

In addition to the occurrences tabulated, there are no less than twenty-seven of which the depth is not known, and most of these are in all likelihood from comparatively shallow water, but with these omitted, the number of comparatively shallow-water forms is considerable, as many as six being recorded from depths of  $7\frac{1}{2}$  to 45 fathoms; the number from 51 to 100 is abnormally increased by the large number of species, nine from 65 fathoms, described by Carter from "melobesian" nodules, similarly the number from 101 to 150 fathoms is unduly increased by the seven species (also found on calcareous nodules) at 140 fathoms from the Island of Ki; if the number of Carter's species be reduced to two, we shall have only six species occurring at an average depth of 79 fathoms in the second column, and the distribution from 0 to 100 fathoms might be regarded as fairly uniform; if, however, we reduce the number of species from Ki to three there will still remain fourteen from an average depth of 125 fathoms in the third column, and from this it would appear that the most favourable depth for Lithistid species extends from 100 to 150 fathoms; attaining their maximum development at this depth they thin away on either hand, but more rapidly towards the deeper than the shallower water; this may best be exhibited by dividing the number of species in each column by the number of fathoms giving the range; using the amended numbers obtained for columns 2 and 3, and disregarding the stragglers beyond 450 fathoms, we have the following proportion:—Number of species per fathom occurring between 0 and 50 fathoms : that from 51 to 100 : that from 101 to 150 : that from 151 to 250 : that from 251 to 350 : that from 351 to 450 = 12 : 12 : 28 : 6 : 7 : 5, and again:—Number of species per fathom from 0 to 100 fathoms : that from 101 to 150 : that from 151 to 450 = 4 : 7 : 2.

The bathymetrical distribution of the group as deduced from the Challenger results solely is expressed by curves on p. 397 (Fig. 3).

There is very little to remark with regard to the distribution of the families as distinct from the order; the wide range of the cosmopolitan species, *Azorica pfeifferæ*, may be noticed,—it extends from between 15 and 25 fathoms to 1075 fathoms; the interesting genus *Neosiphonia*, which represents the ancient *Siphonia* of the Mesozoic rocks, has also a wide range, extending from 80 to 805 fathoms.

There does not appear to be any correlation between the form or structure of the different species of Tetractinellida and the depth at which they occur, symmetrical forms do certainly occur among deep-water genera, e.g., in *Thenea*; but they are also found in shallow-water genera as well, e.g., in *Dysyringa*; on the other hand a correlation between structure and the nature of the sea-floor is not unusual (*vide* Introduction).