

of great assistance towards a proper understanding of the water circulation in the Strait of Gibraltar.

Pelagic investigations in the Mediterranean.

At Station 19, a few hours' steaming from the entrance to the Mediterranean, we experimented with different appliances, to ascertain the best way of arranging our subsequent pelagic investigations. The big silk tow-net, 3 metres in diameter, was lowered to a depth of 900 metres and immediately hauled up again. It was found to work well, and captured a number of pelagic fish (eight specimens of *Argyropelecus*, a few scopelids, and some young fish), but our catch seemed to indicate that vertical hauls were not nearly so productive as horizontal hauls, and we therefore decided to make long horizontal hauls our principal mode of catching pelagic fish during the remainder of the cruise.

Water strata in the Mediterranean.

At this part of the Mediterranean there was a sharply defined limit between an upper water-layer, where the temperature was fairly high and the salinity almost identical with that of the upper layer in the Spanish Bay in the Atlantic, and a lower water-layer with "bottom-water" of uniform temperature (a little below 13° C.) and salinity (over 38 per thousand). Several series of temperatures and water-samples were taken, and the limit between the two layers was found at a depth of 150–200 metres, though subject to considerable variation, as in the Strait of Gibraltar but not to such an extent.

*Noctiluca*.

The surface water here was so full of phosphorescent *Noctiluca* as to be almost as thick as broth, and when the contents of the tow-net were emptied into a glass they formed a sediment a centimetre in thickness at the bottom of the glass. In the evening the sea resembled a star-spangled sky, and the wires following the vessel looked like gleaming stripes. During the day we now saw for the first time the beautiful surface organisms of the south, such as *Velella* and the Portuguese man-of-war (*Physalia*), with which zoologists and sailors in Mediterranean waters are so well acquainted.

From the Spanish Bay southwards along the north-west coast of Africa.

The region from Spain along the coast of North Africa is well known to zoologists from the successful labours of the French "Travailleur" and "Talisman" Expeditions. Series of trawlings at various depths were undertaken by these two ships with only small beam trawls, so that we had every hope of accomplishing something with our large trawl. We were able besides to turn to good account the information acquired from the fishermen, large numbers of whom have shot their trawls