

FRESHWATER FISHERIES ADVISORY SERVICE

MARINE DEPARTMENT

INVESTIGATION REPORT

JOB NO. 43

ACCLIMATISATION SOCIETY DISTRICT: North Canterbury, Ashburton,  
South Canterbury, Waimate and Waitaki.

TITLE OF JOB: Salmon Spawning Survey - 1962.

OBJECTIVES: To assess the salmon spawning run of 1962.

This year's survey was conducted between 16 May and 29 June. Only isolated spawning areas of streams previously surveyed were checked. These areas were visited three times to count redds, live and dead fish, and to take scale samples. The run was apparently at its peak during the first visit, and near its end during the second visit. By the third visit, the run was over.

PART I - Rakaiia River System

A. GLENARIFFE STREAM:

1. First visit - 16 and 17 May.

Fish and redds appeared to be densest in the South Branch. Dead ova were seen floating in many pools and backwaters of this branch. Conditions generally were ideal, so 100% of the system was covered.

2. Second visit - 31 May and 2 June.

Dead ova were again observed in the South Branch. A recent fresh obscured 20% of the system. In areas not affected by flooding, the figures showed an increase over those of the previous visit.

3. Third visit - 26 June.

Five live, spent fish were seen in the East Branch. Two fresh redds (possibly one week old) were also seen. A

few dead fish (all well rotted) were seen near the confluence of this stream with the Rakaia River.

Visit	Redds	Live Fish	Dead Fish	Remarks
1	1179	893	404	100% visible
2	1369	292	505	80% visible

B. HYDRA WATERS:

During the first visit to the other streams, this area was inaccessible. The only count done was on 6 June.

In the lower reaches the redds were flattened or washed out by a recent flood.

The station manager at Mt Algidus felt that there were more fish in the stream than were there the previous year.

Visit	Redds	Live Fish	Dead Fish	Remarks
1	1344	126	352	90% visible

PART II - Rangitata River System

A. DEEP CREEK:

1. First visit - 18, 19 and 20 May.

Flooding caused 20% of the lower reaches to be uncountable. Floods in January 1962 had removed two or three chains from the ends of the 2 groins protecting the flats from Rangitata floodwaters. The damaged groins allow considerable amounts of water to flow into the lower reaches of Deep Creek whenever the Rangitata is high. This situation, of course, is detrimental to salmon spawning.

2. Second visit - 3 and 4 June.

Dead male fish were scarce.

Two of the streams were heavily silted from the Rangitata; this situation made redd counting difficult.

3. Third visit - 27 and 28 June.

No fresh redds, three live spent fish and few dead fish were seen on this visit. The dead fish seen were considerably fresher than those at Glenariffe.

Visit	Redds	Live Fish	Dead Fish	Remarks
1	1254	694	297	80% visible
2	1648	158	408	

PART III - Waitaki River System

A. HAKATARAMEA RIVER

1. First visit - 21 May.

Approximately one mile of river was counted, two men working from each bank.

The Waitaki Dam was visited; many trout, but no salmon, were seen in the tail-race. According to the superintendent, no salmon have been seen at the dam for three years.

2. Second visit - 8 June.

A recent fresh made counting difficult. Two dead salmon were found as far upriver as Mt Florence, about 20 miles from the confluence with the Waitaki. According to local reports it is unusual for salmon to run this far upriver.

No salmon were seen in the tail-race of the dam.

also seen. East Branch. A

3. Third visit - 28 June.

There were no fresh redds or live fish, and only one freshly dead fish was seen.

No salmon were seen in the tail-race of the dam.

Visit	Redds	Live Fish	Dead Fish	Remarks
1	420	100	91	
2	697	9	47	Poor visibility

B. AWAKINO STREAM

1. First visit - 21 May.

Approximately one mile of this stream was surveyed (from the confluence upstream). According to the honorary ranger, this stream is fairly heavily poached.

2. Second and third visits - 8 and 28 June respectively.

Approximately  $\frac{1}{4}$  mile (from the confluence to the main road bridge) was counted, and this area used as the standard for subsequent visits. The same number of redds was counted during the first and second visits to this  $\frac{1}{4}$  mile area.

Visit	Redds	Live Fish	Dead Fish	Remarks
1	12*	1	4	Approx. 1 mile surveyed.
2	5	-	-	Approx. $\frac{1}{4}$ mile surveyed.

\* 5 redds counted in the lower  $\frac{1}{4}$  mile.

PART IV - Summary

When the above is compared with data from previous surveys, it would appear that the salmon spawning runs may have declined slightly from a maximum attained in 1961.

Executed by: E. Moore  
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GRAPH I

