

Progress Report - 3c2 Trinity River Juvenile Steelhead Index Reach Study  
Prepared by Patrick Garrison, Biologist (Marine/Fisheries)

This document serves as a progress report for annual reporting requirements to be met by study 3c2, Trinity River juvenile steelhead index reach study. Index reaches have been established and electrofished on the following tributaries of the Trinity River.

Potato Creek  
Big Creek  
Rattlesnake Creek  
Little Brown's Creek  
East Weaver Creek  
Soldier Creek  
East Fork North Fork of Trinity River

Index reaches are randomly selected in July and early August. All index reaches are habitat typed prior to electrofishing. All tributaries have three randomly selected index reaches, except for East Weaver and Potato Creek, which each have two. Electrofishing was conducted using a three pass depletion removal methodology. Each individual habitat unit within each reach is completely blocked off and individually electrofished. Electrofishing is immediately stopped if water temperature exceeds 20 degrees Celsius. Electrofishing was only terminated early due to temperature on one occasion, when the afternoon water temperatures in Little Brown's Creek rose to 21 degrees Celsius.

Several problems occurred during the planning and implementation of this study. Originally, twenty tributaries were randomly selected for index reaches. Many of these tributaries were visited for site selection but index reaches were not established, because tributaries did not meet minimum criteria for electrofishing. Depth of pools severely limits site selection on many creeks. To be selected, an index reach can not have any pools over three feet deep. This is further complicated by higher flows, which exist when index reaches are selected in July and August. Flow and depths were still limiting in site selection on Canyon Creek, a tributary selected for index reaches, into late September.

To date, all data for habitat typing and electrofishing has been entered and double-checked. I am currently comparing Moran-Zippin depletion removal expansions to a regression based model. All data analysis should be completed by January 30, 2001 and an annual report will be available immediately thereafter.