

Family BOURGUETICRINIDÆ, de Loriol, 1882.

Genus *Bathycrinus*, Wyville Thomson, 1872; *emend.* P. H. Carpenter, 1884.

Ilycrinus, Danielssen and Koren, *Nyt Mag. f. Naturvidensk.*, 1877, Bd. xxiii. p. 4.

Definition.—Stem consisting of dicebox-shaped joints and attached by a branching root, the joints above which bear no cirri. The upper part of the stem, immediately beneath the cup, is formed of a large number of thin, discoidal joints. Calyx expanding upwards from the basals, which are closely united into a thickened, discoidal piece without any visible sutures, and but slightly wider than the upper stem-joints. First radials trapezoidal, and united to form a rapidly expanding cup. Second and third (axillary) radials united by trifascial articulation; the muscle-plates of the axillaries produced upwards into strong, wing-like processes. Arm-joints (with the exception of the third, sixth, and ninth) united in pairs by trifascial articulations, only the distal joint of each pair bearing a pinnule, and there are no pinnules on the first few pairs. Interradial areas of the disk naked, paved with loose anambulacral plates, or supported by a single oral plate. Ambulacra have covering plates, but no side plates.

Remarks.—This genus was established by Sir Wyville Thomson in 1872 for a small immature individual which was dredged at the mouth of the Bay of Biscay by the "Porcupine" in 1869 from a depth of 2435 fathoms.¹ But since the discovery by the Challenger of adult examples of two much larger species in the Atlantic and Southern Oceans, the original description of the genus requires modification. One of the Challenger species (*Bathycrinus aldrichianus*) was described by Sir Wyville in the Journal of the Linnean Society for 1876; but in the meantime a fourth species was discovered in the North Atlantic by the Norwegian North Sea Expedition, and it was made the type of a new genus *Ilycrinus* by Danielssen and Koren.² For it appeared to them to differ chiefly in size and in the presence of pinnules from *Bathycrinus*, as described by Sir Wyville from the immature "Porcupine" specimen; and his amended account of the genus, founded on the examples dredged by the Challenger, had not reached them in time for reference.

The nearest ally of *Bathycrinus* is undoubtedly *Rhizocrinus*. In fact, without an acquaintance with this genus, one would hesitate to place *Bathycrinus* in the neighbourhood of the Apiocrinidæ at all. There is but a very slight upward expansion of the stem below the head and even in the ring of basals which rests upon it; while the characters of the radials are very different from those of *Rhizocrinus* and *Bourgueticrinus*.

The general character of the dicebox-shaped stem-joints and of the branching root is essentially the same as in *Rhizocrinus*. But the modes in which these joints are

¹ *Proc. Roy. Soc. Edin.*, 1872, vol. vii. p. 772; see also *The Depths of the Sea*, p. 450.

² *Nyt Mag. f. Naturvidensk.*, Bd. xxiii. p. 10.