Omnivora mutabilis

(Bailey, 1853) Dumack, Pundt and Bonkowski, 2019

Most likely ID: n.a.

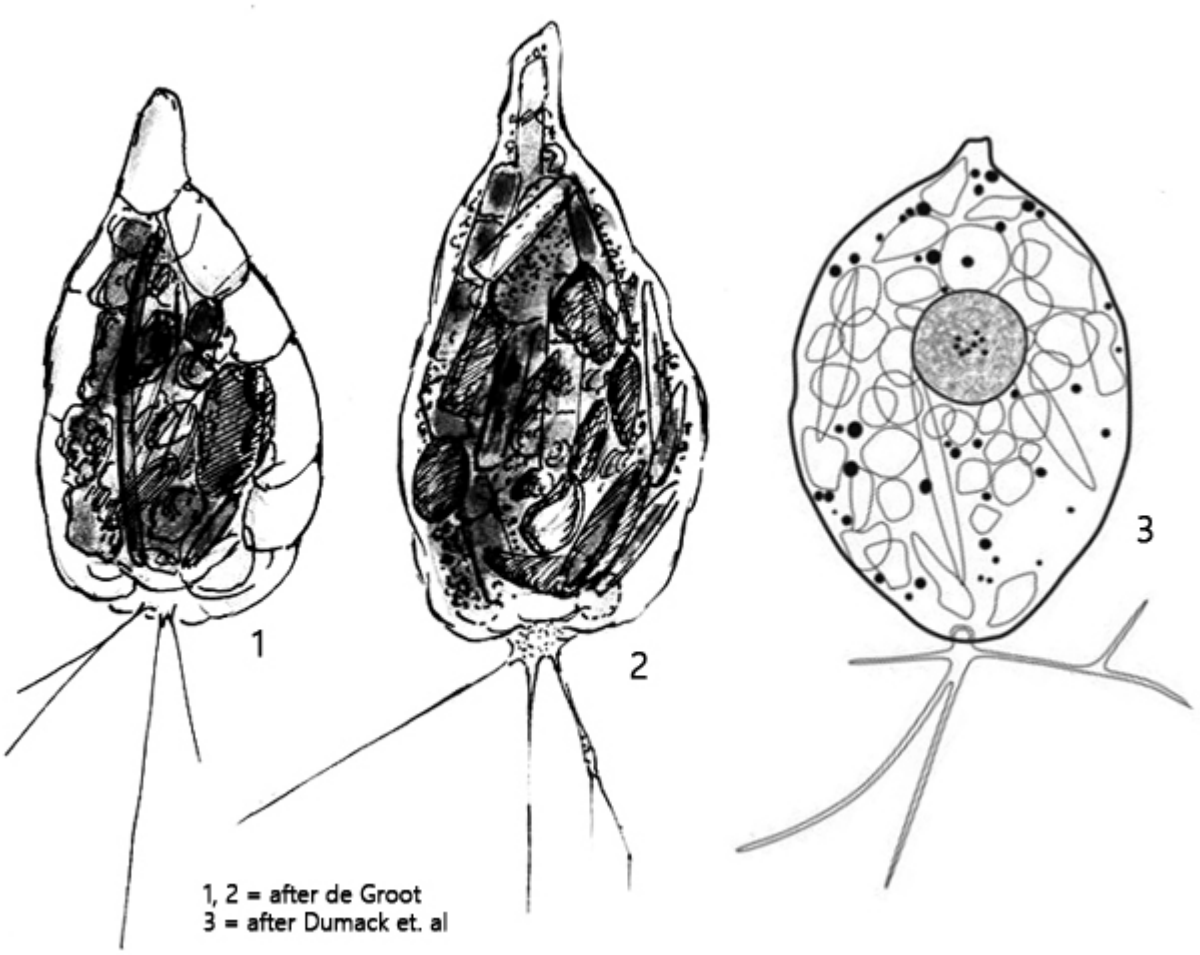
Synonyms: *Lecythium mutabilis*, *Pamphagus mutabilis*, *Pseudodifflugia caudata*

Sampling location: Pond of the convent Hegne, Simmelried

Phylogenetic tree: n.a.

Diagnosis:

- test hyaline, flexible, xenosomes absent
- pyriform shape with a tapered posterior end
- length 230±90 µm
- mouth opening small, slit shaped, with folded collar
- cytoplasm filled with ingested (algae, diatoms, detritus)
- globular nucleus in posterior third, diameter about 30 µm
- filopodia thin, straight, sometimes branched



Omniphora mutabilis

I find *Omnivora mutabilis* regularly, but not frequently. It lives exclusively in the uppermost layers of the mud. So far I have been able to find *Omnivora mutablis* in the Simmelried and in the pond of the convent Hegne.

Despite its size, *Omnivora mutabilis* is hard to detect in fresh samples, as the cells are usually completely filled with algae, diatoms and detritus. They often burrow into detritus flakes. In samples without coverslips, the specimens also become upright and appear round through the posterior view. The delicate filopodia are usually stretched out when only light coverglass pressure is applied (s. fig. 1 a-b). They are often straight and very thin, sometimes branched. If the filopodia are retracted again, they appear somewhat wrinkled. Due to the large amount of food ingested, the contractile vacuole cannot be recognized. Other authors had obviously the same problem, as there is no indication of the position and number of contractile vacuoles in the literature. The nucleus only becomes clearly visible in squashed specimens (s. fig. 3). It is usually spherical and located in the posterior third.

In my population, the specimens were up to 250 µm long. This agrees well with the size data

from Dumack et al. (2009).

More images and information on *Omnivora mutabilis*: [Ferry Siemensma-Microworld-*Omnivora mutabilis*]

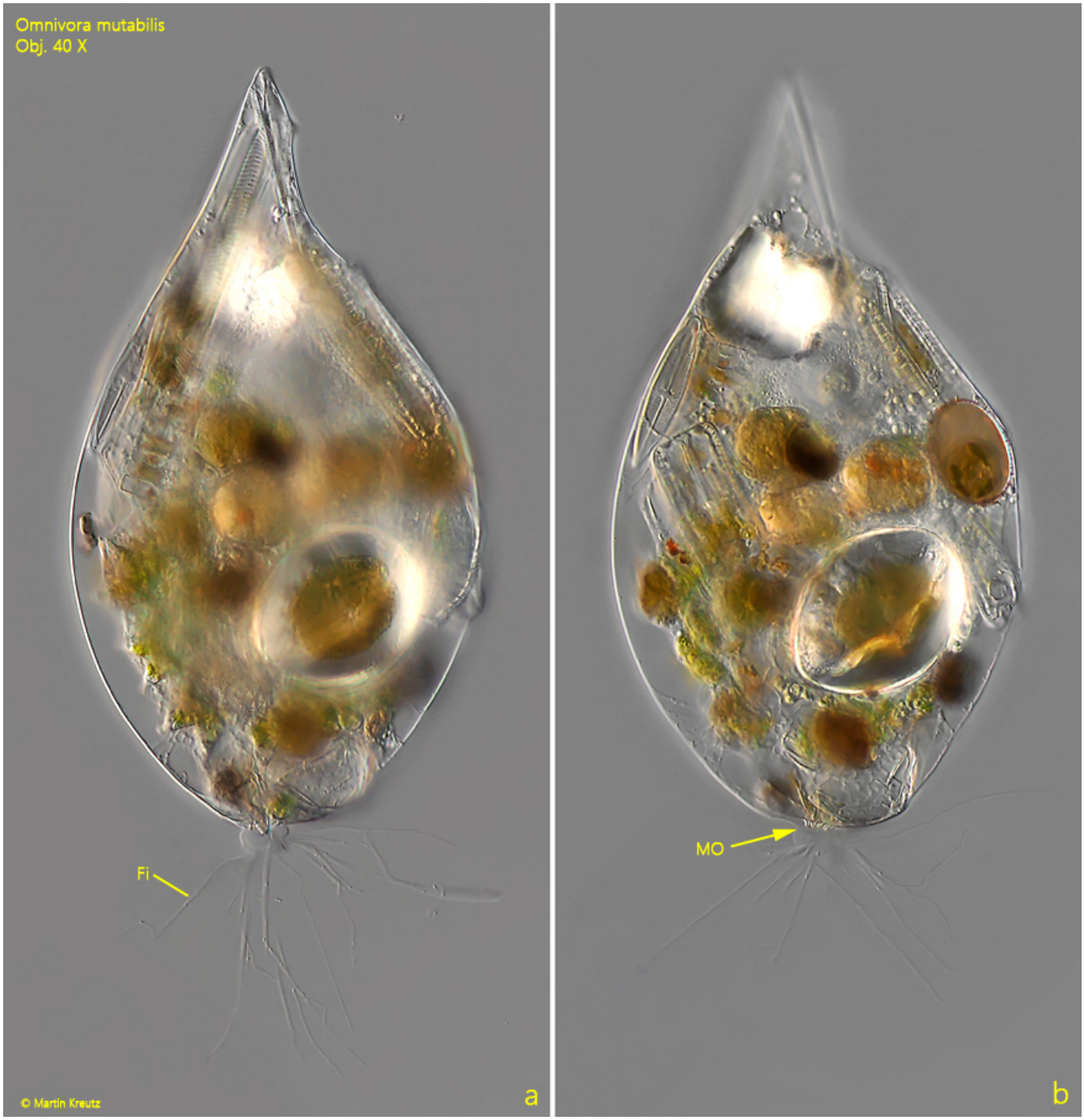


Fig. 1 a-b: *Omnivora mutabilis*. L = 233 µm. Two focal planes of a slightly squashed specimen. Fi = filopodia MO = mouth opening. Obj. 40 X.

Fig. 2: *Omnivora mutabilis*. L = 233 µm. The squashed specimen as shown in fig. 1 a-b. The cytoplasm ist completely filled with ingested algae, diatoms and detritus. The bright object

in the posterior end is a sand grain. Between the ingested food the nucleus (Nu) is visible. Obj. 60 X.

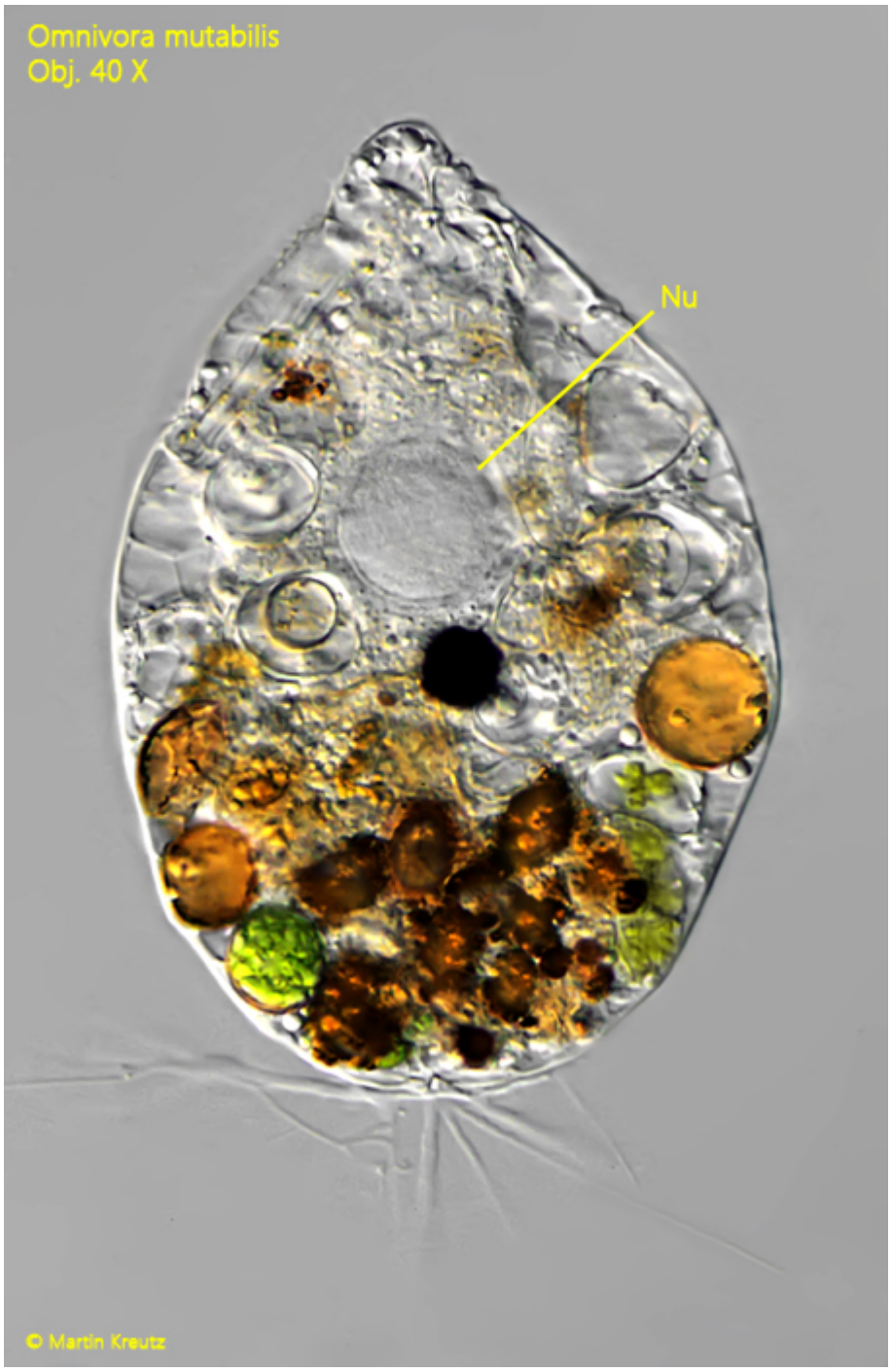


Fig. 3: *Omnivora mutabilis*. L = 162 µm. A second squashed specimen. Note the globular nucleus (Nu) in the posterior third. Obj. 40 X.