

SIR JAMES CLARK  
ROSS' ANTARCTIC  
EXPEDITION.

A British Antarctic Expedition under Sir James Clark Ross sailed in the "Erebus" and "Terror" in 1839, and returned safely in 1843. Like Sir John Ross in the Arctic voyages, his nephew was determined to make the most of his opportunities in all directions, and was seconded in his efforts by the able co-operation of Dr., afterwards Sir, Joseph D. Hooker, who accompanied the expedition as assistant surgeon. Without neglecting his main purpose—the exploration of the ice-bound coasts of the southern hemisphere and the search for the South Magnetic Pole—he carried on astronomical, physical, and zoological work, and achieved important results.

A number of unsuccessful attempts were made to ascertain the depth of the water in mid-ocean, the failure being due to the want of a proper line. Sir James Ross accordingly had one made on board, 3600 fathoms long, fitted here and there with swivels to prevent it unlaying in its descent, and made strong enough to support a weight of 76 lbs. On the 3rd January 1840, when in lat. 27° 26' S. and long. 17° 29' W., the first abysmal sounding was satisfactorily taken with the new line, the depth marked being 2425<sup>1</sup> fathoms. Sounding in such great depths could only be attempted in dead calm weather, and the line was allowed to run out from an enormous reel in one of the ship's boats, the time each 100 fathom mark left the reel being noted in the usual way. On the 3rd March 1840, a sounding of 2677 fathoms was taken in lat. 33° 21' S. and long. 9° E., 450 miles west of the Cape of Good Hope. Water of equal depth was frequently sounded during the cruise, and on two occasions at least no bottom could be found with over 4000 fathoms of line.

INTRODUCTION OF  
TIME INTERVALS  
IN SOUNDING.

ROSS' DREDGINGS  
IN DEEP WATER.

The dredgings which were taken occasionally turned out to be one of the most valuable parts of the scientific work of the expedition. On the 21st April 1840, a haul of the dredge was taken in 95 fathoms of water, and it came up full of coral. On the 18th January 1841, when in lat. 72° 57' S. and long. 176° 6' E., a Crustacean (*Nymphon gracile*) was found attached to the lead, after a sounding in 20 fathoms. Next day, when the depth was 270 fathoms, a dredge was put over, and when hauled up was found to be nearly full; it contained a block of granite, a number of small stones, some beautiful specimens of living corals, and, to quote Captain Ross's own words:—"Corallines, Flustræ, and a variety of marine invertebrate animals, also came up in the net, showing an abundance and great variety of animal life. Amongst them I detected two species of *Pycnogonum*, *Idotea baffini*, hitherto considered peculiar to the Arctic Seas, a Chiton, seven or eight bivalves and univalves, an unknown species of *Gammarus*, and two kinds of *Serpula* adhering to the pebbles and shells."<sup>2</sup> On 20th January 1841, the deep-sea clam brought up stiff green mud containing corals and fragments of starfish from a depth of 320 fathoms. Two days later the dredge was kept out for several hours in 300 fathoms, and its contents included "many animals, some

<sup>1</sup> Antarctic Voyage, vol. i. p. 46.

<sup>2</sup> *Ibid.*, p. 203.