

staple food of young fishes in the sea, where they are very widespread in the surface waters. In the cold seas of the north the number of species is extraordinary, and they often discolour the sea's surface by reason of their multitude. Dr. Sars tells us that, oddly enough, the largest catches in Polar waters were made not at the surface, but at a depth of 250 or 300 yards (200 to 300 metres); indicating that the presence of ice makes the uppermost strata too frigid for even these hardy members of the crab and shrimp class. It is no doubt paradoxical to speak of the open sea in reference to the Polar basin, which, for so large a part of the year, is frozen over to a great thickness; but Dr. Nansen's tow-netting in the long lanes of water, which opened between the long ridges of hummock ice, revealed a rich pelagic life at apparently all seasons. British, German, Norse, and American investigators have found that typical surface animals constantly descend, and many species appear to frequent the basal waters 20 to 50 fathoms deep; but the mid-water zone of life described by Dr. Sars, at 200 to 300 metres depth, is a new fact of interest. Naturalists anticipated that there might be a rich fauna on the floor of the Arctic seas. The reverse appears to be the case. Indeed the paucity of animal life there is most striking. As Dr. Nansen held the view that the polar waters were probably shallow, the good ship "Fram" was not well provided with deep-sea gear: but Professor Sars reports that in the deep sea soundings which were made every indication appeared of a scanty abyssmal fauna. Only one bottle in Dr. Nansen's extensive collection contained true bottom-living animals. The more considerable depths, 1600 to 1900 fathoms, occurred northward of 79 deg. N. latitude. Near the Siberian coast, and up to 79 deg. N. latitude, the water rarely exceeds 90 fathoms: but a little south of the latitude named, the shallows began to disappear, deeper soundings were recorded, and the depth increased with amazing suddenness, thus overthrowing altogether the preconceived conception of a North Polar sea. Indeed the great depth discovered appears to be a continuation of that North Atlantic channel which extends between Spitzbergen and Greenland. One peculiar shrimp-like creature, an Amphipod called *Cyclocaris guillelmi*, was found clinging to the sounding line, when hauled up from depths of 1100 to