

are very strictly limited to an intermediate layer situated at a depth of about 300 metres. A closer investigation showed that the individuals captured at a depth of 150 metres were all caught at night. This may be due either to an upward nocturnal wandering or to chance, though on this question the small amount of our material makes it unsafe to hazard an opinion; in subsequent investigations, however, it will be worth while taking this fact into consideration. Among the individuals captured at 500 metres there must, at any rate, be a few that were taken in the process of hauling in the young-fish trawl through the intermediate layer above, though the majority probably lived at that depth—a deduction supported by the fact that far fewer specimens were found in the young-fish trawl towed at 1000 metres, which may have been captured while hauling in.

This instance is a good illustration of our method with its advantages and deficiencies. Clearly the method is trustworthy only in cases where many specimens have been caught. At the same time, it is the only effective method of capture known at present, and it is therefore interesting to inspect the results obtained.

The distribution of different animal-communities in the ocean rarely coincides with what seem to be natural distributional areas. The fact is that the occurrence of animals is largely influenced by such conditions as depth and temperature. In Chapter VII. we have seen that the limit between the southern and the northern bottom-fishes did not coincide with the border-line between the Atlantic Ocean and the Norwegian Sea, but ran from Ireland or the Channel to Iceland, and thence to the coast of the United States. In the case of pelagic animals we may also distinguish between southern or Atlantic communities and northern communities, the border-line between these two communities very nearly coinciding with the line separating the corresponding communities of bottom-fish.

A. THE ATLANTIC PELAGIC COMMUNITIES

There is a striking difference between the pelagic faunas of the open ocean and of the coast banks. In the open sea we find different pelagic communities according to the different conditions presented at various depths, and by way of introduction it may be useful to inspect the aggregate catches of a