

carinata, presenting several very striking points of difference (Pl. XXIII. fig. 2; Pl. XXXIII. figs. 1, 2; Pl. XXXIV.). They fall into several sets, each of which represents a different type of *Comatula*-structure, and in several cases the distribution of these sets is fairly well defined.

The ten-armed species of *Antedon* have a wider range both in depth and in space than any other types of the genus. This is of course only to be expected; for they represent a somewhat early stage in the development of the Pentacrinoid larva, the radial axillaries and the pairs of first brachials which they bear appearing soon after the opening of the tentacular vestibule, when the whole number of tentacles does not exceed twenty-five.

These ten-armed forms are the only species of *Antedon* which occur outside the fortieth parallels of latitude, and at greater depths than 750 fathoms. There is one possible exception to this last statement. Some examples of *Antedon inæqualis* with three distichals reached me, together with fragments of *Pentacrinus naresianus* and the label of Station 175 (1350 fathoms). But there is no record in the Station Book of their occurrence here, though two *Comatulæ* are mentioned. But these (*Antedon breviradia* and *Antedon acutiradia*, Pl. XI. figs. 3, 5) have the general facies of deep-water forms; and this is not the case with *Antedon inæqualis* and the arms of *Antedon basicurva*, which are labelled as coming from this station. It may then, I think, be safely assumed that the only *Comatulæ* dredged at Station 175 were the ten-armed *Antedon acutiradia* and *Antedon breviradia*, the multibrachiate *Antedon inæqualis* not really occurring at that station. Disregarding this form, we find that out of twenty-nine stations where *Antedon* was dredged by the Challenger, "Porcupine," and other British expeditions, at depths exceeding 200 fathoms, twenty-eight yielded ten-armed species. Multibrachiate species occurred at six of these, and at one other station, this (Station 135G) being the only locality below 200 fathoms where the genus *Antedon* occurred, but was not represented by any ten-armed form. Eleven of the twelve "Porcupine" stations¹ and two of the seventeen Challenger ones were beyond the parallels of 40°. But the remaining "Porcupine" station and six of the fifteen Challenger ones within these limits yielded multibrachiate forms, though never at a greater depth than 750 fathoms. The "Porcupine" species, however, *Antedon lusitanica*, is a curious one. It is dimorphic, some individuals having ten arms only, and some having one or more distichal series (Pl. XXXIX. figs. 1, 3).

The nine dredgings of the Challenger at which *Antedon* occurred at depths between 700 and 2900 fathoms inclusive, yielded nine species of the genus, all of them small and ten-armed, and half of them belonging to the group which contains the familiar *Antedon rosacea* and *Antedon tenella*. Four of the fifteen dredgings between the fortieth parallels at depths exceeding 200 fathoms were at 1000 fathoms and upwards, and they yielded

¹ Under this general name I include all the dredgings of the "Porcupine," "Lightning," "Knight-Errant," and "Triton."