

next day. At 6 and 8 P.M., when close to the land, the temperature of the surface water fell to 60°, having previously been 66°; as the distance from the shore increased it again rose to 66°.

On the 4th April, at 9 A.M., being then about 10 miles east of the 100-fathom contour line, a sounding was taken in 2200 fathoms, the bottom temperature being 34°·5. The current was found to be running to the southward at the rate of 1½ miles per hour, the surface temperature being 71°. Serial temperatures were taken to 300 fathoms, by which it appeared that the temperature of 71° was very superficial, as at 50 fathoms the thermometers registered 65°·2. The position of the sounding was fixed by angles to objects on shore, the angles being Mount Imlay 27° Mount Massey 48° 40' Mount Dromedary. After completing the observations the ship steamed towards the shore, and trawlings were obtained, in 120 to 150 fathoms, many Invertebrates and Teleosteans being procured, among which were a quantity of Grey Mullet (*Percis allporti*, Günther) sufficient to provide the officers' mess with fish for dinner. At 6.30 P.M. a course was shaped to the northward towards Montague Island, the ship being first swung to ascertain the errors of the compass. The temperature of the surface water rose to 71° at 4 A.M., and remained nearly the same throughout the day, being considerably higher than the temperature of the air.

On the 5th April, at 6 A.M., when abreast of Montague Island, the vessel proceeded inshore, and was then swung to ascertain the errors of the dipping needle. This occupied until 2 P.M., when a course was again shaped to the northward. During the previous night a current of two miles per hour was experienced running to the southward. During the operation of swinging the current was only one mile per hour, but the approach of the flood tide, which in this part of the Australian coast comes from the southward, may have caused a retardation of the current; whilst the ship was close inshore from Montague Island little or no current was experienced until midnight, at which time the ship was abreast of Jervis Bay, the temperature of the surface water having fallen to 68°·5.

On the 6th April, at 6 A.M., the surface temperature again rose to 71°, the position of the ship being Mount Berry 20° 20' Broughton Head 74° Mount Kiera. From here to Port Jackson Head a current was experienced running south 1½ miles per hour. At 2 P.M. the vessel entered Port Jackson, and at 3 P.M. was moored in Farm Cove.

SYDNEY.

Sir Wyville Thomson gives the following account of an excursion to Queensland during the stay at Sydney :—

“There seemed to us, from what we heard at Sydney, to be a chance of making valuable additions to the knowledge of the natural history of northeast Australia, by