

There were no eggs of the birds in the nests, but mostly far advanced young which were covered with frills of a rusty coloured down. The old birds soared overhead, and could only be obtained by being shot; whereas the Gannets were easily knocked over on the nests with sticks. It was curious to see the Frigate Birds, the nesting place of which is usually on high cliffs as at Fernando Noronha, here, through the entire security of the locality, nesting on the ground. The main body of the Frigate Birds remained during the stay of the party on the island soaring high up in the air with their eagle-like flight, far above the cloud of other birds beneath. In the stomachs of some of these birds which were shot, small cuttle-fish and *Spirula* shells were found. One *Phaëthon æthereus* was seen.

The shells of numerous turtles which had died on the island were lying about. In one place there was quite a heap of these at a sort of miniature gully, bounded by a perpendicular wall of rock about 2 feet in height. It appeared as though the turtles had crawled up from the sea shore to spawn, and being stopped by this small cliff, had been unable to turn round or go backwards, and had died there. A Locust (*Acridium*) was very common amongst the grass on the island, and a large Earwig (*Forficula*) under the stones.

Whilst the naturalists were on shore, the ship obtained a few soundings close to the island, the position of the soundings being fixed by the officer at the beacon taking a bearing and masthead angle of the ship at each cast. The exploring parties returned at 11 A.M., when two hauls of the dredge to leeward of the island were obtained, but they were not very productive.

Raine Island is situated on the west or leeward edge of a small coral atoll, which extends over two miles in a southeast and northwest direction, and is about a mile broad (see Sheet 27). The lagoon of this atoll is represented merely by shallow patches of water with sandy bottoms. The atoll is separated from the Great Detached Reef and the Barrier Reef by channels with a depth exceeding 100 fathoms, and the outer edge of the reef has a very steep slope. The island itself is about a third of a mile long and a quarter of a mile broad, and is composed of a blown calcareous sand which has consolidated towards the centre of the island into a compact limestone. In some places there is a soil from 2 to 3 inches thick. Numerous fragments of pumice were picked up on the island.

The soundings and dredgings in 135, 150, and 155 fathoms showed that the deposit was a coral sand, composed of white and brownish coloured fragments of Corals, Molluscs, and Foraminifera shells, with a considerable admixture of calcareous Alga. Mr. H. B. Brady, F.R.S.,¹ found in this deposit a larger number of species of Foraminifera than in any other taken during the cruise. The deposit contained 87 per cent. of carbonate of lime, and it was estimated that more than half of this consisted of pelagic Molluscs and pelagic Foraminifera. The few mineral particles in the deposit consisted of rounded fragments of quartz, felspars, mica, apatite, and fragments of pumice.

¹ Zool. Chall. Exp., part xxii. pp. 93, 94, 1884.