. The contractile vacuole is located in the center of the body on the right side. There is an excretory porus on the ventral side (s. fig. 2). The extrusomes are scattered and irregular under the pellicle. They are spindle-shaped. According to my measurements they are 6.0–6.5 µm long (s. fig. 8).

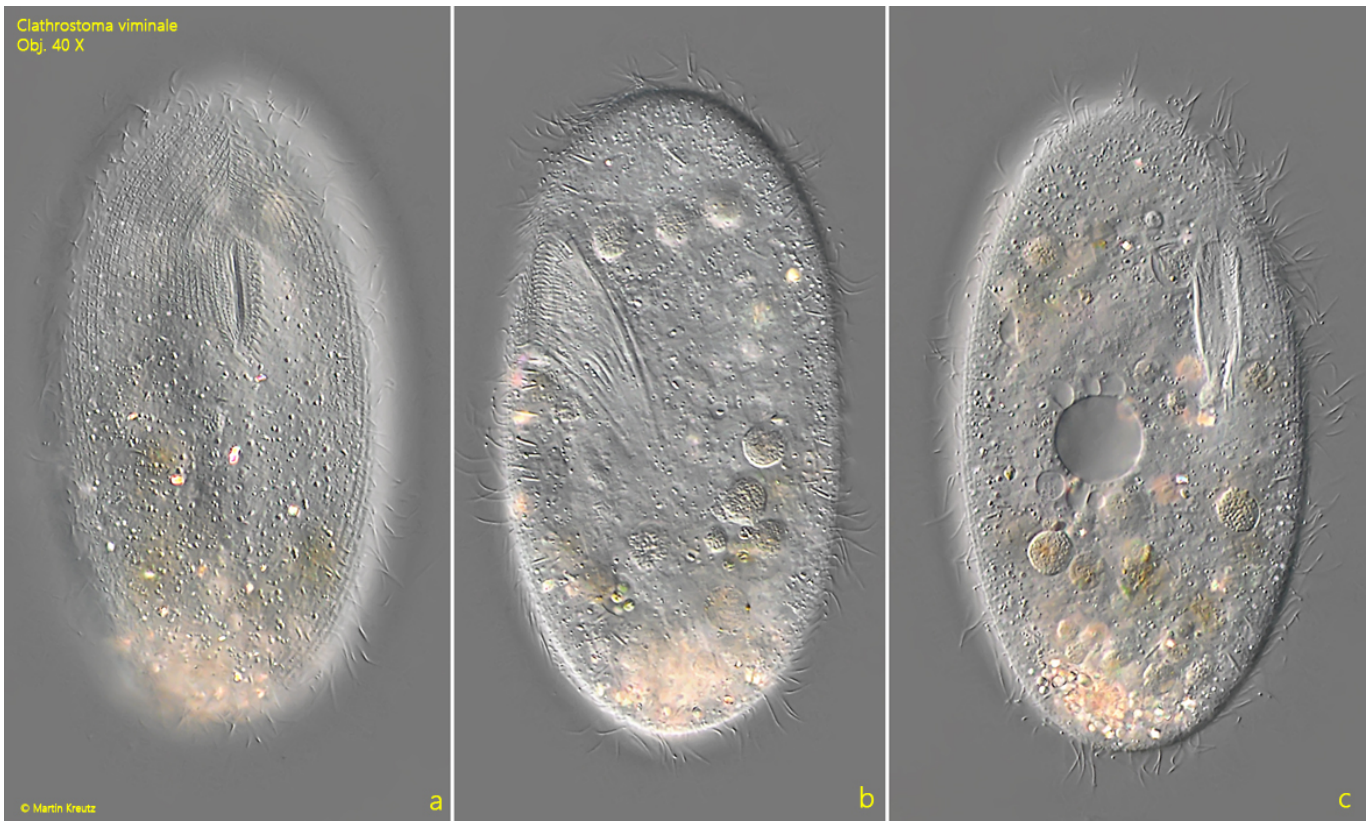


Fig. 1 a-c: *Clathrostoma viminale*. L = 150 µm. Three focal planes of a freely swimming specimen from ventral (, c) and from left (b). Obj. 40 X.

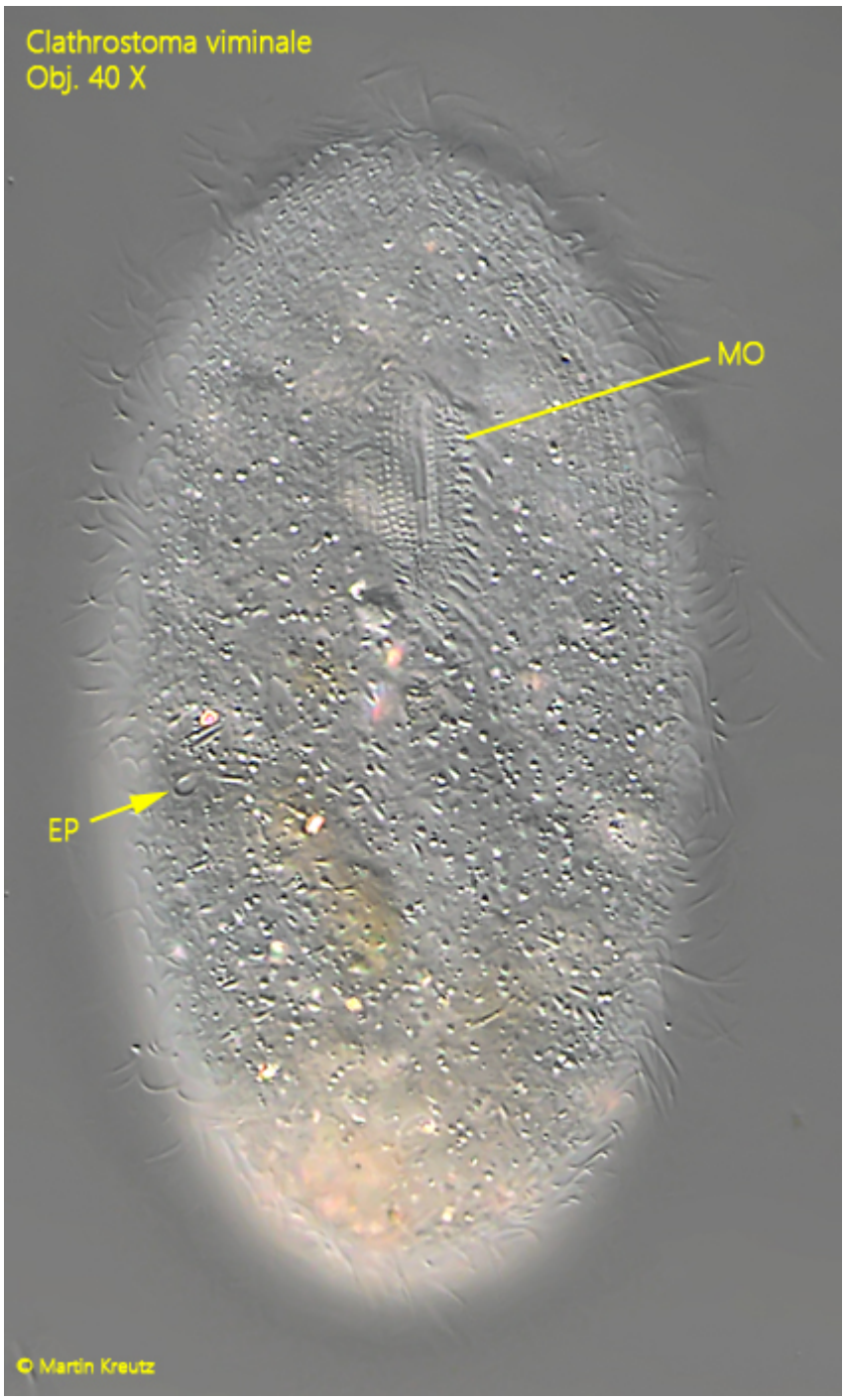


Fig. 2: *Clathrostoma viminale*. L = 150 µm. Focal plane on the ventrally located excretion pore (EP) of the contractile vacuole on right side. MO = mouth opening. Obj. 40 X.

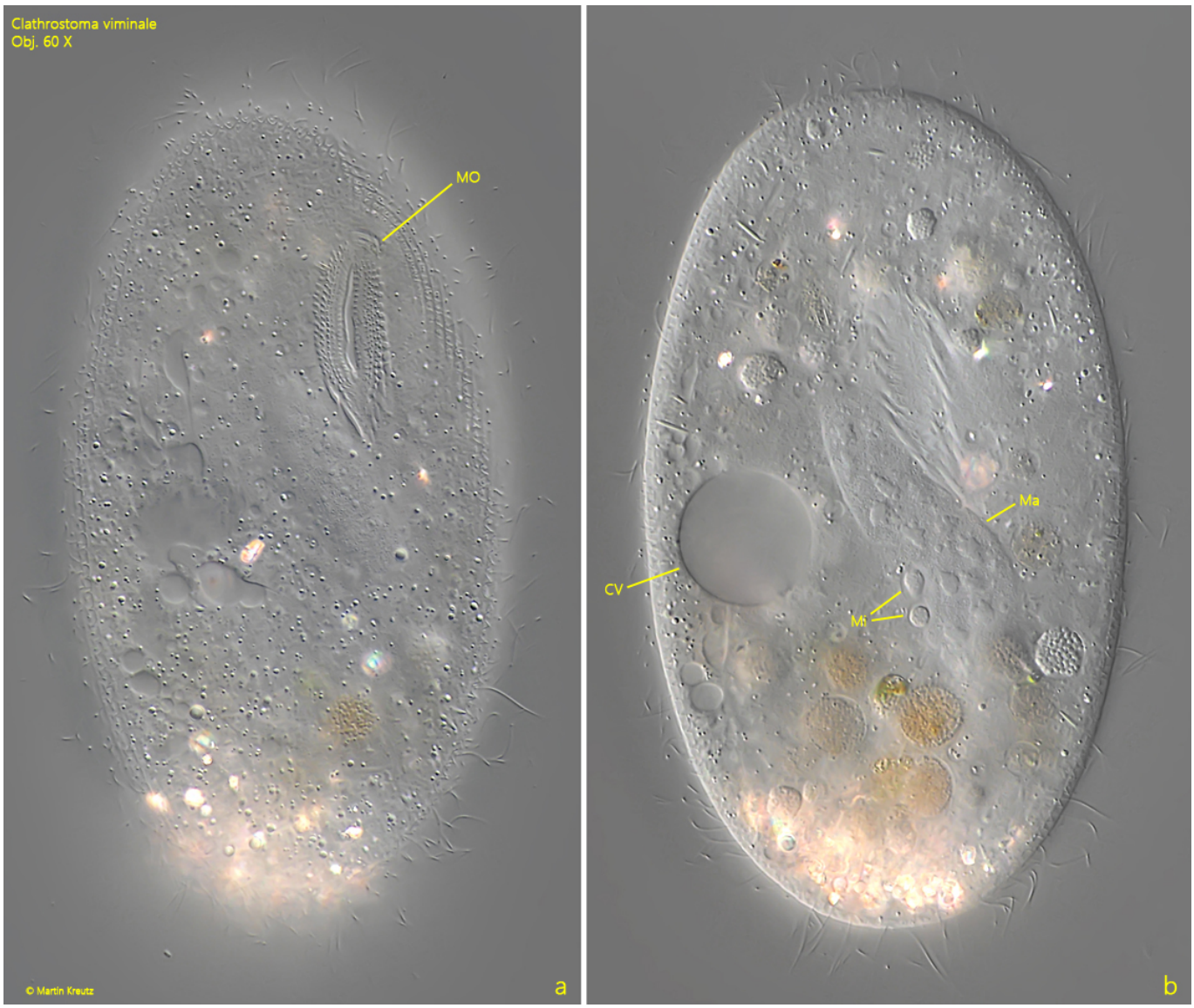


Fig. 3 a-b: *Clathrostoma viminale*. L = 150 µm. The slightly squashed specimen as shown in fig. 1 a-c from ventral. Note the slit-shaped mouth opening (MO) surrounded by nemadesmata. CV = contractile vacuole, Ma = macronucleus, Mi = micronuclei. Obj. 60 X.

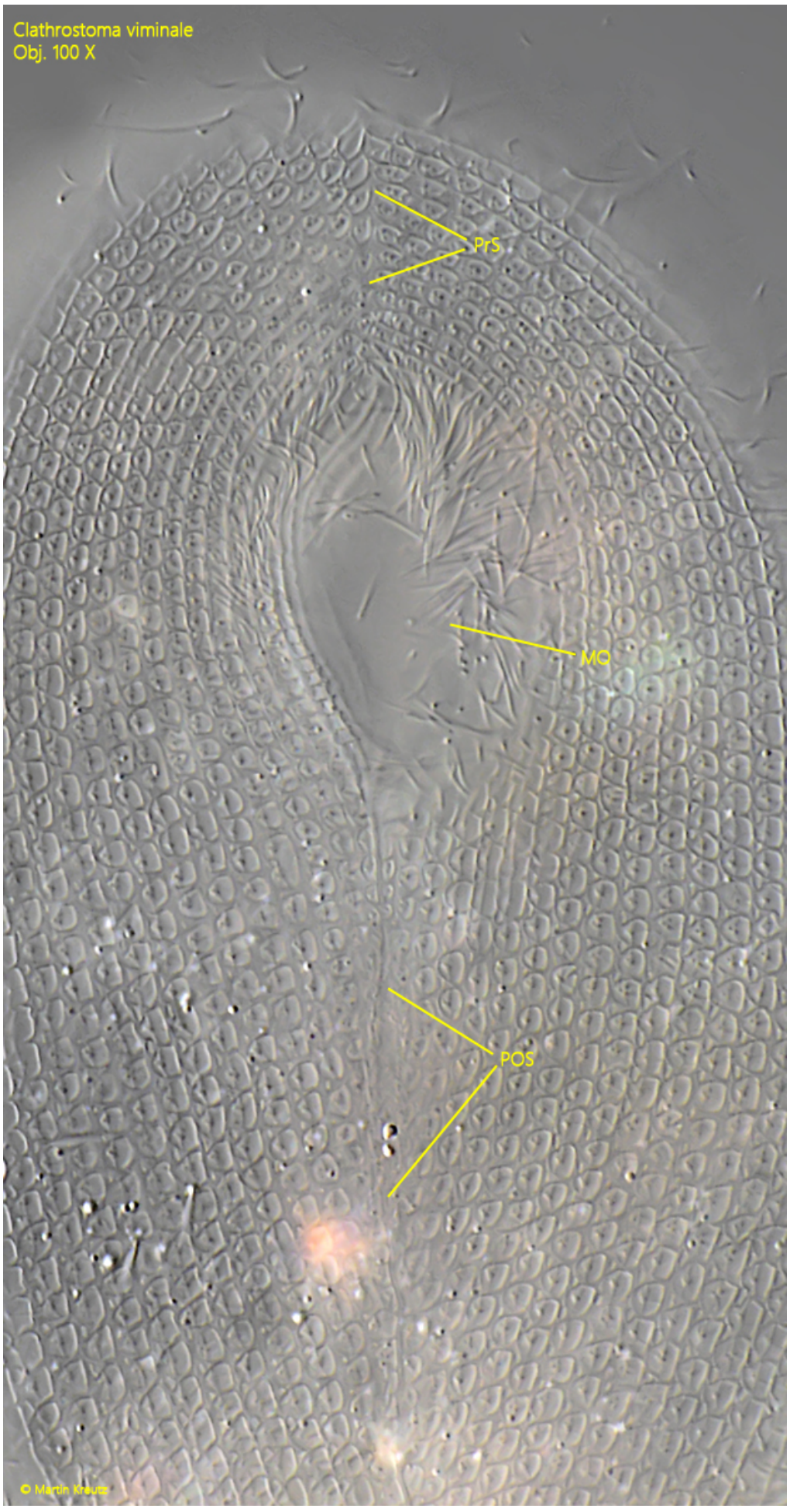

Clathrostoma viminale
Obj. 100 X
PrS
MO
POS
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Fig. 4: *Clathrostoma viminale*. The preoral suture (PrS) and the postoral suture (POS) in a squashed specimen. MO = mouth opening. Obj. 100 X.

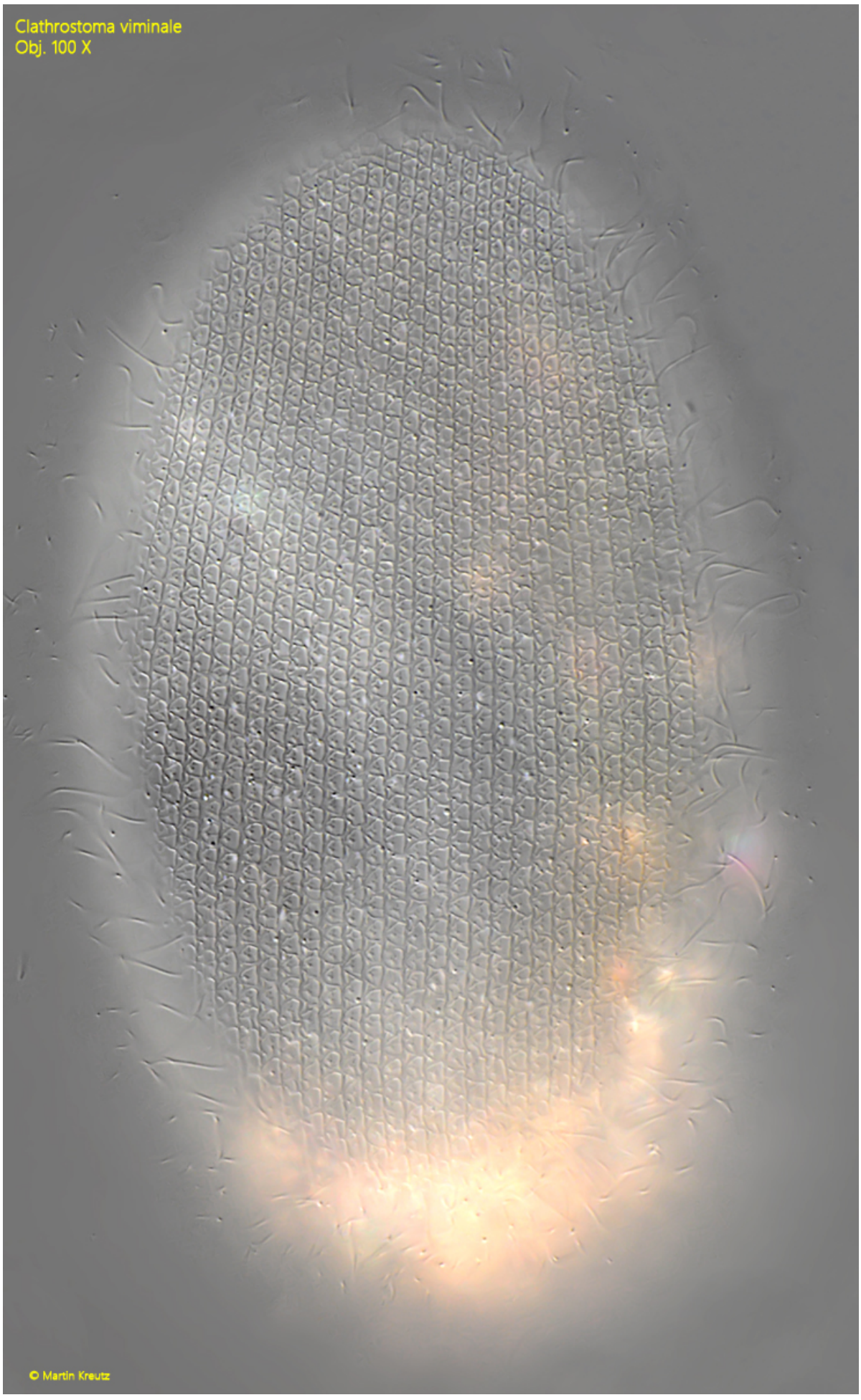
Clathrostoma viminale
Obj. 100 X
© Martin Kreutz

Fig. 5: *Clathrostoma viminale*. The reticulate pattern of the pellicle (dorsal side). Obj. 100 X.

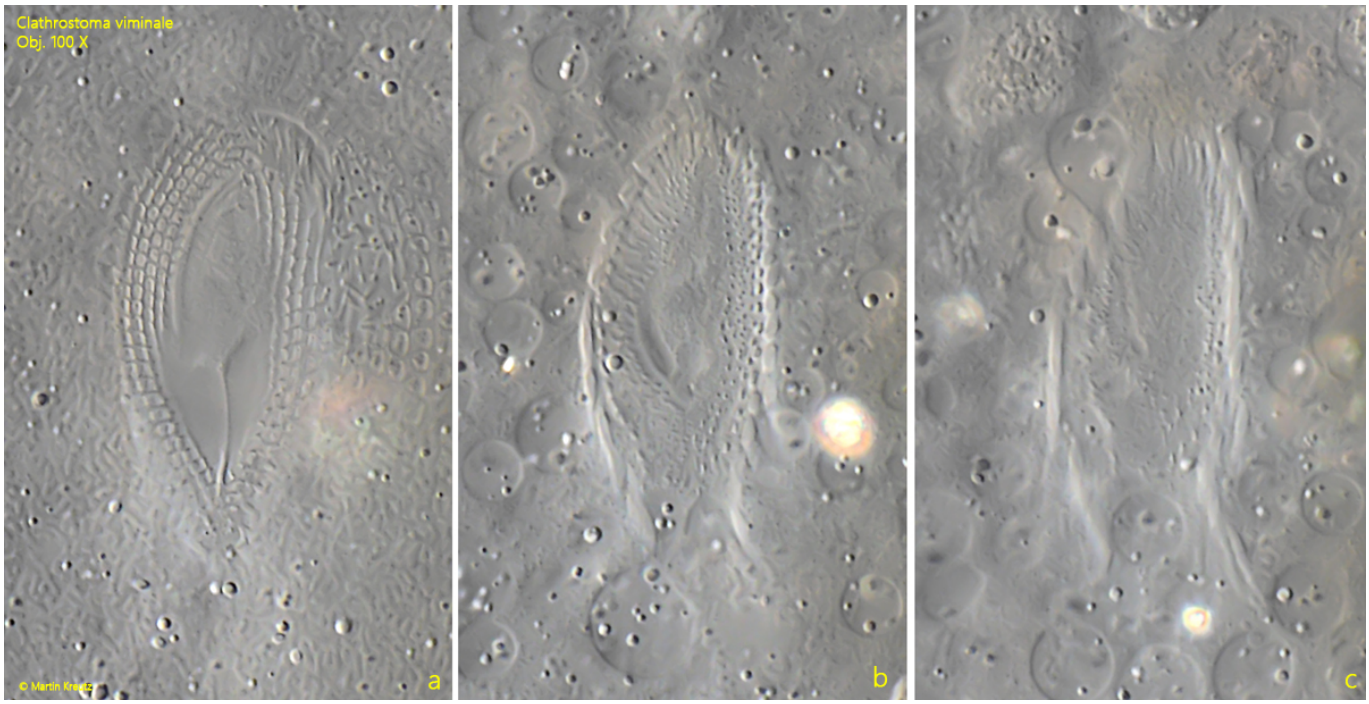

Fig. 6 a-c: *Clathrostoma viminale*. Three focal planes of the oral apparatus surrounded by rods leading deep into the cytoplasm. Obj. 100 X.

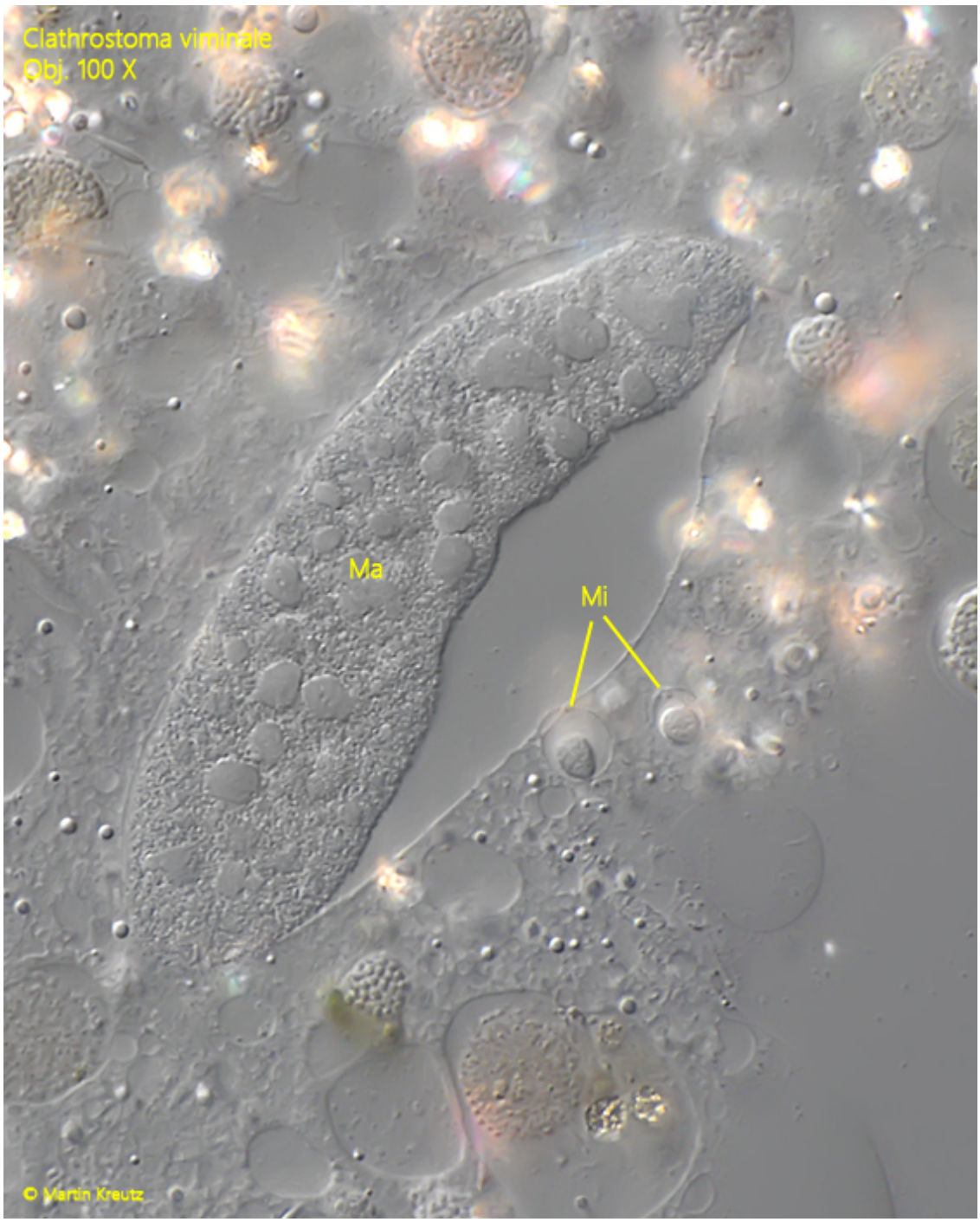

Fig. 7: *Clathrostoma viminale*. The sausage-shaped macronucleus (Ma) in a squashed specimen with 2 adjacent micronuclei (Mi). Obj. 100 X.

Fig. 8: *Clathrostoma viminale*. The extrusomes (EX) are spindle-shaped with a length of 6.0–6.5 µm. Obj. 100 X.