

genera contain also species which are true littoral or shallow-water forms. *Nymphon* is represented by fifteen species, ten of which belong to the deep sea. Of the three species of *Ascorhynchus*, one was taken in shallow water and two in deep water; *Colossendeis* has eight deep-sea species and one shallow-water form; *Pallenopsis* is represented by five species, three of which are true deep-sea animals. The new genus *Oorhynchus*, which I have been obliged to introduce into science, is the only one which, as far as our present knowledge goes, contains no shallow-water but only deep-sea species. As the single species it contains is represented by one specimen only, we can hardly call it an exception, and we arrive at the conclusion that, though there are numerous deep-sea species, there exist no true deep-sea genera. At the same time it is worthy of note that, though some of the genera of Pycnogonids have a very great range in depth, this is only in a slight degree the case with the species. The most striking instances of species ranging through different depths are those of *Nymphon grossipes*, Oth. Fabr. (taken at 83 and also at 540 fathoms), *Colossendeis leptorhynchus*, Hoek (from 400 and 1600 fathoms), and *Pallenopsis patagonica* (Hoek), taken at 45 and 175 fathoms.

“With regard to the geographical distribution, no general results of any particular importance or novelty have been arrived at by the study of the Challenger Pycnogonida. The deep-sea genera are world-wide in their distribution in this group of animals as well as in most others that have been studied of late in this respect. The shallow water in the neighbourhood of the coasts is much richer in different forms of Pycnogonids than seems to be the case in the deep sea. Very interesting in this respect is a comparison between the results of the study of the Challenger Pycnogonida and those arrived at by Dohrn from the study of the Pycnogonida of the Gulf of Naples. As I mentioned above, of the thirty-three new species collected by the Challenger thirty belong to genera already described and only three belong each to a new genus. Two of these (*Hannonia* and *Discoarachne*) were taken on the shore (at Sea Point near Cape Town); so only one can be added to the genera known as deep-sea inhabitants. Dohrn, on the contrary, enumerates twenty-five species as inhabiting the shores of the Gulf of Naples; these he divides into ten genera, five of which are described as new to science. So the study of the Pycnogonids of a range so very limited as the Gulf of Naples brought to light more new forms, in the real sense of the word, than that of the Challenger dredgings in various parts of the world.<sup>1</sup>

“Deep sea conditions of life have not dwarfed the Pycnogonids; on the contrary, many of them there attained such proportions as they never do in the shallow water near the coast. The size of *Colossendeis gigas*, Hoek, and *Colossendeis robusta*, Hoek, is indeed gigantic (the body of *Colossendeis gigas* has a length of 80 mm., the leg of

<sup>1</sup> “When Dohrn's elaborate monograph was published, the Challenger Report on the Pycnogonida was printed and ready to appear, as it did a few weeks later. For a comparison of Dohrn's results with mine I beg to refer the reader to a paper which I published in the *Archives de Zool. expér.*, t. ix. pp. 525-539, 1881.”