

group are strictly littoral, and most if not all occur from between tide-marks to a depth of not more than a few fathoms.

Two of the new genera in the above-mentioned groups are of special interest. *Latreillopsis*, of which a single species was taken off the Philippines, forms an interesting connecting link between *Homola* and *Latreillia*, inasmuch as it combines the body of the former, with the attenuated limbs and eye-stalks of the latter, thus showing the necessity of placing all three in a single family. The genus *Zanclifer* has been established for a curious Raninid taken in shallow water off Bahia, which possesses some interesting structural peculiarities. Originally discovered in the West Indies, upwards of fifty years ago, it was described in a very imperfect manner by its discoverer, de Freminville, who referred it to the fossil genus *Eryon*. The manifest inaccuracy of this description led to its being ignored by most subsequent writers, and the species was apparently lost sight of till rediscovered by the Challenger. It is sharply distinguished from all other Raninidea by certain prominent features, and more especially by the form of the eyes, which are so extremely rudimentary as to be scarcely recognisable at first sight. It seems probable that in this case partial loss of vision has been brought about by the animal taking up its abode in subterranean burrows.

The Paguridea and Galatheidea comprise more than four-fifths of the total number of species in the collection, and the facts connected with their bathymetrical distribution are among the most important discussed in the Report.

Three new species of Lithodea were taken, all of them in the southern hemisphere. The members of this group were formerly believed to occur only in the shallow water of the northern and southern temperate regions, but deep-sea dredgings, more especially those of the "Talisman," have shown that they extend to the tropics, in which case they are confined to deep water (some of the species reaching a depth of over 1000 fathoms), where the temperature conditions are doubtless favourable to their existence. As Professor A. Milne-Edwards has pointed out, this unexpected feature in their distribution is not without interest, inasmuch as it shows the possibility of certain forms spreading from the one circumpolar region to the other, and accommodating themselves to the altered environment, in order to obtain the necessary conditions of temperature.

The Paguroidea, or Hermit Crabs, extend to a depth of more than 2000 fathoms. A few of the characteristic shallow-water genera, *e.g.*, *Eupagurus* and *Paguristes*, extend to deep water, but the majority of the abyssal species belong to genera which have either recently, or in the preceding pages, been described as new. In nearly all cases the branchiæ of the deep-water forms, while retaining their normal arrangement, exhibit a puzzling modification of structure. The two collateral rows of flattened leaflets met with on each branchial stem in the gills of the ordinary Pagurids are replaced by a double row of rounded filaments; in other words, there is a departure from the phyllobranchiate to the trichobranchiate type. It so happens that this condition is the reverse of what