

## ***Ophryoglena flava* Ehrenberg, 1833**

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

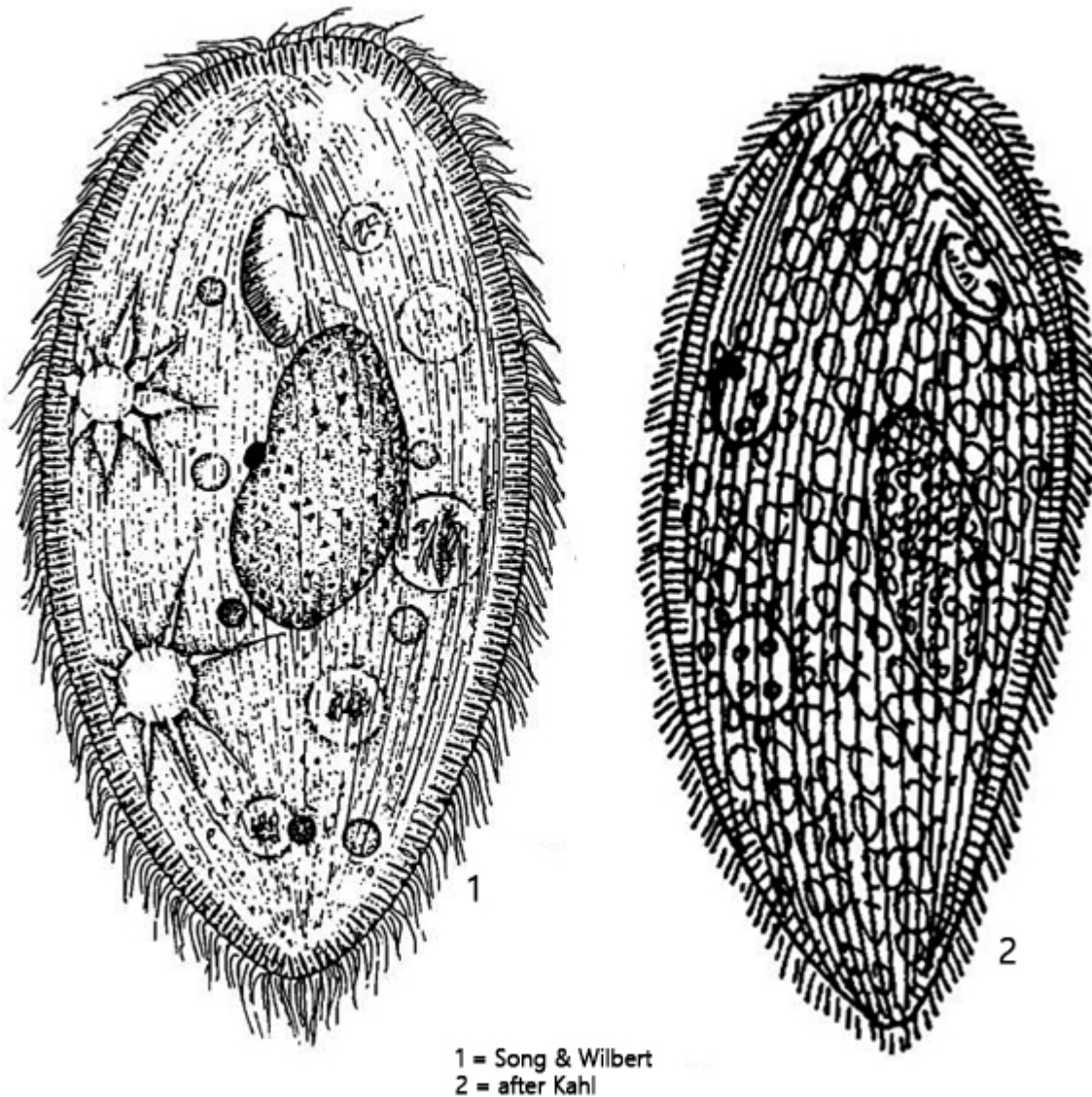
**Synonym:** n.a.

**Sampling location:** [Simmelried](#)

**Phylogenetic tree:** [Ophryoglena flava](#)

### **Diagnosis:**

- body slender ellipsoidal, apically rounded, posterior pointed
- length 200–500 µm
- oral apparatus with shape of a “6”
- oral apparatus with distinct watch-glass body
- distinct fringe of extrusomes forms a cortical layer
- extrusomes rod-shaped, length about 6.5 µm
- macronucleus elongated ellipsoid
- one micronucleus adjacent to macronucleus
- two contractile vacuoles with auxiliary vacuoles and collecting canals
- each contractile vacuole with 3–4 excretion pores



## Ophryoglena flava

I find *Ophryoglena flava* regularly, but always only sporadically and in single specimens. They are usually found in floating and decomposing plant masses. I found most of the specimens in the [Simmelried](#).

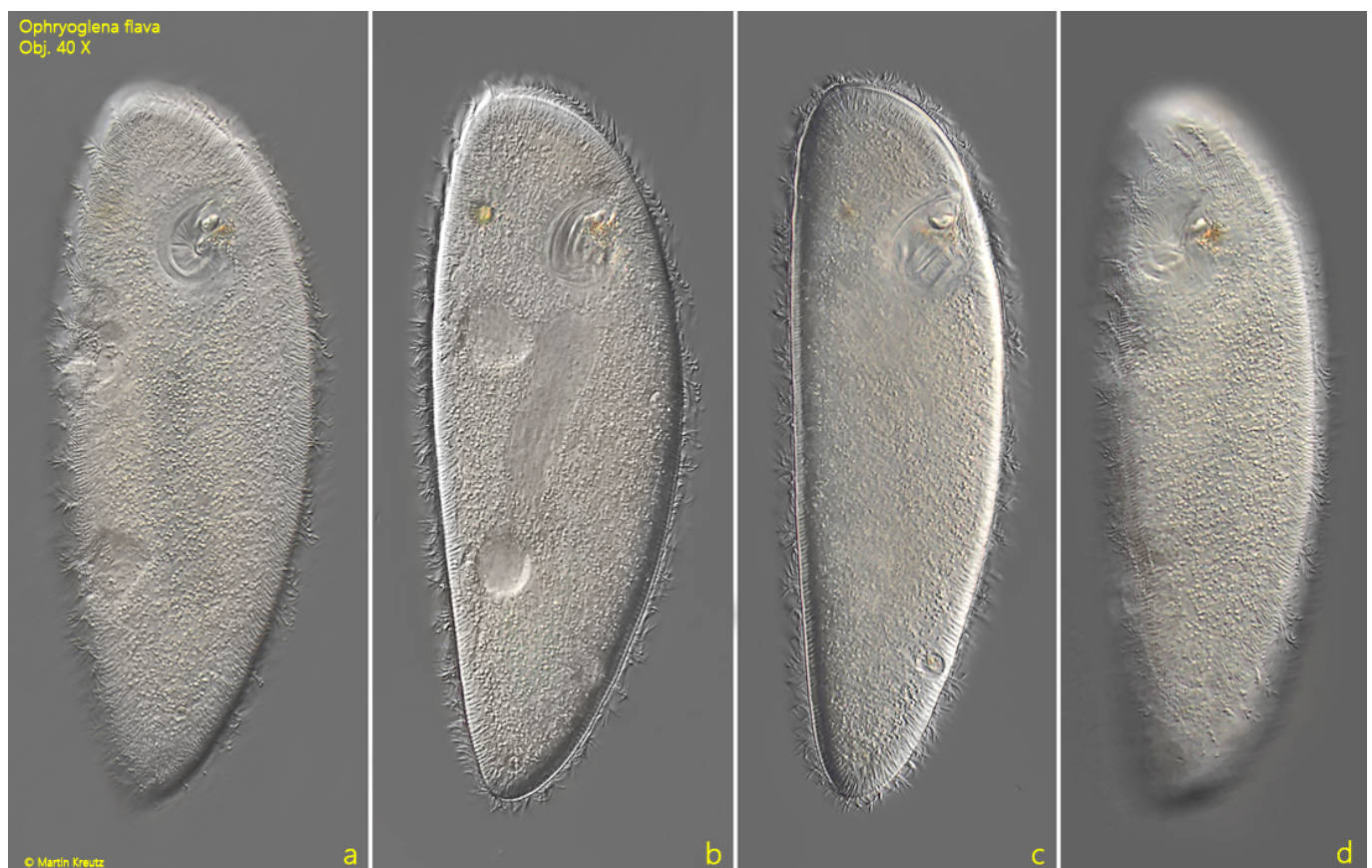
The body shape of *Ophryoglena flava* is very variable. Often the specimens are completely opaque due to masses of food vacuoles and are almost round in shape. Only rarely are starving specimens found, which then have a slender shape with a slightly pointed posterior end (s. fig. 1 a-d). Such specimens are then yellow-brownish in color. The specimens swim very fast and move hectically forwards and backwards. The body is also extremely metabolic.

Like all other species of the genus, *Ophryoglena flava* has an oral apparatus in the

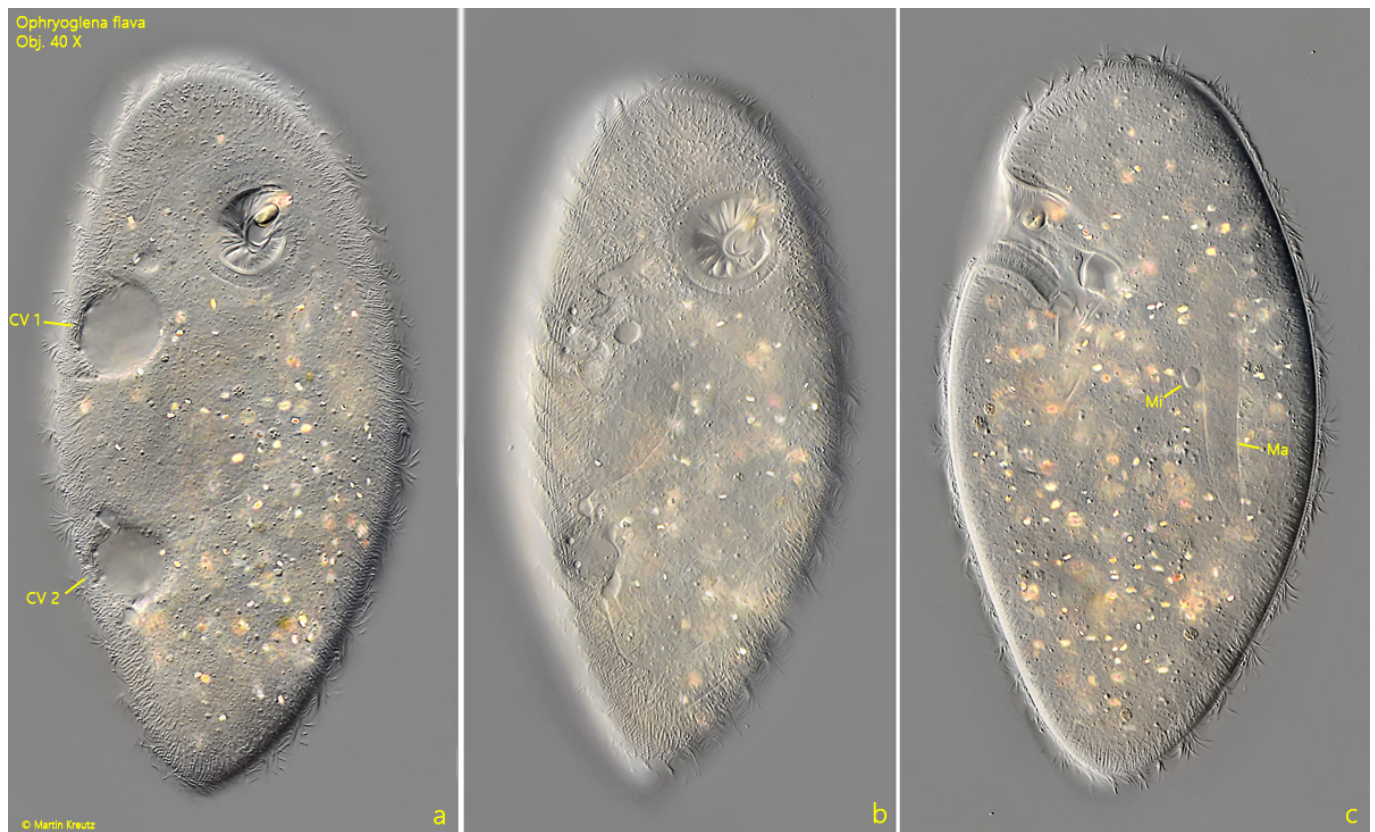
shape of a “6”. The oral apparatus has a complex structure and contains the so-called watch-glass body, which is also known as Lieberkuehn’s organelle (s. figs. 3 and 4). The watch-glass body of *Ophryoglena flava* is clearly recognizable. It is slightly yellowish in color and its surface is finely striated (s. fig. 5 a-b). Its function is unclear. However, it is assumed that it is connected with the widening of the mouth opening when swallowing large prey.

*Ophryoglena flava* can be easily distinguished from other species of the genus by the two contractile vacuoles located on the right side of the body (s. fig. 2 a). They have many auxiliary vacuoles, which taper into thin collecting canals that extend very far into the cytoplasm (s. fig. 6). Each contractile vacuole has 3-4 excretory pores, which can be clearly seen when focusing on the pellicle (s. fig. 7).

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



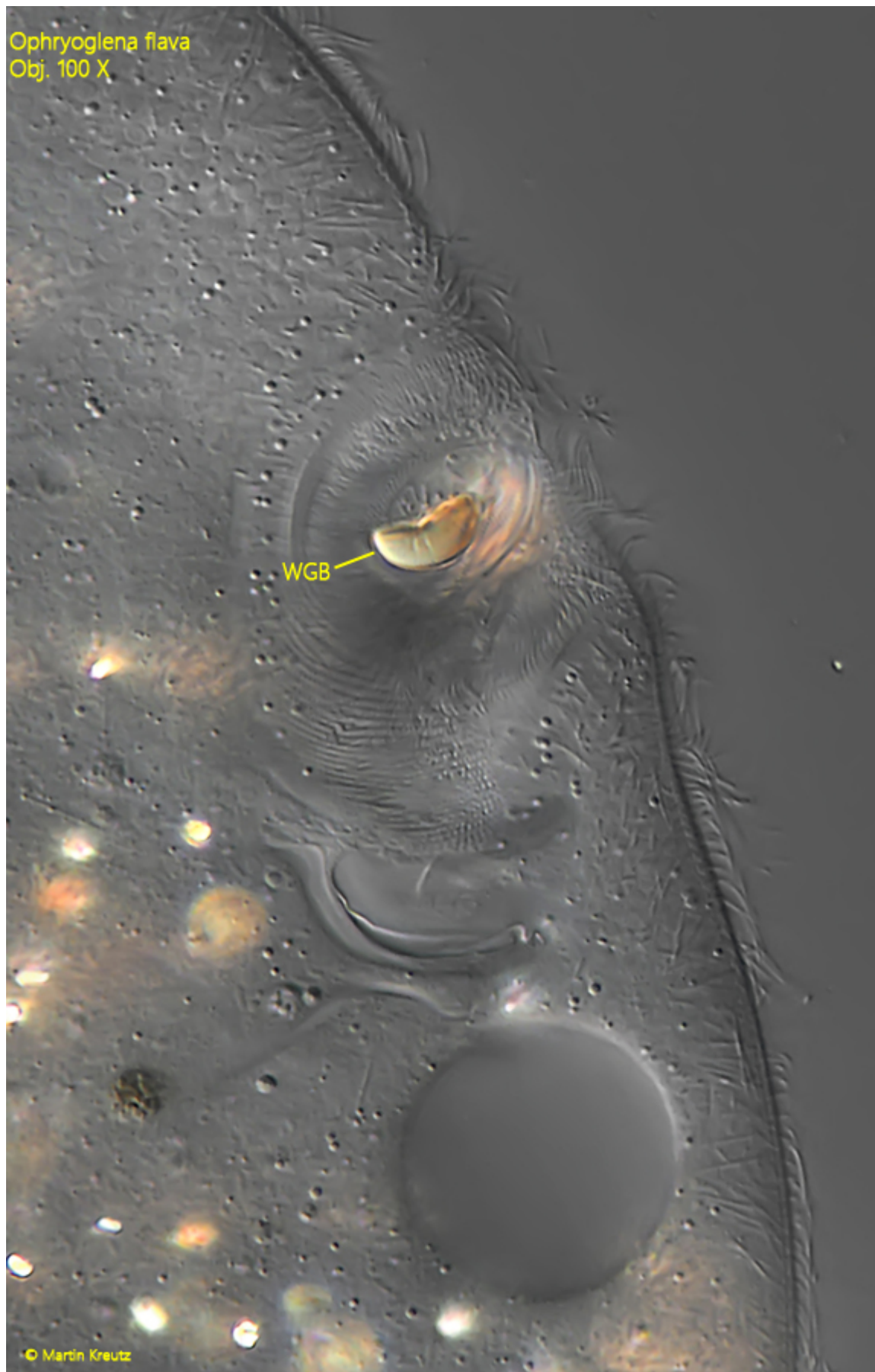
**Fig. 1 a-d:** *Ophryoglena flava*. L = 190 µm. A freely swimming specimen from ventral (a, b and d) and right (c). Note the slightly pointed posterior end. Obj. 40 X.



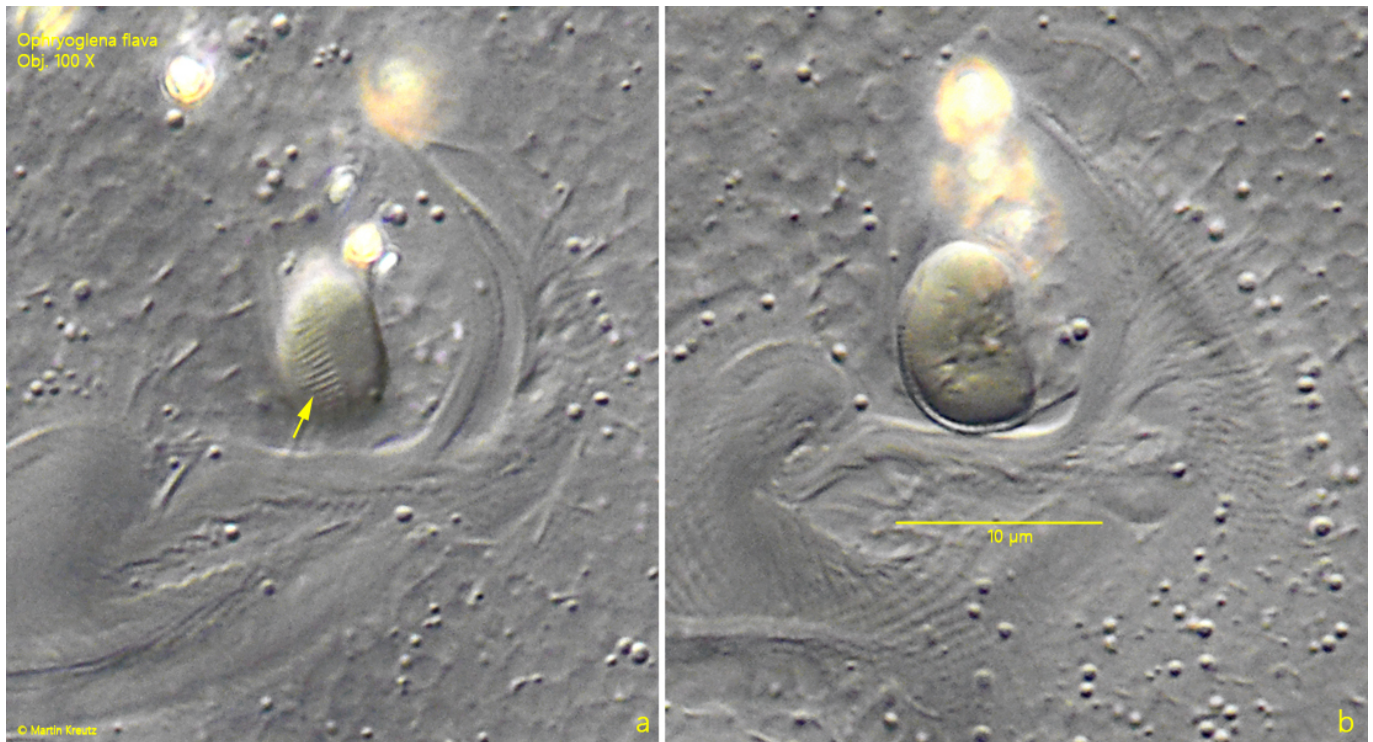
**Fig. 2 a-c:** *Ophryoglena flava*. L = 220  $\mu$ m. A slightly squashed specimen from ventral (a, b) and from left (c). Note the two contractile vacuoles (Cv 1, CV 2) located at the right side. Ma = macronucleus, Mi = micronucleus. Obj. 40 X.



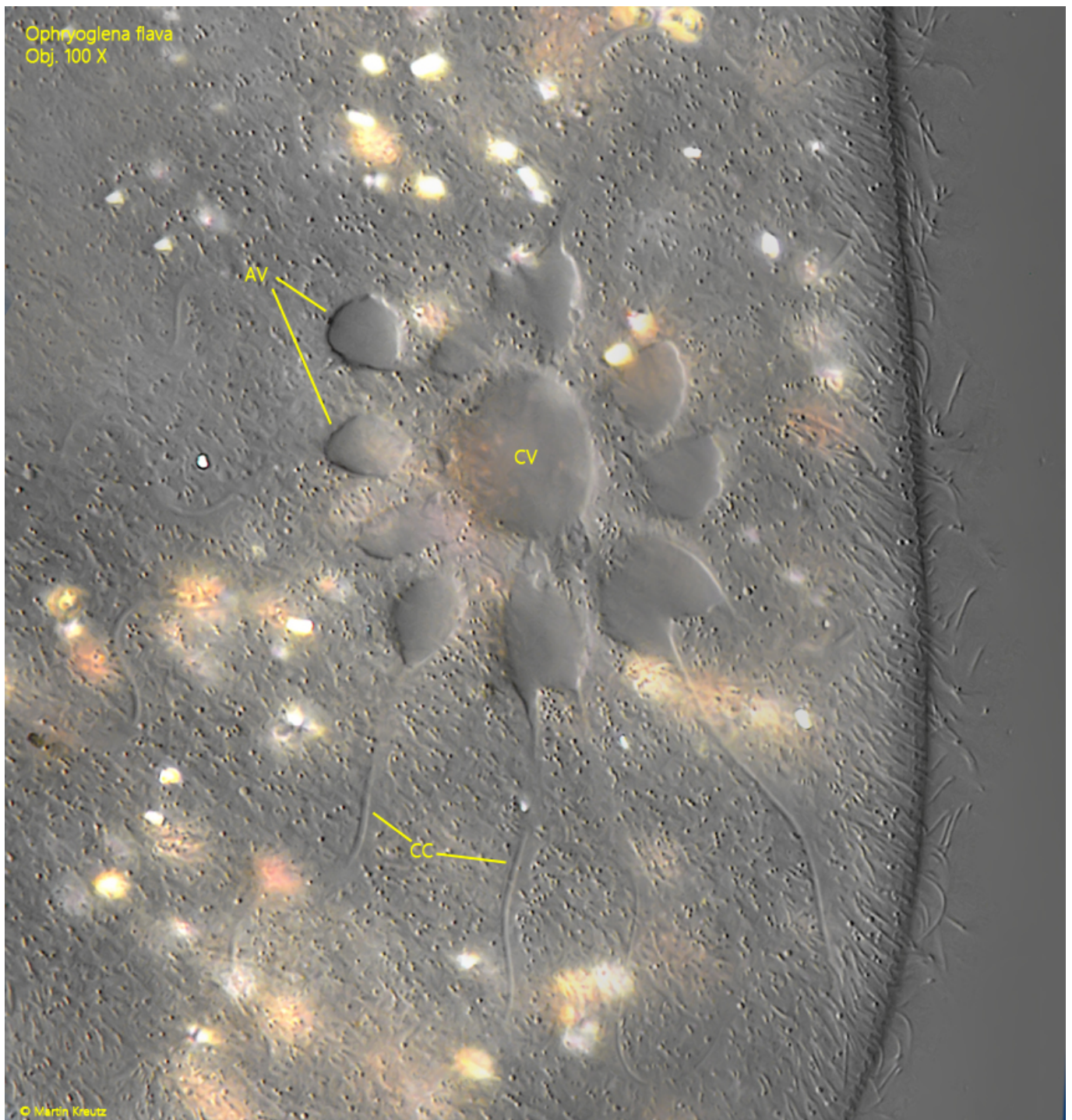
**Fig. 3:** *Ophryoglena flava*. The complex oral apparatus in lateral view. Note the watch-glass body (WGB) and the endoral membrane (EM) in the deep vestibulum. Obj. 100 X.



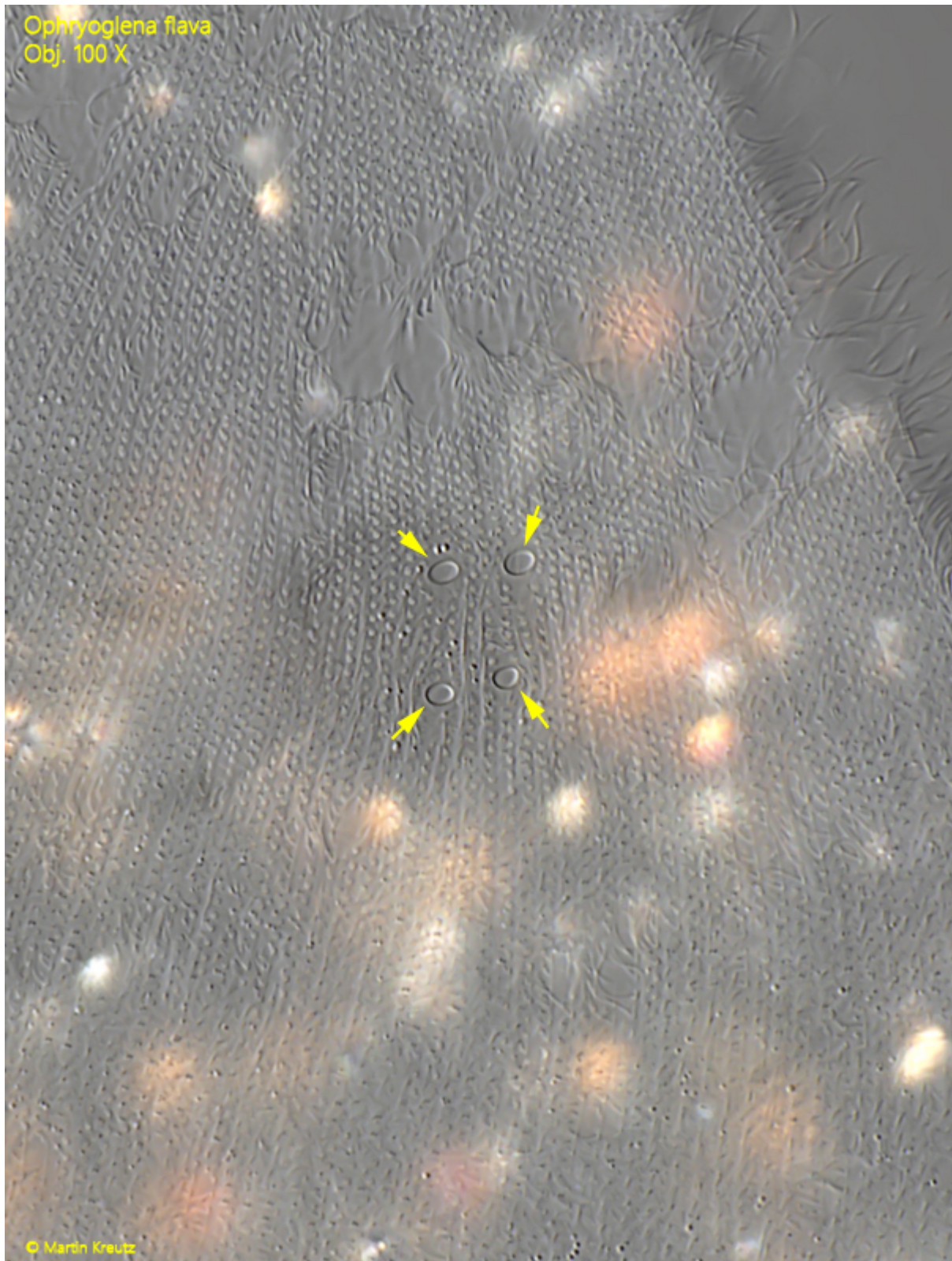
**Fig. 4:** *Ophryoglena flava*. Focal plane on the watch-glass body (WGB) in oblique lateral view. Obj. 100 X.



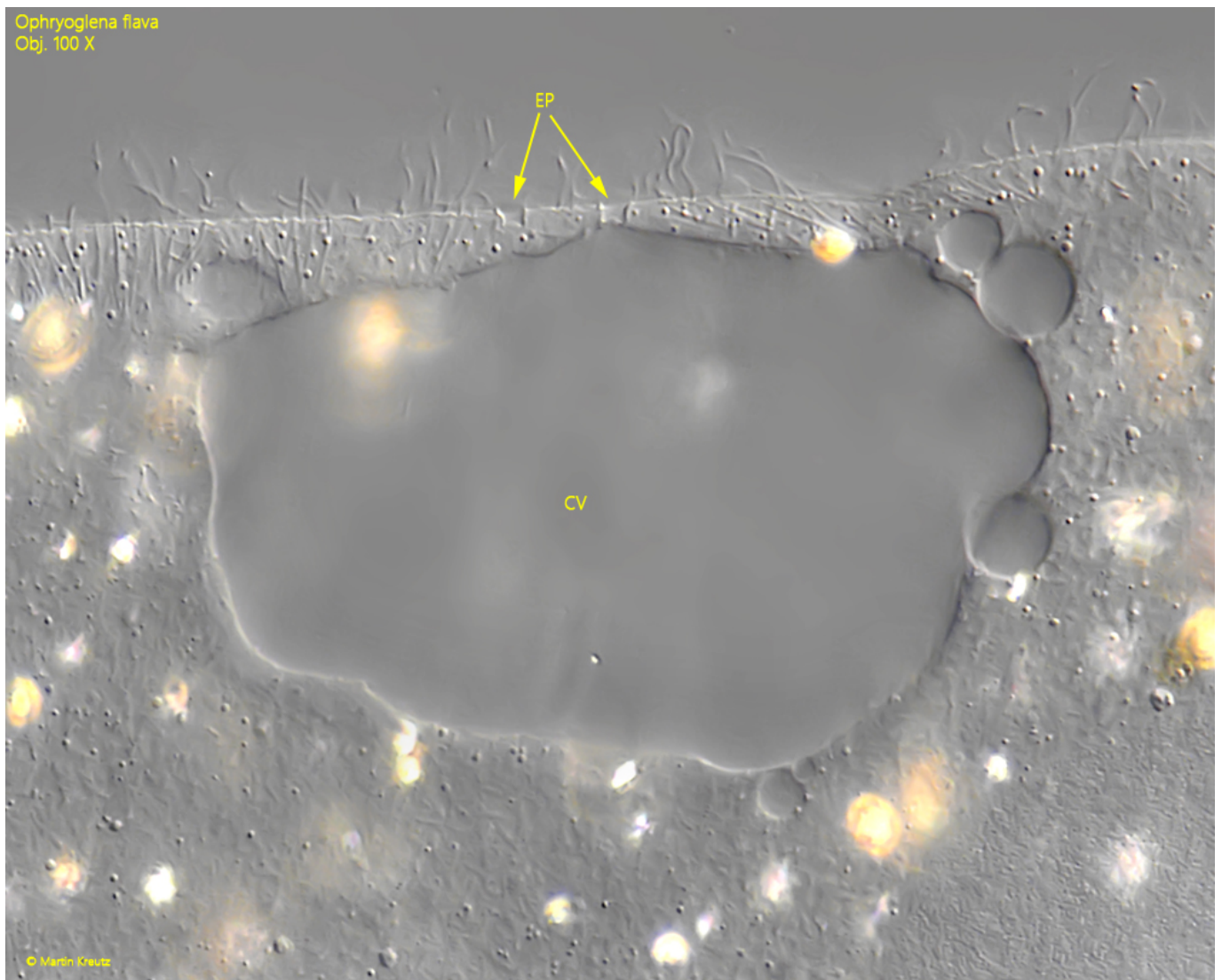
**Fig. 5 a-b:** *Ophryoglena flava*. Two focal planes of the watch glass-body in a strongly squashed specimen. Note the fine striation on the surface of the watch-glass body (arrow). Obj. 100 X.



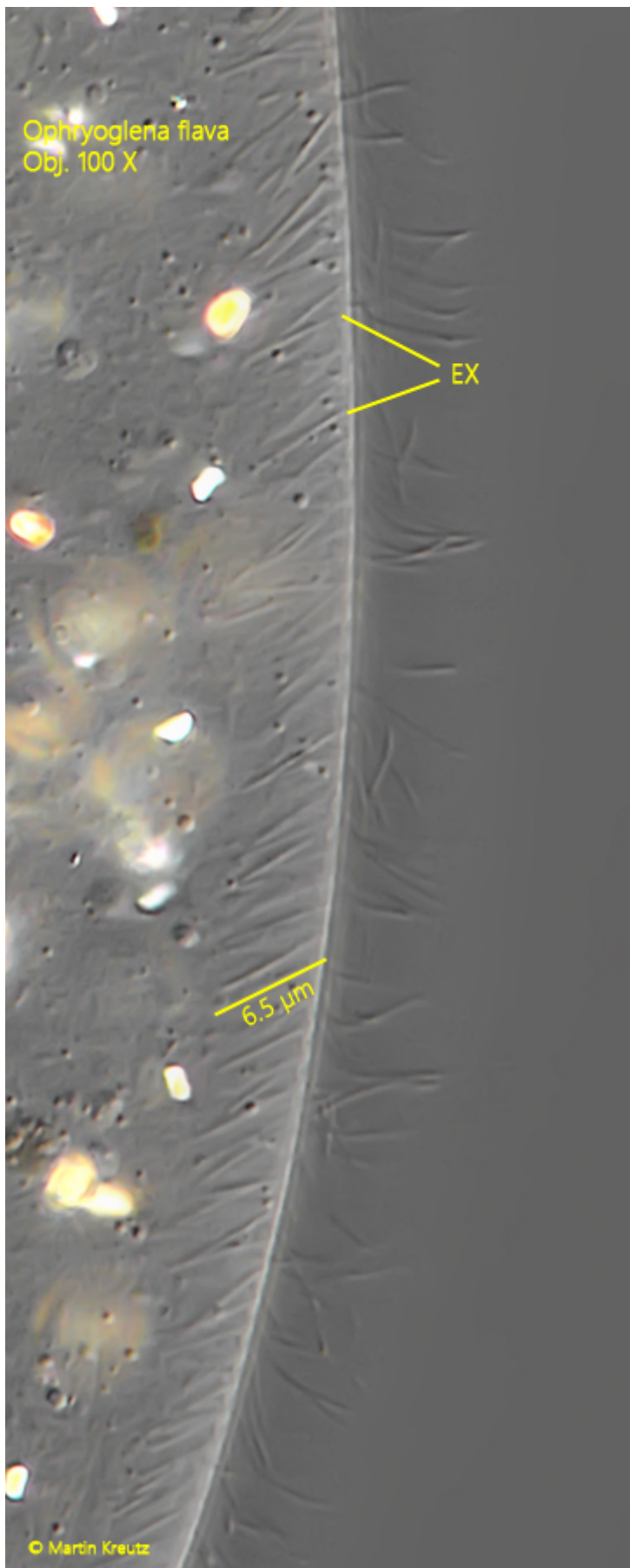
**Fig. 6:** *Ophryoglena flava*. One of the two contractile vacuoles (CV) surrounded by auxiliary vacuoles (AV) and collecting canals (CC). Obj. 100 X.



**Fig. 7:** *Ophryoglena flava*. Each contractile vacuole has 3-4 excretion pores (arrows). Obj. 100 X.



**Fig. 8:** *Ophryoglena flava*. One of the two contractile vacuoles (CV) in lateral view. Note the two cup-shaped excretion pores (EP) in lateral view. Obj. 100 X.



**Fig. 9:** *Ophryoglena flava*. L = 190 µm. The rod-shaped extrusomes (EX) are about 6.5 µm long. Obj. 100 X.