

as they will sit quietly and allow half a dozen stones almost as big as themselves to be thrown at them. At length, only after being narrowly missed several times, they take flight, and make off, uttering their harsh note several times in succession. If a bird be knocked over with a stick, it is usually only stunned, for the Sheath-bills are very tenacious of life, and if the one thus caught be tied by the leg with a string and allowed to flutter on the rocks, the neighbouring Sheath-bills will come at once to fight with it and peck it, and can be knocked over one after another. When courting one another, the birds show all the attitudes of pigeons, the male bowing his head up and down, strutting, and making a sort of cooing noise. The birds eat seaweed and shell-fish, mussels and limpets, besides acting as scavengers. They carry quantities of the limpet and mussel shells up to the clefts or holes under the rocks which they frequent. They readily feed in confinement, and several were kept on board the ship, running about quite at home, one of them established itself in one of the cutters for a short time, and used to fly about during the voyage to Heard Island always returning to the ship. The birds, though usually to be seen running on the rocks, can fly remarkably well, their flight resembling that of a pigeon; they were seen at a great height about the cliffs of Christmas Harbour.

Mr. Moseley relates the following incident showing the relations of the various birds to one another in the struggle for existence:—"A Cormorant was seen to rise to the surface of the water and lifting its head, make desperate efforts to gorge a small fish which it had caught, evidently knowing its danger, and in a fearful hurry to get it down. Before it could swallow its prey, down came a Gull, snatched the fish after a slight struggle and carried it off to the rocks on the shore. Here a lot of other Gulls immediately began to assert their right to a share, when down swooped a Skua from aloft, right on to the heap of Gulls, seized the fish, and swallowed it at once. The Shag ought to learn to swallow under water, and the Gull to devour its prey at once in the air."

During the month of January 1874, the Challenger took many soundings and dredgings in the bays and several miles off the east coast of Kerguelen, in depths varying from 20 to 120 fathoms. In all cases the deposit was a greenish mud with a strong smell of sulphuretted hydrogen, and composed principally of mineral particles and the skeletons of siliceous organisms. Generally these muds did not effervesce with weak acid, sometimes, however, a few spots of effervescence were observed. The carbonate of lime never appeared to make up more than about 1 per cent., and consisted of a few fragments of Echinids, Mollusc shells, Polyzoa, and Foraminifera. These last were *Miliola*, *Uvigerina*, and *Discorbina*; no pelagic Foraminifera were noticed. The mineral particles made up from 50 to 75 per cent. of the muds, and consisted of fragments of felspars, plagioclases, augite, magnetite, hornblende, olivine sometimes decomposed with red tint, lapilli, pumice, and brown volcanic glass. The size of these particles varied from 0.5 mm. to 0.2 mm.