

greater is the probability that the newly acquired species will be closely allied to forms which are already known, that is, the average number of species in each given genus will increase.

“Since the Challenger made an investigation of the great depths of all the important oceans, except the Arctic Ocean and the northern part of the Indian Ocean, a general view of the results obtained with respect to the geographical and bathymetrical distribution of the Hexactinellida will be of special value.

“I will therefore proceed to summarise the distribution of the Hexactinellida so far as the results of the Challenger dredgings permit. The number of dredging and trawling stations amounted altogether to about two hundred and eighty, of which fifty-three, that is about one-fifth, yielded specimens of Hexactinellida.¹ In many cases only one or two specimens were taken at each Station, but sometimes as many as fifty or more were obtained. If, however, not the number of specimens but (what is more important) the number of species found at each Station be reckoned, then a careful enumeration shows that of the fifty-three Stations—

32	gave each	1	species.
11	„	2	„
3	„	3	„
3	„	4	„
1	„	5	„
2	„	6	„
1	„	18	„

This last Station, rich both in individuals and in species, is Station 192, near the Ki Islands, southwest of New Guinea.

“The fifty-three Stations are distributed among the three principal oceans, so that

17	belong to the	Atlantic Ocean.
27	„	Pacific „
9	„	Southern „

“From an examination of these Stations it appears that species of Hexactinellida are most numerous in the Southern Ocean, least so in the Atlantic; but on the other hand the number of species at particular places is greatest in the Pacific.

“The fact, which has been remarked in many other classes of animals, repeats itself here, namely, that the number of forms which live together in any given place is in general greatest in the tropics; the tropical zone of the Pacific being most remarkable

¹ It must be observed that in some cases (*e.g.*, Stations 149, 164) one number includes several dredgings which ought, perhaps, to be reckoned as so many different Stations; I have, however, reckoned each number as one Station.