Zosterodasys transversa

(Kahl, 1928) Foissner, Berger & Kohmann, 1994

Most likely ID: n.a.

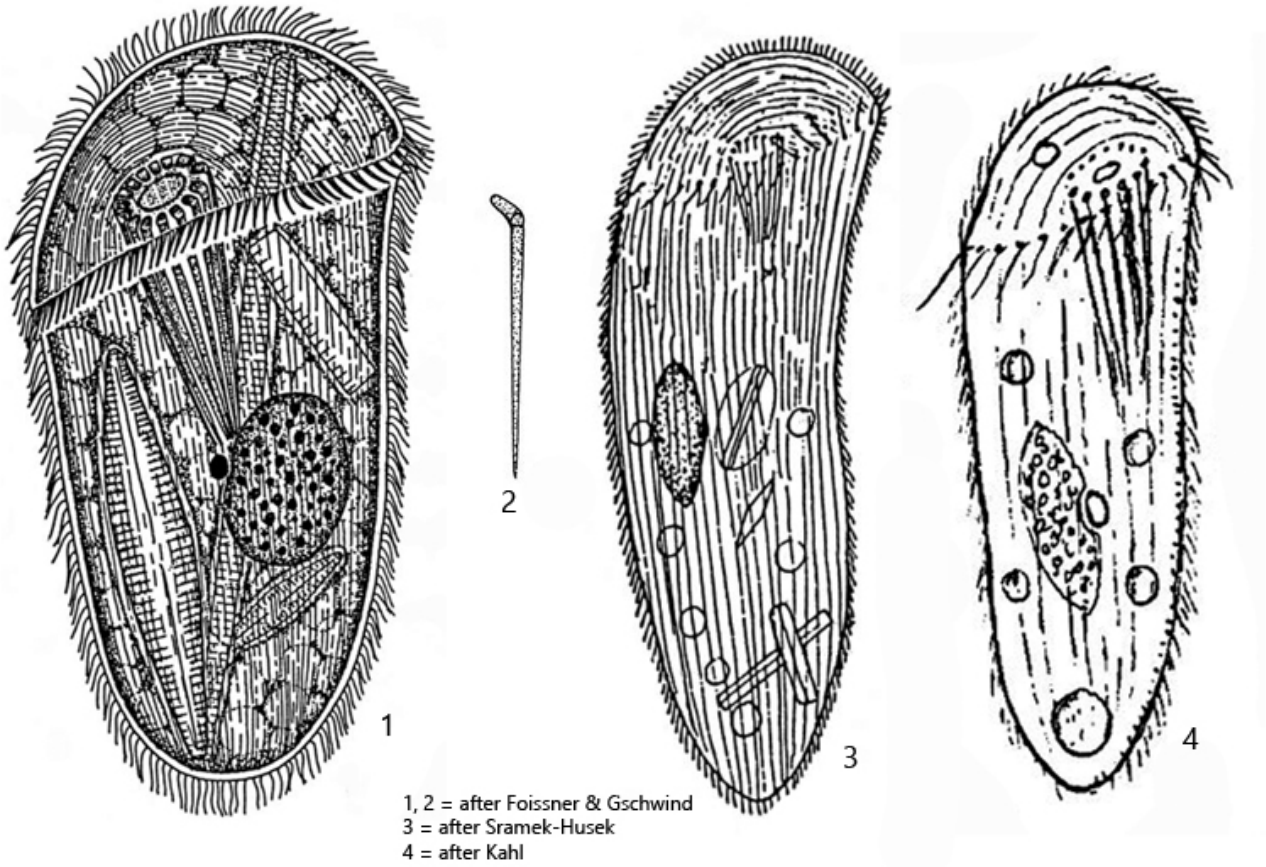
Synonyms: *Zosterodasys transversus*, *Chilodontopsis transversa*, *Chilodontopsis vorax*

Sampling location: Mühlhalden pond, Simmelried

Phylogenetic tree: *Zosterodasys transversa*

Diagnosis:

- body trithigmostoma-shaped, slender or broad, dorso-ventrally flattened
- anterior end protruding slightly to the left
- length 130–250 µm
- ellipsoid macronucleus central
- one ellipsoid micronucleus adjacent to macronucleus
- extrusomes inconspicuous, 1 µm long
- cytoplasm vacuolated
- numerous, small contractile vacuoles, scattered in mid-body
- 75–120 longitudinal rows of cilia
- oral basked consists of 12–18 rods, knee-shaped at distal end
- postoral a hypostomial ciliary band (synhymenium) surround half of body with gap dorsal



Zosterodasys transversa

I only rarely find *Zosterodasys transversa* in a few of my sampling sites. A comparatively safe site to find specimens is the overflow channel of the Mühlhalden pond, because there are a lot of diatoms present, which are the main food of *Zosterodasys transversa*.

At first glance, *Zosterodasys transversa* resembles a cyrthophorid ciliate, such as *Trithigmostoma cucullulus*. However, *Zosterodasys transversa* is much larger and, above all, does not have the characteristic ventral ciliary fields that are typical of cyrthophorid ciliates. Instead, *Zosterodasys transversa* has a postoral synhymenium, which runs underneath the oral apparatus and almost encircles the body, but has a gap on the dorsal side. *Zosterodasys transversa* is therefore classified as a nassulid ciliate. In squashed specimens the synhymenium is clearly visible (s. fig. 2). The cilia of the synhymenium are also elongated and pointed (s. fig. 3).

Another characteristic feature of *Zosterodasys transversa* is the oral basket, which consists of 12-18 rods (nematodesmata = bundles of microtubules). In my population I also found specimens with 19 rods (s. fig. 2). At the distal end, the rods are bent in a knee-shape and thus resemble a field hockey stick. The bent ends of the rods in unsquashed specimens always point towards the center of the oral basket.

Fig. 1 a-b: *Zosterodasys transversa*. L = 245 µm. Two focal planes of a freely swimming specimen from dorsal. Obj. 40 X.

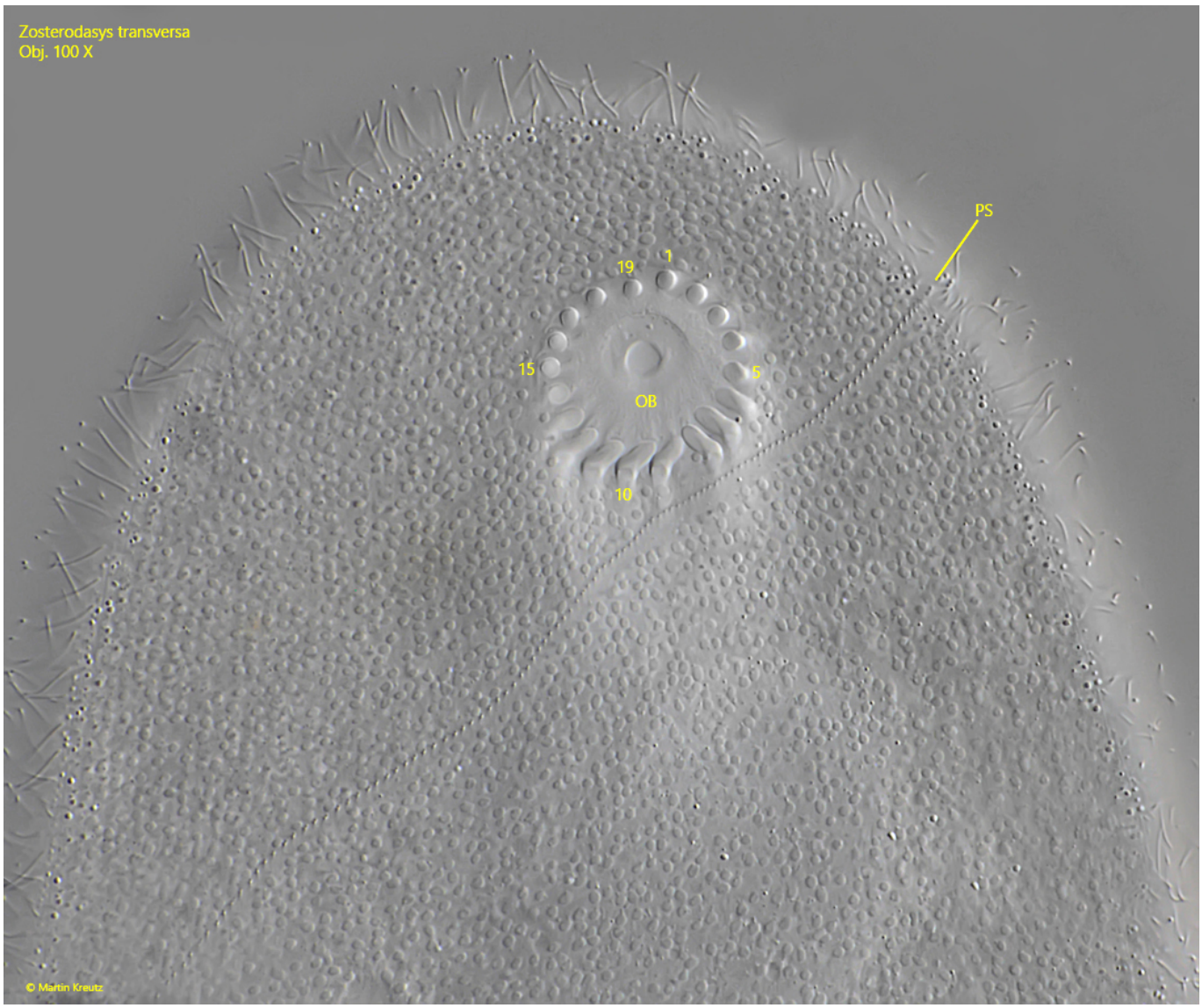


Fig. 2: *Zosterodasys transversa*. Focal plane on the postoral synhymenium (PS) running below the oral basket (OB) consisting of 19 rods (1-19). Obj. 100 X.

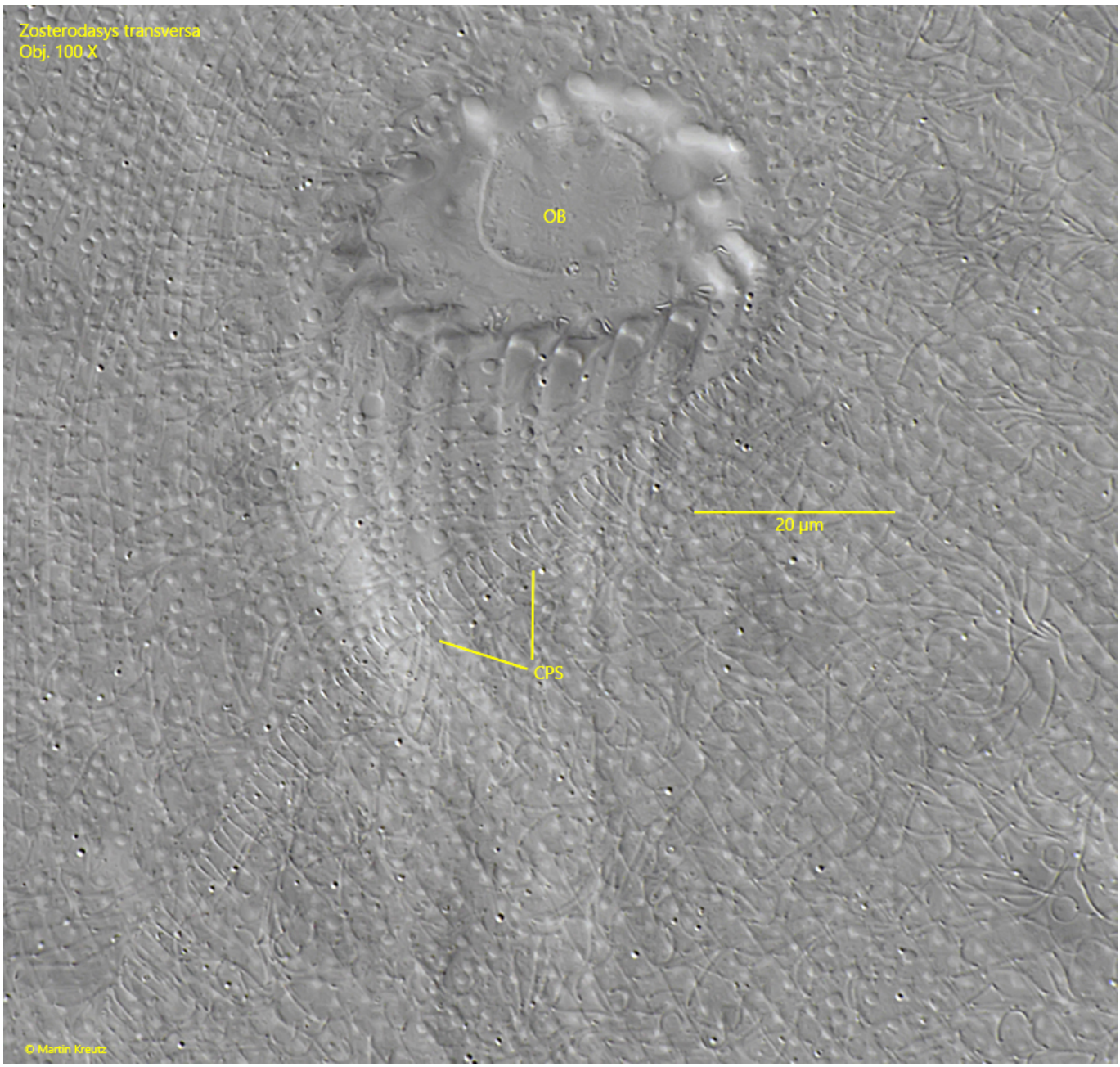


Fig. 3: *Zosterodasys transversa*. The postoral synhymenium in detail. Note the elongated cilia of the postoral synhymenium (CPS). OB = oral basket. Obj. 100 X.

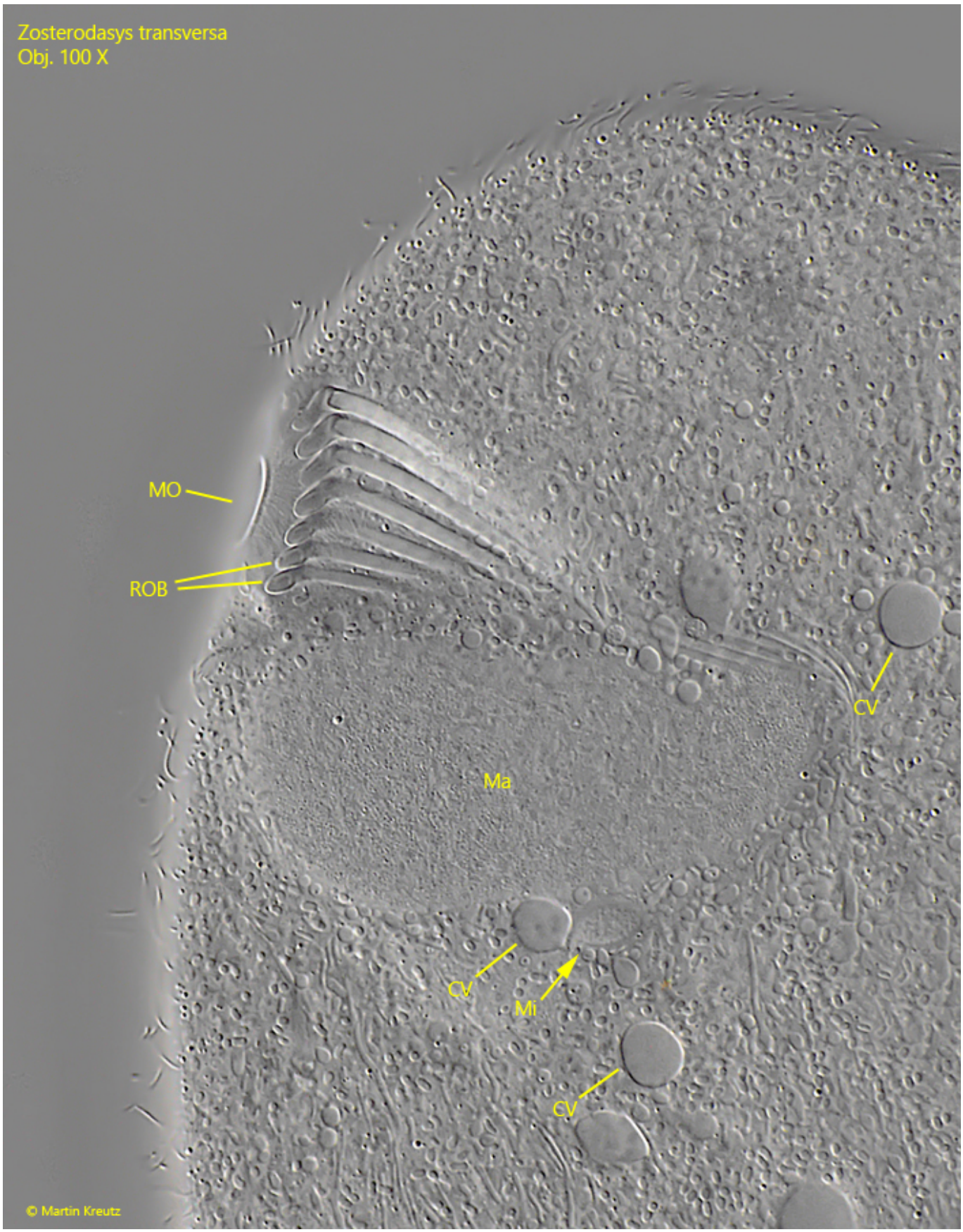


Fig. 4: *Zosterodasys transversa*. Lateral view from left on the rods of the oral basket (ROB) and the circular mouth opening (MO). CV = contractile vacuoles, Ma = macronucleus, Mi = micronucleus. Obj. 100 X.

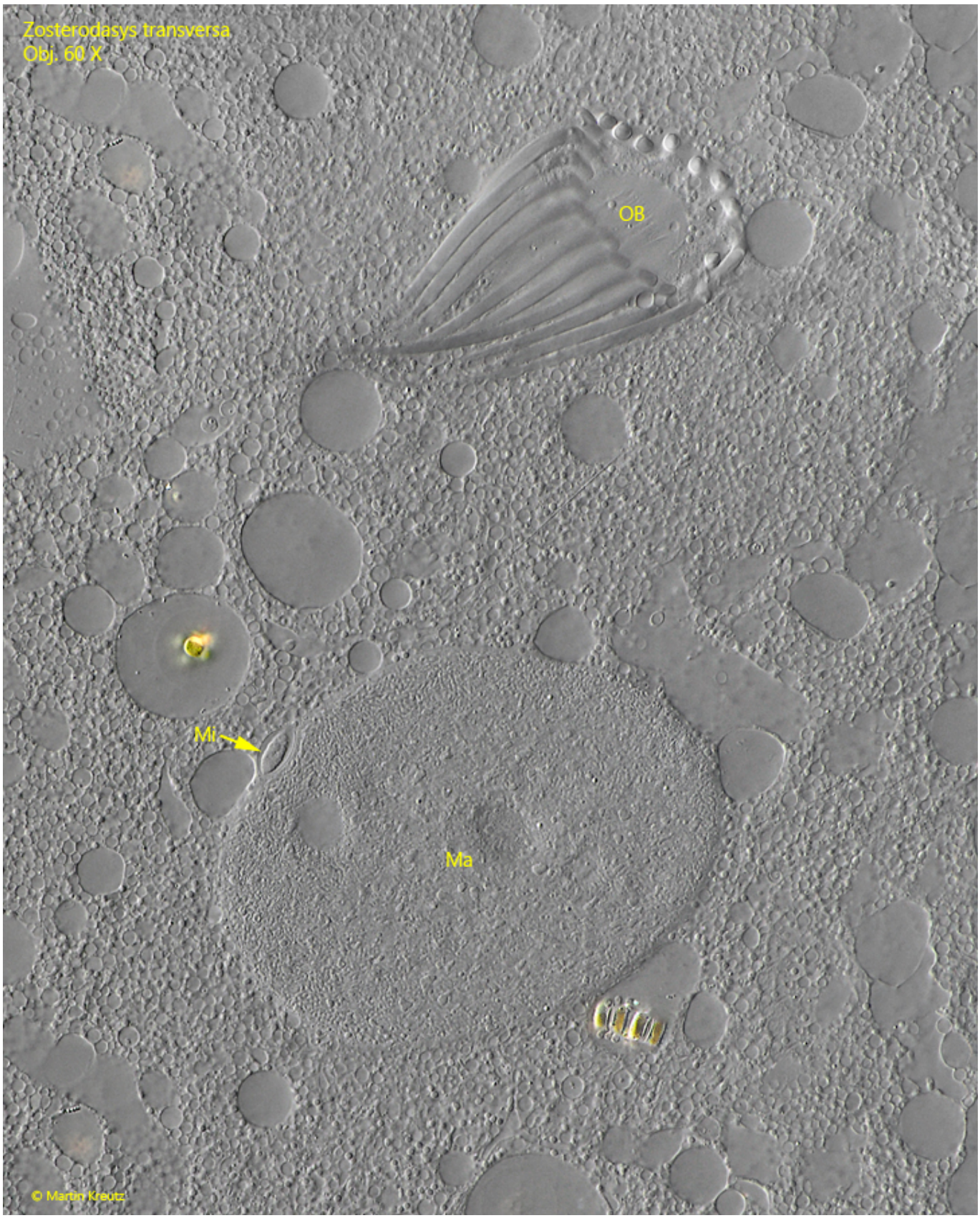


Fig. 5: *Zosterodasys transversa*. The macronucleus (Ma) with adjacent micronucleus (Mi) in a squashed specimen. OB = oral basket. Obj. 100 X.

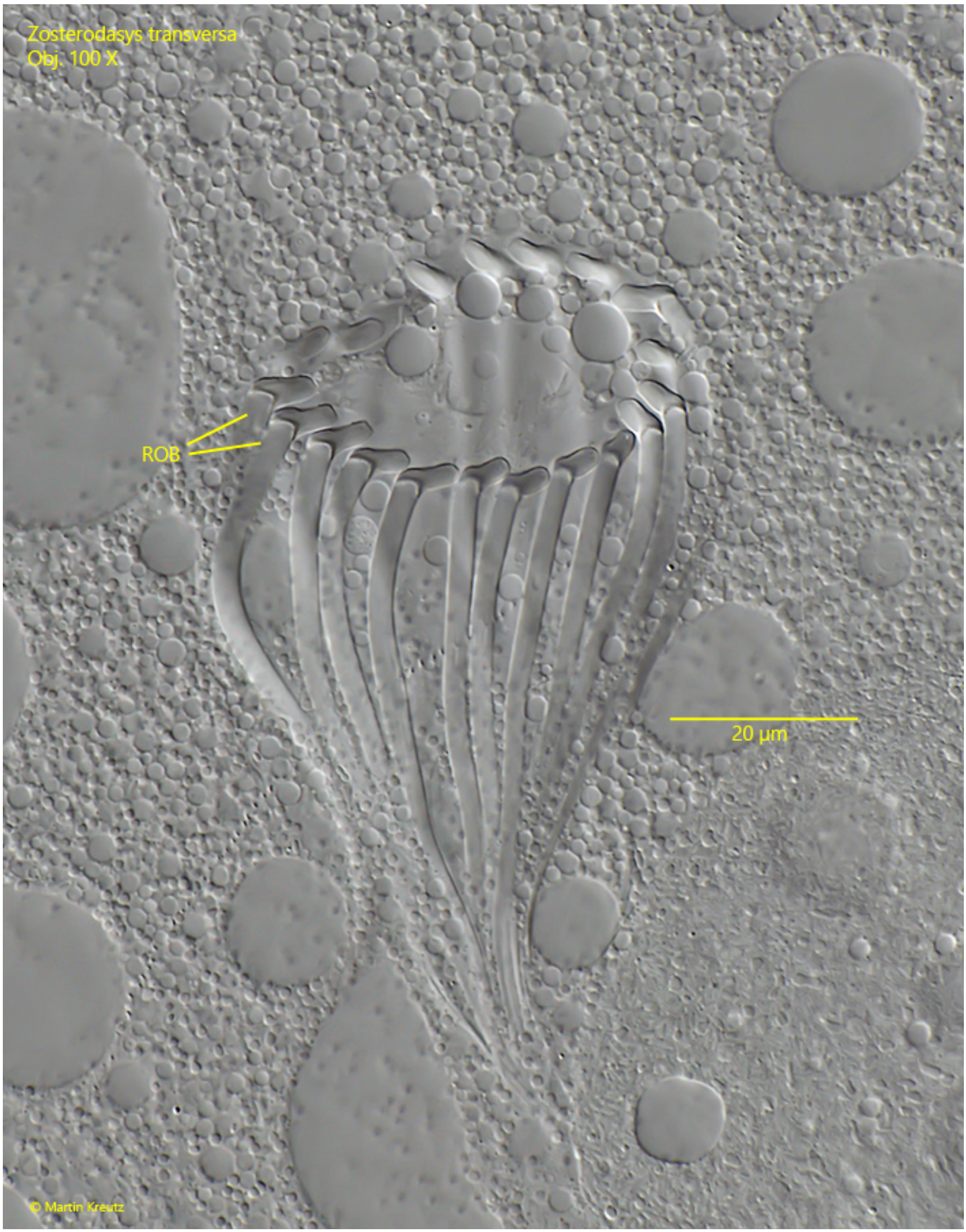


Fig. 6: *Zosterodasys transversa*. The oral basket in detail. The rods of the oral basked (ROB) are bent knee-shaped at the distal end. Obj. 100 X.