

Siao Island has a most remarkable range of four volcanic cones perfectly distinct from each other. The northern one is an active volcano, estimated as 6000 feet high; the other three are lower, gradually decreasing to the lowest in the south part of the island, southeast of which the land appears much broken up.

The trawl was hove up at 6.45 P.M., and at 7 P.M. the ship proceeded towards Basilan Strait under steam, the weather being quite calm. Whilst trawling a slight westerly current was experienced.

On the 21st the calm continued throughout the day, rendering it necessary to proceed under steam. At noon the surface temperature rose to 88°, the black bulb thermometer in the sun showing at the same time 142°.

On the 22nd, at daylight, the high land of Mindanao Island was seen on the starboard bow. At 7.45 A.M. a sounding and serial temperatures were taken in 2600 fathoms, and at 11.30 A.M. the ship again proceeded towards Basilan Strait. At 10 P.M. Basilan Island was sighted, and at midnight the left extremity of that island bore W. $\frac{1}{2}$ S., Mount Matanal W. by N., and Sibago Island N.W. by W. $\frac{1}{2}$ W.

On the 23rd, at daylight, Sibago Island bore S. 12° W., Mount Matanal S. 29° W., Tulnalutan Island N. 25° W., and Malanipa Island N. 66° W. At this position the ship was swung to ascertain the errors of the compass and dipping needle. At 2.35 P.M. the swinging was completed and two hauls of the trawl obtained in 250 fathoms, with Mount Matanal 45° 0' L.T. Lambil Island 62° 30' Tulnalutan Island. At 5 P.M. the vessel proceeded towards Samboangan, anchoring off that town at 8.50 P.M. in 17 fathoms, with the lighthouse N. 49° E., summit of Sibago Island S. 65° 20' E., Apex Cocos Island S. 49° 20' E., Mount Matanal S. 40° E., L.T. Santa Cruz Island S. 3° E., right extremity of Chica S. 65° 40' W.

The chart of Basilan Strait is by no means as correct as it should be, for it was found that bearings or angles taken to objects on the south shore placed the ship in a different position from those taken to objects on the north shore. The height of Tulnalutan Island was found to be 260 feet, Malanipa 360 feet, and Sacol Island 720 feet.

The Expedition obtained, in the eastern part of the Celebes Sea, in addition to the two soundings above referred to in 2150 and 2600 fathoms, another sounding in 2050 fathoms in the following February. The serial temperature observations showed that the water had the same temperature at 700 fathoms as at the bottom, which indicates that this sea is cut off from general oceanic circulation by a ridge about that height.

The deposits at the depths just mentioned contained only very slight traces of carbonate of lime, and microscopic examination showed an absence of the shells of pelagic Foraminifera, but in a sounding of 255 fathoms there were many of these shells. Radiolaria were numerous in all the deposits, but the great bulk of the mud was composed of broken-down fragments of pumice and clayey matter. The deeper layers were compact and of a blue colour, while the surface layer was oozy and reddish brown.

In passing through the Celebes Sea calm weather was generally experienced, and boats were lowered while sounding to enable the naturalists to make observations. Several species of *Oscillatoria* were very abundant, and when the sea was examined through a