

Taking these recommendations seriatim,—

No. 1. The first thing which is urgently required is putting these fisheries under expert control. Their determination commenced and has gone on unchecked under the present management.

No. 2. At the request of the Tourist Department I reported on the Rotorua and Taupo fisheries in 1910, and in dealing with Taupo Lake I made the following remarks, viz.: "There would seem to be no doubt but what the lake (Taupo) is getting overstocked with trout, as reports this season indicate that the fish are commencing to deteriorate, as a number of ill-conditioned fish are reported to have been taken. As the essential principle of maintaining any fishery in healthy condition is to maintain the food-supply of the fish, it is absolutely necessary, if the Taupo fishery is to be maintained in good condition, that there should be no question of the natural food being preserved. To do this large quantities of trout should be taken out before any serious depletion of the natural feed takes place. If this is not done promptly there is little doubt but that the Taupo fishery will deteriorate. To reduce the number of trout and utilize them to the best advantage I would recommend netting portions of the lake, and in such a way as *not to interfere with angling*; and marketing the fish. As the lake is too far from where the fish can be marketed fresh, it will be necessary to freeze or cure them as soon as caught. Either way there is no doubt but what a ready market would be found for them in the different cities. The freezing, curing, and marketing of the fish is quite practicable, and this would be the best way of profitably utilizing the surplus fish. *The netting should be done thoroughly and the trout so reduced in number that there would be no question of the further depletion of food-supply.*"

The recommendation second in importance is reducing the number of trout in the lake. The manner in which the fish are to be marketed can be decided when the systematic thinning out is decided upon.

No. 3. The introduction of some new fishes to augment the natural feed is most important. Care requires to be taken not to introduce anything which will become a pest later on or prey on the present natural feed. The Cisco or lake herring is one of the most prolific and safe fish which could be imported, and in previous reports I have recommended its introduction. The conditions in Taupo Lake should also, I think, be suitable for the large American whitefish (*Coregonus clupeiformis*). It, too, is immensely prolific, and as its food consists almost entirely of minute insects it would be a perfectly safe fish to introduce. The little silver perch of Australia would probably be another suitable fish, as it is said to be enormously prolific and, although small, an excellent table-fish. I think, however, further inquiry should be made into its feeding-habits before introducing it to our waters.

No. 4. As will be seen from the description of the rivers and streams flowing into Taupo Lake, only a few of the smaller ones can be blocked. Large numbers of ill-conditioned fish could, however, be killed off in Chase's and Tokaanu Creeks, the Whangamata, Waihora, Whakaiapo, and other of the smaller streams round the lake in the spawning season.

No. 5. A careful study of the worm parasite affecting trout in the lakes in the thermal districts has been carried out by the Chief Veterinarian and his officers, and I understand from the last report on the subject that the shag has been proved to be the original host. This opinion coincides with the investigations made by Dr. Edwin Linton, of America, who has made a study of worm parasites affecting fresh-water fishes. In a paper read at the annual conference of the American Fisheries Society held at St. Louis last year he makes the following statement: "As the case now stands concerning the source of the parasite affecting our fresh-water fishes, that source is to be found in certain fish-eating birds." Clearing out the shags as far as possible should therefore mean eventually cutting off the source of infection from the trout.

A matter which came under my notice when at Taupo was the wholesale poaching of trout by Maoris and Europeans in the spawning season. I found evidences of this poaching on almost every stream I inspected, and dead trout with spear-wounds on them were common, and I was told of parties coming from inland with packhorses and taking away loads of fish. Although the fishery will not be injured by a number of fish being killed off, yet all killing and thinning out should be done by the proper authorities. The Natives should be treated liberally with regard to licenses for taking trout in the proper season, but this wholesale killing in the spawning season should be stopped.

Another matter which will have to be taken in hand very soon is the question of the Government acquiring land round certain parts of the lake and along the banks of the rivers. At present nearly the whole of the land is owned by the Natives, and lately they have commenced to charge for the right to erect camps, and also to fish on some of the rivers. Previous to the introduction of trout the value of the lake fishing as a food-supply for the Maoris was comparatively small, and its value to-day is entirely due to the introduction of trout. The Maori, however, owning the land practically holds the key to the fishing. I would recommend that the Government should at once seriously consider the question of acquiring land at all the places round the lake suitable for fishing-camps, and also along the banks of the best fishing rivers.

ROTORUA.

Returning to Rotorua from Taupo on the 22nd August, I inspected trout in the Fairy Creek, Ngongotaha, and Utahina Streams on the 23rd, the trout in Hamurana Creek, Ohau Channel, and Okere on the 24th, spawning-beds in the Ngongotaha on the 25th, and the fish in the outflow creek from Rotokakahi Lake and Wairoa Creeks (Tarawera) on the 26th.

At Rotorua I interviewed a number of anglers, some of whom had no connection with the Rod and Gun Club, and also some who were members of that body. Some stated that there was a slight improvement in the condition of the trout in Rotorua Lake last fishing season, others that if there was any improvement it was so slight as to be scarcely noticeable, and others that taking the whole season there was no improvement on the two previous seasons. Some of the anglers who