

poles, supports everywhere a profusion of Entomostracan life, chiefly of the order Copepoda. But the appearance of these minute creatures at the surface depends upon conditions, the nature of which we scarcely at all understand. Night, on the whole, seems to be more favourable than daytime;¹ but even during the day they sometimes appear in numbers so vast as to colour the sea in wide bands for distances of many miles. This appearance has been noticed, perhaps, most frequently in the tropics; but even in the Arctic seas some species, especially *Calanus (Cetochilus) finmarchicus*, are at times so abundant as to constitute, it is said, a most important item in the food of the whale. So far, indeed, as number and size of individuals are concerned, it would appear that the cold water of the Arctic and Antarctic seas are even more favourable to the growth of Copepoda than the warmer areas of the tropics. In the cold polar seas *Calanus finmarchicus*, and perhaps other nearly allied forms, are the most characteristic members of the surface-fauna; while, if we may judge by the results of the Challenger Expedition, the warm equatorial and sub-tropical areas present a much greater variety of Copepoda, but no one species in very preponderating abundance. If we might venture to assign to the tropical and warmer temperate seas, one or more species holding the same position there as *Calanus finmarchicus* in the cold zones, we should name *Undina darwini* and *Euchæta prestandreæ*; but there are several other species which would follow close upon the heels of these two.

As in the case of many other purely pelagic or aquatic animals, the range of distribution of many of the marine Copepoda is extremely wide²: to find a free-swimming species ranging over a very small district is a rare exception, and the probability is that where this appears to be the case, further research will usually reveal its presence throughout a larger area.

The seven geographical areas adopted in the Table of Distribution are identical with those used in the Report on the Ostracoda.³ Of the ninety free-swimming species

¹ Take, for example, the lists of two surface-net gatherings from Port Jackson (pp. 10, 11), one taken by day, containing ten species, the other by night, fifteen species. This, by itself, is not of much account, but my friend Mr. David Robertson and myself have found, in a pretty large experience of surface-net work in the British Seas, that several kinds of Entomostraca—Ostracoda as well as Copepoda—are got commonly at night, but rarely, if at all, during the day.

² An interesting example of the very wide distribution of pelagic, as opposed to terrestrial or abyssal animals, was noticed in the report on the Ostracoda—the only species found in all the seven areas being two natatory animals—*Halocypris atlantica* and *Halocypris brevirostris*.

³ The Stations are divided amongst the seven areas as follows:—

1. North Atlantic Ocean (Stations 1 to 110 and 348 to 354).
2. South Atlantic Ocean (Stations 111 to 142 and 313 to 347).
3. South Indian Ocean or Southern Ocean, extending to the Antarctic Circle (Stations 143 to 160).
4. Australasia, including the Coasts of Australia, New Zealand, and the Eastern Archipelago south of the equator (Stations 161 to 196 and 217 to 220).
5. South Pacific Ocean (Stations 271 to 312).
6. North Pacific Ocean (Stations 238 to 270).
7. Eastern Asia, including China, Japan, and the Eastern Archipelago north of the equator (Stations 197 to 216 and 221 to 237).