

largeness of the area where snow constantly accumulates and cannot be melted, no doubt accounts to a considerable extent for the peculiar conditions in Heard Island. A similar rapid descent of the snow-line within a few degrees of latitude occurs in the Chilian Andes,¹ so great is the cooling influence of the vast Southern Ocean. Heard Island is in a corresponding latitude to Lincoln; possibly when England was in its last glacial epoch Heard Island enjoyed a much milder climate, and it was probably then that the large trees grew, the trunks of which are now fossil in Kerguelen Island, and that the ancestors of *Lyallia* and *Pringlea* flourished.

A stretch of land on the northwest side of the plain was covered pretty thickly with green, which on closer examination was seen to be composed of patches of *Azorella* growing on the summits of mud or sand hummocks, separated from one another by ditches or cavities, of usually bare brown mud. Some of these *Azorella* patches were of considerable extent, and the plant was evidently flourishing and in full fruit. On some hummocks grew tufts of the grass, *Poa cookii*, in full flower and with the anthers fully developed; and on the sheltered banks the Kerguelen Cabbage (*Pringlea antiscorbutica*) grew in considerable quantity, but dwarfed in comparison with Kerguelen specimens, both in foliage and in the length of the fruiting stems. Most of it was in fruit, but some still in flower, as at Kerguelen Island. Around pools of water in the hollows grew a variety of a British plant, *Callitriche verna* (var. *obtusangula*), in quantity, and it occurred also in abundance submerged, in company with a Conferva. In the same sheltered spots grew *Colobanthus kerguelensis*, in greater abundance even than at Kerguelen Island. These five flowering plants,² all occurring also in Kerguelen Island, were the only ones found in the island, and it is improbable that any others grow there. Heard Island has thus a miserably poor flora, even for the higher latitudes of the southern hemisphere. The Falkland Islands, in lat. 51° to 52° S., have one hundred and nineteen phanerogamic plants, and Hermit Island, far to the south of Heard Island, in lat. 56° S., has eighty-four phanerogams, and amongst them trees which there reach their southern limit.

About the sides of the hummocks already described grew scantily four species of Mosses, one of which (*Grimmia* [*Schistidium*] *insularis*, Mitt.) proved to be new and peculiar to the island. The greater part of the land surface of Heard Island free from ice, besides the green tract described, is entirely devoid of vegetation. Only on the talus slopes of the hills on their sheltered sides, are seen scattered in a very few places scanty patches of green. These, composed mainly of *Azorella*, stretching up the slopes, terminate at an elevation of a few hundred feet in bright yellow patches, which are composed of Mosses just as at Marion Island on the high slopes. Lichens were searched for in vain.

At Corinthian Bay large masses of seaweeds were banked up on the sandy shore;

¹ Grisebach, Die Vegetation der Erde, Bd. ii. p. 467, Leipzig, 1872; Darwin, Journal of Researches during the Voyage of H.M.S. "Beagle," p. 244, ed. 1879.

² Professor Oliver, F.R.S., *Journ. Linn. Soc. Lond.*, vol. xiv. p. 389, 1875.