

Radiolarians and Diatom frustules made up a very large part of the deposit, probably about one fourth of the whole.

It would take up too much space to give the list of new fishes and invertebrates from this trawling; nineteen specimens of the former and about one hundred specimens of the latter were obtained, most of the species being new ones first discovered by the Expedition. Among the most remarkable were the four specimens of *Monocaulus*, referred to by Professor G. J. Allman, F.R.S., in the following notes on the Hydroida collected during the cruise, the first part of whose Report¹ has been published:—

The Hydroida.—“The only group the investigation of which has yet been completed is that of the Plumularidæ, which contains a large number of new forms, no fewer than eight being peculiar types, which have rendered necessary the construction of as many new genera; while the number of species now for the first time determined amounts to thirty-one.

“Among the new genera *Streptocaulus* (fig. 264), dredged off Porto Praya, San Iago, from a depth of 100 fathoms, presents a form of ramification hitherto unknown among the Hydroida, the ultimate ramuli or hydrocladia being thrown by the twisting of the stem into a graceful and beautiful spiral; while in *Diplocheilus*, dredged in Bass Strait from a depth of 30 to 40 fathoms, the curious duplication of the hydrothecal margin is as remarkable as it is unique. Several new forms, the special interest of which consists in their presenting transitional characters between certain well-marked Plumularian groups, have also been obtained.

“A striking feature among the Plumularidæ brought home by the Challenger is the large proportion of species having open phylactocarps, as seen in the types of *Acanthocladium*, *Lytocarpus*, and *Cladocarpus*. These, by the analysis they present of the more usual form of phylactocarp as shown in the corbula of *Aglaophenia*, are of special interest in throwing light on the morphology of the structures which in the phylactocarpal genera are adapted to the protection of the gonangia, and in the confirmation they afford of the conclusion that the essential parts of these structures are to be regarded as greatly developed and peculiarly modified nematophores.

¹ Report on the Hydroida—The Plumularidæ, Zool. Chall Exp., part xx., 1883.

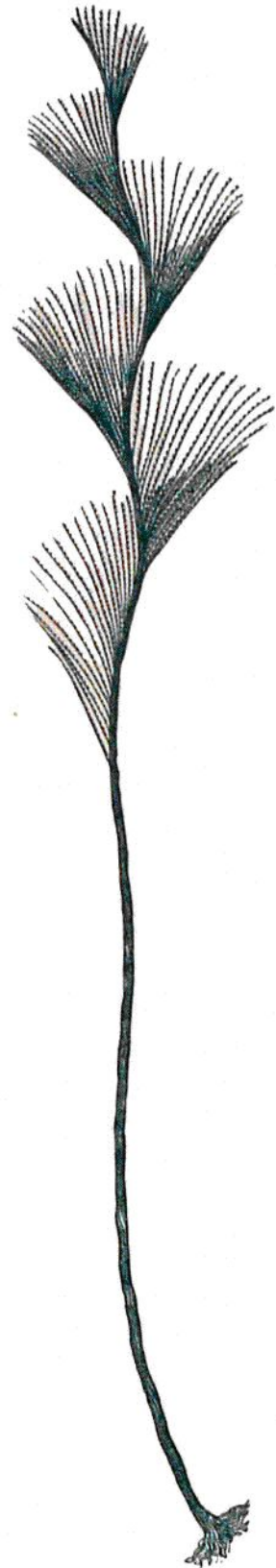


FIG. 264.—*Streptocaulus pulcherimus*, Allman; nat. size.