

pinnate. In such forms of ramification the primary pinnæ are almost always opposite, while the ultimate pinnæ or hydrocladia are alternate. Sometimes, however (Pl. XIX. fig. 4), the primary pinnæ are also alternate.

In some rare cases (Pl. I. fig. 5) the hydrothecæ-bearing pinnæ are themselves pinnately branched, the branches also carrying hydrothecæ, like the pinnæ from which they spring.

*Definitions of the principal terms used in the descriptive morphology of the Hydroida*

**HYDROSOMA.**—The entire hydroid colony.

**ECTODERM.**—The most external of the three organised layers of which the body of every hydroid is composed.

**ENDODERM.**—The most internal of the three organised layers of which the body of every hydroid is composed.

**MESODERM.**—An organised layer which lies between the ectoderm and endoderm. The above are the three embryonic layers which are persistent, and admit of being recognised during the life of the hydroid.

**PERISARC.**—The unorganised chitinous excretion by which the soft parts are to a greater or less extent invested.

**ZOIDS.**—The more or less independent products of non-sexual reproduction, forming by their association the hydroid colony.

**TROPHOSOME.**—The entire assemblage of such zooids as are destined for the nutrition of the colony.

**GONOSOME.**—The entire assemblage of such zooids as are destined for the sexual reproduction of the colony.

**HYDRANTHS.**—The proper nutritive zooids, or those which carry the mouth and proper digestive cavity and which are almost always furnished with tentacles.

**HYDROTHERCÆ.**—The cup-like chitinous receptacles which protect the hydranths in the calyptoblastic genera.

**THECOSTOME.**—The external orifice of the hydrotheca, which permits of the extrusion and retraction of the hydranth.

**INTRATHECAL RIDGE.**—An imperfect septum by which, in many Plumularidæ, the cavity of the hydrotheca is transversely divided into a proximal and a distal portion.

**HYDROPHYTON.**—The common basis of the hydrosoma by which its zooids are connected into a single colony.

**HYDRORHIZA.**—The proximal end of the hydrophyton by which the colony fixes itself to other bodies.

**HYDROCAULUS.**—All that portion of the hydrophyton which intervenes between the hydrorhiza and the hydrothecæ or hydranths. It usually consists of a main stem and