

BATHYMETRICAL RANGE.

During the cruise of the Challenger, 196 species of Alcyonaria (excluding Pennatulacea) were obtained. These may be grouped according to the depths from which they were collected as follows :—

Zone.	Fathoms.	Species.
I.	0 to 100	90
II.	100 to 400	64
III.	400 to 1000	26
IV.	1000 to 2000	15
V.	2000 to 3000	1

From the above we see that the number of species lessens gradually from the surface waters to the greater depths.

The proportion between the number of species found in the first zone to the number in subsequent zones would appear much increased, were we to include with the foregoing species those previously recognised, which for the most part belong to this first zone.

The character of the fauna in the first zone varies in the different seas and latitudes examined, and more especially in the surface waters which are most exposed to climatic influences.

It is possible to distinguish a yet more littoral fauna, which extends to the level of the low tide mark, from one extending into the deeper water. In the temperate and cold seas there are only a few species in this littoral fauna, where inconspicuous forms of Cornularidæ, e.g., *Cornularia*, *Clavularia*, *Sarcodictyon*, grow on the rocks or cover the surfaces of *Zostera* or of Algæ. The only addition to these is a low growing *Alcyonium*, or, as upon the east coast of America, a bushy *Telesto*.

In the equatorial seas this zone is somewhat richer. In the West Indies and Brazil the occurrence of the following has been ascertained :—Some Xenidæ; among the Alcyonidæ, *Ammothoa*; among the Gorgonaceæ, *Scleraxonia*, such as *Briareum*, and among the Holaxonia, *Plexaurella*, *Hymenogorgia*, *Gorgonia*, *Leptogorgia*.