

CHARACTERS OF THE SUB-ORDER HYDROCORALLINÆ, AND OF THE FAMILIES AND GENERA CONTAINED IN IT, MODIFIED SO AS TO REPRESENT THE PRESENT KNOWLEDGE ON THE SUBJECT.

Sub-order HYDROCORALLINÆ, Moseley.¹

Compound Hydroid stocks, growing by gemmation. Hydrophyton consisting of a meshwork of ramified cœnosarcal canals, composed of an ectoderm and pigmented endoderm, lodged within channels permeating a hard calcareous support, "cœnosteum," which is deposited by the ectodermal investment of the canals, and forms masses of very various shape. Surface of the Hydrophyton covered with a continuous layer of ectoderm. Zooids of two forms—the one provided with a mouth and gastric cavity, "gastrozoid"; the other mouthless and simply tentacular in function, "dactylozoid." Tentacles, when present, mostly with knobbed extremities. A well-defined muscular layer present in the zooids. Zooids lodged within chambers, "gastropores" and "dactylopores," excavated in the substance of the Hydrophyton, lined by reflections of the surface layer of the ectoderm, forming the "sacs" of the zooids. Zooids of the two forms either scattered irregularly over the surface of the stock, or gathered into groups more or less regular, in each of which a centrally-placed gastrozoid is surrounded by a ring of dactylozooids. Cavities of zooids communicating with the cœnosarcal meshwork by large canal offsets.

1. Family MILLEPORIDÆ, L. Agassiz.

Cœnosteum irregular in growth, arborescent or encrusting, composed of a thin superficial living layer, supported by a dead mass made up of successive preceding dead layers. Pores devoid of styles, divided into a series of vertically succeeding chambers by transverse calcareous partitions, "tabulæ"; usually scattered irregularly, but in some species grouped with tolerable regularity into systems, in which a centrally-placed gastropore is surrounded by a ring of dactylopores. Nematocysts of two kinds present—the one, the three-spined form, occurring only in Hydroids; the other ovoid in shape, with a thread beset with a spiral of spines. Gastrozooids short, cylindrical, with from four to six tentacles with knob-like tips, set in a single whorl. Dactylozooids long, filiform, and tapering, with an irregular number of short knob-bearing tentacles set on at irregular intervals. Gonophores unknown, but not contained within special cavities in the substance of the cœnosteum "ampullæ."

¹ Prelim. Report, Phil. Trans. Roy. Soc., vol. clxvii., part 1, 1877, p. 132.