

*Aglaophenia attenuata* is a small and delicate species. The anterior bifid tooth of the hydrotheca and the open corbula afford good diagnostic characters. The spur-like nematophores at the base of the costæ are well developed.

A comparison of the open corbula of *Aglaophenia attenuata* with the proper Lytocarpal phylactocarp, as, for example, that of *Lytocarpus myriophyllum*, or of *Lytocarpus racemiferus*, and *Acanthocladium huxleyi* of the present Report will show that the mere fact of the costæ not being adnate by their edges affords no sufficient ground for generic separation from *Aglaophenia*, more especially as in one species at least (*Aglaophenia filicula*, see p. 36) closed and open corbulæ are borne by the same colony; in *Aglaophenia*, however, the costæ of the corbula, whether open or closed, are always more or less in the form of flat serrated leaflets, without hydrothecæ or other appendages; while in such open forms of phylactocarp as occur in the genera *Lytocarpus* and *Acanthocladium* the costæ are either long, curved, rod-like or sabre-shaped appendages, each carrying a hydrotheca, or are in the form of a series of strong spines without hydrothecæ, or are simply replaced by a series of large nematophores.

Dredged in Simon's Bay, Cape of Good Hope; depth, 10-20 fathoms.

*Aglaophenia acacia*, n. sp. (Pl. XII. figs. 1-4).

*Trophosome*.—Colony attaining a height of about six inches; stem monosiphonic, pinnately branched, branches opposite or sub-opposite, rather distant, carrying the hydrocladia, which are about two-tenths of an inch in length, and are also borne by the main stem in the intervals of the branches. Hydrothecæ deep, with deeply serrated margin. intrathecal ridge very short, situated just above the fundus of the hydrotheca; mesial nematophore adnate to the wall of the hydrotheca for about one-half their height, and then terminating as a free short spine which does not reach the level of the hydrotheca margin; lateral nematophores stout, slightly overtopping the margin.

*Gonosome*.—Corbulæ rather short and deep, with about six pairs of closely adnate costæ.

The habit of *Aglaophenia acacia* is somewhat loose and spreading. The main stems continue unbranched for four or five inches from the root, and then give off opposite or nearly opposite branches, which confer on the species a very distinctive aspect. The disposition of the primary branches is truly pinnate, while these again carry the pinnately disposed hydrocladia. The ramification is thus properly bipinnate, though the distances between the primary branches and between the hydrothecal ramuli give to it an aspect very different from that of *Aglaophenia macgillivrayi*, and of other bipinnate *Plumularidæ* with their closely approximated branches and hydrocladia.

*Aglaophenia acacia* is a deep-water species, having been dredged along with *Aglaophenia filicula*, at Station 75, July 2, 1873, lat. 38° 37' N., long. 28° 30' W.; depth, 450 fathoms; bottom, sandy.