

Successful hauls were made from—

3 out of 55 Stations on Globigerina ooze			or 5.46 per cent.
3	„ 50	„ red clay	„ 6 „
1	„ 9	„ gravel	„ 11.1 „
7	„ 48	„ blue mud	„ 14.58 „
5	„ 30	„ volcanic mud	„ 16.6 „
4	„ 21	„ green sand and mud	„ 19 „
2	„ 10	„ Pteropod ooze	„ 20 „
4	„ 20	„ coral mud	„ 20 „
3	„ 13	„ hard ground	„ 23 „
1	„ 4	„ Diatom ooze	„ 25 „
3	„ 8	„ sand	„ 37.5 „

The poverty of the Globigerina ooze is very remarkable, but no doubt it stands in relation to the fact that the Tetractinellida are comparatively rare in deep water, such as that in which the Globigerina ooze usually occurs; but one would scarcely have expected the ooze to prove poorer than the red clay. Conversely the comparative richness of coral mud, sand, and hard ground is connected with the greater abundance of Tetractinellids in shallow water. The comparative richness of Diatom ooze on the other hand is probably due to the fact that the Tetractinellida and probably other Sponges also find in the Diatoms an abundant source of food supply.

The comparative richness of the Indo-Antarctic region is probably connected with the unusually numerous dredgings made off Kerguelen, and partly with the fact that it lies within the zone of the Antarctic Diatom ooze; it is true that the bottom from whence the Tetractinellids were obtained is recorded as volcanic mud, and coarse gravel, but this is in shallow water; in the deeper water on each side of the area from which the Sponges were obtained the Diatom ooze occurs, and it would appear very probable that it is also present in the shallower deposits, but masked by the abundance of volcanic material; this is just one of those cases on which the analysis of the deposit as made by Dr. Murray is likely to throw light; but the view I have expressed is confirmed by the fact that Diatoms abound in the vestibules and cloacas of the specimens of *Cinachyra barbata*, a species rich in individuals which inhabit the volcanic mud off Kerguelen.

It now only remains to add a short summary of the distributional characters of the subdivisions of the Tetractinellida. The Choristida are cosmopolitan, with a wide bathymetrical range, extending from the coast-line to a depth of 2000 fathoms. Judged from the results of the Challenger Expedition, the zones from 0 to 50 and from 51 to 200 fathoms are equally rich in species; judged from the entire body of recorded observations (tabulated on p. 378) the former is the richer in the ratio of 100 : 68. Since the littoral zone is more accessible to general observation this gives too high a value for the littoral zone, while that deduced from the Challenger is for obvious reasons too low.