

perisarc, even in the condition of the thin pellicle which occurs in *Corymorpha*, could be detected.

I regard the elastic tissue of *Monocaulus imperator* as the homologue of the mesosarc, or supporting lamella, differing, however, from this layer as it shows itself in every other known instance by its massive development, its more decidedly fibrillated structure, and its great elasticity.

I could find no trace of the papilliform processes which in *Corymorpha*, and in at least one species of *Monocaulus*, are developed near the base of the stem. In *Monocaulus imperator*, however, the stem sent off from its proximal end a multitude of fine capillary tubes which, unlike the stem, were each invested by a very delicate chitinous pellicle, and were aggregated into a dense terminal plexus.

The tentacles composing the proximal circlet as noted by Sir Wyville Thomson were in life about 4 inches long, almost transparent, and in most instances of a pale pink colour, while the mass of gonophores which lay just above their base was of a maroon colour. The colour of the stem in the recent animal was in most of the specimens a pale pink, becoming darker towards the base.

The specimens when brought up were for the most part found to have the proximal extremity coated with mud, a fact which renders it pretty certain that in its natural attitude this gigantic *Monocaulus* lives with its proximal end plunged into the muddy sea bottom.

With regard to the associates of *Monocaulus imperator*, the editor gives the following list from the same dredging. Actinaria:—*Paractis tubulifera*, *Liponema multiporum*, *Cereus spinosus*, and *Porponia robusta*; Asteroidea:—*Porcellanaster tuberosus* and *Hyphalaster inermis*; Echinoidea:—*Phormosoma tenue*; Ophiuroidea:—*Ophioglypha orbiculata*, *Ophioglypha sculptilis*, and *Ophiomusium granosum*; Holothurioidea:—*Holothuria thomsoni*; Brachiopoda:—*Terebratula dalli* and *Discina atlantica*; Mollusca:—*Malletia dunkeri*, *Glomus japonicus*, *Arca (Barbatia) pteroessa*, *Pleurotoma* sp., and *Octopus januarii*; Fish:—*Neobythites grandis*, *Macrurus asper*, *Macrurus altipinnis*, *Macrurus liocephalus*, *Gonostoma microdon*, and *Bathysaurus mollis*; in addition to *Phoxichilidium mollissimum*, *Scalpellum vitreum*, and a number of other Crustacea which perhaps may not have come from the bottom. All the above were new species, with the exception of the *Discina*.

CALYPTOBLASTEÆ.

Family HALECIIDÆ.

Character of the Family. Trophosome.—Hydrothecæ replaced by shallow saucer-shaped pedunculate appendages (hydrophores). Hydranths with conical hypostome.

Gonosome.—Gonophores hedrioblastic.