

level in cold or arctic regions, are found on high mountains in temperate or tropical latitudes ; so in the case of the deep sea, certain animals which in high northern or southern latitudes exist in comparatively shallow water, occur at great depths near the equator. Again, just as Alpine floras consist to a considerable extent of modifications of forms growing at lower levels in other regions of the earth, altered somewhat in non-essentials to suit an Alpine existence, rather than of ancient and isolated forms greatly differing from those of the lowlands ; so in the case of the deep-sea fauna, hardly any of the animals discovered as composing it are of any very important or widely aberrant zoological structure.

Just as some members of Alpine floras are dwarfed by the climate to which they are exposed, so does it occur in the case of some of the deep-sea animals : but by no means in that of all, for some forms seem even to increase in size, through their existence in the great depths. A deep-sea *Cerianthus*, a Sea Anemone living in a tube, already described in this work,* may be cited as an instance of dwarfing. *Pycnogonids* may be referred to as examples of increase of size in great depths. We dredged in deep water gigantic examples of these latter animals, measuring more than a foot between the tips of the legs. Nearly all Crustacea seem to increase in size in the deep sea ; we dredged large specimens of *Serolis* and other large Isopods, and large *Scalpellums* ; the Decapod Crustacea obtained were however none of them as large as the larger shallow-water forms.

One coral, *Bathyactis (Fungia) symmetrica*, ranges from a depth of 30 fathoms to one of 2,900 fathoms, and varies very much in size. No very large specimens were obtained in small depths ; but very small adult specimens were found in great depths, and no direct connection between increase of depth and increase in dimensions was able to be determined in this case, though the great number of specimens obtained rendered the case a good one for examination with regard to the question under consideration.

In many respects, the zoological results of the deep-sea dredgings were rather disappointing. Most enthusiastic expectations were held by many naturalists, and such were especially put forward by the late Prof. Agassiz,† who had hopes of finding almost all important fossil forms existing in life and vigour at great depths. Such hopes were doomed to dis-

* See p. 353.

† "A Letter concerning Deep-sea Dredging, addressed to Prof. Benjamin Pierce, Superintendent of the U.S. Coast Survey." *Ann. & Mag. Nat. Hist.* 1872, p. 169.