

JAPAN.

On the 13th April the anchor was weighed early in the forenoon, and the vessel proceeded out of Yokohama Bay for the purpose of swinging ship to ascertain the errors of the compass. The position of the ship at noon was Treaty Point W.N.W. one mile. At 8.30 P.M. she returned to the anchorage, and on the 26th April proceeded to Yokoska Harbour, and the following day was hauled into dock for repairs. On the 3rd May she was hauled out of the dry dock and returned to the former anchorage off Yokohama.

On the 12th May the Challenger left Yedo Bay for a cruise along the southern coast of Japan and into the Inland Sea. Proceeding first round Joka Sima, a day was spent in sounding, dredging, and trawling in the bay next west of Yedo, where the celebrated Japanese siliceous glass rope Sponges (*Hyalonema*) are found. A native fisherman was taken to point out the best spot, which proved to be Double Hill (on the coast on the east side of Yedo Bay) in line with Tree Hill, and a notch in the coast behind Ino Sima shut in by that island. The angles were Peaked Rock $28^{\circ} 10'$ Ino Sima $82^{\circ} 40'$ Tree Hill ϕ Double Hill (see Sheet 35). The depth was 345 fathoms, and the deposit a dark green mud containing a few shells of pelagic and other Foraminifera, fragments of Molluscs, Echinoderms, Polyzoa, Sponge spicules, Radiolarians, and Diatoms. There were a good many glauconitic casts of the calcareous shells.

The ship was surrounded by native fishing boats, and Mr. Murray visited a number of these. They were fishing with long lines on which were attached iron hooks without barbs, about 6 feet apart. On the lines which were being hauled in were Pennatulids, Hyalonemas, Astropectens, Hydrozoa, and Macrurids and other deep-sea fish. It is worthy of remark that while several Hyalonemas were procured from the native lines none were obtained in the dredgings and trawlings from the ship, although most of the other species were captured and many others in addition. The whole fauna had a marked deep-sea character. In the Memoirs already published thirty-two new species are described from this locality.

Dr. A. Günther has the following interesting remarks on the Fish from this Station :—

“ A fact to which I have repeatedly drawn attention, and again quite recently,¹ viz., that there exists the greatest similarity between the marine fauna of Japan and that of the Mediterranean, the adjacent parts of the Atlantic, and the West Indies, is fully borne out by the Challenger collections. It is proved not only by a number of species absolutely identical in the seas named, but also by a large proportion of representative species. The similarity becomes still more obvious when we take into consideration species which live at a moderate depth of from 200 to 400 fathoms; and although I

¹ *Ann. and Mag. Nat. Hist.*, ser. 5, vol. i. p. 485, 1878; also *Journ. Linn. Soc. Lond.* (Zool.), vol. xii. pp. 100–109, 1874.