

For the Rangitata River one netting license was issued in the years 1925 and 1926, but the fishing was unsuccessful. No salmon were caught in one season, and about three in the other season.

For the Waitaki River one netting license was taken out in 1927. No fish were caught.

For the Clutha River one netting license was issued in 1927. No fish were caught.

Some of those interested in rod fishing for quinnat salmon have criticized the policy of the Department in allowing the use of nets for this fishing. Their contentions, as voiced in the Christchurch newspapers when netting licenses were previously issued, were discussed in my report for the year 1927-28 (p. 9). It seems advisable to state the position as it now appears.

In the first place, this species of salmon was imported by Government and acclimatized in the Waitaki River for the purpose of founding a commercial salmon-fishery in this country. It was hoped, in fact, that commercial salmon-canneries would be the ultimate outcome. The quinnat salmon has spread by natural migration to the other large Canterbury rivers. Some few years ago a certain number of anglers criticized the introduction of quinnat salmon on the ground that it was not a sporting fish, that its presence in the rivers was a menace to young trout, and that the rivers were in danger of being polluted by the bodies of salmon which die after spawning. The quinnat have proved to be a very popular sporting fish since anglers have learned how to catch them. One suspects, however, that the value of the catch, as well as the fighting propensities of the fish, has a good deal to do with its popularity in many cases. Quinnat do not feed after they have entered fresh water in their spawning migration, so that their predations among other fresh-water fishes are simply non-existent. The pollution which may be caused by their corpses is negligible, and possibly even beneficial to the rivers, which are by no means rich in organic material, and the products of decomposition will ultimately serve as fertilizing-elements for the production of the microscope vegetation which is the requisite basis of animal-life in the water. The high hopes once entertained as to the commercial developments of this fishery are not likely to be realized. Both breeding-grounds and feeding-grounds are less extensive here than in the native haunts of the quinnat in North America, and these are the factors which finally decide the amount of the stock. Nevertheless, 61,024 lb. (27 tons) of salmon has been marketed during the five years in which netting was allowed, and for the last two years (1930 and 1929) during which returns have been made by rodsmen holding selling licenses 9,430 lb. and 8,184 lb. respectively have been caught by these licensees. Thus over 78,000 lb. of salmon has been made available to New Zealand consumers from a strictly limited commercial exploitation of the quinnat fishery.

It has been said that the result of unrestricted netting in the Waimakariri will be to deplete the stock of salmon. If this statement were true it would be an unanswerable reason for the discontinuance of netting. But the netting is not unrestricted: it is limited to five days each week, leaving the forty-eight hours from Friday midnight to Sunday midnight clear for the salmon to run unmolested by nets and for the rod men to fish for them without hindrance. The number of netting licenses issued is limited to four, and the area for netting is limited to one mile and a quarter only up from the river-mouth. Within this area the places where the hauling of a seine net is practicable are very restricted, and the netting is hindered or rendered impracticable when the river is in flood. Some Waimakariri anglers have expressed the opinion that netting is beneficial to those fishing with rods above the netting-area, in that it disturbs the fish and induces them to run farther up the river. The possibility of depletion is one that should be carefully watched, and there is no better method of obtaining observations as to the magnitude of the salmon runs season after season than by the analysis of the records of catches of a definite number of fishing-engines under known conditions. The nets provide these records, but regarding the yield of the rod fishery we can get only the most exiguous information.

It may also be remarked once more that the Waimakariri has been stocked by natural migrations from the more southerly rivers, and there is no reason to conclude that such migrations have ceased to take place. Investigations on such points are very desirable, and it is to be hoped that provision will be made for such investigations as soon as possible. It has been found that netting is not practicable on any of the other rivers. This is certainly unfortunate, for, the Waimakariri being the most accessible to Christchurch and conveniently reached by rail or by means of cycling, it is a most popular resort for the salmon-anglers from that city, whereas the Rakaia and Rangitata are mainly fished by motor-car owners. The real difficulties are thus imposed by nature rather than by departmental regulation. The position is that if appreciable quantities of quinnat salmon are to be made available for market and for consumption by a wider circle of the public than can be reached by anglers' supplies, and if we are to obtain more comprehensive records regarding the runs of salmon than can be gathered from anglers' information, some net fishing must be carried on.

It should be carefully restricted, and, I trust, it will be carefully restricted. So far as the Department is concerned, it could certainly derive more revenue from the numerous rod fishermen if a special salmon-fishing license fee were exacted than it obtains from four netting licenses. However, I do not advocate fishery regulations from the point of view of revenue returns.

There is a further problem in relation to quinnat-salmon acclimatization which it seems desirable to touch upon, since it has recently been a subject of discussion among some acclimatization-society members who are interested in making the best use of their fishing-waters—the effect of a stock of quinnat salmon upon the trout stock of the same river. The statement has been made that the present stocks of quinnat in the Canterbury rivers have had a deteriorating effect on the trout population. Before one can arrive at and state a definite conclusion with regard to this question it is necessary to demonstrate in some detail how such an effect is produced. If one is content with saying that formerly the trout-fishing was good, and now, since the quinnat have increased, the trout-fishing is poor, one is likely to be met with the objection that deterioration of trout-fishing has taken place in other rivers where the quinnat factor is absent—that there are, in fact, other conditions which may