

our possession ; and as these dredging expeditions proceed, the more will our knowledge become extended.

The admirable report of Prof. E. Forbes On the Mollusca and Radiata of the Ægean Sea, published by the British Association for the Advancement of Science in 1843, shadowed forth the important results that might be obtained by well conducted and equipped expeditions ; but even now we are wanting in information with respect to the bathymetrical distribution of some twenty-six or twenty-eight of the known living species. In his excellent memoir, *Über die Wohnsitze der Brachiopoden*, 1859, Professor E. Suess recapitulates all the then known data respecting the geographical distribution of Brachiopoda and the depths at which they live ; since then our knowledge has been very considerably extended, and it has become evident from direct observation that the Brachiopoda are widely but sparingly distributed over the depths of the sea, though, of course, they are more numerous both in species and individuals at depths of less than 500 fathoms ; they are also much localised, and prefer rocky, stony, and coralline sea-bottoms to soft or muddy ones.

The entire collection of Brachiopoda brought home by the Challenger Expedition, numbering several hundred specimens, was placed in my hands by Sir Wyville Thomson on the 11th of August 1877. The specimens were in an excellent state of preservation, and had been put into bottles of spirit, with a correct indication of the stations, latitude, longitude, depth, bottom-temperature, and the nature of the sea-bed whence they had been obtained. Thus, reliable and invaluable data accompanied each specimen, which I have in every instance reproduced in the pages of this Report. Sometimes only one specimen of a species had been dredged at a station, while at other times two or more species or specimens were brought to the surface. It must, however, be noted that, in addition to the 361 dredging stations included in the printed list of observing stations, the naturalists of the Challenger dredged very often in shallow water.

We learn from the printed instructions that, throughout a course of 68,890 miles, the dredge was put down at some 361 stations, and Brachiopoda were brought up thirty-eight or thirty-nine times only. Although the number of Brachiopoda brought home was great, not more than thirty-one species are represented. The greatest depth at which any living Brachiopod was obtained was 2900 fathoms ; the greatest depth dredged being on one occasion 4575 fathoms.

The ranges of depth at which the Challenger species of Brachiopoda occurred were as follows :—

Shore or low water to 10 fathoms, .	<i>Waldheimia flavescens</i> , Lamarek.
... .. .	<i>Kraussina lamarekiana</i> , Dav.
2 to 10 fathoms, .	<i>Magasella cumingi</i> , Dav.
... .. .	<i>Lingula anatina</i> , Lamarek.
... .. .	<i>Megerlia sanguinea</i> , Chemnitz.
5 to 15 fathoms, .	<i>Magasella flexuosa</i> , King.