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.

C.—10.