

joints below it, and a number of clawed hooks, the cirri, are pushed out from it. These serve as grapnels, fixing the Feather-star to rocks or even to seaweeds, branching corals, sea-firs, and sometimes to telegraph cables. The attachment is only a temporary one, however, for the Feather-star may loosen its hold and swim about for a while, with a very regular alternating movement of its arms, eventually settling down somewhere else.

“The Comatulæ are probably more abundant at the present time than in any former period of the earth’s history, rather more than four hundred species being known to science. By far the greater number of them belong to one or other of the two genera *Antedon* and *Actinometra*. These have five radial plates, resting directly upon the centro-dorsal, and meeting one another laterally so as to form the greater part of the cup. The rays borne by these plates may remain simple, as in the rare genus *Eudiocrinus*; but more commonly they fork, sometimes only once or twice, sometimes six or seven times, so that the number of arms may vary from 10 to 100 or more. The mouth may either be in the centre of the upper surface of the disk, as in *Antedon*, or it may be more or less excentric, as in *Actinometra*.

“The two species dredged at Station 48 belong to the first-named genus, and are closely allied to the familiar rosy Feather-star of the British seas. They are both well known Arctic forms, having been obtained by H.M.S. ‘Discovery,’ in 80° N. lat. Of all the genera of recent Crinoids, *Antedon* is the one which has the widest range, both bathymetrically and geographically. While some species live in 5 fathoms of water or less, others have been dredged at 2600 and 2900 fathoms,—depths from which no Stalked Crinoid has been obtained. These, however, are isolated cases, for Feather-stars are but rarely met with at depths exceeding 200 fathoms. All the European and Arctic Comatulæ, with two exceptions,<sup>1</sup> and in fact the greater number of those inhabiting the temperate zones, belong to this genus, which ranges from 80° N. lat. to 52° S. lat. Fossil representatives both of it and of *Actinometra* occur in the Inferior Oolite of Gloucestershire, and are the oldest known Comatulæ.

“The dredgings at Cape York yielded a great number of the Feather-stars with an excentric mouth, belonging to the genus *Actinometra*. The range of this type, both bathymetrically and geographically, is much more restricted than that of *Antedon*. It is almost exclusively a tropical genus, its northern limit being about 30° N. lat., and its southern about 40° S. lat. Isolated species are known on the South African and South Australian coasts; but it is in the Caribbean Sea, in the Western Pacific, and especially among the Philippines and the Moluccas, that the greatest variety is found. The largest Comatulæ yet known belong to this genus, and also those with repeatedly branching arms. Few species of *Antedon* have more than forty arms, while there are several *Actinometra* with one hundred arms, or even more.

<sup>1</sup> *Actinometra pulchella*, Pourtalès, a Caribbean species which the “Porcupine” found near Gibraltar; and *Eudiocrinus atlanticus*, Perrier, which was dredged by the “Travailleur.”