CONDYLOSTENTOR: a rare marine protozoan

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Sometimes chance makes us meet relatively rare organisms which raises questions of identification and classification,

I specify that I am not obsessed with this process but I like to know more about the subjects that I observe under the microscope and when the name is known, it is easier to find much more information on the net.

As I have said in other articles, I am ideally located between the sea and a large saltwater pond which allows exchanges between these two biotopes by means of canals.
The first time I encountered the subject of this article was over 20 years ago and I had classified it (not entirely wrongly, as we will see!) in the family Stentoridae.

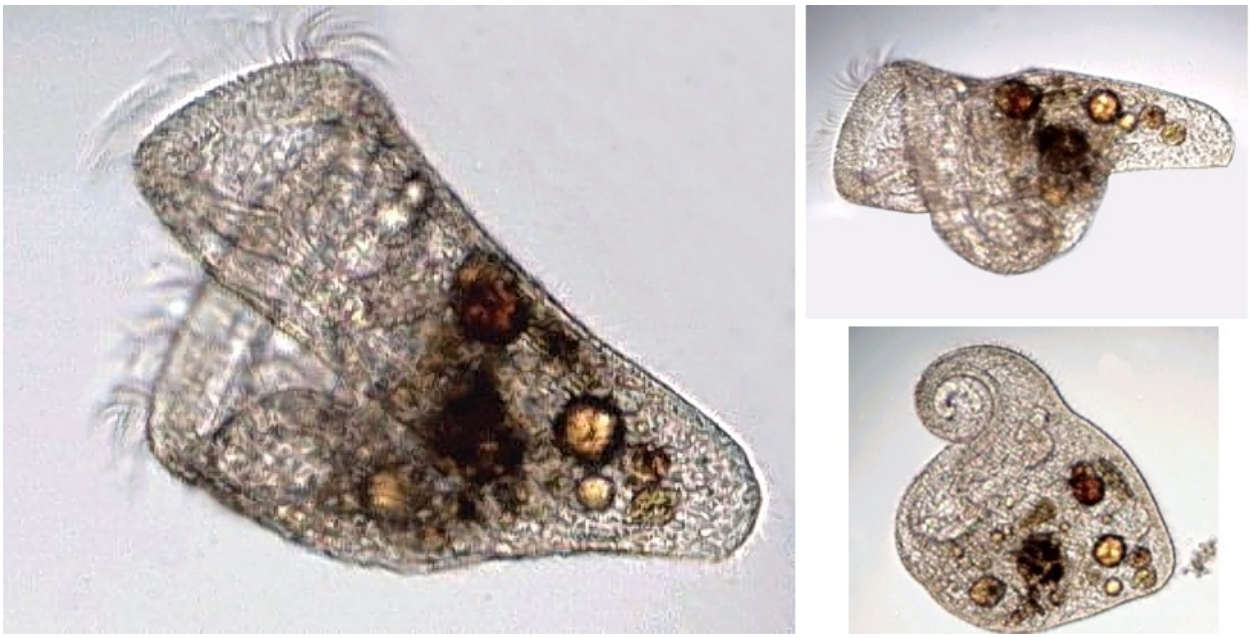
Here are the first images modestly obtained at the time with an analog camera with a field of 360 x 280 pixels! We note, in the central image, the moniliform nucleus which had directed me towards the stentors familly.

Thanks to the community of microscopists and the help of our late friend Walter Dioni, he proposed a first identification as *Condylostoma auriculata.*

See here his remarkable Stentoridae identification key in which he uses the image I provided.

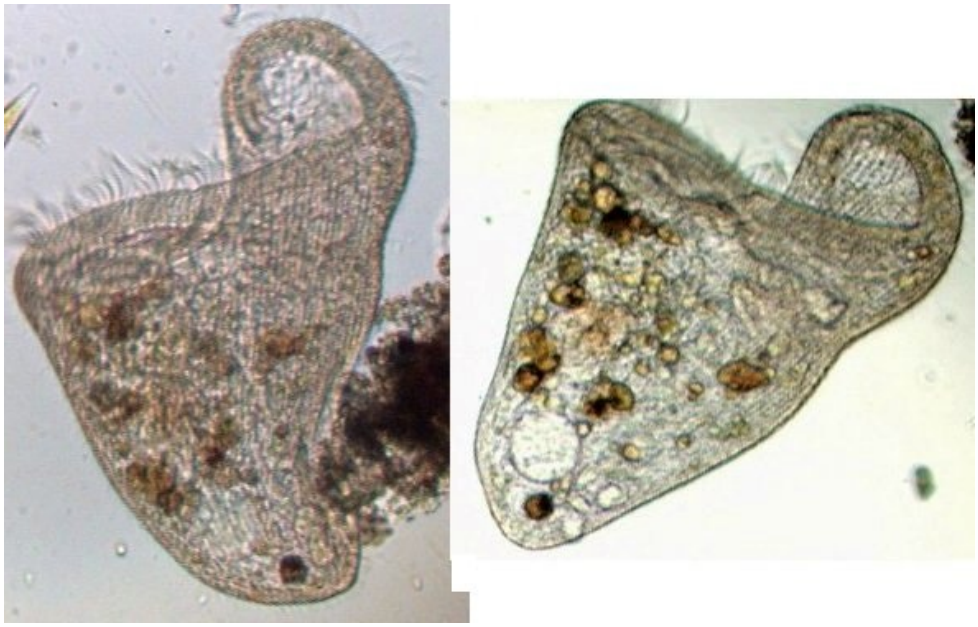
http://www.microscopy-uk.org.uk/mag/artnov04/wdstentor.html

and here is the image found in the key:

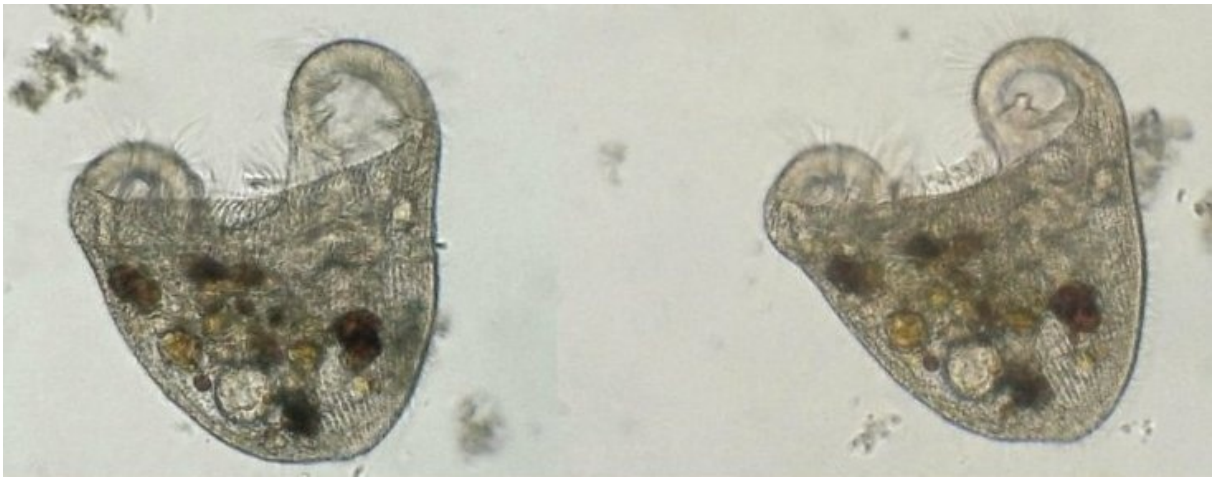


Two years later I have found 2 specimens: The first one:

The second:

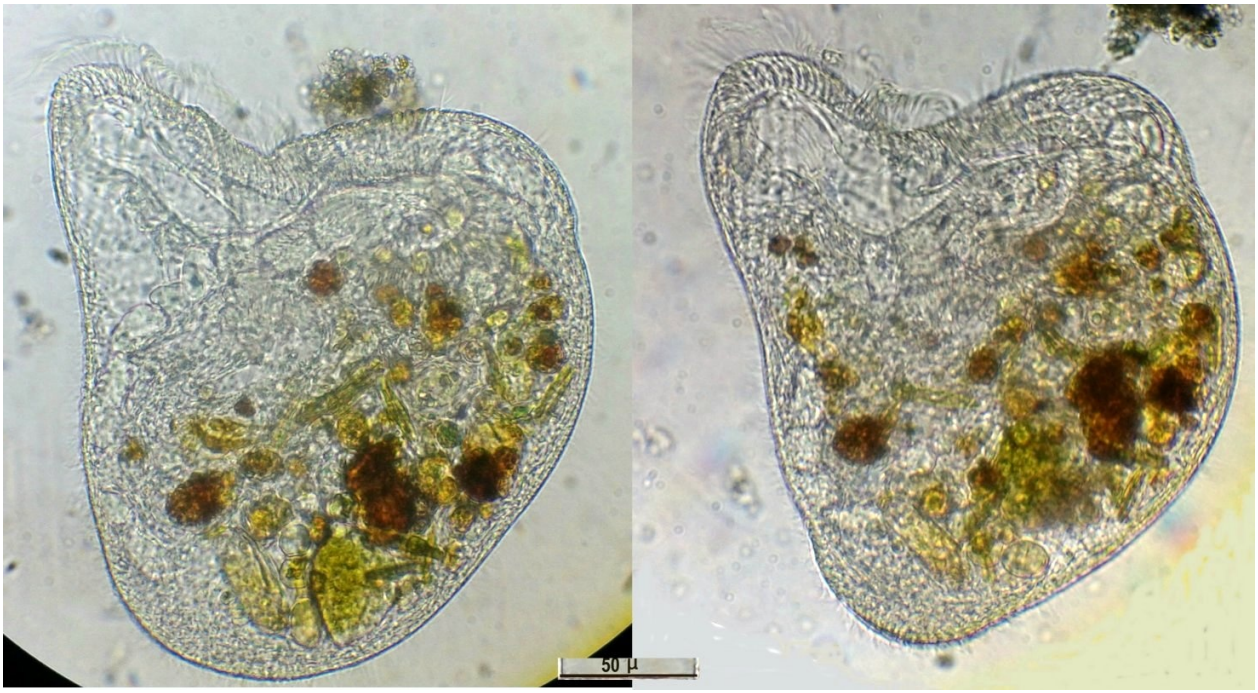


For several years I could not find this organism, but this year, by scraping a rope immersed in the sea water of one of the canals mentioned above, I was able to collect several specimens. This time, using a mobile phone (5 MPx) I obtained better quality images: the specimen is free without coverslip on the slide: images with X15 objective.



A search on the Internet yields very few images so I am happy to share them with *Micscape* readers. !

The specimen is quite calm and turns in circles so that the installation of a cover slip makes it easy to immobilize it by carefully controlling the quantity of water under the cover slip so as not to crush it: just add a little water on the edge so that it infiltrates underneath by capillarity and lifts it a little if necessary. Images with the X40 objective:



The classification evolves, in particular with the analysis of DNA/RNA, and this species is the subject of discussions which seem to consider it as a specific phylum of the heterotriches. See page 1091 of the link below.
The morphological differences would be mainly on the oral apparatus: AZM (Adoral Zone of Membranelles)

https://www.researchgate.net/publication/228494948_Phylogenetic_position_of_three_Condylostoma_species_Protozoa_Ciliophora_Heterotrichea_inferred_from_the_small_subunit_rRNA_gene_sequence

It would therefore currently be: *Condylostentor auriculata*

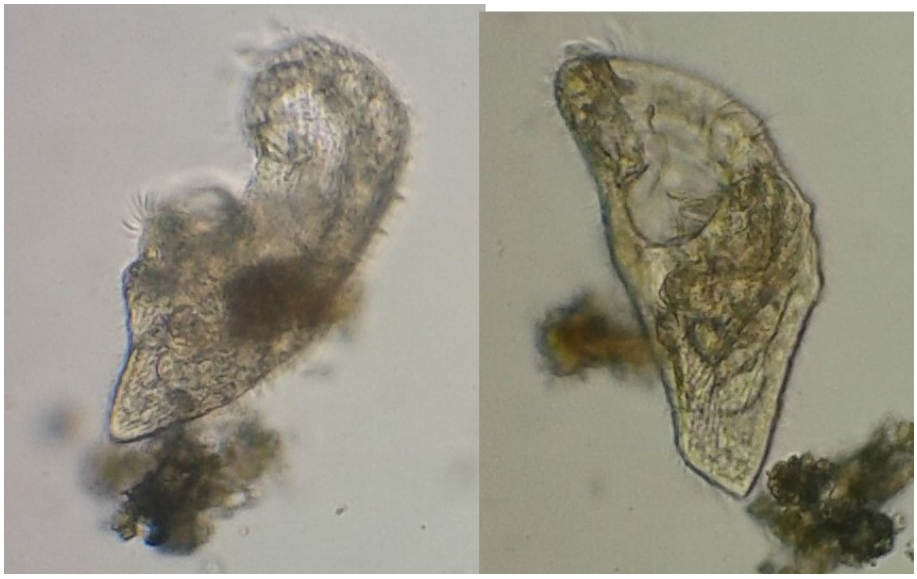
With this identification, searches on the Internet give some results in particular here page 295 where we find a real image and very detailed drawings:

https://www.researchgate.net/publication/266145007_The_Morphology_of_Three_Marine_Heterotrichous_Ciliates_Condylostentor_auriculatus_Kahl_1932_Jankowski_1978_Condylostoma_minutum_Bullington_1940_and_C_spatiosum_Ozaki_Yagiu_in_Yagiu_1944_Ciliophora_Het

Here a picture of another specimen with x40 objective without coverslip :

Some images allow you to see more characteristic details such as the moniliform nucleus that can be guessed (line) on the two specimens below:
The image on the right is taken with the X15 objective:

In the sample was also this specimen with a slightly different morphology or seen from a different angle: images with the X15 objective



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