

MOLLUSCA FROM THREE HUNDRED FATHOMS,
OFF SYDNEY.

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(Plates xxxvii. and xxxiii.).

Various excursions have reaped a superficial knowledge of the Mollusca of our Continental Shelf. In a recent issue of these Records a collection was described which Mr. G. H. Halligan obtained in one hundred and ten fathoms off Cape Byron. A haul made by the same gentleman and one of us in one hundred fathoms off Wollongong, supplemented the collections trawled by the "Thetis" Expedition in from twenty to eighty fathoms between Jervis Bay and the Manning River.

It was evident that at a greater distance from the coast, in deeper and colder water, another fauna would appear. To search this zone the writers organised a dredging trip. We were greatly aided by the kindness of Mr. H. E. Farmer, who, on behalf of Messrs. Bullivant, generously placed at our disposal a reel and five hundred fathoms of wire rope. A serviceable steamer of seventy-four tons, the "Woy Woy," fitted with steam winding gear, was engaged for the trip. We enjoyed the company and assistance of Dr. R. Pulleine, Messrs. E. R. Waite, G. A. Waterhouse, F. E. Grant and A. R. McCulloch. The weather on the chosen date was excellent. Taking our departure at 8 a.m. on March 27, 1905, from mid-channel between Port Jackson Heads, we set a due east (true, not magnetic) course, and ran by the patent log, twenty-seven and a half miles. On sounding no bottom was got at two hundred and fifty fathoms. Estimating the depth at three hundred fathoms, we put the bucket dredge over and paid out most of our wire rope. A full load of sandy mud, coloured green by glauconite, rewarded us. The temperature of the mud when it arrived on board was 60° F.

Before again sinking the bucket we fastened a dredge to its taper end by forty fathoms of rope. This length allowed the dredge to follow on the ocean floor a track different to that of the bucket. If tied closer it would in pursuing the same path have only collected material already crushed by the passage of the bucket. Both bucket and dredge returned with a satisfactory load, but a final descent of the dredge alone proved a failure.