

not range further south in the Atlantic than  $10^{\circ}$  S., though it has the same distribution as the tridistichate series in the Pacific and is generally more fully represented, forms like *Antedon palmata*, *Antedon elongata*, and *Antedon indica* being often met with in considerable abundance and variety. This group is also much more common than the tridistichate group in the Caribbean Sea, especially below 100 fathoms; and it ranges down to 270 fathoms, at least 120 fathoms deeper than any member of the tridistichate group has yet been found in that locality.

The range of the genus *Actinometra*, both in depth and in space, is very much more limited than that of *Antedon*. It corresponds very closely, however, with the geographical and bathymetrical ranges of the multibrachiate species of this genus, though both alike are slightly more extensive than the range of *Actinometra*. Thus, for example, the multibrachiate forms of *Antedon* almost reach the parallels of  $40^{\circ}$ ; while the northernmost *Actinometra* does not reach  $36^{\circ}$  N., either in the Atlantic or in the Pacific, and the southernmost are those of the Cape of Good Hope ( $34^{\circ} 24'$  S.) and Port Philip ( $37^{\circ} 48'$  S.). In like manner no *Actinometra* has been obtained with certainty at a greater depth than 533 fathoms; though it is possible that this should be extended to 610 fathoms in the Pacific.<sup>1</sup> But as we have just seen, the tri- and bidistichate groups of the multibrachiate species of *Antedon* extend down to 630 and 740 fathoms respectively.

Like these forms too, *Actinometra* is far more extensively developed in the eastern than in the western hemisphere. Several species are known from Southern Japan, and the genus is abundant all through the Eastern Archipelago and down the east coast of Australia as far as Port Jackson; while a single species from the latter locality also occurs at Port Philip and in King George's Sound (*Actinometra trichoptera*). A few more are scattered at Ceylon, the Red Sea, Madagascar, Port Natal, and the Cape of Good Hope; but they are not known at all from the West African coast, nor from South America south of Cape Frio. From this region, however, a couple of species occur abundantly up to the Caribbean Sea and the Gulf Stream, but they do not pass the parallels of  $25^{\circ}$  N.; though in the East Atlantic one species has been dredged four times beyond the thirty-fourth parallel and at much greater depths than in the Caribbean Sea, e.g., 1500 metres, (= 812 fathoms). This type (*Actinometra pulchella*) is one of special interest, not only from its singularly Protean character, but because it is the only *Actinometra* common to the two sides of the Atlantic; while it is also, with one exception, the only *Actinometra* ranging below 300 fathoms. The genus has been dredged eleven times at depths below 200 fathoms, four times by English, once by French, and six times by American expedi-

<sup>1</sup> There is no record of the particular dredging at the Station numbered 174 which yielded Comatulæ, the depths being 210, 255 and 610 fathoms, except that the last one yielded *Atelecrinus wyvillii*. Three species of *Actinometra* were obtained, together with five of *Antedon*, and from their general facies I should be decidedly inclined to refer them to one of the two lesser depths.

<sup>2</sup> According to H. Filhol (*La Nature*, 1884, p. 330), an *Actinometra*, which I take to be *Actinometra pulchella*, was obtained by the "Talisman" off Rochefort at this very unusual depth.