

same time. Whether Mr. Dockray's Tarawera quinnat, which was 36 in. long and weighed 15 $\frac{3}{4}$ lb., was descended from a pair of the few young fish casually cast into the Tarawera in 1916, or whether it was a wanderer from the south is a question which must remain unanswered. This much, however, is certain, that the Bay of Plenty, although almost sub-tropical in character, and the habitat of sub-tropical species of fish such as the snapper, mullet, mako-shark, and marlin, is not unsuitable for the quinnat salmon; nor is the Tarawera River uncongenial as a spawning resort. The conditions in the sea which influence the movements of migratory fish are not constant from year to year, and it may be that both this occurrence and the entry of the quinnat into the Wanganui River, which is the furthest north to which the species has been known to penetrate on the west coast, are abnormal cases, and do not indicate that these localities would afford suitable conditions for the permanent establishment of the species.

Quinnat-salmon Netting.

As in the previous season, four salmon licenses were issued for netting the lower tidal waters of the Waimakariri River, the fishing this year being restricted to four days in each week. The first fish was netted on the 10th February and the last on the 12th April. Of the total of 1,157 salmon landed, 132 were caught in February, 979 in March, and 45 in April. The following statement summarizes the results:—

	Males.	Females.	Sex not given.	Totals.
Number of fish caught	474	383	300	1,157
Weight of fish, in pounds	5,917	5,308	4,112	15,337
Average weight, in pounds	12.5	13.9	13.7	13.3

Some of these fish were gutted before weighing.

ATLANTIC SALMON.

Trapping operations for the supply of ova to the Te Anau Hatchery were commenced in March. A pound-net was put into the Upokororo River on the 24th March, and the rack fixed at the usual place was completed on the 6th April. A slight rise took place in the river while the rack was being erected, which presumably enabled the earlier running fish to get up the river. The probability of this is indicated by the fact that the first salmon trapped in the pound-net consisted of two males and four females, whereas a marked predominance of males is always characteristic of the earliest run of spawners. Five different floods came over the rack during the season, one of them flowing 2 ft. over the running-board above the top of the rack. These floods caused some damage, and accounted for the escape of an unknown number of fish. Between the 29th July and the 10th August, only five salmon were trapped, and on the latter date the rack was taken out. In all, 227 salmon were captured, of which 82 were males and 145 females. This was a reversal of the proportion of the sexes taken the previous year, when the males numbered 169, and the females 86. Of the total eggs taken the number that were hatched out or sent away at the "eyed" stage amounted to 330,500. With the assistance of officers of the Southland Acclimatization Society the upper waters and tributary streams of the Upokororo River were stocked with 92,000 fry, and the Eglinton system with 190,000 fry, while 42,000 eyed ova were sent to the North Canterbury Society for a further stocking of Lake Coleridge, which has produced from the liberation of 40,000 Atlantic salmon fry in 1928 the interesting results recorded in my report for last year. In addition to the above liberations the Southland Acclimatization Society hatched out 67,000 ova from salmon taken in their trap in the Eglinton River, from which 31,000 fry were liberated in the Upokororo, 29,300 fry in the Eglinton River, and 6,700 fry were introduced in Lake Wakatipu tributaries.

With regard to the 1931-32 angling season the total number of salmon taken, according to the estimate made by the Southland Acclimatization Society's observers, was between 300 and 400, about the same number as in the previous season. A few were taken in the lower Waiau near the sea. These were all "small fish," and it may be that they were not ascending from but dropping down to tidal waters. Scale samples from such fish would be of considerable interest as the character of the scale would throw some light on this question.

WHITEBAIT.

There are difficulties in the way of presenting a satisfactory and comprehensive report on the whitebait fishery, just as there are in the way of its satisfactory administration and regulation. They arise from the fact that, although the total annual value of the industry amounts to several thousands of pounds, the people engaged in the fishery are scattered units operating in out-of-the-way places. A few professional long-shore fishermen take to whitebait-fishing in the season. Many become professional fishermen for the whitebait season only. Most whitebaiters may be classed as semi-professionals or amateurs, and they comprise a large proportion of the population, juvenile and adult, of both sexes living in the neighbourhood of the hundreds of rivers and streams into which whitebait run. The most important whitebait fisheries at the present time are in Westland, Grey, and Buller Counties, and along the lower course of the Waikato below Tuakau, where the local Maoris apparently depend upon the fishery for a considerable portion of their income.