

1934.

NEW ZEALAND.

DEPARTMENT OF LANDS AND SURVEY.

PUBLIC DOMAINS AND NATIONAL PARKS OF NEW ZEALAND

(ANNUAL REPORT ON).

Presented to both Houses of the General Assembly by Command of His Excellency.

Department of Lands and Survey, Wellington, 1st September, 1934.

SIR,—

I have the honour to submit herewith a report on the public domains and national parks of the Dominion for the year ended 31st March, 1934.

I have, &c.,

W. ROBERTSON,

Under-Secretary for Lands.

The Hon. E. A. Ransom, Minister of Lands.

REPORT.

PART I.—PUBLIC DOMAINS.

At the 31st March, 1934, the total number of public domains administered under the provisions of Part II of the Public Reserves, Domains, and National Parks Act, 1928, was 765, covering a total area of 75,278 acres. Forty-three of these domains are controlled by the various Commissioners of Crown Lands, 273 are controlled by local authorities acting as Domain Boards, and the remaining 449 are under the control of local Boards appointed from time to time.

During the year eight new domains, with a total area of 198 acres, were reserved and brought under Part II of the Act. Boards were appointed to control six of the new areas, and at the close of the period under review arrangements were in hand for the control of the other two. Additions, totalling 74 acres, were also made to eleven existing domains.

Of a few of the more interesting reserves set apart during the year brief mention may be made of the following: At Coes Ford, on the Selwyn River, an area of some 40 acres was made a public domain and placed under the control of a widely representative Board of Control. The area consists mainly of the usual Canterbury river-bed land partly covered with willows. There is a large swimming-pool in the river with a permanent spring-board, and several clear pieces of ground fairly well grassed and suitable for games and sports. The place has been a favourite picnic spot for many years, and is extremely well patronized by the public during the summer months. At Waitarere Beach, near Levin, the Department controlled two recreation reserves, totalling some 15 acres, which had been vested in the Crown on the subdivision of private property into township allotments. The residents there made representations that the reserves should be brought under local control, and the Department was very pleased to make the necessary arrangements. The beach is accessible by a first-class metal road, and the bathing and fishing are very good. An area of some 16 acres near the mouth of the Wanganui River was made a public domain and placed under the control of the Wanganui City Council. The land had been set apart many years ago as a Landguard Battery Reserve, but not being required for defence purposes the old reservation was cancelled in 1932. The land is situated on a high elevation near the Wanganui Airport, and is suitable for picnic purposes as well as being a natural vantage ground for the viewing of air pageants.

The Department was unable, owing to lack of funds, to provide any assistance in the way of grants or subsidies for the purchase of recreation areas in districts where no provision has been made for public recreation-grounds and where suitable areas of Crown land are no longer available for reservation.

Orders in Council were issued appointing fifty-eight Boards to control domains for further terms, while fifty-seven vacancies on various Boards were filled by the appointment of suitable persons nominated by the residents of the various districts concerned. Additional members were appointed to the Ruawai, Cambridge, Tangimoana, and Motutara Domain Boards.

Other documents issued included warrants authorizing the erection of public halls on the Mangamingi, Hatuma, and Mairangi Bay Domains, and Warrants increasing the number of days on which charges for admission may be made in the cases of the Taihape Oval and Dannevirke Domains. Permission was also granted to several Domain Boards to increase the charges for admission to their domains on special occasions during the year. Ten sets of new by-laws were approved.

The work of placing the leasing of domain lands on a uniform basis throughout the Dominion was continued, and very satisfactory progress made.

Under the provisions of section 13 of the Land Laws Amendment Act, 1932, rental concessions were granted in thirty-nine cases during the year.

The reservation over the Buffalo Domain at Coromandel was cancelled, and the area of nearly 22 acres sold at a satisfactory figure. The domain had been under the control of a local Domain Board for many years, but had proved incapable of proper development as a sports-ground. It comprised mostly hilly land, with some level to undulating boulder-strewn ground. Cricket and football players used private property near the centre of the town, and this ground is being purchased as a domain. It was to assist in this purchase that authority was obtained for the sale of the old domain, the funds thereby derived being added to certain funds that had become available in Coromandel for the purpose.

The Department was satisfied that the old domain would never make a playing-area, and while the ground which is being acquired is a little on the small side, the area being only a trifle over 4 acres, it is nevertheless well adapted for the purposes of a sports-ground.

The reservation over the Rotomanu Domain, in Westland, was also cancelled during the year. In this case the land concerned (a little over 4 acres) was set apart in 1925 for the use of the local people, who, however, failed to take any interest in the reserve. Under the circumstances it was decided that the reservation should be revoked, in order that the Department might dispose of the land when opportunity offers.

The Reserves and other Lands Disposal Act, 1933, dealt with several matters affecting public domains and requiring special legislation. The reservation for thermal purposes over the Pukaahu Hot Springs Reserve was cancelled, and the land set apart as a public domain. In this case the land dealt with was acquired by the Crown in 1918 for thermal purposes. It contains hot springs of considerable value, and had been controlled by the Whakatane County Council under the provisions of section 13 of the Scenery Preservation Act, 1908. Considerable difficulty had, however, been experienced in administering the reserve under that Act, and it was desired, therefore, that the land should be made a public domain, which action, while effectively preserving public ownership, would at the same time give more effective powers of control in many ways. The legislation made the reserve a public domain under the control of the County Council, and provided also that the Council might deal with matters affecting the reserve at its ordinary meetings without being specially called together as a Domain Board. The land itself has no scenic value, but the springs are popular with the public as a bathing-place, and it is the Council's intention to manage and develop the property for that purpose.

A certain payment made by the Westshore Domain Board, Napier, was validated after full inquiry had been made into all the circumstances of the case.

The Gisborne Borough Council was authorized to join with the Crown in the acquisition of certain land as a public domain, and to raise funds by way of a special loan for the purpose of meeting its share of the financial outlay involved. Under the arrangements made in this case a property of approximately 106 acres situated just outside the borough boundary, and generally known as "The Park," has been acquired as a public domain. The terms of acquisition included the giving in exchange of the old Makaraka Domain, which had never been used for recreation, and the payment of £1,500 in cash from the Makaraka Domain Account plus £2,500 in borough debentures. The land acquired will be a good asset to the borough for sports, picnics, and camping-site purposes. Gisborne has not been particularly well endowed with open spaces, and the proposal provided a good opportunity of acquiring an extensive public park for the town and district.

At Purakauiti, in Otago, an area of some 37 acres of provisional State forest land was set apart as a recreation reserve under the authority of special legislation. There was no recreation reserve in the vicinity, and the settlers requested that the provisional State forest area, together with certain adjoining Crown land, should be set aside for the purpose. The land is admirably suited for domain purposes, and the State Forest Service had no objection to the change of purpose of the reservation. Arrangements were completed during the year for the area dealt with in the legislation, together with the adjoining Crown land, to be brought under Part II of the Public Reserves, Domains, and National Parks Act, 1928, as a public domain under the control of a Domain Board of local residents.

The Havelock Commonage Trustees, who control an area of some 3,000 acres, were authorized, subject in each case to the approval of the Minister, to make grants from the Commonage funds to the funds of the Waitahuna Domain Board for expenditure on the improvement of the Waitahuna Domain.

PART II.—NATIONAL PARKS.

No new parks were constituted during the year, nor were any additions made to existing reserves. Extracts from the annual reports of the Tongariro, Egmont, and Arthur Pass National Park Boards are appended hereto, and it will be noted that lack of financial resources has seriously hampered these bodies in carrying out their functions. In this connection it is to be hoped that when financial conditions become a little more normal a reasonable State allocation will be made annually for National Park purposes. This matter of finance has been mentioned before, but will bear repetition.

Reference is also made in the reports to the detrimental effects of browsing animals. It is becoming more and more evident that this menace to the welfare of the National Park flora must be ruthlessly dealt with.

It is pleasing to see that more general use of the parks is being made as mountain play-grounds. The various clubs and other associations interested in tramping, climbing, and alpine sports generally take a keen interest in the parks, and have proved of considerable assistance to the controlling Boards in many ways.

APPENDIX.

REPORTS OF NATIONAL PARK BOARDS.

TONGARIRO NATIONAL PARK BOARD.

(W. ROBERTSON, Under-Secretary for Lands, Chairman.)

Owing to the lack of finance, the Board has not been able to allocate any funds during the year for the carrying-out of further works in the park. Many of the hillside tracks have been detrimentally affected by adverse weather conditions, and as a consequence are becoming difficult to follow. With the great increase in the number of visitors to the park, further work on existing tracks and the opening-up of new routes is important.

Under the direction of the Manager at the Chateau, Mr. R. Cobbe, the poling of the tracks from Mangatepopo Prison Camp to the Mangatepopo Hut, thence to Tama Lakes, Waihohonu Hut, and back to the Chateau, a total distance of about twenty-four miles, has been effected by the Tourist Department. Each half-mile is shown on a sign-post, and, where trampers might go astray, additional posts and signs have been erected between these half-mile points.

DEER.

At a meeting of the Board held at the Chateau on the 26th January last the question as to the deer menace was discussed, and the Board resolved that in its opinion there was no necessity for the setting-up of a Commission to take evidence in view of the known fact that these animals are causing damage to the forests of the Dominion. Permits have now been issued by the Chairman of the Board to two officers of the Prisons Department at Waikune to shoot deer within the boundaries of the park, subject to safeguarding conditions. Returns as to the number of animals destroyed will be received from time to time to enable the Board to watch the position.

ERECTION OF MOUNTAIN HUTS BY SPORTS CLUBS.

The question as to whether facilities will be granted to mountaineering clubs to erect huts within the boundaries of the park was discussed as a policy question at a meeting of the Board held on the 26th January last, and the following resolution embodying the Board's conclusions on the subject was passed:—

“That, as a matter of general policy, the Board will favourably consider the granting of facilities to mountain clubs and organizations of a like nature, not incorporated for pecuniary gain, to erect mountain huts for the use of members of such clubs, subject to the following conditions:—

- “(a) The sites of such buildings and the plans and specifications thereof to be subject to the Board's prior approval.
- “(b) The buildings to be for the *bona fide* use of members of such clubs, but shall not be used for general accommodation purposes by members of such clubs.
- “(c) No permit will be granted with respect to any site below the 5,000 ft. level.
- “(d) The building, or a suitable portion thereof, to be available at all times for the purposes of shelter in cases of emergency, the key to the door of such building or portion thereof to be kept in a box with a glass face which can be broken to gain access to the hut.
- “(e) The term of any permit shall be at the pleasure of the Board, and may be cancelled for any cause which the Board may deem fit.”

GEOLOGY OF THE PARK.

The following report on the geology of the park has been prepared by Dr. P. Marshall, D.Sc., F.R.S., N.Z., and the thanks of the Board for his interest in the park is recorded:—

The National Park includes as its main feature the most impressive volcanic district in New Zealand. Mount Ruapehu, 9,175 ft. high, is the most lofty mountain in the North Island, and is the highest volcano in the country. Mount Ngauruhoe, 7,515 ft., is the most active volcano in New Zealand, and Mount Tongariro, 6,458 ft., has perhaps a more interesting summit than any other volcano in these Islands.

Though different in appearance, these three outstanding volcanoes are formed throughout of very similar rock material, known to geologists as andesite. This and closely related rock types are found also in the Tonga Islands, Fiji, New Hebrides, Philippines, and Japan; in fact, it is the prevailing rock type in that majestic circle of volcanic heights that so nearly encircles the Pacific Ocean.

It seems that no outflow of lava has taken place from any of these mountains since they were first seen by the Native race. Explosive activity has, however, often occurred, and at times this has been associated with the ejection of boulders of incandescent rock.

For many years the mountains were placed by the great chief Te Heuheu under the ban of tapu, and none dared set his foot on their slopes. Even the missionary Taylor and Sir George Grey were unable to overcome it.

Ruapehu.—It seems that the first ascent was made in 1881, but before 1890 several parties had reached the summit. All who have climbed the highest peak have seen the lake in the midst of the crateral ice-field. With a single exception, it has been described as warm, and generally a slow, whirling movement of the water has been observed. The colour of the water is yellowish green, and steam is usually rising from it. The lake is perhaps 200 yards in diameter.

Occasionally the mountain is more active. In 1889 and 1895 clouds of volcanic dust were thrown from the summit of the mountain thousands of feet into the air. This activity is short-lived, for in 1890 the lake had its normal condition, and only the black covering of volcanic dust on the snow remained in evidence of the spasm of activity. Ice fills the upper parts of the larger valleys and forms small hanging glaciers.

The mountain-slopes are covered with loose scoria and into this the snow water sinks, and on reaching more solid rock on the lower flanks often issues as leaping springs. Sometimes the water dissolves iron or other material whilst soaking through the ground, and when it issues as a spring it deposits this as yellow ochre on the rocks and banks of its course. Springs like these are close to the Chateau, and others, with beautiful surroundings, are found at its northern base at Waihohonu.

Curious features are the conical hills at the junction of the Taupo and Chateau roads. These are relics of a phase of activity that has often been witnessed in Java, and is there termed a *lahar*. From time to time the crater becomes filled with water, and as activity increases it is forced out of the crater, and, sweeping down the league-long slopes of the mountain, becomes a huge avalanche of rocks, stones, and water. Near the base of the mountain the velocity of the flow decreases and some of the larger rock masses come to rest. Other material collects around them, while the main mass of the *lahar* moves on. The parts left behind are the conical hills. They are similar in all respects to the "thousand hills" of Java, while in New Zealand they may be counted in hundreds, reaching up the lower slopes of Egmont from Parihaka.

Ngauruhoe.—Ngauruhoe, with its stark symmetrical cone, is perhaps the most interesting of the volcanoes, for it often exhibits much more activity than the others. First ascended by Bidwill in 1839 and by Dyson in 1851, the slopes seem then to have had the same features as now, though the crater seems to have been wide and deep with steep sides. Hill, in 1891, found two craters on the western side. In 1890 the greater part of the main crater had a flat floor from which steam jets issued in large numbers, each from the summit of a small sulphur cone 2 ft. or 3 ft. high. On the north-west side there was a small cup-shaped crater steaming vigorously about 50 yards wide at the top. In 1891 explosion had taken place and a vertical-sided crater of 30 yards diameter had been formed on the south-west side, where a year before the ground had been level. Since that time conditions have remained much the same, but the dimensions of the inner south-west crater have increased a good deal.

Activity varies greatly. There were some explosions in 1839 at the time of Bidwill's ascent. In 1869, and a year or so later, it is said that black clouds of volcanic matter were ejected from the mountain. In 1905 continuous series of small explosions were throwing fine material 3,000 ft. above the mountain's crest. Standing on the rim of the crater at that time one found that explosions were not violent and there were no detonations—only a dull muttering roar. This condition lasted for some time, and was succeeded by greater activity. In 1911 white-hot incandescent rock could be seen in crevices at the bottom of the south-west crater. From time to time the steam that issued from them carried the fragments high into the air. Detonations of shattering violence occurred from time to time. In 1913 the white-hot lava could still be seen, and detonations were more frequent and violent.

In October, 1917, activity was a good deal greater, and red-hot boulders were thrown out in large numbers, and, rolling down the mountain-side, gave observers the impression that streams of lava were flowing down the cone. In December of that year the western mountain flanks were found to have numbers of recently ejected boulders throughout their length. When the crater was reached white-hot rock was again seen, but during the stay on the mountain there were no detonations.

Relative quiescence succeeded for some years, but in 1925 there was another phase of activity, and again numbers of red-hot boulders were ejected and careered down the mountain-flanks. It is evident that the activity at that time was almost sufficient for the emission of a lava-flow.

Since 1925 the activity of Ngauruhoe seems to have been less, though lately (June, 1934) newspaper reports once more indicate another relatively active phase.

Mount Tongariro.—Mount Tongariro, 6,428 ft., is a flat-topped mountain. Some maintain that its slopes once tapered up like those of Ngauruhoe and that after the ejection of large lava-flows the upper part of the cone subsided. Others believe that an immense explosion shattered the upper portion of a former cone. At any rate the mountain is now truncated and its present summit is mainly a plain in which several distinct craters may be seen. One of these has a beautiful blue lake within it. From another a lava-flow has issued which extends over a portion of the flat ground. On the south side close to Ngauruhoe there are two little craters with red-coloured steaming walls. One of them contains a small lake of green water, the other a blue lake. There is no record of any great activity of these little craters. On the northern flank of Tongariro there is the crater of Te Mari, which in 1892 was the most active point of the whole system. This, however, soon dwindled, and even a few months after its main outburst there were nothing but roaring steam-jets in the crater. Two years later the steam-jets were small, and now all sign of activity has gone.

One of the most interesting spots on Tongariro is Ketetahi, 1,500 ft. below the northern crest of the mountain. Here steam-jets and hot springs issue in bewildering numbers and a hot stream is formed which courses down the mountain-side. The waters are strongly sulphurous. One often sees statements that the springs at Ketetahi have become unusually active. It seems, however, in fact, that their activity varies but little. The springs are visible from many places on the shores of Lake Taupo and are often observed. When the hygrometric state of the air is high, large clouds are formed from the escaping steam: when the air is dry little steam can be seen. If allowance is made for such conditions, it is probable that the variation will be found to be small, if any.

It is clear that the National Park provides much that will attract all who are interested in the mysteries, and the wonderful facts of the gigantic forces of volcanic action, the towering mountain forms, the glaciers, active craters, and rushing steam provide objects of interest and appeal which must attract and engage the imagination of all.

SOILS OF THE PARK.

Mr. B. C. Aston, Chief Chemist of the Department of Agriculture and Vice-President of the Royal Society of New Zealand, has kindly prepared the following report on the soils of the park. Mr. Aston is also a member of the Park Board :—

The soils of the Tongariro National Park have only been examined in a few localities on the Tokaanu Road frontage. In mechanical composition the samples usually fall into the category of sandy silts for the top 9 in. of soil and also for the subsoil taken to a further depth of 9 in. These lands, therefore, in texture are similar to the great areas of air-borne soil which is spread out round Rotorua, Matamata, and Tauranga Counties. The great lack in all these soils is a sufficiency of clay particles, which is the fraction which confers retentiveness on soils. There is only up to 3 per cent. of material present fine enough to be classified as clay in any of these soils or subsoils. While excessive porosity leads to ease of working, it also results in the ready leaching of any plant-food which becomes soluble in water or which is applied in a water-soluble state such as nitrates and sulphate of ammonia. The loose texture also enables superphosphate to be more easily leached out of the surface layer and deposited rather lower in the soil than is available to the pasture-roots.

The chemical analysis, however, shows that there are comparatively large amounts of lime and other bases which may be dissolved out by strong hydrochloric acid present, although the available plant-food, lime, and phosphoric acid is deficient, as is also the total phosphoric acid. The large amount of lime extracted by strong acids indicates that the parent rock from which these air-borne soils are derived contained more of the bases calcium, magnesium, and iron than that which supplied the air-borne showers of material which now form the majority of soils of the fertile Rotorua and adjacent counties. The fundamental manurial treatment of the soils analysed should be the application of phosphates, and probably a mixture of superphosphate and basic slag would give the best results in establishing a sward for lawns or pasture which might be grazed by cows. Some small plots of the usual grasses and clover which were sown many years ago near the Haunted Whare are evidence of the ease with which pasture grasses may be established with the aid of phosphates, and without any nitrogenous dressings, in this district. The fact that the parent material of the soils was an andesite rather than a rhyolitic rock is evidence that these recently deposited soils would, on maturing and mixing with organic matter and consolidating, prove even more fertile lands than do the air-borne Rotorua soils. Hence, when it becomes necessary to establish a farm for the supply of the usual products to the Chateau this may be quite well attempted on an area outside the park boundaries with every prospect of success.

The sites at which samples were drawn were as follows : (1) Cullen's Whare, taken from a heather association (ling); (2) Haunted Whare, in somewhat boggy ground where heather is encroaching; (3) a nearby area to (2); (4) on the track to Pukeonaki from the main Park-Tokaanu Road in a heather association; (5) near Whakapapa River at junction of main road 2,950 ft. above sea; (6) at 700 ft. higher, at the foot of Pukeonaki.

Mechanical Analysis.—All the above soils were sandy silts having the following mechanical composition: Fine gravel, up to 3 per cent.; coarse sand, from 21 to 28 per cent.; fine sand, from 28 to 34 per cent.; silt, from 14 to 23 per cent.; fine silt, from 5 to 9 per cent.; clay, from 2 to 3 per cent.; loss on ignition, from 6 to 11 per cent.

The chemical analysis shows that the deficient manurial ingredient is phosphoric acid whether it is present in "available" or "total" forms. The soils are acid, but on such porous soils acidity may be better for plants than neutrality or alkalinity. There are great reserves of both lime and magnesia and the total nitrogen is present in good proportion. The following table shows the results of the chemical analysis carried out by Mr. F. J. A. Brogan, M.Sc., of the six topsoils :—

CHEMICAL ANALYSES.

Results, except *, are percentages on soil dried at 100° C.

Laboratory No.	Locality.	Volatile Matter.		Total Nitrogen.	1 per Cent. Citric-acid Extract, Dyer's Method, Hall's Modification. ("Available Plant-food.")				Hydrochloric-acid Extract. ("Total Plant-food.")				Lime-requirement, per Cent. CaCO ₃ .		pH
		* At 100° C.	On Ignition.		Lime, CaO.	Magnesia, MgO.	Potash, K ₂ O.	Phosphoric Acid, P ₂ O ₅ .	Lime, CaO.	Magnesia, MgO.	Potash, K ₂ O.	Phosphoric Acid, P ₂ O ₅ .	On Air-dried Soil.	On Soil dried at 100° C.	
	<i>Tongariro National Park.</i>														
X/1061	Cullen's Whare ..	2.6	10.7	0.270	0.030	0.011	0.008	0.003	1.70	0.40	0.08	0.05	0.19	0.19	5.4
X/1063	Haunted Whare ..	2.3	9.7	0.236	0.029	0.007	0.003	0.002	2.33	0.43	0.07	0.04	0.17	0.18	5.3
X/1065	Road to Haunted Whare drive	2.4	9.8	0.245	0.036	0.012	0.007	0.003	1.99	0.41	0.08	0.05	0.17	0.18	5.6
X/1067	On track to Ngauruhoe	2.0	7.6	0.148	0.028	0.007	0.004	0.001	0.70	0.19	0.04	0.04	0.10	0.10	5.6
X/1069	Near Whakapapa River, 2,950 ft. above sea	2.4	11.3	0.235	0.033	0.010	0.007	0.002	1.84	0.37	0.07	0.05	0.19	0.19	5.2
X/1071	700 ft. above road at signpost at foot of Pukeonaki, 3,600 ft. above sea	2.4	10.7	0.229	0.026	0.009	0.006	0.003	2.34	0.56	0.07	0.06	0.18	0.19	5.7

WINTER SPORTS AND EXCURSIONS TO THE PARK.

The following clubs have kindly submitted short accounts of visits by their members to the park during the year under review, and extracts from these accounts are quoted :—

Ruapehu Ski Club (Inc.).—The Ruapehu Ski Club's annual winter excursion to the Tongariro National Park was held from 18th to 28th August, 1933, and was attended by ninety-four members, an outstanding feature of the occasion being the celebration of the club's twenty-first winter visit to the park.

Snow conditions at the commencement were not as favourable as in past years, but were improved considerably by the snow which fell during the first few days. Once again the various events of the Club's Ski Tournament attracted numerous entries, and provided keen competition, special enthusiasm being displayed by competitors in the ladies' and the men's open novice races, the entries for which necessitated four heats for the former event and five heats and a semi-final for the latter.

During the visit of the Minister in Charge of Tourist and Health Resorts, the Hon. A. Hamilton, opportunity was taken by the club to submit representations concerning the improvement of facilities at the ski-ing ground and the early completion of the road to Upper Scoria Flat, Mount Ruapehu. This took place on the snow at 5,500 ft., the highest altitude at which a Minister of the Crown has received a deputation in New Zealand, and was, therefore, a unique experience for the Minister.

During the year a number of visits have been made to the park in connection with the inspection of suitable hut-sites, and during the Easter visit club members climbed Taurangi (9,175 ft.), Pareteaitonga (9,025 ft.), and Te Heuheu (9,040 ft.). Several members also participated in a Christmas trip, organized by the Alpine Sports Club, to Round Bush on the south-western slopes of Mount Ruapehu.

Tararua Tramping Club (Inc.), August, 1933.—The club's annual winter sports party was in residence at the Chateau from the 19th to 29th August. Forty-one members, together with eight representatives from the Hutt Valley, Manawatu, Paua, and Victoria University College Tramping Clubs comprised the party, the total being forty-nine.

The weather during the stay did not permit as much ski-ing as was desirable, but at no time during the ten days was the outlook sufficiently discouraging to make necessary a complete cessation of ski-ing activities.

During the whole period the snow was soft and sticky, and, consequently, did not make for fast ski-ing. There was not as much snow as in previous years; more rocks than usual were showing, and Lower Scoria Flat was almost bare. The shortage of snow appears to have been common throughout New Zealand, the Tararua and Otago ski-ing grounds also being sufferers. Referring to last winter, Dr. Kidson stated that "the mountains are unusually free from snow for the time of the year, while on low levels there have been no falls of consequence."

During those days when weather conditions prevented large numbers from going to the ski-grounds, members of the party went on almost all of the smaller side trips—namely, to Tawhia Falls, Taranaki Falls, Silica Springs, Whakapapanui Gorge and Valley, Waihohonu Hut. Motor excursions were made to Tokaanu and to the Ketetahi Mill, from which latter point the climb to the hot springs was made. Some members of the party were able to make successful ascents, in bad weather, of Ruapehu, Tongariro, and Ngauruhoe, while the main party found it impossible to climb Ruapehu owing to almost continuous bad conditions.

The road now connecting the Chateau and the Upper Scoria Flat will greatly facilitate access to the ski-grounds, and will still further popularize the sport of ski-ing. The formation of poled safety routes, the great improvement in accommodation, roads, tracks, and transport has enabled an ever-increasing number of people to enjoy the thrills of ski-ing and the exhilarating mountain air, which previously were limited to a comparatively small number from tramping and ski clubs. Needless to say, the standard of ski-ing in the North Island will continue to improve as the direct result of the improved facilities. The New Zealand National Ski Championships, to be held at Ruapehu in 1934, will also increase North Island interest.

No doubt the new road to the Upper Scoria Flat will be followed by a telephone to the Salt Memorial Hut. Such a convenience would be of inestimable value in cases of accident, and would also allow early visitors to the ski-grounds to report snow and weather conditions to the Chateau.

Christmas, 1933, and New Year, 1934.—Quite a number of members visited the park and climbed Ruapehu, Tongariro, and Ngauruhoe, as well as making a fairly comprehensive survey of the whole park. A few members, who camped on the Waipakiki River, crossed over to the park on the Waihohonu side.

The Alpine Sports Club (Inc.).—There have been two official club tours to the Tongariro National Park during the period under review. In August, 1933, the winter sports party made its headquarters at Whakapapa, lodging at the Chateau. A very successful trip was held, resulting in many members obtaining experience in ski-ing and having tuition who had not previously attended a winter sports meeting. In addition, many of the older members had a very enjoyable holiday.

Breaking fresh ground at Christmas-time, a large party of members visited the Karioi district, lodging at the State forest huts close to the south-eastern boundary of the park. Although inclement weather prevailed throughout the period, a very successful trip was enjoyed, and opportunity was taken of exploring many of the lesser-known districts of the park, in particular visits being paid to the Wahianoa Gorge and the rugged country surrounding Girdlestone Peak.

At both the winter party and the Christmas party opportunity was taken to make ascents of Mount Ruapehu, and a certain amount of ski-ing practice was indulged in on the slopes of Girdlestone, which became heavily covered with snow during the Christmas holidays, inclement weather having prevailed almost entirely throughout the trip.

WARDEN'S REPORT.

Mr. John Cullen, I.S.O., Warden of the Park, in his annual report, remarks as follows :—

“ During the spring a fire started near the Whakapapanui Bridge on the Main Tokaanu Road and made a clean sweep of all vegetation growing on that area bounded by the Whakapapanui from the river near the Haunted Whare to the main road, thence by that road to Bruce Road, and then by that road back to the Haunted Whare. The area burned over is about three and a half miles long, with an average width of about a mile and a half. There was no native bush on the area. The fire is supposed to have been caused by some party camped near the Whakapapanui Bridge.

“ Another fire swept a considerable area of the park facing Rotoaira. This was caused by a Maori burning tussock on Native land. A breeze sprung up after he started it and carried flakes of burning tussock to the park, which ignited the dry tussock there. Damage was done to the edge of the native bush on the top of the ridge. I was passing along the road when the fire was burning and am satisfied the origin was an accident.

“ Deer are not very numerous in the park, there being no cover for them, except in the southern part of the areas. Deer are very numerous in the Kaimanawa Ranges at present, and it is from there the park gets stocked.”

OHAKUNE TRACK, ETC.

Mr. T. A. Blyth, the member of the Board residing at Ohakune, reports that the track leading to the mountain hut on the Ohakune side of the mountain is in good order, and that during the year there has been little or no destruction of the forest within the park boundaries on the Ohakune side.

THE LATE MR. L. M. GRACE.

It is with regret that the Board records the passing-away of Mr. L. M. Grace on the 10th January, 1934.

The late Mr. Grace will always be remembered as one of the leading figures associated with the gift to the nation by Te Heuheu Tukino (Horonuku) of the mountain-peaks forming the nucleus of the present park. The full account is set out in the handbook on the park prepared by Mr. James Cowan. Mr. Cowan, in the course of his chapter on the Heuheu family and the mountains, remarks :—

“ It is to this chief Te Heuheu Tukipo, who was known as Horonuku (‘ Swallowed up in the earth,’ *i.e.*, overwhelmed by the landslide) in memory of his father's tragic death, that New Zealand owes the nucleus of this wonderful national park ; but the moving power behind the gift was an Englishman, Mr. Lawrence M. Grace, son of Taupo's pioneer missionary. Mr. Grace's part in it was an inspiration that should always be remembered by the nation. His was the initiative, the suggestion that prompted Te Heuheu's grand act, the handing-over of the sacred mountains to the Crown.”

EGMONT NATIONAL PARK BOARD.

(T. C. LIST, Chairman.)

During the past year the work of the Board in the supervision and protection of the large area of bush comprised in the Egmont National Park has again been very seriously handicapped by the absence of the finance necessary to a Board having the control of such a valuable national asset, and, for the same reason, expansion of the accommodation for visitors has not been possible, and all work, however desirable, which has not been immediately necessary has had to be left in abeyance. The Board feels that this continued absence of finance is very prejudicial to the development of the reserve in a manner consistent with its character and the great part it could take as a health resort and recreation reserve if it were properly developed.

The work of destroying the goats in the reserve has of necessity been restricted very seriously, and whilst the Board has been successful in ridding some areas of this pest, and is satisfied that the bush is capable of rejuvenation and a fairly quick recovery from their ravages, the complete extermination must be carried out very shortly so that the goats cannot go back to the parts that have been cleared and recommence their work of destruction.

The official tally of goats destroyed during the year under review was only 265, giving an official total of 5,697 ; but it is known that many more have been destroyed.

Local Committees.—These committees have functioned as far as funds have permitted and to the best of their ability have controlled the various portions of the reserve in their respective areas, and made such improvements in accommodation in each case as funds would permit, the principal work carried out being the harnessing of the Kapuni River at Dawson Falls for development of electric power, which was commenced during the year and has since been carried to a satisfactory conclusion.

Afforestation.—The clearing of the plantations has been done by unemployed labour as far as the limited funds of the Board permitted. A very fine growth has been general all over the 300 acres of plantation, and the Board is using every endeavour (so far as its funds permit) to continue the necessary clearing and supervision of the fire tracks, as it recognizes that, altogether apart from any influence the plantations may have on rainfall, it is very desirable that the trees be protected and fire-breaks cleared, so that the trees may continue to flourish and ultimately serve to assist the finance of the Board.

The improvement of the facilities for winter sports has been continued on the Stratford and Dawson Falls sides, and to a less degree in the north (where snowfields are not so easily accessible), and the accommodation is now of such a nature that successful winter sports gatherings can be held on the mountain, and will gradually grow more popular as the facilities become better known.

The Board again wishes to thank the various alpine clubs of the district for their assistance in popularizing the mountain and making use of the facilities available, as well as for drawing fairly large parties of the younger people to the mountain, and the enjoyment of the health-giving activities which can be engaged in on its slopes.

ARTHUR PASS NATIONAL PARK BOARD.

W. STEWART, Commissioner of Crown Lands, Christchurch, Chairman.)

I have the honour to submit a report dealing with the fourth complete year since the Board was established. It has again been a quiet year. Plans are not wanting to carry out the purposes for which the Board is constituted, but finances are so limited as to restrict the Board to only the most modest improvements. Nevertheless, it can be fairly claimed that the Board is more firmly established as a controlling body and has exercised a progressive influence in the park area.

Personnel.—It is with the utmost regret that we have to record the death of Sir Arthur Dudley Dobson, an original member of the Board. Sir Arthur was, of course, a notable personality in the Provinces of Canterbury and Westland, and the honour he received from the King was a recognition of his very valuable services to the community, about which we need not refer to here. His passing is a distinct loss to the Board not only because of his early associations with the discovery of the pass which bears his name, and with the district under the Board's control, but also because we shall no longer have the advantage of his keen interest in and activity on behalf of the Board.

Meetings.—The Board met three times during the year. The annual visit to the park on the 3rd June was made by the majority of members, and enabled much work to be carried out. One party attended the ceremony at the opening of the Christchurch Ski Club's hut, and another dealt with matters requiring attention in the township, and, in particular, with the proposals for the improvement of what otherwise is a waste area adjacent to the township.

Tourist Traffic was not as heavy this year. The Railway Department ran seven excursions and carried 1,478 passengers during the winter. The season, however, did not prove the best for winter sports, because of the poor falls of snow. The influx of visitors during the "off season" has, however, been greater. The locality is becoming steadily more popular as a holiday resort. The Board has still, unfortunately, failed to impress the Railway Department with the merits of its request that a small surcharge should be made on excursion tickets to enable the Board to improve the facilities available to patrons of the excursions.

Township.—The Board's control here is manifesting itself in a steady improvement in the orderliness of the place, and in the amenities provided for residents. There is no demand for sections, nor has any new cottage been erected, but several owners have added to and improved their properties. There is good ground for the expectation that when the general financial position is alleviated there will be a decided increase in building permits. The street-lighting provided by the Board has proved a boon to residents.

The Ranger has rendered much useful service to the Board and the public. Particularly appreciative comment is made in respect of his services to visitors and trampers. He displayed resource and gave much help in the unfortunate mountain tragedy that occurred last winter. He has shown much zeal in the interests of the Board. Mr. Warden's report, which will be presented to the Board, advocates the erection of a shelter at the Divide in memory of Sir Arthur Dudley Dobson; refers to the erection by himself of rustic seats at vantage-points; and remarks upon the efficacy of the river-protection works carried out by the Public Works Department.

Thanks are due to Mr. T. W. Johnstone, Engineer, Public Works Department, Greymouth, for technical advice freely given and for inspections carried out; to the public press for generous publicity of the Board's affairs and of the park's attractions; to Mr. M. J. Barnett for a well-conceived plan for laying out and developing waste areas into a public garden and park; to Mr. W. D. Frazer for a first-class lantern lecture; to honorary rangers for carrying out their duties efficiently and in the best spirit; to Dr. William McKay for his continued services as Chairman of the Grounds Committee, where he has borne the brunt of the Board's work with maintained interest and energy.

Winter Sports were much restricted because of the limited fall of snow, but the park was much used by trampers, mountaineers, and skiers. The latter, under the ægis of the Christchurch Ski Club, have now erected a well-equipped hut which affords much improved facilities for the sport. The club has co-operated with the Board to the fullest extent, and has shown a gratifying spirit of self-help. Its efforts in the proper control of winter sports are much appreciated.

GROUND.

The report of the Grounds Committee is furnished by the Chairman, Dr. William McKay, and is set out hereunder:—

Tracks.—In accordance with the Board's resolution at last meeting, two new mountain tracks have been made. One on Mount Barron is over the line of the old Public Works track to the point from which the survey observations were taken in constructing the tunnel. The other is on the northern face of Mount Philistine, and will prove an excellent return route for climbers ascending this peak from the Upper Otira Valley. Your Committee would like to point out that the park now has a good series of such well-graded tracks, there being two to Mount Rolleston, two to Mount Barron, two to Mount Philistine, while Avalanche Peak and Kelly Range each has one. The necessary sign-posting in connection with all these has been well carried out by our ranger, Mr. C. Warden. Our honorary ranger at Otira, Mr. W. Frazer, informs us that the tracks on the western side are much used and appreciated by visitors. On Mount Barron and Philistine several lookouts were made in the bush, so that excellent views can be obtained of the surrounding country.

Your Committee would suggest that the Board consider the question of printing a map of the park with the various tracks indicated and described. This would be much appreciated by strangers.

Flood Damage.—The District Highways Engineer, Mr. T. A. Johnstone, carried out the promised work of erecting groynes at the northern end of the settlement to prevent further inroads of the Bealey River. These, so far, have proved quite effective and have allayed the fears of the residents.

Several householders recently sent in complaints that storm-water was backing up a small stream and causing great inconvenience. The Highways Board Engineer was also most helpful in this matter, and has undertaken to lay a culvert over the roadway, thereby facilitating draining.

Animal Pests.—The system of issuing shooting permits limited to the western side of the park has proved very successful and popular. Since last meeting fourteen licenses have been issued to eight different stalkers, mostly residents of Otira. So far some fifty chamois, goats, and deer have been reported as destroyed; although this by no means represents the actual total, there being several returns yet to come in. One stalker reported having seen thirteen and another fifteen chamois in one herd in the Rolleston Valley, while another license-holder saw about twenty goats together on Mount Barron. A chamois with earmarks on both ears was shot, which has raised the question as to whether it were one of the original herd released near Mount Cook.

The destruction of mountain flora by the depredations of these animals must ultimately affect upland protection.

Wandering Cattle.—These animals have proved a decided nuisance, especially on the lower portions of our newly constructed tracks, which they highly appreciate as a ready means of access to the hillside forests.

Publicity.—A suggestion for discussion is that a series of aerial photographs taken at suitable seasons would do much to advertise the park and give an idea of the great possibilities it possesses. This should not prove a very expensive undertaking.

Highway within the Park.—The damage caused last year by extraordinary floods on the Otira - Arthur Pass Road has been completely repaired by the Highways Board, so that since last November ordinary traffic has been resumed. The service cars have been running regularly throughout the summer from Hokitika to Arthur Pass, thus falsifying the statements of those who say the route is not feasible. All that is now required is the bridge over the Waimakariri, when the park will be easily approached, as it should be, from either east or west.

For the benefit of motorists visiting the divide at Arthur Pass, the necessary widening of the road has been carried out, so that parking and turning of cars can now be easily and safely effected.

Fire-prevention.—It is pleasing to report the absence of fire damage during the past year, and during the reconstruction of roads through the park good co-operation was received from the Public Works Department towards the protection of the adjoining bush.

Towards the supply of necessary firewood for camp use, a selective felling-area was demarcated and used without undue damage to the bush from a scenic or ecological viewpoint.

General.—Some endeavour should be made to co-operate with the Railway and Public Works Departments in cleaning up the litter of rusty iron and other debris disfiguring the ground near the roadway in Otira. Whether viewed from a railway-carriage or from the roadway, it has a most objectionable appearance, and detracts from the natural beauties of the surroundings.

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