

true volcanic bomb. Besides this hill, there were five or six others precisely similar in appearance, and rising out of the same valley or depression in the ground. From the top of the hill this depression could be seen to be bounded, towards the interior, by a semi-circular cliff of rock, in some parts columnar, and open towards the sea. Above this cliff rose the snow-covered cones and peaks of the interior, which, wherever the snow had been removed, showed the same red colour and steep sides, so that there can be little doubt of their being similarly formed to those on the lower ground. On leaving the stream bed and returning to the eastward over the spur of the mountain, the cliff had to be skirted, and it was found to consist of a light grey compact doleritic rock.

From these few observations it may be concluded that the island consists of a foundation of older lava ruptured and surmounted by recent volcanoes. That these have been active at no very ancient date is rendered probable by the perfect preservation of the forms of the cones with their summit craters, and by the fact that the mossy vegetation, so luxuriant at their base, and retaining this luxuriance on the certainly older mountain spurs to an elevation at least equal to that of the top of the cone ascended, has as yet spread up their sides only in straggling isolated patches. The evidence afforded by the want of erosion deserves all the more weight when the position of the island is remembered, where of necessity the rainfall must be considerable.

The first scattered patches of snow were encountered at about an elevation of 800 feet. A patch of the Cabbage was met with at 1000 feet. The highest point reached was at an elevation of about 1500 feet, where patches of snow were frequent. Here *Ranunculus biternatus* had disappeared, and where growing a little lower down was very much dwarfed. The *Azorella*, with a few mosses, formed the principal vegetation; but the green was merely dotted over the bare rock and stones. The *Azorella* appeared from this point to continue on for about 300 feet more, becoming scantier and scantier. The absolute limit of vegetation may probably be placed at about 2000 feet. 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 there being 45°, while the thermometer when plunged into the midst of a rounded mass of *Azorella*, rose to 50°. It is therefore 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 Swiss and New Zealand Alpine plants (*Raoulia*, *Haastia*). No doubt power of resistance to wind is also gained by the assumption of this form.