

blowing a hard westerly gale, and it was a matter of congratulation that the ship had left the insecure anchorage of Corinthian Bay.

The necessity for leaving Heard Island without thoroughly exploring it was a source of much regret. Had it remained fine for a few days, a survey might have been completed which would have been all that was requisite for passing vessels, but the unfavourable state of the weather prevented anything more being done than fixing the position of its northern end, the remainder of the island being depicted from a sketch-map made by the American sealing captains. The glaciers and peculiar formation of the land, also, are well worthy of investigation, more especially the sickle-shaped spit running to the northward from its southeast extremity, from which shoal water is said to extend. The report of this shoal water prevented the Expedition passing down the east side of the island, for it would have been dangerous for the ship to have become entangled amongst shoals in the thick weather experienced, even had the wind been moderate.

The deposit in 75 fathoms off Shag Island was a blackish green volcanic mud, composed essentially of black volcanic sand and remains of organisms. There was apparently not more than 1 or 2 per cent. of carbonate of lime, consisting of *Miliola*, *Discorbina*, *Uvigerina*, and one or two *Globigerina* shells, along with fragments of Polyzoa, Molluses, Echinoderms, &c. The mineral particles had a mean diameter of about 0.6 mm., and formed a black sand consisting chiefly of fragments of brown and red glass—sometimes decomposed, sometimes massive and enclosing microliths of olivine, and sometimes porous—with fragments of felspar, plagioclase, augite, and magnetite. There were also very many Diatoms and Sponge spicules in the mud.

The dredge brought up many specimens of Sponges, Aleyonarians, Holothurians, Ophiurids, *Euryale*, Asterids, *Brisinga*, Echinids, Annelids, Amphipods, Polyzoa, Gastropods, Cephalopods, and many other invertebrates resembling closely those obtained in the dredgings around Kerguelen.

Among the Echinoderms dredged at this Station was *Psolus ephippifer* described by the late Sir Wyville Thomson in the following interesting notes on the reproduction of certain Echinoderms from the Southern Ocean:—"Adhering to the fronds of *Macrocystis* there were great numbers of an elegant little cucumber-shaped Sea-slug (*Cladodactyla crocea*, Lesson, sp.) from 80 to 100 mm. in length by 30 mm. in width at the widest part, and of a bright saffron-yellow colour. The mouth and excretory opening are terminal; ten long, delicate, branched oral tentacles, more resembling in form and attitude those of *Ocnus* than those of the typical Cucumariæ, surround the mouth; the perisome is thin and semitransparent, and the muscular bands, the radial vessels, and even the internal viscera can be plainly seen through it. The three anterior ambulacral vessels are approximated, and on these the tentacular feet are numerous and well developed, with a sucking-disk supported by a round cribriform calcareous plate, or more frequently