

In moderate depths sometimes the whole mass of water from the surface to the bottom is abnormally warm, owing to the movement in a certain direction of a great body of warm water, as in the 'warm area' to the north-west of the Hebrides; and sometimes the whole body of water is abnormally cold, as in the 'cold area' between Scotland and Færoe, and in the northern part of the German Ocean. In deep water however, after the first few hundred fathoms, the thermometer usually sinks gradually and very slowly till it reaches its minimum at the bottom, a little above or below the zero of the centigrade scale.

The temperature of the sea apparently never sinks at any depth below  $-3^{\circ}5$  C., a degree of cold which, singularly enough, is not inconsistent with abundant and vigorous animal life, so that in the ocean, except perhaps within the eternal ice-barrier of the antarctic pole, life seems nowhere to be limited by cold. But although certain sea-animals—many of them, such as the siphonophora, the salpæ, and the ctenophorous medusæ, of the most delicate and complicated organization—are tolerant of such severe cold, it would appear to be temperature almost entirely which regulates the distribution of species. The nature of the ground can have little to say to it, for on every line of coast of any extent almost every condition and every kind of sediment is usually represented. From their inhabiting a medium which differs but little in weight from the substance of their bodies, and from the great majority of them producing free-moving larvæ or fry in vast numbers which are floated along from place to place by currents, marine animals would seem to have every possible chance of extending their area,