

gravity and viscosity as in the Norwegian Sea, and also the same temperatures. These boreal species are essentially larger than the warm-water forms belonging to the Atlantic surface-layers, and have far smaller organs of floating. This applies equally to the genuine deep-sea forms of the Atlantic in whose company the boreal forms are found (see, for instance, what I have previously said about the radiolarians, the trachymedusæ, and the crustaceans). A parallel is also found in fishes and squids, of which some larger forms commence to appear in the deeper layers, their size apparently increasing as we descend towards the bottom (compare the measurements of *Cyclothone signata* and *C. microdon*, Fig. 473, p. 620, and the two figures representing ripe *Cyclothone*, Figs. 527 and 528). The bathypelagic *Gastrostomus bairdii*, one of our deepest-living pelagic fishes, was found to attain a length, including its long tail, of 75 cm. In these regions we also find large prawns, which appear to increase in size with increase of depth (*Acantheephyra*, *Notostomus*). The squids seem to be arranged in two groups, a number of small forms living in the upper layers and the larger species living in deeper water. Although our captures from a systematic point of view may be characterised as exceedingly rich, they are not satisfactory for a study of the vertical size-distribution of squids.

The peculiar agreement between size, form, and distribution of species and the occurrence of a certain specific gravity and viscosity of the water seems entirely absent in coast waters, where the specific gravity of the water is lower than in the ocean, because the inflow of fresh water from continental rivers lowers the salinity. The viscosity, mainly dependent on temperature, should, as a rule, be similar to that of the open ocean outside. One would therefore expect to find, for instance on the coast banks of Africa, similar oceanic forms, or the same faunistic characters on the whole, as in the Atlantic Ocean. On the contrary, we find that the fauna as well as the flora have entirely different features. For unicellular plants as well as for animals, the rule holds good that all forms are much larger than those in the open ocean. Among plants the minute coccolithophoridæ are replaced by peridineæ; instead of the minute oceanic scopelidæ we meet with pelagic herrings and mackerels, animals of quite another size and character.

As to the northern part of the Atlantic we perceive that several boreal forms (among others *Clione limacina*), which in