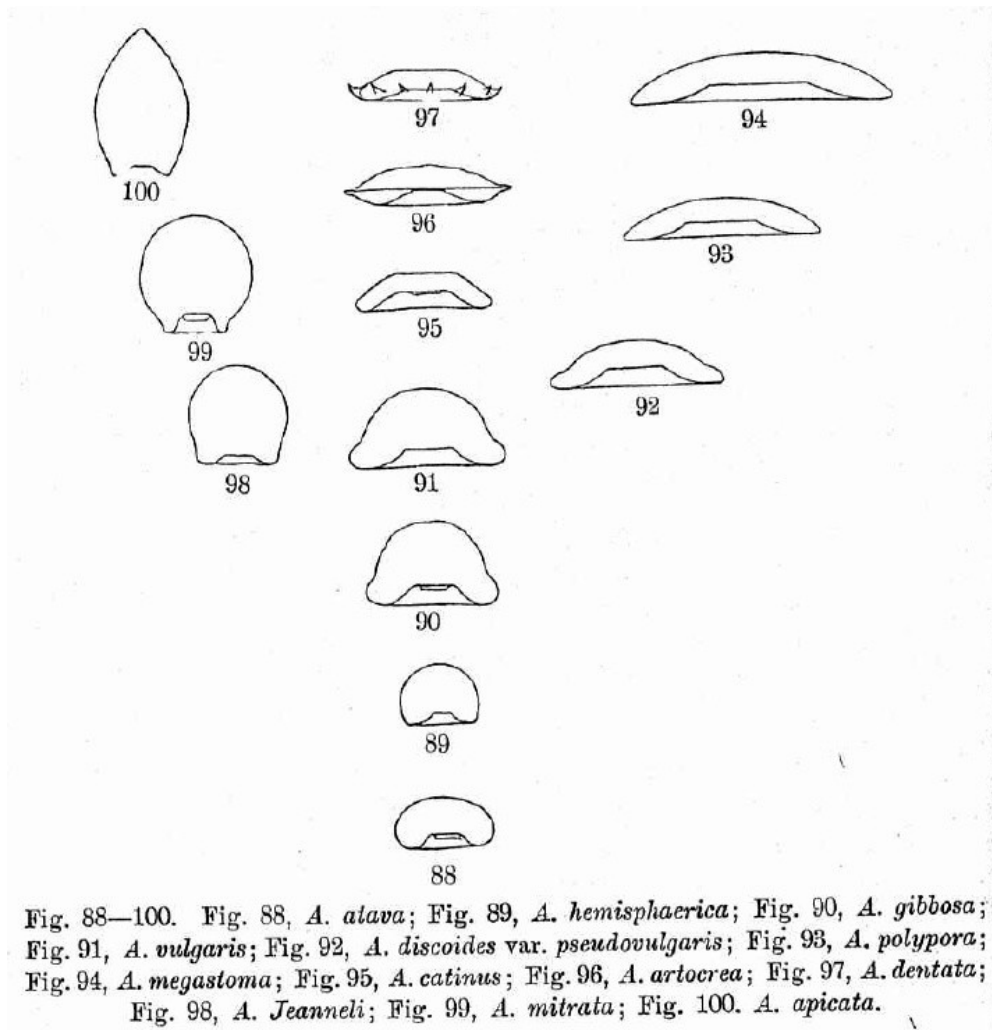


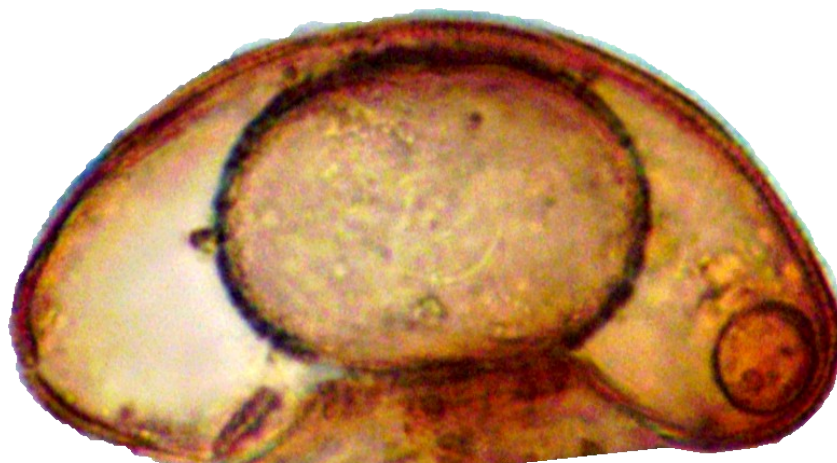
Test deformation of Arcella catinus

Arcella species are more or less umbrella-shaped with a central invaginated aperture.

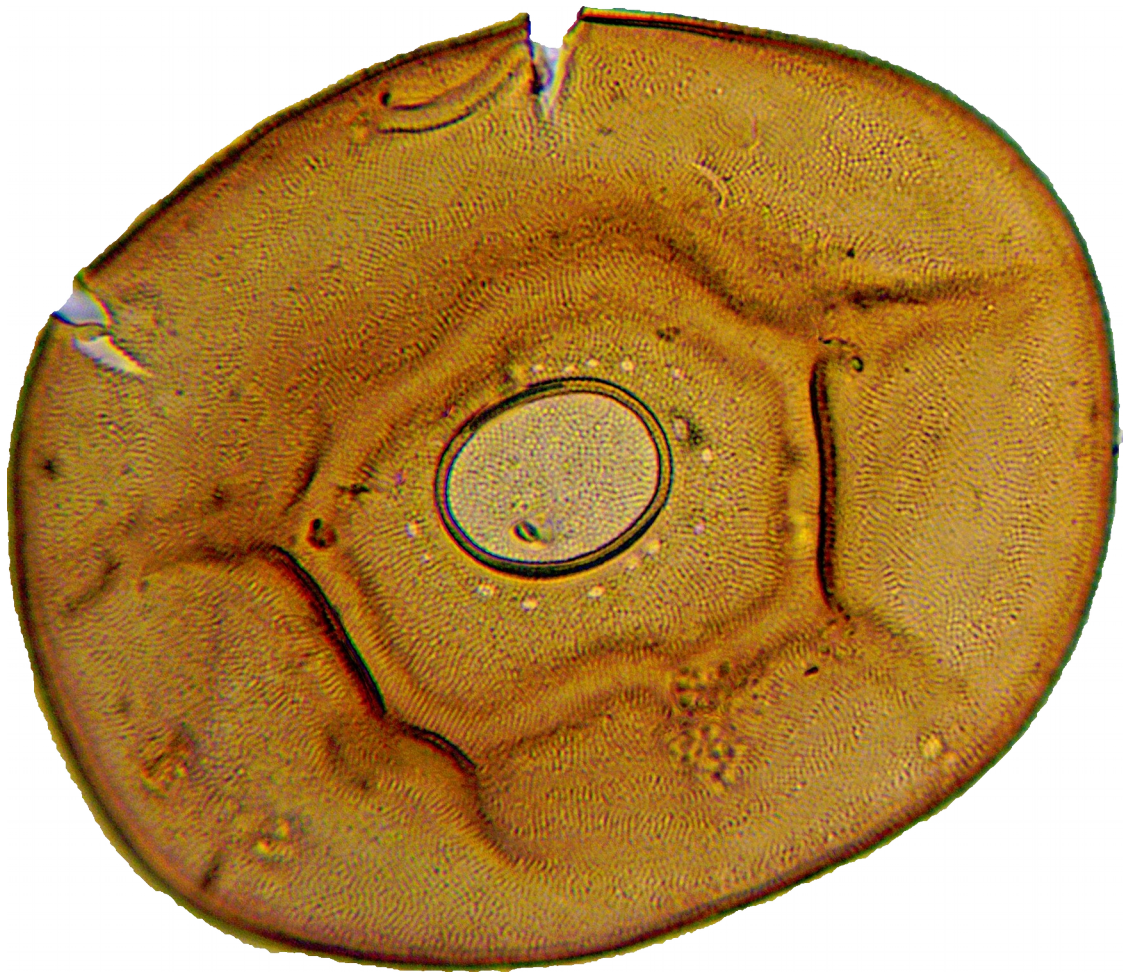


As this drawing by Deflandre shows, their lateral views range from disc to balloon. (Georges Deflandre 1928 "Le genre Arcella").

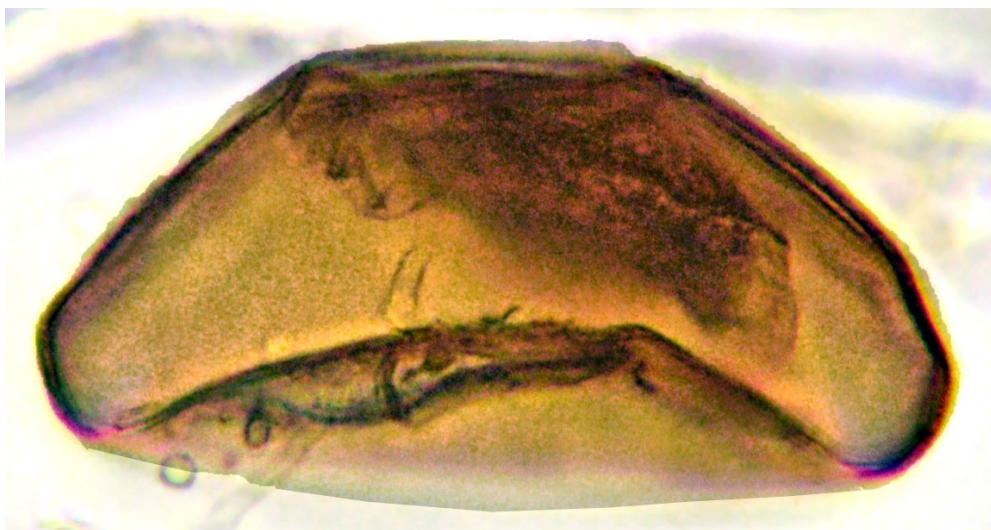
Under unfavourable conditions thecamoebae transform into a dormant stage, a spherical cyst, within the shell.



The species *Arcella catinus* is quite common in wet moss, especially sphagnum. Its shape is more or less round, triangular or square and always looks somewhat crumpled.



Front View



Side view

Arcella catinus is the only species where the cyst deforms the rather flexible shell and blows it up to the shape of a spaceship. The base and the aperture rim are everted downwardly.

I found the drawings below by Deflandre and Leidy of this deformed state, but nowhere photomicrographs.

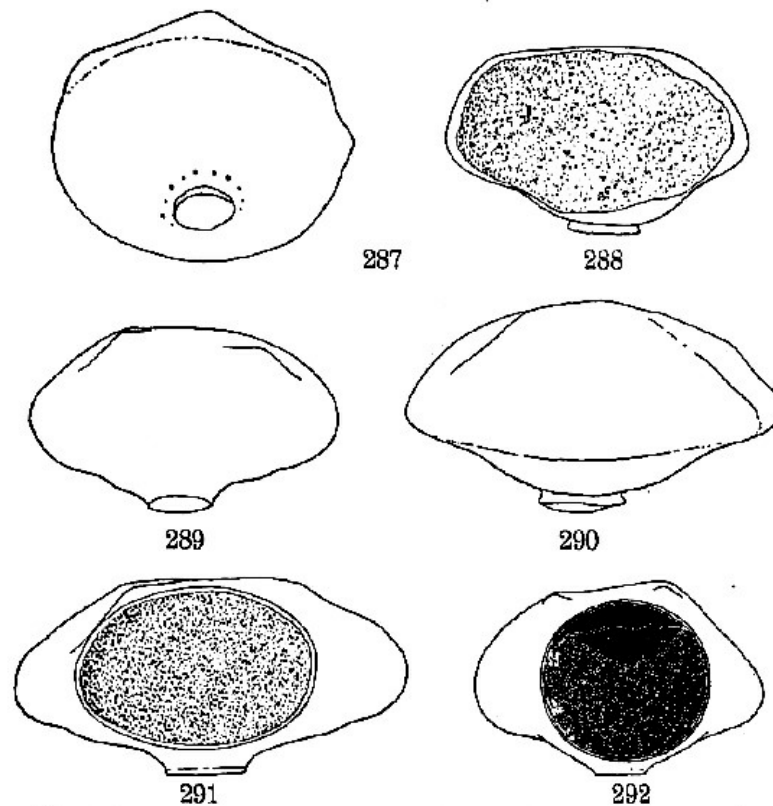
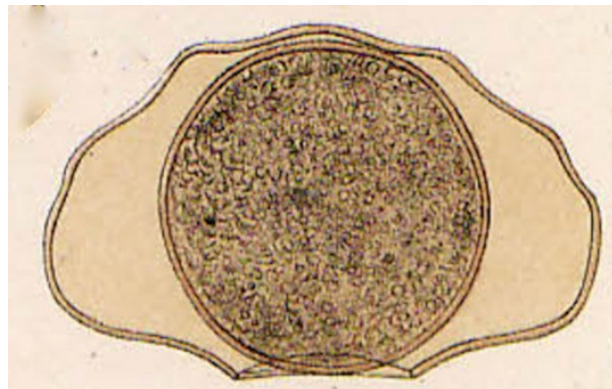


Fig. 287—292. Fig. 287 à 291, *A. catinus* (Fig. 291, kyste); Fig. 292, *A. catinus* var. *sphaerocysta* (orig.).

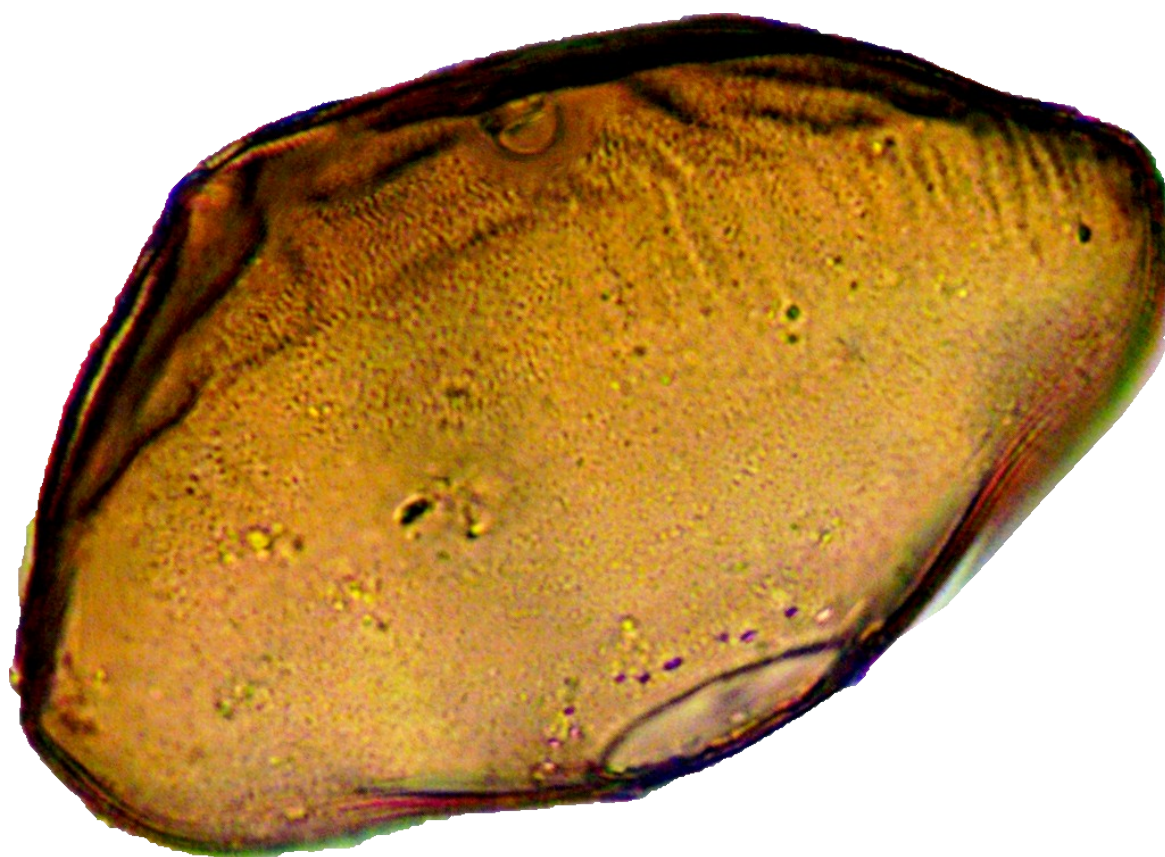
Deflandre again ...

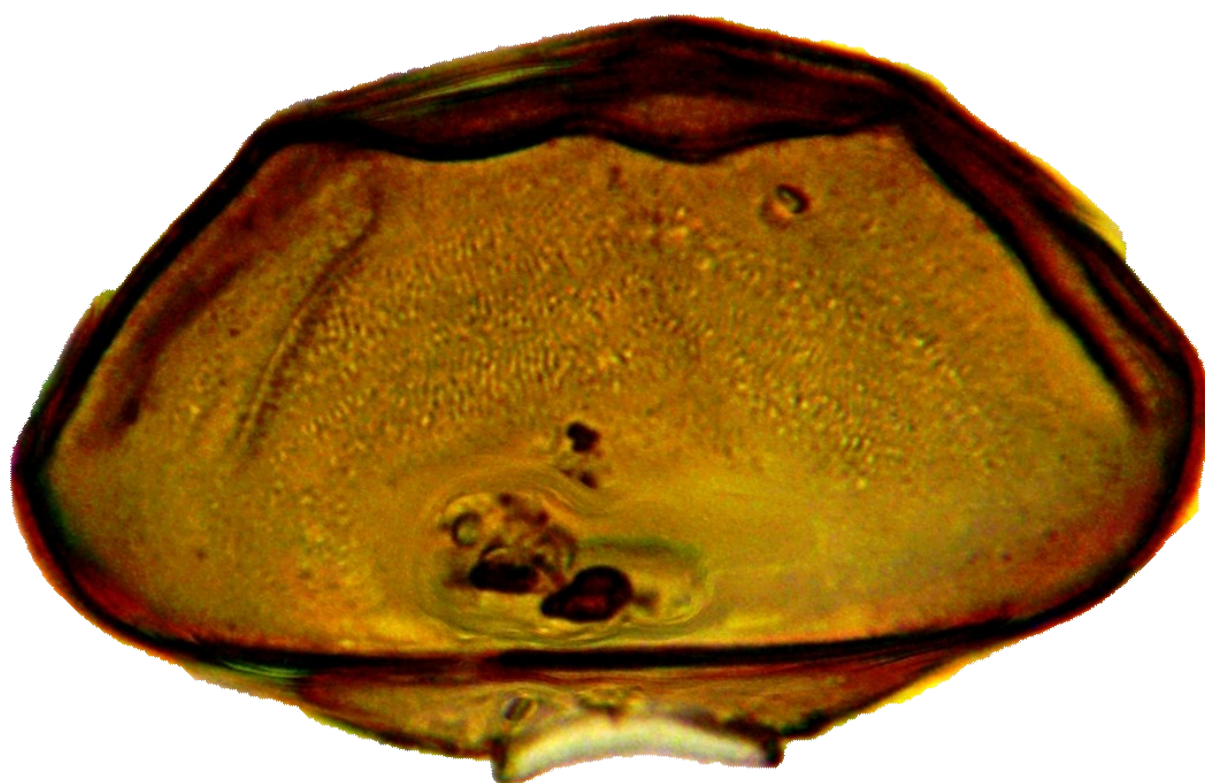


... and Joseph Leidy

(Fresh-Water Rhizopods of North America, 1879)

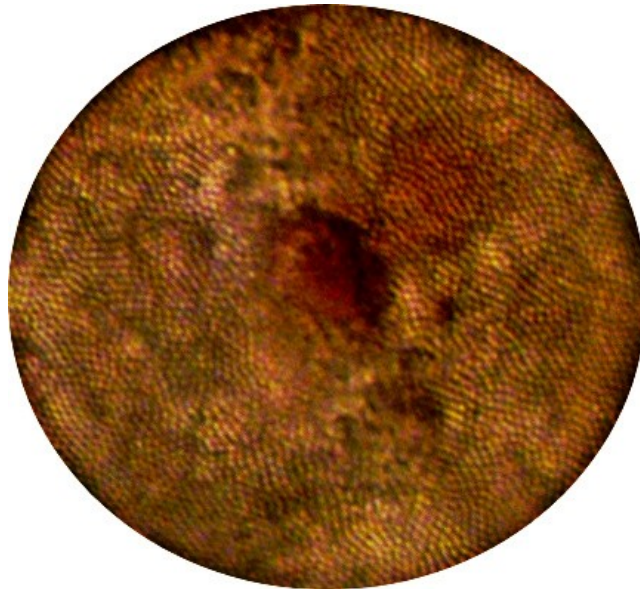
So I thought I'd show you some specimen I have found in a birch bog in Northern Germany:



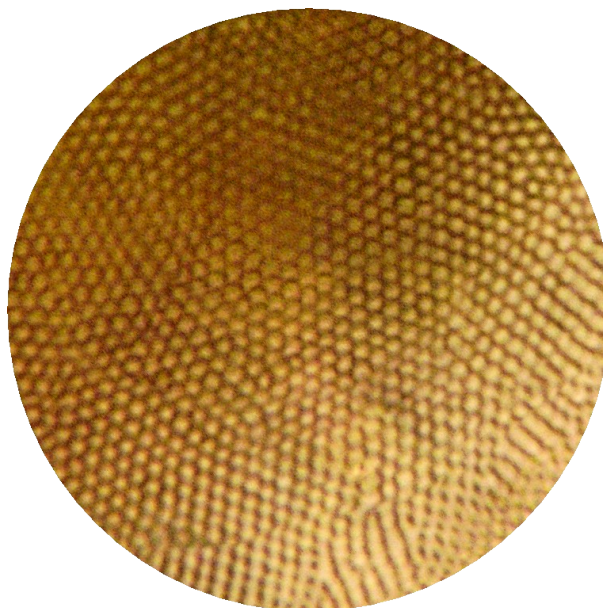


Apparently *Arcella catinus*' tests are far more deformable than those of the other members of the genus. This probably has to do with the different structures of the tests.

Arcella tests are composed of honeycomb-like areoles arranged in a single layer and cemented together. *A. catinus* has much smaller areoles than the rest of the genus, measuring only about $\frac{1}{2} \mu\text{m}$.



... compared with the typical $1 \frac{1}{2} \mu\text{m}$ of the *Arcella mitrata* areoles (not quite to scale) below:



Published in the June 2019 issue of *Micscape* magazine.

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