

A summary of the returns of rod-catches made by anglers holding selling-licenses and by the four holders of netting-licenses operating in the lower Waimakariri is given below.

Quinnat Salmon, 1935.

	Males.	Females.	Sex not given.	Totals.
<i>Returns from Rods.</i>				
Waimakariri River, 15/3/35 (one rod)—				
Number of fish caught	..	1	..	..
Total weight of fish	..	14 lb.	..	14 lb.
Average weight	..	14 lb.	..	14 lb.
Rakaia River, 26/1/35 to 16/3/35 (four rods)—				
Number of fish caught	1	2	152	155
Total weight of fish	25 lb.	27 lb.	2,013 lb.	2,065 lb.
Average weight	..	..	13·2 lb.	13·3 lb.
Rangitata River, 19/2/35 to 18/4/35 (four rods)—				
Number of fish caught	23	20	7	50
Total weight of fish	345 lb.	313 lb.	95 lb.	753 lb.
Average weight	13·6 lb.	15·6 lb.	13·6 lb.	15·1 lb.
Opihi River, 22/3/35 to 10/4/35 (one rod)—				
Number of fish caught	5	3	..	8
Total weight of fish	52 lb.	37 lb.	..	89 lb.
Average weight	10·4 lb.	12·3 lb.	..	11·1 lb.
Combined rivers, 26/1/35 to 18/4/35 (ten rods)—				
Number of fish caught	29	26	159	214
Total weight of fish	422 lb.	391 lb.	2,108 lb.	2,921 lb.
Average weight	14·6 lb.	15·0 lb.	13·3 lb.	13·6 lb.
<i>Return from Net Fishing.</i>				
Waimakariri River, 22 1/35 to 17/3/35 (four nets)—				
Number of fish caught	200	301	11	512
Total weight of fish	2,183 lb.	3,531 lb.	121 lb.	5,835 lb.
Average weight	10·9 lb.	11·7 lb.	11·0 lb.	11·4 lb.

The total of 214 fish caught by the ten rods is smaller than the total return (260 fish) from the thirteen rod-fishers who made returns in 1934. The average catch per rod is slightly higher, 21·4 fish, compared with 20 fish for the previous season. The average weight of fish caught is lower, however. The weight of individual fish averaged 15·9 lb. in 1934 and 13·6 lb. in 1935. The average weight of fish caught by each rod was 318 lb. in 1934 and 292 lb. in 1935.

The total catch by the netsmen in the Waimakariri also shows a marked decline, 512 fish, weighing 5,835 lb., for 1935, as against 1,118 fish, weighing 13,570 lb., for 1934. The numbers of salmon caught by the nets each month were as follows: January, 15; February, 149; March, 348. The first fish was taken on 22nd January, the last on 27th March.

WAITAKI DAM AND FISH-LADDER.

The dam constructed across the Waitaki River in connection with the hydro-electric station at Awakino was finally closed in February, 1935. From this time onward the progress of migratory fish up the river is effectually blocked at this point and the fish-ladder constructed by the Public Works Department is now the only means by which access may be obtained to the artificial lake formed above the dam and thence to the upper Waitaki and its principal tributaries. The mean height of the new lake above the river-level below the dam is 70 ft. The fish-pass has been constructed in three stages—(1) a series of twenty-four pools each about 8 ft. long and about 5 ft. wide with a difference of water-level of 2 ft. between each pool; (2) a channel about a hundred yards long, which is a succession of very long pools of gentle grade leading to a round resting-pool; (3) a further succession of pools, similar to those of the first section but in most cases longer, the three uppermost being built alongside the dam and each being connected with a port through the dam affording a passage to the lake above. Each port may be opened or closed according to the level of the lake. This last series carries the fish-pass from a height of about 40 ft. to a height of about 70 ft. above the level of the river below.

About the middle of March the first fish, a trout, was seen to go up the ladder. According to reports received the ascent was made easily. The first salmon was reported to have made its way up on the 19th March. It was seen to travel as far as the round rest-pool, and it is assumed that the rest of the ascent would present no difficulty as the lowest flight is the most difficult owing to the shortness of the pools. No very precise information has been obtained as to subsequent ascents, but it is reported that three quinnat salmon were definitely seen going up during March. The main run of quinnat salmon that came up in April and May, however, showed practically no disposition to attempt the ascent of the ladder, though many were seen making vigorous leaps into the tail-race issuing from an auxiliary turbine on the side of the power-house farthest from the fish-ladder. The fact that only the two outermost turbines have so far been installed has kept the water in the vicinity of the entrance to the ladder in a “dead” state, while the strong current is out towards mid-stream where the tail-