

water, but they are moulded upon its outer surface or cemented to it by calcareous or horny excretions, and some of them, such as the corals and bryozoa, from what we know of their history and mode of life, must have become attached to it as minute germs, and have grown to maturity in the position in which they were found. I must therefore regard this observation of Mr. Fleeming Jenkin as having afforded the first absolute proof of the existence of highly-organized animals living at depths of upwards of 1,000 fathoms.

During the several cruises of H.M. ships 'Lightning' and 'Porcupine' in the years 1868, 1869, and 1870,<sup>1</sup> fifty-seven hauls of the dredge were taken in the Atlantic at depths beyond 500 fathoms, and sixteen at depths beyond 1,000 fathoms, and in all cases life was abundant. In 1869 we took two casts in depths greater than 2,000 fathoms. In both of these life was abundant; and with the deepest cast, 2,435 fathoms, off the mouth of the Bay of Biscay, we took living, well-marked and characteristic examples of all of the five invertebrate sub-kingdoms. And thus the question of

<sup>1</sup> Preliminary Report, by Dr. William Carpenter, V.P.R.S., of Dredging Operations in the Seas to the north of the British Islands, carried on in Her Majesty's steam-vessel 'Lightning' by Dr. Carpenter and Dr. Wyville Thomson, Professor of Natural History in Queen's College, Belfast. (Proceedings of the Royal Society of London, 1868.)

Preliminary Report of the Scientific Exploration of the Deep Sea in H.M. surveying-vessel 'Porcupine,' during the Summer of 1869. Conducted by Dr. Carpenter, V.P.R.S., J. Gwyn Jeffreys, F.R.S., and Professor Wyville Thomson, LL.D., F.R.S. (Proceedings of the Royal Society of London, 1870.)

Report of Deep Sea Researches carried on during the months of July, August, and September 1870, in H.M. surveying-ship 'Porcupine,' by W. B. Carpenter, M.D., F.R.S., and J. Gwyn Jeffreys, F.R.S. (Proceedings of the Royal Society of London, 1870.)