

There are still fisheries for which it has been impossible to obtain returns, but these would not augment the total estimate very much. The estimated total catch for the Dominion, 3,241 cwt., indicates that the fishing in 1934 was, on the whole, better than for the previous year, but not so good as in 1932. Increased production was shown for the Waikato, Taranaki, Marlborough, and South Westland fisheries, while Hawke's Bay and Otago show a decline. Reports from other districts (e.g., Nelson), for which we have no figures, also tell of poorer fishing.

The general trend over the last ten years has undoubtedly been in the direction of deterioration. The number of people engaging in the fishing rose considerably in the depression years from the prevalence of unemployment, and there is little doubt but that the intensity of fishing is everywhere too high for the satisfactory preservation of future stocks of this species. If conservation is to be assured steps must be taken for a closer supervision of this fishery. In my opinion, and in the opinion of most of the fishermen whose past experience and permanent interest in whitebaiting qualifies them to judge, the establishment of a system of licenses for this fishery is overdue. This would automatically enable the Department to keep in closer touch with the operations, to get a more accurate return of the fishing results, and therefore a better grasp of conservational requirements, and would afford revenue which might be utilized in artificial aids to whitebait propagation on lines indicated in former reports.

QUINNAT SALMON.

The 1934 run of salmon into the Hakataramea was better than had been expected after the generally disappointing catches that had been obtained from anglers during the early months of the year in the Canterbury rivers. The construction of the rack for trapping the fish running up the Hakataramea was commenced on 9th April and completed on 14th April. The numbers of fish and eggs taken each month were as follows :—

—						Males.	Females.	Ova.
April	..	..	..	..	..	34	13	44,000
May	..	..	..	..	..	59	46	197,000
June	..	..	..	..	..	4	7	24,000
Whole period						98	66	265,000

Two hundred thousand eyed ova were sent to Hokitika for the stocking of lakes and streams in the Westland Acclimatization District. Twenty-five thousand were sent to Tasmania, forty thousand were hatched out at Hakataramea, of which thirty-two thousand fry were planted in the local river and eight thousand were kept in the hatchery ponds for rearing to yearlings, when they are to be marked and liberated.

Considerable trouble was caused by the prevalence of floods during the time the fish were running. The first salmon were seen at the rack on 17th April, but owing to a continuance of spates in the river no fish were caught till 27th April. On 5th May a heavy flood carried away the middle of the rack, and no further trapping was possible till twelve days later, when a pound net was got into operation. This was washed out on 4th June, and trapping operations ceased with a total of two hundred and sixty-five thousand ova laid down in the hatchery. The Fish Culturist reported that the salmon were well conditioned, though of small average size, and very few showed scars from the attacks of sea-fish. The largest fish taken in the trap this season weighed 32 lb. The run was later than usual, but appeared to be more numerous than in 1933. The presence of spawning fish in the Otamatata Creek strengthened this conclusion, as this tributary does not appear to be used by salmon when the run is subnormal. An inspection of Deep Creek, the principal spawning tributary of the Rangitata River, made on 18th June, also revealed the presence of numerous spawners, which served to modify the impression obtained from the somewhat pessimistic reports of anglers from the lower reaches during the preceding fishing season. The bed of the creek showed a considerable number of redds formed by salmon which had spawned in May, and, in addition, there were many clean fish which had run later.

The 1935 quinnat-fishing season was spoilt by high and discoloured water conditions which prevailed in the so-called snow rivers during the greater part of the season. Though the Canterbury district suffered from drought in late summer and autumn and the trout streams were exceedingly low, the salmon rivers were continually swollen by the north-westerly rains which fell in the mountainous back-country. The lower Waitaki, as is usual under such conditions, provided little sport to the angler, not more than about half a dozen fish being taken near the mouth during the whole season. At the Rangitata mouth four fish were caught in February, 176 in March (but there were only seventeen days when fishing was possible in this, the best month) and nineteen in April. The fishing in the Rakaia was probably somewhat better than in the Rangitata, but no comparative records are available. The rod-and-line fishermen at the mouth of the Opihi made a total catch of sixty for the season. With regard to the Clutha River, the only information received is as to the arrival of large sea-run fish in Lake Wanaka in the month of March—an earlier migration than usual—which provided fishermen trolling on the lake with several big salmon. It has also been reported that quinnat salmon have been definitely seen in Lake Mapourika and McDonald's Creek in South Westland during the last year.