

substantial limestone band which supports the covering plates but is not properly segmented into side plates. The ambulacral skeleton does not extend to the end of the pinnules, several joints of which are entirely without it, as in *Antedon longicirra* from the same station, and in many Pentacrinidæ.

### 3. The *Eschrichti*-group.

This group is very well defined both in its zoological characters and in its geographical and thermal distribution. Of the seven species which it at present contains, three are Arctic and the remaining four Antarctic. *Antedon eschrichti* and *Antedon quadrata* are widely distributed through the Arctic Ocean, reaching a latitude of 79° N., and 81° N. respectively in Smith's Sound. They extend across the North Atlantic into the Barents Sea, and *Antedon eschrichti*, at any rate, was dredged by Nordenskjöld in the "Vega" as far east as long. 92° 20' E.. In the East Atlantic both species are found as far south as the parallel of 60° in the cold area of the Færoe Channel; but the Challenger dredged them both off Halifax in lat. 43° 2' N. This is their furthest southern limit, and the third Arctic species belonging to this group (*Antedon barentsi*) has as yet only been found near Vardö in the Barents Sea.

Two of the four Antarctic species occur in the Straits of Magellan, while the other two were obtained by the Challenger at Stations 150 and 151, between Kerguelen and Heard Island. The only species found at depths exceeding 200 fathoms are *Antedon eschrichti* and *Antedon quadrata*, both of which extend downwards from the littoral fauna, the former descending to 632 and the latter to 466 fathoms. The temperature limits of this group are very well defined. There is no record of any of them having been found in water of a higher temperature than 36° F. *Antedon quadrata* was obtained at 29° and *Antedon eschrichti* at 30° in the cold area of the Færoe Channel; while *Antedon australis* was dredged from a temperature of 35°·2 at Station 150. I do not imagine that this is likely to have been greatly exceeded at any of the shallow water localities, either in the Arctic or in the Antarctic Seas, where species of this group have been obtained. They are not, however, the only Comatulæ which occur in the colder seas of the globe. *Antedon proluxa* was obtained in 25 fathoms at Discovery Bay (lat. 81° 41' N.) together with *Antedon quadrata*, and has since been dredged in abundance near Spitzbergen by the Norwegian North-Atlantic Expedition, from a depth of 743 fathoms; while the "Varna" found it at 50 fathoms in the Kara Sea.

The "Porcupine" and "Triton" met with *Antedon hystrix* in the cold area of the Færoe Channel where *Antedon eschrichti* and *Antedon quadrata* also occur; while *Antedon tenella*, which reaches a latitude of 79° near Franz Joseph Land, is common in the Barents Sea and on both sides of the Atlantic down to 740 fathoms, with a thermal range of from 30° to 50° F.