

with *Cryptolaria* and *Perisiphonia* in the essential structure of the hydrocaulus, which consists, as in those genera, of an axial and a peripheral system, but with differences which will not allow *Grammaria* to be generically united with *Cryptolaria* or *Perisiphonia*.

“Among other groups, the Lafoeidæ, Haleciidæ, and Campanularidæ have as yet been the most completely examined. These are represented by some new genera, and by many new and beautiful species. Their investigation has in some instances necessitated the revision of existing definitions, while it has considerably extended our knowledge of Hydroid morphology.

“The number of gymnoblastic Hydroids brought home by the Challenger is but small. Among these, however, has been found an exceedingly interesting form which must be regarded as the type of a new genus, and which is especially remarkable from the peculiarity of its habitat, living as it does parasitically beneath the dorsal plates of an Annelid. It was found in this situation by Professor M'Intosh while engaged in his examination of the Challenger Annelids, and by him sent to me for determination.

“Among the results of the Challenger dredgings must, however, be specially recorded the discovery of a gigantic Tubularian (fig. 265), which was dredged in the North Pacific from depths of 1875 and 2900 fathoms. It is referable to the genus *Monocaulus*, a near ally of *Corymorpha*. One of the specimens whose dimensions were noted by Professor Wyville Thomson and Mr. Moseley immediately after its capture was found to measure 9 inches from tip to tip of the extended tentacles, which form the proximal tentacular circlet; while its stem rose from its point of attachment to a height of 7 feet 4 inches. This great Tubularian affords indeed an example of a Hydroid attaining dimensions far exceeding the maximum which would have been hitherto thought possible in Hydroid life—a character to which the vast depth whence it was obtained gives additional significance.”

On the passage across the Pacific on the 35th parallel, the ship was, for the first week after leaving Japan, favoured with fresh southerly and southwesterly winds, and occasionally, as far as the meridian of 165° E., with drizzling rain, the weather being cloudy and foggy. From the meridian of 165° E. to that of 180°, which was reached on July 3rd, light winds from west round south to east were experienced, with moderately fine weather, but the atmosphere continued very damp. After crossing the 180th meridian, light easterly winds necessitated the vessel being steered north to the 38th parallel, in which moderate westerly breezes were experienced to the meridian of 160° W., the weather still continuing damp and cloudy. After passing the 160th meridian in lat. 38° N., winds from the southeastward were experienced, varying from south to east until within a short distance of the Sandwich Islands.

The section across the western portion of the North Pacific, from Japan to Honolulu,