

found in Chapter VI. A few particulars may, however, be given here.

Great abundance of coccolithophoridæ in the Sargasso Sea.

Among the exceedingly diminutive plants found in the open sea, calcareous flagellates or coccolithophoridæ are the most important, especially in the warmer waters. During the "Challenger" Expedition, Murray discovered that they were distributed everywhere over the surface of all warm seas, and he stated that they were plants. These small organisms occur in far greater abundance, both of species and individuals, than had hitherto been supposed. In reality they, together with diatoms and other algæ, constitute the fundamental source of food for all animals in tropical and sub-tropical waters. In the Sargasso Sea there were in every litre 12 or 15 species and 2000 to 3000 individuals. In colder masses of water they decrease very greatly in quantity, yet even on the edge of the Newfoundland Bank, with a temperature of  $2\frac{1}{2}^{\circ}$  C., we still met with one or two species numbering 50 individuals to the litre. In the Arctic and Antarctic Oceans, on the other hand, they are not found at all.

After occupying Station 64 we were compelled to turn northwards and steer for our next coaling station, St. John's, Newfoundland. We had to abandon any idea of following up in a southerly direction the remarkable finds we had made, and probably thus lost the chance of making the most interesting discovery of all, namely, the earliest stages of eels, *Gastrostomus*, and other forms. Still there was the possibility of learning something about the currents off the coast of North America, as well as the connection between the different water-layers and the plants and animal forms existing in them.

Fig. 93 shows a temperature and salinity section from the Sargasso Sea to Newfoundland. At Stations 64 and 65 we see the vast layer, with a salinity of over 35 per thousand and high temperature down to considerable depths, the same as found by us over the whole distance from away beyond the Canary Islands.

On our way north from Station 64 on 28th June we saw patches of Sargasso weed all the morning, and numbers of flying fish, about 10 centimetres long, started up in front of our bows. This led us to believe that we should capture the same forms as before, when we lowered our pelagic appliances in the evening at Station 66. Great was our astonishment, therefore, to discover next morning on hauling in our appliances that the catches