

North Island mountains (Ruahine-Kaimanawa) and to the high lands of the volcanic region. Unfortunately, it is easily burned, while horses also feed upon its foliage, and so it is easy to see how fires or overstocking might affect the scenery to no inconsiderable extent, and detract considerably from the value of the park by reducing the numbers of this beautiful shrub. If considerations such as the above carry weight at the present time, how much more do they bear upon the future, for which our scenic reserves are especially constituted—a future when much of the vegetation of New Zealand shall be no more, and when many species of plants peculiar to the Dominion will in these sanctuaries alone find a refuge! That this is no idle prophecy any observant man, seeing how rapidly the indigenous plants are being replaced by those of the world without, must admit.

NATURE OF THE VEGETATION FROM ECONOMIC STANDPOINT.

In seeking to add to the limits of the park we have in all cases been influenced by the value of the land for purposes of settlement, and have recommended the inclusion of no land which could finally become of economic value, or which contains milling-timber.

In the east—that is, on the Rangipo Plain—at above an altitude of 3,000 ft., generally speaking, the country is of little or no value for agricultural purposes. At best it could only support a few sheep. During the time of our visit, it is true an unprecedented drought was experienced, but it must not be forgotten that the land is not, nor ever has been, stocked at all, no grazing-animals being present except a few wild horses, cattle, and hares, together with three or four sambur deer recently released. This being the case, the grass-crop, although dried up, was at about its maximum. This grass consists of the red-tussock or snow grass (*Danthonia Raoultii*), which is not relished by stock, but is the grass *par excellence* of the region; *Danthonia semiannullaris*, var. *Setifolia*, also poor for feeding purposes; the holy grass (*Hierochloa redolens*), which soon disappears with overstocking; the blue-tussock (*Poa Colensoi*), a very valuable sheep-fodder, but existing in the park only in isolated examples, which would soon be eaten out of existence or much reduced. There is also a small quantity of the valuable blue-grass (*Agropyrum scabrum*); but the remaining two or three species of grasses are virtually worthless. However, the above gives little idea of the poverty of the vegetation from the economic standpoint, which may be best summed up in the by-no-means-complimentary name of “steppe,” which is to be used in the forthcoming botanical report for the two leading plant associations. That is to say, there are no collections of plants worthy of the name of meadow, but merely an association of drought-enduring plants on the one hand, to which the name “grass-steppe” is to be given, and on the other an association of stiff-stemmed, frequently more or less prostrate, shrubs mixed with a few grasses, and where many bare patches of scorix are to be found, which will be denominated “shrub-steppe.” Such associations as the above the sheep-farmer would at once seek to “improve” by burning, and in doing so would wipe, in the long-run, out of existence those peculiar features of the vegetation on which the characteristics of the scenery depend, increasing at the same time the already-too-abundant desert areas.

SCENERY.

The scenery of the park, if the suggested additions are made, is probably of a more varied character than any other equal area of land in the Dominion. Ruapehu, 9,200 ft. in altitude, has beautiful glaciers on its east, south, and west slopes, which, although they cannot vie with their southern sisters in magnitude or beauty, are the only ice-rivers of the North Island, and are thus a source of special interest to travellers on the Waiouru-Tokaanu Road or the Main Trunk line. Also, to those unable to visit the South Island a close acquaintance with these ice-masses must be a matter of great interest. On the summit of Ruapehu, occupying its ancient crater, is a glacier as remarkable in its way as any in the world. This contains in its bosom a small lake of water, warm at times, at others more or less cold, clear also at one time or sometimes turbid, while on its surface frequently float small icebergs broken off from the 200 ft. of perpendicular cliff bounding part of its margin. From this glacier comes the celebrated Wangaehu River, whose waters, even at their mouth, are still highly charged with sulphurous acid and certain sulphates.

Ngauruhoe, the highest of the active volcanoes, is an easy excursion from the Ruapehu hut, and the climber is rewarded not merely with a most extensive view, but stands on the rim of the crater, a mud volcano in its centre, and a strong jet of steam blowing with a loud noise from its hidden recesses.

Between Ngauruhoe and Ruapehu is a saddle some 4,000 ft. in altitude leading to the west, and here are two interesting crater-lakes called Nga Puna a Tama. Tongariro contains two active craters, one the Red Crater, so named from the colour of its walls, and the other Te Mari, which is the more active of the two, and is said to have been in eruption some ten years ago. Also there are the very powerful blowholes of Ketetahi, which constantly emit vast volumes of steam. Here, too, are several hot springs containing various kinds of water, and probably of much importance from their curative properties. Nor are the signs of present volcanic activity the sole interest. The ancient craters, and especially the lava-flows, are truly wonderful sights, particularly that recent one from Te Mari, which not so many years ago cut a fiery path through the totara forest, or the more ancient flow still in the great Oturere Crater, now weathered into the most fantastic forms.

Leaving aside the actual volcanoes, there are the forests and collections of shrubs alluded to above, the vast deserts, sublime and weird, the river-gorges full of forest and of great depth—true cañons, indeed. There are rivers, too, such as the Ohinepango and Waihohehu, which all of a sudden issue from the solid rock, widening out into quiet pools, haunts of wild-duck, or dash at once over their stony beds as true alpine torrents. The toothed-leaved-beech forest of the west and