

time before a plant was found ; subsequently a good many were met with, but growing in groups of only four or five. Some were found on the very verge of the shore, within reach of the spray, and the rest on the banks of a small rivulet. The Cabbage was mostly in full flower and bud, with sepals and anthers complete ; no plants were found with seed at all ripe, and the last year's seeds were decayed. This plant at least would appear to have a regular summer flowering-season, since Sir Joseph Hooker found only the fruit at Kerguelen Island in the winter.

*Hymenophyllum tunbridgense* var. *wilsoni*, the well known British Fern, and *Polypodium (Grammitis) australe* grow abundantly on the sheltered sides of the projecting rock-masses already mentioned, but are dwarfed and almost hidden amongst the mosses ; they grow in greatest luxuriance on the damp banks of the stream.

The mosses are in most striking abundance,<sup>1</sup> and, in some very wet places, form continuous sheets over the ground many square yards in extent. Lichens are not in very great quantity, except the incrusting forms, which are tolerably abundant on the rocks.

An attempt was made to reach the actual upper limit of vegetation, but failed from being commenced too late in the day. The ascent was up the bed of the small stream already mentioned, which lay at the verge of one of the modern lava-flows, where it abutted on a low cliff exposing a more ancient flow in section. The more recent flow had a very gradual inclination of not more than 8°. When the swampy moss-covered ground, the uniformly dull green colour of which was relieved here and there by the snowy plumage of the nesting albatrosses, had been left behind, the stream was found to flow over an apparently very recent stream of black cellular lava, the ripples and eddies in which were still perfectly fresh, except in the very centre, where they had suffered some slight abrasion ; there was no trace of any hollowing action on the part of the water, the windings and little waterfalls being still determined by the original inequalities of the solidifying rock. The lava was basaltic, containing much olivine. Close by the bed of the stream rose several of the above mentioned red conical hills. One of these, the highest within reach, consisted of a heap of loose scoriæ disposed in layers, dipping away on all sides at a regular and very steep angle. Few of these pieces of scoriæ were more than six inches in diameter ; and had it not been for the occasional clumps of moss which alone afforded a sure footing, the ascent would have been a matter of considerable time. At the top was a perfectly conical pit, and slightly below the summit, on the north side, were three smaller and similar pits. The scoriæ of which the hill is made up consisted of a highly cellular red ground mass, with indications of augite, without, however, any perfect crystals being discernible. Besides the red scoriæ, there were some of a chocolate-brown colour, with frothy exterior and compact kernel. The form of some of them resembled the almond-shaped bombs found in many volcanic districts ; but none were noticed with the dense outside and highly cellular core so characteristic of the

<sup>1</sup> Thirty-one species were collected, five of which are described by Mr. Mitten as new in Bot. Chall. Exp., part ii., 1884.