

*Gonosome*.—Gonangia springing from the stem, and destitute of special protective apparatus.

The genus *Azygoplou* is essentially characterised by the very exceptional condition of having no lateral nematophores—a condition which, except in *Diplocheilus*, does not occur elsewhere among the known genera of Plumularidæ. So far as is yet known, *Azygoplou* is represented by one species only.

*Azygoplou rostratum*, n. sp. (Pl. XIX. figs. 1–3).

*Trophosome*.—Colony attaining a height of upwards of three inches; stem much and irregularly branched, monosiphonic; hydrocladia about two-tenths of an inch in length. Hydrothecæ rather shallow, with one strong marginal tooth on each side, and a long beak-like process in front; mesial nematophore adnate for its entire length to the anterior wall of the hydrotheca, and then bearing on its summit a free membranous scoop-shaped appendage.

*Gonosome*.—Gonangium nearly spherical, narrowed into a short stalk at its point of attachment to the stem close to the base of a hydrocladium.

This is a very remarkable Hydroid. The form of the hydrotheca is exceptionally striking, for instead of the serrated margin usual in the Statoplean Plumularidæ, this condition is here replaced by a single strong tooth on each side and a long beak-like projection of the margin in front. The mesial nematophore—the only one present in the genus—is divided into two portions by a transverse joint; the proximal portion is the proper nematophore, and is, as in the mesial nematophore of other Statoplean forms, a simple continuous projection of the hydrothecal internode, and is adnate for its entire length to the anterior walls of the hydrotheca; the distal portion consists of a free membrane bent into a scoop-shaped form, the concavity of which is turned towards the hydrotheca and embraces its anterior wall.

The stem is divided into internodes by transverse joints, and every internode gives off from alternate sides a hydrocladium. The joints by which the internodes of the hydrocladia are separated from one another are unusually well marked—a feature in which *Azygoplou rostratum* approaches the Eleutheroplean rather than the Statoplean forms.

The specimen had been broken away from its hydrorhizal end, and on this account no exact assertion can be made of the height which the species may attain.

*Azygoplou rostratum* comes very near to a species described and figured by Kirchenpauer under the name of *Aglaophenia avicularis*, from specimens brought from Bass Strait. If it were not for the very different form of the mesial nematophore, I should have regarded the Challenger species as identical with that of Kirchenpauer.

Dredged at Station 161, April 1, 1874, off the entrance to Port Philip; depth, 38 fathoms; bottom, sandy.