

## ***Ophryoglena* 1**

**Most likely ID:** *Ophryoglena* nov. spec.

**Synonym:** n.a.

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

**Phylogenetic tree:** n.a.

**Diagnosis:**

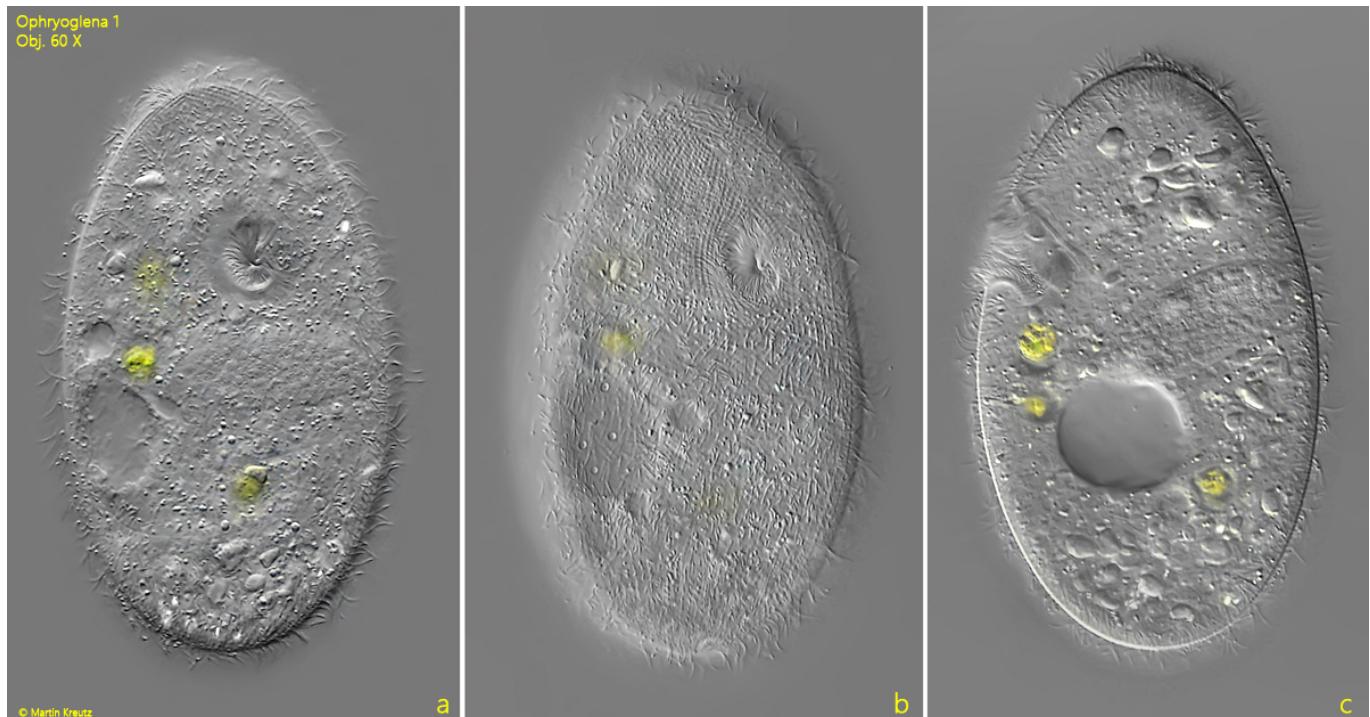
- body oval
- length about 100 µm
- oral apparatus with shape of a “6”
- oral apparatus with inconspicuous watch-glass body
- secondary structure in anterior position to watch-glass body
- distinct fringe of extrusomes beneath pellicle
- extrusomes in posterior half more densely arranged
- extrusomes rod-shaped, about 3.8 µm long
- macronucleus elongated ellipsoid
- one micronucleus adjacent to macronucleus
- one contractile vacuole, right side, below equator
- contractile vacuole with 4 excretion pores
- caudal cilium absent

**No drawings from previous authors available.**

In April 2020, I found a specimen of an *Ophryoglena* species among decomposing plant masses in the [Simmelried](#), which has a combination of features that do not match any of the species described so far. The main feature is the very thin and small watch-glass body in the oral apparatus (s. figs. 3 and 4) as well as a second, circular structure, which is located anteriorly to the watch-glass body (s. figs. 3 and 4). This second, structure has not yet been found in any of the described *Ophryoglena* species. It is circular with a diameter of 2.8 µm and, like the watch glass body, very delicate. This *Ophryoglena* species has a contractile vacuole on the right side, slightly below the equator. It has 4 excretory pores (s. fig. 5). The

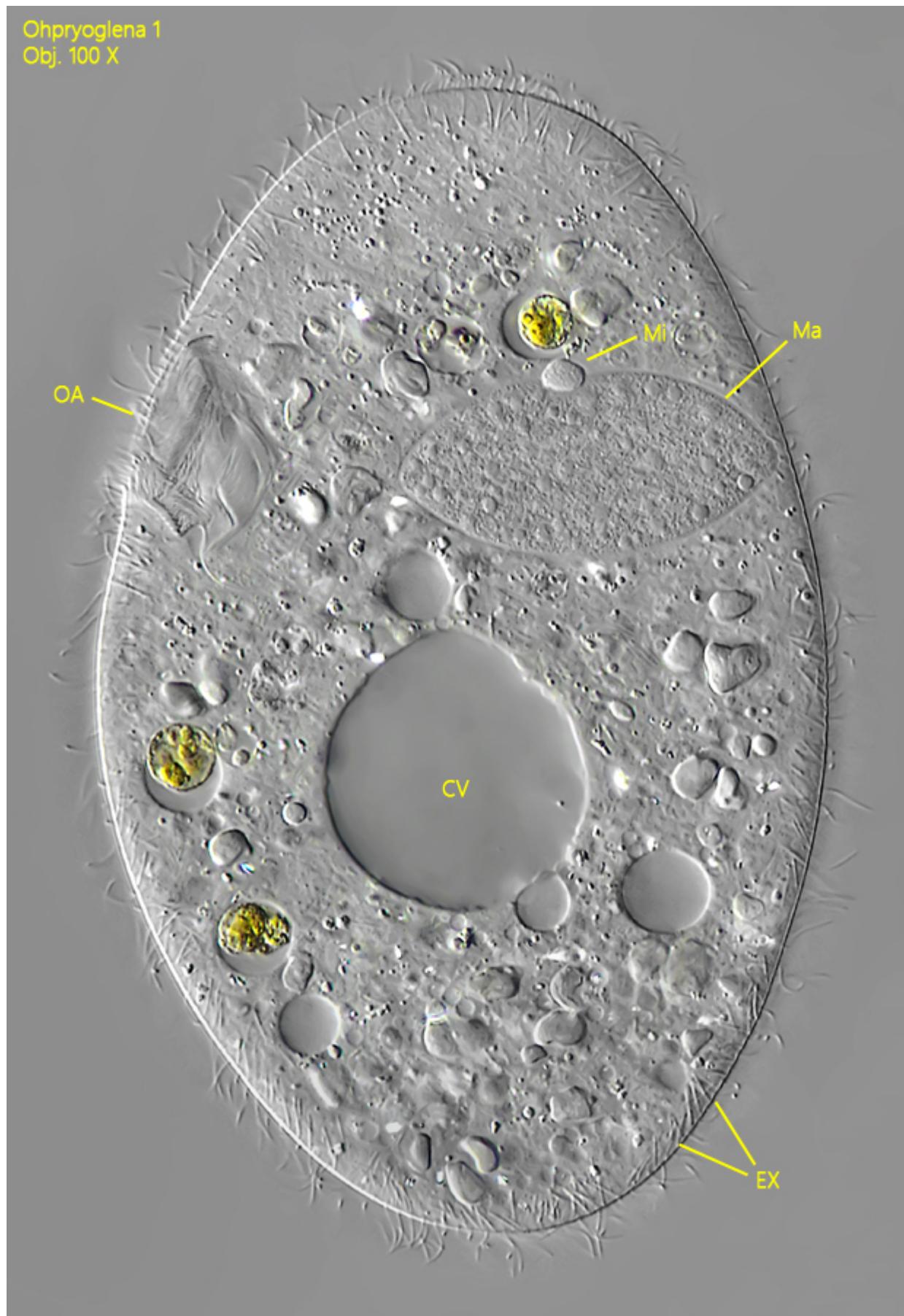
macronucleus is clearly ellipsoid with an attached micronucleus (s. fig. 2). The extrusomes are rod-shaped with a length of about 3.8  $\mu\text{m}$  (s. fig. 7). They are not evenly distributed over the body. In the anterior half they are much more scattered than in the posterior half, where they form a dense fringe.

On the basis of this combination of features, which is not described in the literature for any *Ophryoglena* species, I believe that this is a previously undescribed species *Ophryoglena* nov. spec.



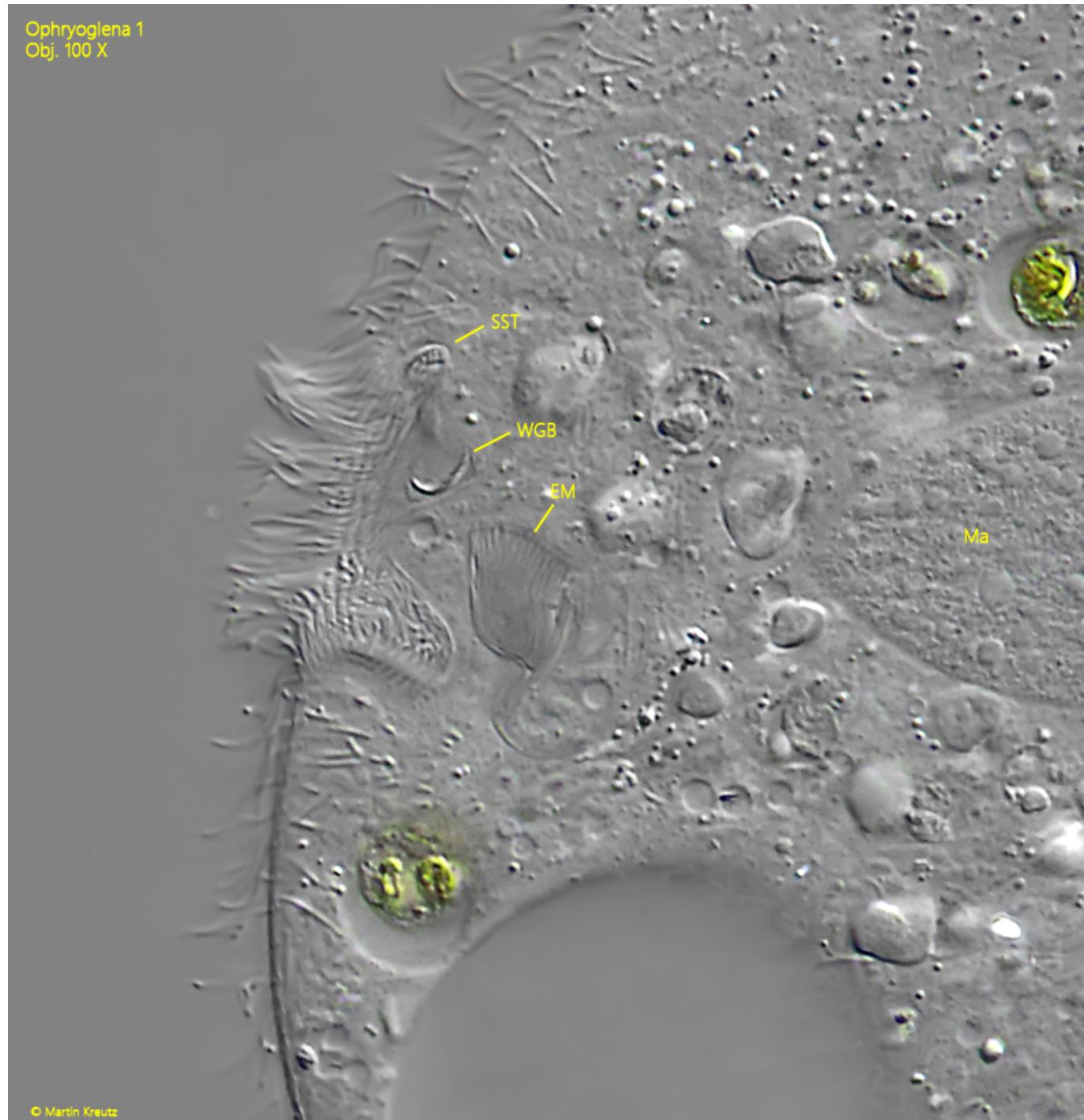
**Fig. 1 a-c:** *Ophryoglena* 1. L = 102  $\mu\text{m}$ . A slightly squashed specimen from ventral (a, b) and from left (c). Obj. 60 X.

Ophryoglena 1  
Obj. 100 X

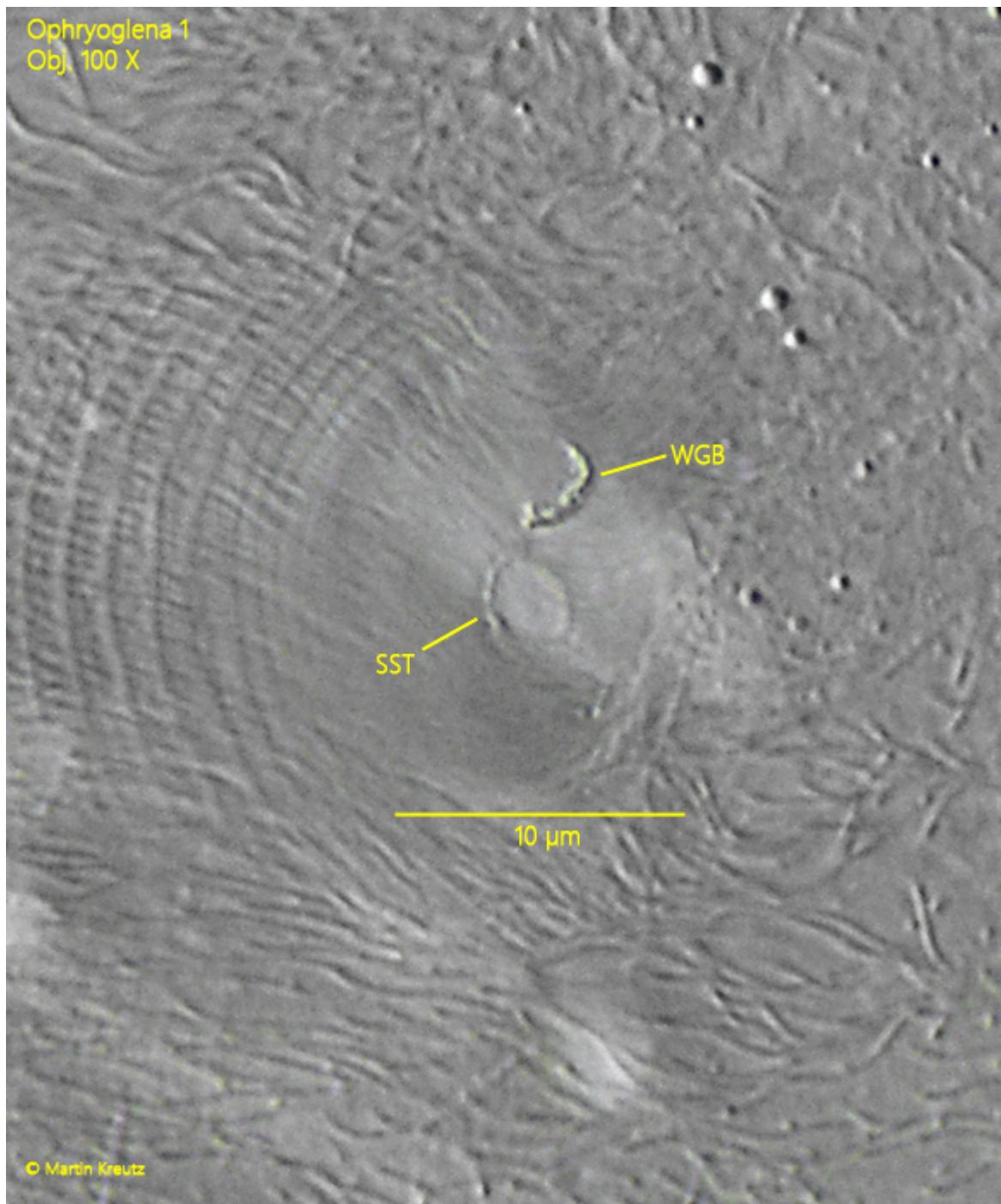


**Fig. 2:** *Ophryoglena 1*. L = 102  $\mu$ m. The squashed specimen as shown in fig. 1 a-c from left. CV = contractile vacuole, EX = extrusomes, Ma = macronucleus, Mi =

micronucleus, OA = oral apparatus. Obj. 100 X.

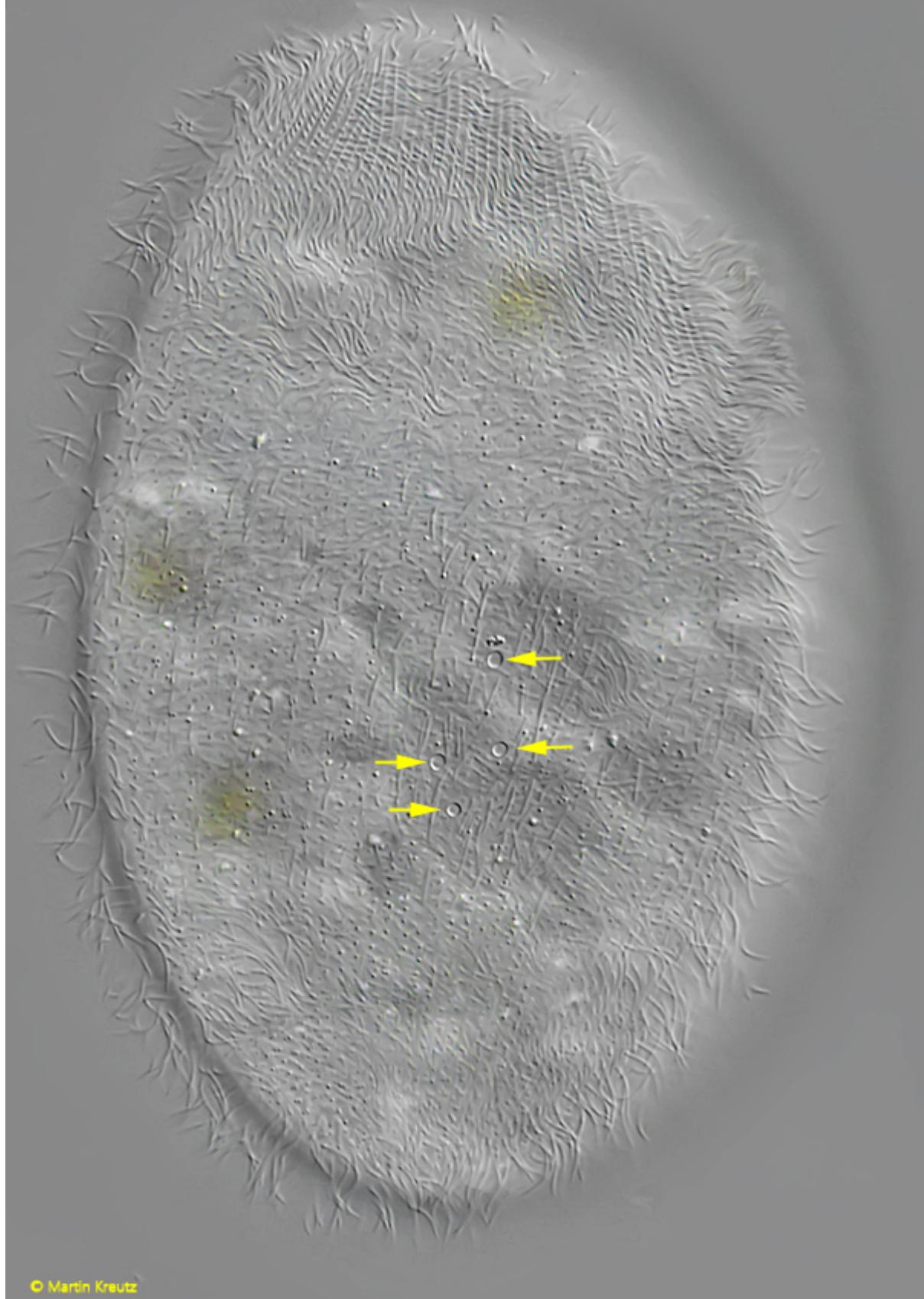


**Fig. 3:** *Ophryoglena 1*. The oral apparatus in a squashed specimen. The watch-glass body (WGB) is inconspicuous and very thin. Anteriorly to the watch-glass body a second structure (SST) is visible. It seems to be ring shaped. EM = endoral membrane. Obj. 100 X.



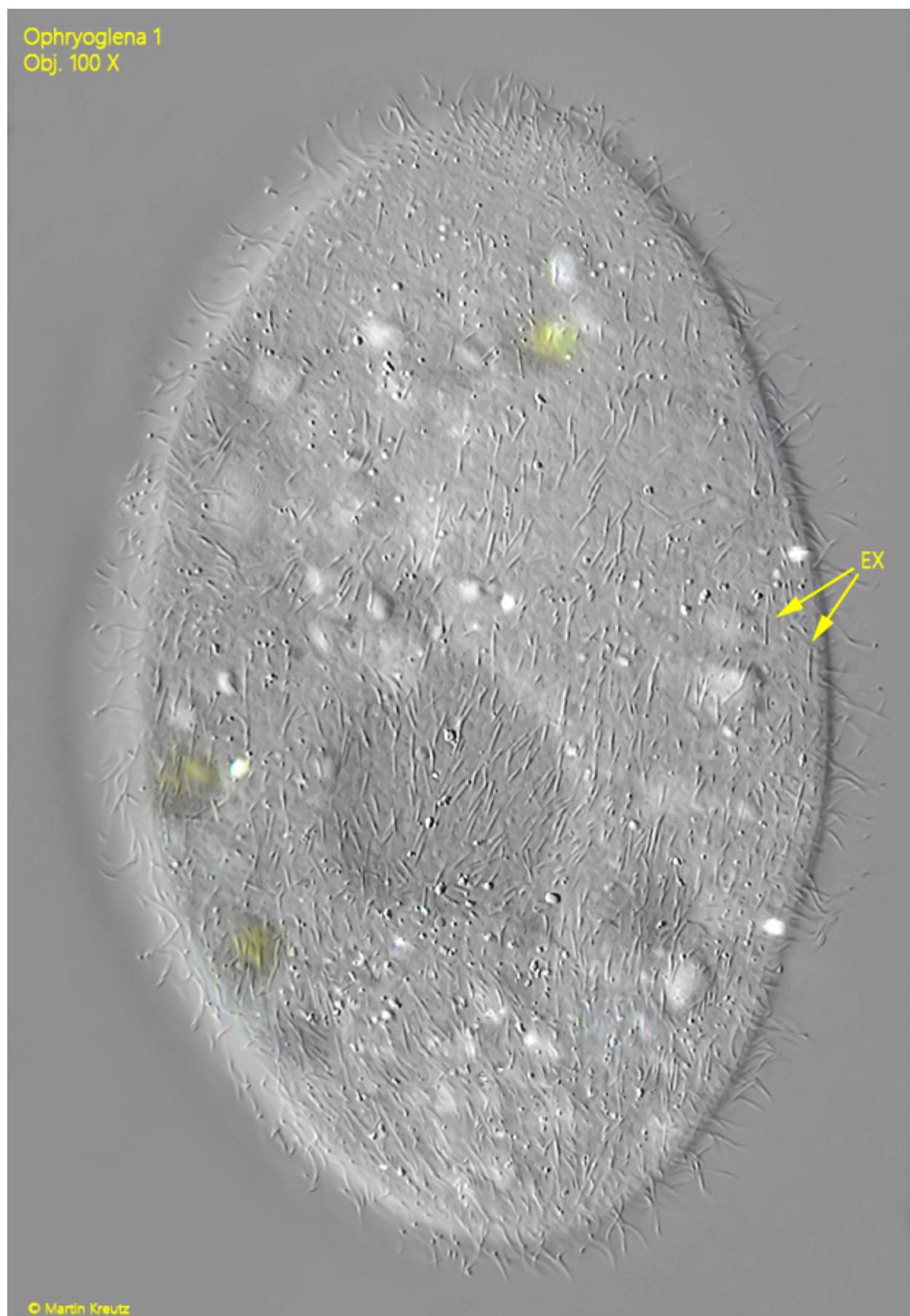
**Fig. 4:** *Ophryoglena* 1. The oral apparatus in frontal view. The watch-glass body (WGB) is visible and the circular secondary structure (SST). The watch-glass body has a diameter of 3.3  $\mu$ m and the secondary structure of 2.8  $\mu$ m. Obj. 100 X.

Ophryoglena 1  
Obj. 100 X



**Fig. 5:** *Ophryoglena* 1. A squashed specimen from right with 4 excretion pores (arrows) of the contractile vacuole. Obj. 100 X.

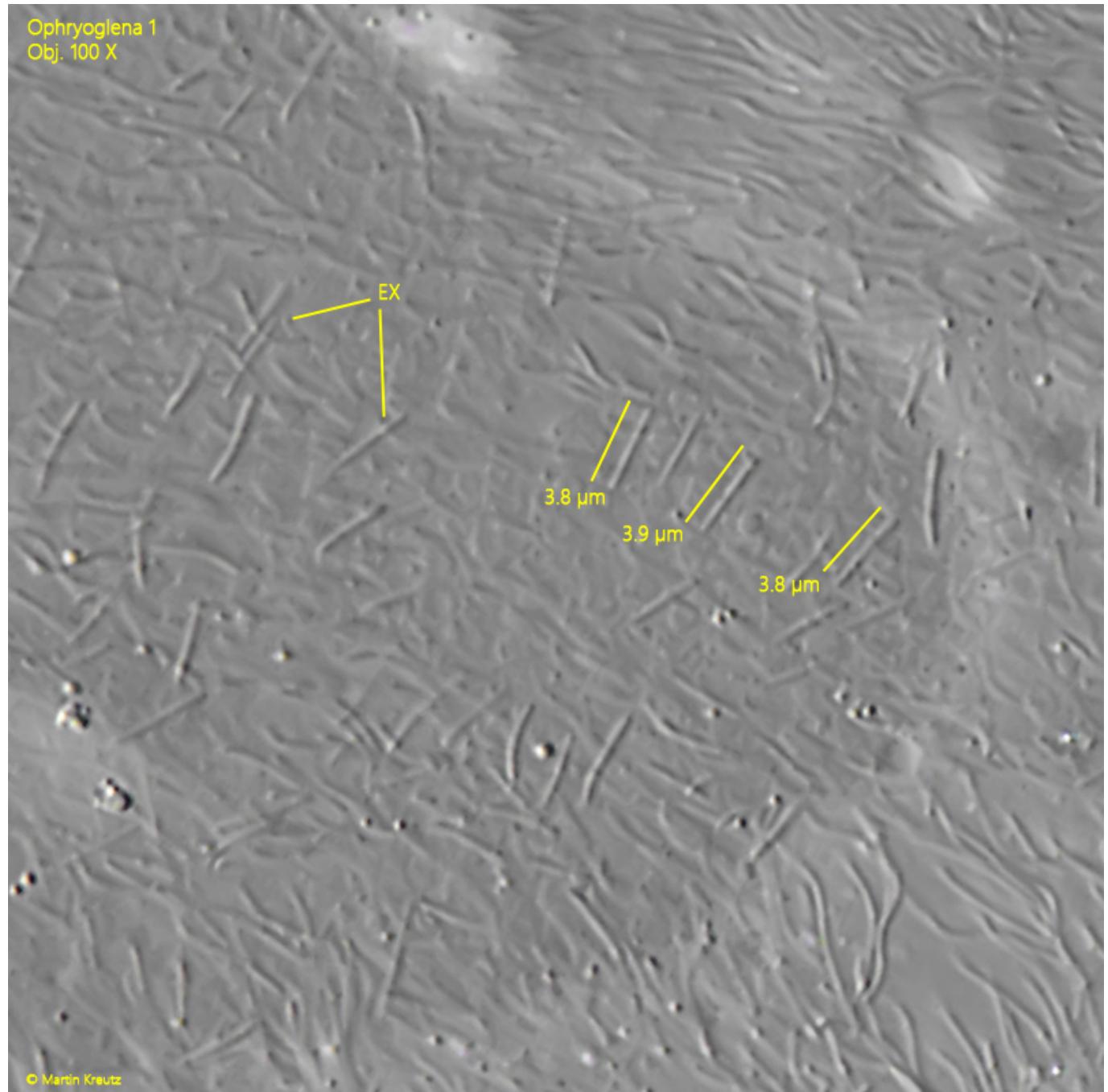
Ophryoglena 1  
Obj. 100 X



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**Fig. 6:** *Ophryoglena 1*. The distribution of the extrusomes (EX) beneath the pellicle is not homogenous. The density of them ist much higher in the posterior half. Obj.

100 X.



**Fig. 7:** *Ophryoglena 1*. The extrusomes are rod-shaped with a length of about 3.8 µm. Obj. 100 X.