

Lindis River PIT tag Study

In April 2015, Fish and Game Officer Morgan Trotter completed the field component of his Masters study on juvenile trout movement and mortality in the Lindis River. With assistance from the Clutha Fisheries Trust, University of Otago and the Cawthron Institute, the study to track movements, and examine mortality of juvenile trout over the summer low flow periods was arduous but successful. In excess of 1200 juvenile trout were surgically implanted with Passive Integrated Transponder (PIT) tags, which are about the size of a grain of rice. Over two summer seasons, field staff tracked the movement/loss of these fish using powered aerial systems.

While the data is still to be formally written up, the initial analysis has identified that in addition to drying reaches in the lower river preventing downstream trout migration to the Clutha River, only a small percentage of these out migrating fish were successful in moving back upstream to find refuge habitat, resulting in a high losses. Of significant interest were the recordings of the Trail cameras which identified a much higher loss to predation in these low flow conditions than previously understood.

The Lindis River is an important public recreational resource as well as a key source for sustaining the Clutha River and Lake Dunstan Sports Fisheries, The loss of recruitment identified in this study is especially concerning.

It is anticipated that results of this study will also have relevance to the minimum flow setting process of other heavily abstracted rivers.

Photo: Aaron Horrell tracking tagged trout with Fish & Game staff

