

placement of stock, and damage to forests amount to £180,000 per annum; estimated value of licenses, expenses incidental to sport, attraction of visitors, &c., amount to £7,000 per annum: debit to the national interests of £173,000 per annum.

6. *Conclusions.*—(a.) So detrimental is the presence of deer to agriculture that the protection should be entirely removed from them in settled areas; otherwise many farmers will have to give up their occupation. (b.) The development of forestry will be an impossibility unless deer are eliminated in the areas affected.

7. *Control.*—Deer should be relegated to waste areas where their presence will not be troublesome: these areas to be demarcated, and protection to apply only to them. In all other areas the protection should be removed. Shooting, which will follow the removal, will eliminate the pest in the more closely settled areas. In other lands, more remote back-country runs, &c., besides the removal of protection to bring the pest under control, either—(a) men must be employed to shoot (the average price paid in the past for culling is 2s. per head); or, (b) in extreme cases, where no danger to other stock can take place, poisoning is possible (strychnine used on apples, carrots, &c., has been tried successfully).

#### IMPORTATION AND LIBERATION.

There are some ten species of deer naturalized in New Zealand, but the herds of two only—red and fallow—have assumed proportions of any magnitude, and this report will be confined to them.

The introduction of deer into the Dominion is in many cases somewhat obscure. Data relative to importation and liberation is difficult to obtain. The Hon. G. M. Thomson's "Naturalization of Animals and Plants in New Zealand" is the only authority available, and the following notes on importations, &c., have been taken from it:—

"*Red Deer.*—Red deer were first introduced and liberated in Nelson in 1851, but were not successful. Ten years later (in 1861) one stag and two hinds were imported from England, liberated in Nelson, and quickly became established. Three imported were released in the Wairarapa in 1863, fifteen in Otago in 1871, nine in the Rakaia Gorge in 1897. In 1900 a herd descended from those at Nelson was liberated in the Lillburn Valley, Southland. Three were imported from Victoria and liberated in the vicinity of Lake Manapouri, and in the following year (1901) ten (also imported from Victoria) were released in the same district. Six fawns were liberated on Stewart Island in 1901, and twelve from Victoria released in the same place the following year. In 1903, eight fawns from Victoria were liberated at Mount Tuhua, Westland, and eight deer from England at Lake Wakatipu. In 1906 four more from Victoria were added to the Mount Tuhua herd, and eight released at Lake Kanieri. Four from England were liberated at Paraparaumu, Wellington, in 1908, and in 1909 three at Dusky Sound.

"*Fallow Deer.*—In 1864 three were released at Nelson. In 1867 two were imported, twelve in 1869, and one in 1871, all being liberated on the Blue Mountains at Tapanui, Otago. Twenty-eight were imported in 1876, eighteen being liberated on Mangakawa Range, in the Waikato, and ten in the Wanganui district."

This briefly gives the history of the introduction of deer; and, excepting for occasional importations for the purpose of introducing fresh blood into the herds, has formed the basis of the present great herds of the Dominion.

#### PRESENT DISTRIBUTION.

The herds are so widely distributed that to give a written description of the localities in which they are found would entail too much space. Suffice it to say that they are found almost throughout the main mountain-chains of both Islands and are spread over great areas of other lands (see accompanying maps).

#### VALUE FROM THE SPORTING ASPECT.

The sport to be found among the deer herds of the Dominion is said to be as good as, if not better than, that to be had in any other part of the world. Unfortunately, many of the herds have increased so rapidly that they have passed beyond control and have deteriorated to a great extent; so much is this the case that in some places they have reached such a low standard that they offer little or no attraction to sportsmen at all. An attempt is made here to estimate the sporting-value of the herds in terms of money. Actual figures are difficult, where not impossible, to obtain, an estimate being the only solution.

Actual returns from shooting licenses are available only for the last six years (1916–21 inclusive), the average being £1,137 per annum. As the first three years (1916, 1917, 1918) covered the war period, this is hardly a fair average; but the latter three (1919, 1920, 1921), post-war and years of plenty, should be quite fair, and average £1,393 per annum. To this must be added other amounts incidental to the stalking fee. In many cases the stalking-grounds are remote; money has to be spent in reaching them; guides are also often needed, and from £1 to £1 10s. a day is paid for their services. It is quite probable that the expenditure in this way would treble the value of the licenses—say, £4,179. Again, there are the overseas visitors attracted by the sport. Inquiries throughout the Dominion show that their numbers are not nearly so great as many people seem to imagine. In speaking to a settler in the Hunter Valley, Otago, at one time the stalkers' paradise, and still a great hunting-ground, the information was given that to his knowledge, dating back many years, only four visitors from overseas had come specially to stalk there. Facts such as these are borne out in inquiries in other