

DESCRIPTIONS OF TWO NEW HYDROIDS, AND A REVISION
OF THE HYDROID-FAUNA OF LORD HOWE ISLAND

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(Plates v.-vi.)

I.—DESCRIPTIONS OF THE NEW SPECIES.

Family PLUMULARIDÆ.

Genus AGLAOPHENIA, *Lamouroux*.

AGLAOPHENIA HOWENSIS, *sp. nov.*

(Pl. v., fig. 1-2; Pl. vi., fig. 1.)

Trophosome.—Hydrocaulus monosiphonic, unbranched, simply pinnate, attaining a height of 6 cm. The stem is divided into regular internodes, separated by oblique nodes, which slope successively in opposite directions. Each internode bears a single hydrocladium. The hydrocladia are slender, alternate, close, both series nearly in one plane, and rising at an angle of about 35°-40°; nodes slightly oblique. The hydrocladia are divided into a series of regular internodes, each of which bears a solitary hydrotheca.

The hydrothecæ are borne nearly on the front of the hydrocladia. They are closely set, sub-cylindrical, with the axis of the hydrotheca lying away from the hydroclade at an angle of about 40°. There is a well-developed anterior intrathecal ridge proceeding from about the middle of the front of the cell and extending to about its centre, where it ends in a hammer-like thickening. There is in addition a small projection in front of the hydropore with a rounded median tooth, which is clearly a rudimentary posterior ridge. The hydropore is parallel with the hydrocladium, or nearly so, but raised above it. The border of the hydrotheca has a well-developed median anterior tooth, which is incurved, and four teeth on each side. The first pair of lateral teeth from the front are triangular, rounded at the apex, and strongly everted; the second pair, roughly rectangular in appearance, are bent inwards; the third pair are broad, rounded at the apex, and strongly everted; the fourth pair are narrow, pointed, and lie behind the lateral sarcothecæ. The back is adnate. The front of the hydrotheca is provided with an external longitudinal hollow chamber extending from the anterior intrathecal ridge, and terminating in an elevated pointed crest over the anterior marginal tooth. Hydrothecal internode without septal ridges.

The mesial sarcotheca is about half the length of the hydrotheca, and is adnate for about half its length, the free distal portion usually being directed more outward. The terminal and inferior apertures are completely confluent. A small septum runs across the cavity of the mesial sarcotheca. The lateral sarcothecæ are small, adnate up to the margin of the hydrotheca, and project slightly beyond it; the terminal and inferior apertures are confluent. There are three cauline sarcothecæ; two on the anterior surface of the rachis at the base of each hydrocladium, the distal anterior sarcotheca being similar to the laterals, but larger, or with two orifices bordering the free margin; while the proximal anterior sarcotheca is smaller, and almost oval in outline, with a solitary wide superior aperture. The third cauline sarcotheca is similar to the laterals in shape, but larger, and is situated at the back of each axil.