

***Zitheron muscorum* (Kahl, 1931)**

Most likely ID: n.a.

Synonyms: *Saprophilus muscorum*, *Sathrophilus muscorum*, *Kariphilus muscorum*

Sampling location: Moss

Phylogenetic tree: [Zitheron muscorum](#)

Diagnosis:

- body obovoid or oval
- posteriorly slightly tapered
- length about 35 µm
- oral apparatus large, in anterior half
- contractile vacuole subterminal with short emptying canal
- macronucleus globular, mid-body
- one spherical micronucleus
- sometimes extrusomes present
- one caudal cilium



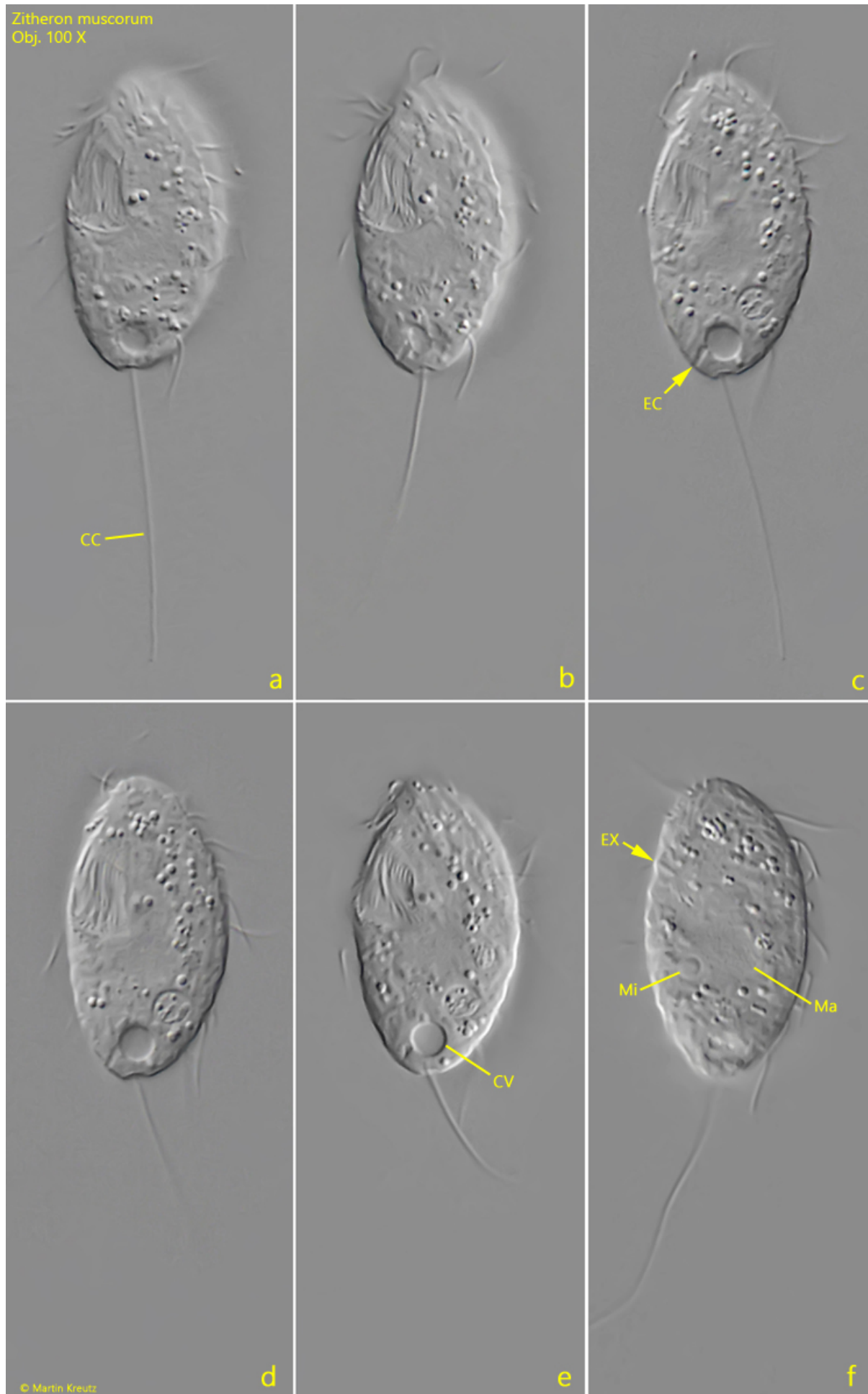
Zitheron muscorum

Zitheron muscorum was first described by Kahl (1931) as *Saprophilus muscorum*. Corliss (1960) transferred the species to the genus *Sathrophilus*, and Jankowski (2007) finally transferred it to the newly created genus *Kariphilus*. Finally, *Kariphilus muscorum* was transferred by Poláková et al. (2021) to the new genus *Zitheron*. The genus *Zitheron* was also raised by Jankowski in 2007.

I found *Zitheron muscorum* in a moss sample in March 2021. Kahl also found the population he describes in a few lines in moss. The ciliate has a relatively large mouth opening compared to its body size, which is located in the anterior half. A membranelle of long cilia is visible inside. At 25–28 μm , my specimens were smaller than those described by Kahl (35 μm).

Apart from this deviation, all other characteristics correspond to Kahl's description. Particularly striking and explicitly mentioned by Kahl is the short emptying canal of the subterminal contractile vacuole (s. fig. 1 c). In my specimens, I was able to identify isolated, rod-shaped extrusomes with a length of 1.8 μm (s. fig. 1 f). In the cytoplasm of various specimens, I was able to identify symbiotic bacteria, but these were difficult to contrast. The margin of the ciliate appears slightly wavy due to indentations where the cilia originate.

Zitheron muscorum
Obj. 100 X



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Fig. 1 a-f: *Zitheron muscorum*. L = 26 μm . Different focal planes of a freely swimming specimen. Note the short emptying canal (EC) of the subterminal contractile vacuole (CV). CC = caudal cilium, EX = extrusome, Ma = macronucleus, Mi = micronucleus. Obj. 100 X.