appointment, but even to the last every Cuttlefish which came up in our deep-sea net was squeezed to see if it had a Belemnite's bone in its back, and Trilobites were eagerly looked out for.

A certain number of animal forms have been obtained in the living condition from the deep sea, which were supposed, until thus found, to be extinct, and to exist only as fossils; but there are a considerable number of shallow-water and terrestrial forms which have similarly survived for long periods, and exist in the fossil as well as in the living condition. The exploration of any vast hitherto uninvestigated area must necessarily add, from amongst the numerous animal forms discovered in it, some to the list of those which are both fossil and recent. It has yet to be shown that, in the case of the deep-sea fauna, the numbers of such comparatively long-lived forms are greater proportionately than in that of shallow-water faunas.

Large numbers of interesting new genera and species of well-known families of animals were obtained by the dredge, but very few which were widely different in their essential anatomical structure from hitherto known forms, and thus of first-rate zoological importance. We picked up no missing links to fill up the gaps in the great zoological family tree. The results of the "Challenger's" voyage have gone to prove that the missing links are to be sought out rather by more careful investigation of the structure of animals already partially known, than by hunting for entirely new ones in the deep sea.

The excessively wide area of the floors of the oceans in the matter of production of species contrasts markedly with wide areas upon the land surface, which are, as has been shown by Mr. Darwin,* specially favourable to the development of variations and the production of new forms.

The deep-sea animals obtained by the ship are now in the hands of various specialists for description, and are as yet only partially reported on.† As far as I can judge from cursory examination of what was dredged, I believe that the most aberrant and important new animal obtained by the "Challenger's" deep-sea dredgings is an Ascidian, which I have described under the name of *Octacnemus Bythius*.‡

The animal, of which a figure of one-half the natural size is here given, is of a most remarkable form for an Ascidian, having

* "Origin of Species," 10th Ed., p. 83.

† These reports are now complete (1892). See "Reports of the Exploring Expedition of H.M.S. 'Challenger.' Zoology" (G.C.B.).

‡ H. N. Moseley, "On Two New Forms of Deep-Sea Ascidians obtained during the Voyage of H.M.S. 'Challenger.'" Trans. Linn. Soc., 2nd Ser. Zoology, Vol. I., p. 287.