The region of maximum development of the Plumularinæ, as far as this group is represented by the species brought home by the Challenger, is that of the East Indian, from which ten species were obtained. It is not, however, only from the number of species, but from the fact that the largest forms and most luxuriant colonies were brought from this region that we are justified in concluding that the conditions most favourable to the development of the Plumularinæ are here found. It is this region which has yielded the large Statoplean forms represented by *Acanthocladium huxleyi*, which attains a height of 15 inches, *Aglaophenia macgillivrayi*, of which a specimen in the collection has also a height of 15 inches, though it has lost the proximal portion of the colony, *Lytocarpus secundus*, which is more than $2\frac{1}{2}$ feet in height, and *Acanthella effusa*, which has a height of 12 inches. One large form, however, *Lytocarpus racemiferus*, was obtained off the coast of Bahia in the South Atlantic Region. It is among these large East Indian Plumularinæ that Semper has described certain species from the Philippine Islands which may probably be identified with *Aglaophenia macgillivrayi*, and *Lytocarpus secundus*, and which in consequence of their formidable stinging properties are held in dread by the natives.[1] Indeed the Philippine Islands appear to afford a habitat specially rich in these fine Hydroids. Off Samboangan, in this group, the trawl and dredge of the Challenger brought up seven species of Hydroids, all belonging to the Plumularinæ, and referable to four genera—*Plumularia*, *Acanthella*, *Aglaophenia*, and *Lytocarpus*.

Our knowledge of the geographical distribution of the Plumularinæ may be supplemented in some important points by the results of the United States exploration of the Gulf Stream. It appears from the dredgings carried on by that expedition that the Plumularinæ are largely represented in the Gulf of Mexico and West Indian seas. The combined results of the explorations made by the Challenger and by the United States expedition thus indicate for the Plumularinæ two centres of maximum development, an eastern centre which lies in the seas which surround the Philippines and other islands of the East Indian Archipelago, and a western centre which lies in the seas of the West Indian Islands, and in the warm waters which bathe the adjacent shores of Central and Equinoctial America. These points in the distribution of the Plumularinæ call to mind two nearly identical centres in which the Cheiroptera have their maximum of development, the Bats of the Old World attaining in the Region of the East Indian Islands that striking development which shows itself in the gigantic species which are so characteristic of the lands lying in that part of the globe, while these Old World Bats are represented by other groups of gigantic Bats which belong to the New World, and have their metropolis in the West Indian Islands and in the neighbouring lands of Central and Equinoctial America.

In comparing, however, the Challenger explorations with those carried on by the

[1] Semper, *loc. cit.*