

*Gonosome*.—Gonangia simple capsules destitute of marsupial chamber.

The character here assigned to the family of the Idiidae includes certain points of structure which must be regarded as of high systematic value, rendering necessary the allocation of the family to a separate section or legion of the Calyptoblastea. To this section the name of Thalamophora may be assigned (see Introduction, Scheme of Hydroid Classification).

The facts which appear to justify this view will be obvious from the anatomical details given below under the description of the genus.

### *Idia*, Lamouroux.

*Idia*, Lamouroux, Polyp. Coral. flex., p. 199.

*Generic Character. Trophosome*.—Hydrocaulus consisting of a main stem with pinnately disposed ramuli which support numerous alternate hydrothecæ adnate to one another along the mesial line of the ramulus.

*Gonosome*.—Gonangia (in the only known species) urn-shaped capsules springing from the main stem.

The characters given above are all that are needed for the generic diagnosis of *Idia*, and will prevent its being confounded with any other genus hitherto described. From *Desmoscyphus*, whose hydrothecæ are, as in *Idia*, connate to one another along the mesial line of the ramulus, it may at first sight appear not easily distinguishable. But we must bear in mind that while in *Desmoscyphus* the hydrothecæ are opposite, they are in *Idia* strictly alternate, though notwithstanding this alternate disposition, the close approximation in a longitudinal line of the hydrothecæ composing each linear series allows of the two series laterally coalescing with one another in the median line of the pinna.

It is, however, when we come to examine its anatomical structure that we meet with features in *Idia* so peculiar and so distinct from those of any other known Hydroid, that we are compelled to regard this remarkable form as the representative of an entirely new family.

The specimens of *Idia pristis* obtained by the Challenger have the soft parts of the trophosome fairly well preserved, and though the oral extremities of the hydranths with the tentacles have entirely disappeared, the cœnosarc is sufficiently perfect to allow of a satisfactory determination of some of its more important features.

*Perisarc*.—The skeleton or chitinous perisarc of *Idia pristis* is very remarkable. In every ramulus or pinna we must distinguish two aspects:—A front aspect along which the hydrothecæ are adnate to one another by their opposed sides, and a posterior aspect on which they do not show themselves.

On the anterior side (Pl. XXXIX. fig. 2) the union of the adnate hydrotheca-walls may