

*Haliphysema ramulosum* differs from *Haliphysema tumanowiczii*; that on the coast of Devonshire the former "always grows on the rocks at half-tides, and is therefore uncovered by water twice a day; while the latter grows always in the Laminarian zone, and is seldom or never uncovered." This is an interesting fact, but it is probably of local rather than general application.

I can add nothing to the notes on distribution furnished by previous authors, which may be summarised as follows:—Budleigh-Salterton, Devon, between tide marks (Carter); Guernsey, dredged 15 fathoms, on *Gorgonia verrucosa* (Norman); Roundstone Bay, Ireland, on seaweed, Laminarian zone (Norman); coast of Florida, U. S. A., dredged by Pourtales (Schmidt); Mauritius, coral-reefs (Moebius).

#### Family IV. LITUOLIDÆ.

The composite structure of the test is the primary characteristic alike of the LITUOLIDÆ and the ASTRORHIZIDÆ. No hard line of separation can be drawn between the two Families, but, speaking in general terms, the tests of the LITUOLIDÆ assume more regular forms, their segmentation is more definite, and they are of smaller dimensions, than those of the allied series. The Family, as now presented, embraces a large number of generic or subgeneric groups, which collectively cover an area of morphological variation wide enough to include sandy isomorphs of a considerable proportion of the hyaline and porcellanous types. Our knowledge of the series, especially of the forms constituting the LITUOLINÆ and TROCHAMININÆ, has been greatly extended by the deep-sea explorations carried on during recent years, and their zoological treatment has of necessity been placed on a wider basis than heretofore. Messrs. Parker and Jones classed the rougher Arenacea known to them as varieties of a single typical species, *Lituola nautiloidea*, and the smoother series, in the same way, as modifications of *Trochammina squamata*. It is needless to enter into the question of the exact zoological value of the minor characters of the numerous organisms now referred to these two subordinate groups, but they are sufficiently distinctive to furnish the groundwork of an orderly classification on similar lines to those adopted in other groups of Foraminifera of like extent. Whether *Reophaa*, *Haplophragmium*, and *Placopsilina*, and their labyrinthic isomorphs, be considered as subtypical varieties of the "species" *Lituola nautiloidea*, as sub-genera of the genus *Lituola*, or as genera of the sub-family LITUOLINÆ, is a matter that may be determined by convenience. Viewed in relation to the comparative fixity of characters existing amongst animals of higher organization, the first method of treatment would be most consistent, but in relation to the conditions which obtain amongst the Rhizopoda the last of the three presents the fewest difficulties.

The precise nature of the composite test of the LITUOLIDÆ differs considerably in the