Observations on

Ptygura longicornis (Davis 1867)

Most likely ID: *Ptygura longicornis*

Synonyms: *Oecistes longicornis* Davis 1867

EOL Phylogenetic tree: *Ptygura longicornis*

Ptygura longicornis on Java moss (*Taxiphyllum barbieri*) filaments from a freshwater aquarium

On the Java moss filaments, *Ptygura longicornis* was often found attached to the axils.

Fig. 1: *Ptygura longicornis* on a Java moss (*Taxiphyllum barbieri*) filament. Mucilaginous sheath (arrow), corona (double arrowhead), lateral (ventral) antennae (arrowhead), showing clearly one of the numerous and very long setae attached to the tip (piston) of an antenna (double headed arrow). Scale bar indicates 100 µm.

Fig. 2: *Ptygura longicornis* showing rotating corona (left) and the animal half retracted into its sheath (right), the antennae are already extended. Scale bar indicates 100 µm.

Sessile rotifers only have eyespots in the volatile juvenile stage. When they have attached themselves firmly to the substrate and built their mucous sheath, the no longer needed eyespots degenerate. The animal shown in Figures 1 and 2 had not been attached for long, it still had one eyespot.

Fig. 3: Fully unfolded corona (double arrowhead), one remaining eyespot, both lateral/ventral antennae (arrowhead) are visible, the lower one is very much shortened in perspective, while the upper one is almost perpendicular to the direction of photography. Many setae are shown in optical section (double headed arrow), also the piston (arrow), showing that the setae also run inside the antennae. Although the setae are significantly longer than the retracted body, they are fully retractable! They are likely to be coiled up in the body when retracted. Scale bar indicates 50 µm.

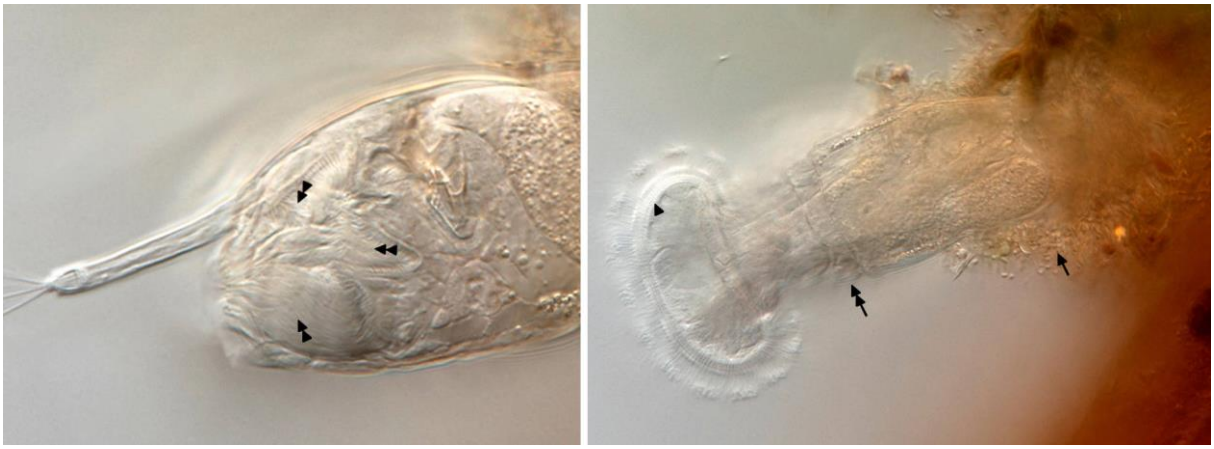

Fig. 4: Optical tomographic sections. Folded corona (double headed arrow) in left image. In the right image, the corona is fully opened, but the body is not yet fully extended, which becomes visible through the folded integument (double headed arrow). The arrow points to the mucilaginous sheath with enclosed detritus.

On TWO NEW SPECIES *of the Genus* ŒCISTES, *Class* ROTIFERA. By HENRY DAVIS, F.R.M.S.

TRANSACTIONS OF THE ROYAL MICROSCOPICAL SOCIETY OF LONDON.

DESCRIPTION OF PLATE I,

Illustrating Mr. Davis's paper on Two New Species of the Genus *Œcistes*, Class *Rotifera*.

Fig.
1.—*Œcistes intermedius*, lateral aspect. × 130.
2.— „ „ young specimen, with disc retracted.
3.— „ „ ventral aspect.
4.— „ „ dorsal aspect.
5.— „ *longicornis*, ventral aspect. × 210.
6.— „ „ dorsal aspect.
7 & 8.— „ „ extremities of antennæ, showing setæ attached to the pistons. More highly magnified.

Fig. 5: Drawing by Henry Davis within his original description of *Oecistes longicornis* released in 1867 in the Transactions of the Royal Microscopical Society of London.