

BATHYMETRICAL DISTRIBUTION.

HISTORY.

In regard to the bathymetrical distribution of Hexactinellida, Marshall¹ gave in 1875 the following summary of the few results then available:—

| Species. | Depth in Fathoms. | Authority. |
|---|-------------------|-------------------|
| <i>Pheronema (Holtenia) carpenteri</i> , | 550 | Wyv. Thomson. |
| <i>Hyalonema thomsoni</i> , | 83 | Wyv. Thomson. |
| <i>Aphrocallistes bocagei</i> , | 700 | Wyv. Thomson. |
| <i>Sympagella nux</i> , | 100-120 | Pourtales. |
| <i>Holtenia pourtalesii</i> , O. Schmidt, | 150-333 | Pourtales. |
| <i>Farrea facunda</i> , O. Schmidt, | 130-456 | Pourtales. |
| <i>Dactylocalyx crispus</i> , O. Schmidt, | 270 | Pourtales. |
| <i>Habrodictyum speciosum</i> , | 83 | Quoy and Gaimard. |
| <i>Semperella schultzei</i> , | 200 | Ludeking. |

This list was extended by O. Schmidt's² report upon the Hexactinellida collected by A. Agassiz in the Gulf of Mexico, especially near the Lesser Antilles. This list, retaining O. Schmidt's nomenclature, is given on the next page.

From the above it will be seen that the depth varied from 100 to 2410 fathoms, with the exception of the record of *Cystispongia*, said to have been found near Yukatan at a depth of 20 fathoms. On this very divergent number of fathoms much weight must not be laid, since there is a possibility of error or of misprint, all the more probable since at two other localities the same species was found at depths of 136 and 292 fathoms. Leaving this divergent instance out of account, we get from Alexander Agassiz's bathymetrical statistics an average of about 500 fathoms, while 100 fathoms is the minimum depth at which any form was found. Without attempting to gather up all the scattered reports as to depths at which single Hexactinellid forms were found at various localities, I shall content myself with noting that Dr. Döderlein³ found in the Sagami Bay, Japan, various Hexactinellids (especially *Aphrocallistes*, *Farrea*, and *Hyalonema*), at depths of 80 to 200 fathoms. It is also necessary to note some reports which have recently appeared in the results of the French Expeditions of the "Talisman" and "Travailleur," by M. Filhol⁴ and M. Perrier.⁵ According to these *Pheronema* were dredged from

¹ Marshall, *Zeitschr. f. wiss. Zool.*, Bd. xxv. Supplement, p. 142.

² Spong. Meerb. Mexico, 1880.

⁴ La vie au fond des Mers.

³ Döderlein *Archiv f. Naturgesch.*, Jahrg. xlix. Bd. i., p. 102, 1883.

⁵ Les explorations sous-marines.