

"The highest point reached was at about 1500 feet elevation. Here *Ranunculus biternatus* had disappeared, and, where growing a little lower down, was very much dwarfed; and *Azorella*, with a few mosses, formed the principal vegetation, but the green was merely dotted over the bare rock and stones. Patches of snow were here frequent, and the *Azorella* appeared, from this point, to be continued on for about 300 feet more, becoming scantier and scantier. The absolute limit of vegetation may probably be placed at about 2000 feet, for the part explored was somewhat sheltered. A red cone of scoriæ more exposed was quite bare of green from about 1000 feet elevation upwards.

"At about 1400 feet elevation, the water in a shallow pool exposed to the sun was found to have a temperature of 65° F., the temperature of the air in the shade being 44°. At 900 feet, a similar pool, but one which had a small stream of colder water running into it from the cliff, had a temperature of 55°, the air here being at 45°. The thermometer here, when plunged into the midst of a rounded mass of *Azorella*, rose to 50°. It is evident that these mounds retain and store up a considerable quantity of the sun's heat; and this fact probably yields a partial explanation of their peculiar form, which is that of so many otherwise widely different Antarctic plants, and of some New Zealand Alpine plants (*Raoulia*, *Haastia*). No doubt, power gained of resistance to wind is one of the chief causes of assumption of this form.

"The island being of such considerable area, and so short a time having been available for the examination of its flora, no conclusions can be drawn from the absence of certain plants, such as *Lyallia*, which might have been expected to occur there, since they occur in Kerguelen's Land, associated with nearly all those found. Although the few plants on such islands as these are, as a rule, widely spread, yet some appear to be local and somewhat scarce; as, for example, the *Aspidium*, which was only found at the last moment under the banks of one of the streams. It is thus highly probable that several plants have been overlooked, and amongst them possibly *Lyallia*. The nine flowering plants collected in the island are all identical with species growing in Kerguelen's Land; and the same is the case with the Club-mosses. Of the ferns, two occur in Kerguelen's Land, which has also two others not occurring here. Fifteen vascular plants in all were found in the island of Marion.

"Mr Darwin suggests that Kerguelen's Land has been mainly stocked by seeds brought with ice and stones on icebergs.¹ The occurrence of *Pringlea* on Marion Island, as also on the Crozets and Kerguelen's Land, probably points, however, to an ancient land-connection between these islands, which the antiquity and extent of denudation of the lavas would seem to bear out. It is difficult to see how such seeds as those of *Pringlea* could have been transported from one island to another by birds; and, these seeds seem to be remarkably perishable;² besides, the distinctness of the genus points to a former wide extent of land on which its progenitors became developed. The existence of fossil tree-trunks in Kerguelen's Land points to similar conditions. Sir J. D. Hooker, in the *Flora Antarctica*, p. 220, expressed the above conclusion after his voyage with Captain Ross, thirty-five years ago, and with singular foresight suggested that there has taken place 'the destruction of a large body of land, of which St Paul and Amsterdam Islands may be the only remains; or the subsidence of a chain of mountains running east and west, of which Prince Edward Island, Marion, and the Crozets are the exposed peaks.' This view is directly confirmed by the discovery by the 'Challenger's' soundings of the Kerguelen plateau, which 'rises in many parts to within 1500 fathoms of

¹ *Origin of Species*, ed. vi. p. 354.

² Seeds sent to Kew by Mr Moseley germinated.