

months. A start was also made to plant beds in Whangaroa Harbour. A scow-load of about 50 tons of oyster-rock was taken from the Bay of Islands and successfully planted by Inspector Flinn in three of the most sheltered bays in the harbour. On account of the increasing demand for oysters it is most important that the work of planting new beds and extending and improving the present beds by removing high-water oyster-rock to and below mid-tide level, and filling in blank spaces on the beds with rock, should be persevered with year by year.

*Planting Foveaux Strait Oysters in Cook Strait.*

A commencement was made during the year with planting in Cook Strait oysters taken from the Foveaux Strait beds. Sixty sacks of roughly culched oysters were supplied by one of the Bluff oyster firms. They were taken across in the s.s. "Wairau" to the south side of Cook Strait, where they were planted on suitable bottom in 10 to 14 fathoms between White Bluff and the mouth of the Awatere River. It is advisable that this work should be continued for several years.

*Quinnat Salmon.*

At the Hakataramea Hatchery last season (1917) 1,437,000 salmon-eggs were collected, and 100,000 were taken at the Dobson River, making a total of 1,537,000 collected for the season, producing 1,525,000 eyed eggs. These were disposed of as follows: 25,000 were supplied to the Tasmanian Government; 500,000 were sent to the West Coast, to continue the work of stocking the Hokitika River; 500,000 to the hatchery at Maori Creek, to begin stocking the Wairau River (Marlborough); and 500,000 to Pembroke, to begin stocking the Molyneux River. The eggs hatched out well, and from the 500,000 sent to each 495,000 fry were hatched out and liberated in the tributaries of each river.

An exceptionally large run of salmon came up the Waitaki and Rangitata Rivers last season. The first fish were observed in the Waitaki in January, when a few were caught. The largest runs, however, took place through February, March, and April, when they were taken freely by anglers. Over 700 were netted at Hakataramea during the spawning season, and 95 at the Dobson River. The average weight of the fish was fully 16 lb. From the information collected by the Department it would seem that about 400 salmon were caught by anglers from all parts of the Waitaki, and about 368 from the Rangitata. The average weight of the fish was stated to be about 16 lb.

On account of the steady increase of salmon and the very large run which came up the rivers last season the Department decided to legalize the taking of salmon by anglers, and also to carry out some experimental fishing for them at sea for market. The run of salmon this season, however, proved very disappointing—very few were taken by anglers, and the experimental salmon fishing by the Department was a failure. Very few salmon came up the Waitaki or other rivers this spawning season (1918). The fish caught were not more than half the average size they were other seasons, and generally they were in poor condition. The small average size of the fish compared with other seasons and their poor condition would seem to point to a scarcity this season of their natural feed in the ocean. American authorities who have made a special study of the life habits of this salmon state that very little is known of its life from the time it enters the sea in the early stages of its life until it returns to the rivers in prime condition and sexually mature. Any scarcity in the salmon's ocean food may only be temporary, and is probably due to the food migrations of sprats, pilchard, herrings, and other fishes which they usually feed on.

*Development of the Fisheries.*

With regard to the development of and also the assistance to the fisheries which are required, I have, with some additions, to repeat what was stated in my last year's report, viz. :—

In this time of stress the Government is required to give every possible assistance in increasing the supply, and also cheapening the necessaries of life for the people of the Dominion. The fisheries are capable of producing a very large supply of a necessary food, and special attention and assistance should be given to the industry at the present time. As with the development of all other industries, a certain amount of money must be provided by the Government, and every encouragement should be given the fishermen and others already employed in connection with the industry.

I think the Government should encourage and assist the Municipal Councils of the principal cities in the erection of suitable fish-markets, and in the adoption of a system of distribution of fish from these markets, and in supplying inland towns and country districts with a regular supply of fresh and cured fish.

For the purpose of assisting the present fishermen, and encouraging more fishermen to engage in fishing, I would respectfully make the following recommendations :—

- (1.) That the Government advance money to fishermen for the purchase of suitable boats and fishing outfit.
- (2.) The insurance of fishermen's boats by the State Fire Insurance Office.
- (3.) The erection of fish-chilling and ice-making plants in outlying parts of the coast, so as to prevent the loss of fish during warm weather and ensure all fish reaching market in a perfectly fresh condition.