

Scientific Operations.—Investigations showed that the mortality amongst the toi toi was negligible both in Taupo and Rotorua waters. This also applies to the mollusc *Isadora*. Only two specimens of indigenous fish were found that were affected with *Ichthyophthirius multifiliis*, they being kokopu (*Galaxias fasciatus*) taken in a small stream at Waitahanui. During the summer lower temperatures prevailed in all the lakes, thus the possibility of great mortality amongst toi toi was considered lessened.

Every opportunity was taken to examine as many trout as possible to ascertain the prevalence of the nematode worm, and it is considered as a result of the investigations made that there is definitely no cause for alarm. The information gained from monthly temperature, biological, meteorological, and trout food reports, regularly compiled by the Department's various Rangers, has continued to be of great value.

Culling of Fish.—Reference has already been made to the investigations carried out in the tributaries of the Tongariro River. Only eleven fish were culled. In the hatchery stream where culling is regularly carried out 144 males and 124 females were destroyed, mostly fish damaged in the fighting inseparable from the spawning season.

Destruction of Shags.—Supplies of ammunition were supplied to the Department's Rangers and, in addition to eggs, numbers of birds were destroyed. Bonus was paid on 673 shags' heads.

Tagging of Trout.—The Department is continuing the tagging of trout, 654 being tagged during the hatchery season. Reports of four tagged fish being taken were received. The Department asks for the co-operation of anglers in reporting full particulars of any tagged fish caught. It is expected that numbers of tagged fish will be handled again next hatchery season and very valuable data as to growth, &c., obtained.

Facilities for Anglers.—Erosion on the Tongariro River seriously interfered with the track down the river. Tracks were kept clear on parts of the Waikato River and at Three and Four Mile Bays. A new wharf with offices is being built at Taupo.

State Game Farm.—A game-rearing farm has been established at Ngongotaha, near Rotorua. In spite of a late start, very satisfactory results were obtained. Over one thousand pheasants were reared, and a very pleasing feature was the very low rate of mortality. For the first time it has been decided to hold over the greater proportion of pheasant liberations until after the shooting-season. Steps are being taken to breed a larger number of pheasants next season. Up to the 31st March, 468 pheasants were liberated, 282 from the State Game Farm and the remainder obtained from other sources.

Bird-life.—Black teal do not appear to have increased and are not nearly so plentiful at Hamurana as in past years. They have, however, been observed in numbers from about six to twenty on all lakes. The stands of blue-gums in the State forest near Rotorua attract numbers of tui and korimako, and throughout the whole district the latter is numerous.

Native birds are plentiful in most of the dense bush in the Urewera, kereru (native pigeon), tui, korimako (bell-bird), tiwakawaka (fantail), and popokotea (whitehead) being the most numerous. Kiwi are still fairly plentiful in certain places on the Kaimanawa Range and in the Urewera Country. Titipounamu (rifleman) are to be seen in fair numbers in the beech country. Three specimens of toutouwai (North Island robin) were seen in the Mamaku Bush. Poaka (white-headed stilt) were only seen in very small numbers. About two hundred kuaka (godwit) remained in the Ohiwa Harbour throughout the winter, and one isolated specimen was seen on the shore of Lake Tarawera during April.

Matata (fern-bird) were seen and heard near Atiamuri. Black swans are holding their own and are very plentiful at Hamurana. Grey ducks are fairly plentiful yet in the lagoons at Whakaki and near Matata and Tokaanu. Pheasants and quail appear to be most numerous in the Wairoa area.

Opossums.—An open trapping-season for opossums was declared during July and August; thirteen licenses and five permits were issued. The number of skins stamped at Rotorua and Wairoa was 2,925.

Deer.—With no protection on deer, numbers of persons have continued to shoot the animals. The supply of ammunition at a cheap rate was largely availed of, and 7,830 rounds were sold from the Rotorua office. Many applications were made for permission to shoot in the sanctuary at Waikaremoana. Permits to the number of 110 were issued, and these accounted for the destruction of 346 deer.

Ranging.—A number of prosecutions were taken for breaches of the Animals Protection and Game Act, 1921–22, and the Rotorua and Taupo Fishing Regulations. The fines amounted to £47.

DEER.

Departmental Party Operations.

As a result of departmental party operations a total of 26,424 deer (*Cervus elaphus*), 2,765 thar (*Hemitragus jemlaicus*), 2,875 chamois (*Rupicapra tragus*), 268 goats, and 11 pigs (a total of 32,343 animals) were killed and 11,744 skins recovered. It is also possible to forecast fairly accurately the final total results which will be obtained for the whole season ending 31st May, 1937. It is estimated that the totals will reach 34,944 animals killed and 12,131 skins recovered.

The special operation against thar and chamois which was conducted in the Mount Cook reserves (an area not infested by deer) resulted in 2,760 thar and 1,658 chamois being killed in that locality.

A geographical analysis of the whole season's figures reveals that the operations on the eastern and those on the western sides of the main divide yielded the following results:—

Eastern side (including Mount Cook): 21,579 deer, 2,765 thar, 2,898 chamois, and 381 goats killed.

Western side: 7,191 deer, 73 chamois, 46 goats, and 11 pigs killed.