THE VOYAGE OF H.M.S. CHALLENGER.

ARAFURA SEA,

sail. South point of Arrou Islands distant at noon, 366 miles. Made good 134 miles. Amount of current 6 miles, direction W. During the night sounded every two hours, the depths averaging about 30 fathoms, indicating the presence of the submarine plateau which connects New Guinea and North Australia.

At 9.15 A.M. on September 11 shortened and furled sails, brought ship to wind, and put over trawl, which was sent down three times in depths varying between 25 and 29 fathoms, deposit Green Mud, containing 31.13 per cent. of carbonate of lime (Station 189). At 9.30 A.M. lowered whaler to try current. At 11.30 A.M. completed trawling, many specimens being procured, and made sail. The carbonic acid was determined in bottom water, and amounted to 28.7 milligrammes per litre. Distance at noon from Ngor Island, south extremity of the Arrou Islands, 250 miles. Made good 113 miles. Amount of current 10 miles, direction N. 84° W.

At 1.45 P.M. on September 12 shortened sail, brought ship to wind, and put over trawl, which was sent down three times in about 49 fathoms, deposit Green Mud, containing 23.04 per cent. of carbonate of lime (Station 190). Many specimens were obtained, along with a log of wood completely bored by Pholadids. The colour of the water changed during the course of the afternoon from a light greenish-blue to a dark blue. At 5.10 P.M. completed trawling and made sail. In the evening a booby (*Dysporus sula*) came on board the ship. Sea phosphorescent at night. Ngor Island distant at noon, 147 miles. Made good 111 miles. Amount of current 8 miles, direction W.

ANIMALS FROM DREDGE AND TRAWL. The following species are recorded in the Zoological Reports from these shallow-water dredgings and trawlings in the Arafura Sea :---

KERATOSA (Poléjaeff, Zool. pt. 31).

Ianthella flabelliformis (Pallas). Two specimens (Station 188); obtained at no other locality by the Challenger.

Cacospongia irregularis, n.sp. One specimen (Station 188); obtained at no other locality.

MONAXONIDA (Ridley and Dendy, Zool. pt. 59).

Rhizochalina fistulosa (Bowerbank). Sixteen specimens (Station 188); obtained also at Station 73 and Bahia (?).

Sideroderma navicelligerum, n.g., n.sp. One specimen (Station 188); obtained at no other locality. Only species of the genus.

Clathria frondifera (Bowerbank). One specimen (Station 188); obtained at no other locality by the Challenger. Recorded from Indian and Pacific Oceans.