Halosaurus, and the two Synaphobranchidæ may be suspected of pelagic habitat. Less doubt may be entertained about the 15 Macruridæ and the 8 Zoarcidæ, and the probability is that these (some 20 individuals) constitute the total result of the attempts of all the deep-sea expeditions to capture bottom-fish on the abyssal plain beyond the 2000-fathoms line. Most of these fishes were taken by the "Challenger" in 57 hauls with the dredge or trawl in depths exceeding 2000 fathoms. In these hauls 22 individuals were captured, and the French expeditions caught 11 bottom-fish in eight hauls, giving an average of 1 fish to two hauls.

The 35 individual fishes enumerated belong to 21 species, 15 genera, and 6 families. On the average not even two individuals of each species have been captured. The genus *Macrurus* preponderates, 15 of the 35 individuals belonging to this genus, and of deep-sea fishes the Macruridæ may most safely be regarded as bottom-dwellers. The impression of scantiness conveyed by these facts, only one or two individuals of each species of fish being known from the immense area of the abyssal plain, agrees with the scarcity of the lower orders in the same barren region. A perusal of the "Challenger" Reports astonishes us by the fact that large numbers of species of lower animals are known only from a single locality, and often from one solitary specimen.

Scantiness of animal life at great depths.

These facts suggest that the bottom-fishes of the abyssal region are very local in their occurrence, but, considering the small number of individuals recorded, it seems risky to come to that conclusion, as the want of material for comparison tends to weaken our power of discriminating between the species. In certain problems of geographical distribution, the question may be vital whether two individual fishes caught in widely separated parts of the world are to be referred to one species or not. The systematic study of these deep-sea species leaves a strong impression that many of them differ very slightly from one another. Thus, for instance, my collaborator, Mr. E. Koefoed, and myself have not been able to convince ourselves that there is any specific difference between the two species, *Macrurus armatus* and *M. gigas*, mentioned in the above table, and this circumstance alone leads to far-reaching conclusions, *M. armatus* having been caught in the Pacific and *M. gigas* in the North Atlantic (see Fig. 308).

Wide distribution of deep-sea forms.

The collections of the "Michael Sars" throw much new light on these questions. In the following table I give the