

were upon the whole as satisfactory as we had ventured to anticipate. The vessel was certainly not well suited for the purpose, and the weather throughout the cruise was very severe. During the six weeks which elapsed between our departure from Oban and our return only ten days were available for dredging in the open sea, and on four of these only we were in water over 500 fathoms deep. On our return Dr. Carpenter submitted to the Royal Society a preliminary report on the general results of the cruise, and these were regarded by the Council of the Society as sufficiently new and valuable to justify a strong representation to the Admiralty urging the importance of continuing an investigation which had already, even under unfavourable circumstances, achieved a fair measure of success.

It had been shown beyond question that animal life is varied and abundant, represented by all the invertebrate groups, at depths in the ocean down to 650 fathoms at least, notwithstanding the extraordinary conditions to which animals are there exposed.

It had been determined that, instead of the water of the sea beyond a certain depth varying according to latitude having a uniform temperature of 4° C., an indraught of Arctic water may have at any depth beyond the influence of the direct rays of the sun a temperature so low as - 2° C.; or on the other hand, a warm current may have at any moderate depth a temperature of 6°·5 C. : and it had been shown that great masses of water at different temperatures are moving about, each in its particular course; maintaining a remarkable system of oceanic circulation, and yet keeping so distinct from one another that