

live in the Baltic; I found their skeletons in the alimentary canal of *Aurelia*, Ascidians and Copepods.

D. The so-called "fresh-water Radiolaria," which have been described by Focke, Greeff, Grenacher and others, are all Heliozoa, without either central capsule or calymma.

227. *Local Distribution.*—As regards their local distribution and its boundaries the Radiolaria show in general the same relations as other pelagic animals. Since they are only to a very slight extent, if at all, capable of active horizontal locomotion, the dispersion of the different species from their point of development (or "centre of creation") is dependent upon oceanic currents, the play of winds and waves and all the accidental causes which influence the transport of pelagic animals in general. These passive migrations are here, however, as always, of the greatest significance, and bring about the wide distribution of individual species in a far higher degree than any active wanderings could do. Any one who has ever followed a stream of pelagic animals for hours and seen how millions of creatures closely packed together are in a short time carried along for miles by such a current, will be in no danger of underestimating the enormous importance of marine currents in the passive migration of the fauna of the sea. Such constant currents may, however, be recognised both near the bottom of the sea and at various depths, as well as at the surface, and are therefore of just as much significance for the abyssal and zonarial as for the pelagic Radiolaria. It is easy to explain by this means how it is that so many animals of this class (probably indeed the great majority) have a wide range of distribution. The number of *cosmopolitan* species which live in the Pacific, Atlantic and Indian Oceans is already relatively large. In each of these three great ocean basins, too, many species show a wide distribution. On the other hand, there are very many species which are hitherto known only from one locality, and probably many small local faunas exist, characterised by the special development of particular groups. The observations which we at present possess are too incomplete, and the rich material of the Challenger is too incompletely worked out, to enable any definite conclusions to be drawn regarding the local distribution of Radiolaria.

The statements made in the systematic portion of this Report regarding the distribution of the Challenger Radiolaria are very incomplete. In most cases only one locality is mentioned, and that is the station (§ 240) in the preparations or bottom deposit from which I first found the species in question. Afterwards I often found the same species again in one or more additional stations (not seldom in numerous preparations both from the Pacific and Atlantic), without the possibility of adding them to the habitat recorded under the description. The necessary accurate determination and identification of the species (measuring the different dimensions, counting the pores, &c.), would have occupied too much time, and the writing of this extensive Report would have lasted not ten but twenty or thirty years.

228. *Horizontal Distribution.*—From the extensive collections of the Challenger and from the other collections which have furnished a welcome supplement to them, it appears