

Another disquieting phase of the damage noted was that in localities where ridges which are subjected to the high winds general in the area, had been extensively damaged by deer, the roots of the large trees were so bared by trampling that the swaying of the trees in the wind caused the whole root-spread to lift very perceptibly, and in some cases their hold had become so loosened that they had fallen. Where nature is permitted to follow its normal course such casualties are soon replaced by juveniles of the same species, but the constant browsing of the deer precludes the possibility of this taking place.

It is frequently contended that goats cause a great deal of the damage which is attributed to deer. In the Tararua there are some localities in which there are a considerable number of goats and few deer, but these are comparatively small and unimportant. It is significant that during the operations, which embraced the whole of the main divide and the sources of all the main rivers, although every effort was made to kill goats as well as deer where both were to be found together, only twenty-eight goats were killed as compared with 1,011 deer.

*Marlborough.*—In pursuance of the policy of taking advantage of the seasonal "drift" of deer in Marlborough from the remote and high country to their winter quarters in easily accessible country where good results can be obtained and a large percentage of skins recovered, a small party of two men conducted operations there from the beginning of August to the end of December.

These operations were conducted during the winter and spring in the valleys of the Waihopai and Spray Rivers, and extended over the divide into those of the Acheron and Saxton as the summer approached.

A total of 1,064 deer were killed and 796 skins recovered.

*Lake Wakatipu.*—In common with those throughout the Southland deer country, operations were commenced at the head of Lake Wakatipu at the end of November and were continued throughout the season, a total of 969 deer being killed and 338 skins recovered.

This area contains a widely scattered but not very numerous herd of red deer, a considerable herd of fallow deer which is confined to a comparatively small area, and a very small herd of Virginian deer which occupies only a very limited area.

It was found that the red deer, though occurring generally throughout the area, had not yet increased to such numbers that the bush feed was eaten out to the extent necessary to force them out on to the open "tops" in large numbers, and this rendered it necessary to spend a lot of time in killing a comparatively small number of deer.

As has been previously stated, however, the value of operations depends entirely upon the proportion of the deer population killed, and cannot be estimated by the numbers killed during any given period. In view of the fact that the total deer population of this area is as yet comparatively small, it is considered that a high proportion was killed, and that therefore good results were obtained in the way of reducing the herd before it reached large proportions or did very serious damage.

The fallow deer in the area present a separate and serious problem, as they do not frequent the open "tops," living instead almost entirely in the bush and on the small river flats. They are exceedingly timid, take flight very quickly, and are more difficult to shoot.

Although a considerable number of this species were killed, they were so difficult to deal with that it was felt desirable to investigate the possibility of doing so by other methods than shooting, and to this end experiments were conducted with various poisons.

It was found that, although a few animals took carrots that were impregnated with strychnine, the great majority would not touch the carrots or other baits, and, while the experiments were to a certain extent inconclusive, they have so far proved unsuccessful.

*Waikaia.*—The conditions obtaining in this area are somewhat similar to those in the Lake Wakatipu area in that the deer have not yet reached such numbers as to permit of results being numerically high, but they will prove of great benefit in retarding the increase. In all 348 deer were killed and 220 skins recovered.

The operations in both the Lake Wakatipu and Waikaia areas were, in spite of the comparatively small numbers killed, of further importance and value than may at first be apparent in that they formed an essential and integral part of the comprehensive campaign commenced this season at the southernmost extremity of the South Island, and which it is proposed to continue systematically and progressively northwards through the whole of the Island.

*Lakes Poteriteri, Hauroko, Monowai, and Manapouri Area.*—In this area two small parties took the field on 26th November and a third (at Lake Manapouri) at about the middle of March.

A total of 4,815 deer were killed and 1,812 skins recovered.

*Deer Infestation and Tactics.*—The Lillburn Valley, in the vicinity of Lake Hauroko, was known to have been for many years subjected to serious depredations by deer, so a party started here and worked progressively through this valley to Lake Hauroko.

As the season advanced, this party, having practically "cleaned up" the Lillburn Valley and adjacent country, crossed Lake Hauroko, and, commencing operations at "the Hump"—only a few miles inland from the south coast—worked northwards along the Princess Range (between Lakes Hauroko and Poteriteri) to the north end of the former lake, and conducted reconnaissances to the west and north into the valleys of the Long Burn and the Seaforth River.

It was early recognized that the activities of "cullers" and private commercial hunters, which had been conducted for a number of years in the Lillburn Valley, had been of little permanent benefit to that locality because they had not included, to any material extent, the summer feeding-grounds of the deer.

Local farmers stated that the great majority of the deer disappeared from the valley early each year, and it appears that the hunters referred to had been content to "let it go at that" and cease operations. A study of the country, however, soon revealed the fact that most of the deer of that region would spend the summer on the open "tops" of the Billow Mountains, which lie between the Lillburn Valley on the south and Lake Hauroko on the west and Lake Monowai on the north and east.