



SN 90561

Adult Fish Count Report
South Fork Smith River
Survey Date: August 24, 2002

Background

The Smith River contains populations of coastal cutthroat trout (*Oncorhynchus clarki clarki*), steelhead trout (*Oncorhynchus mykiss*), and Chinook salmon (*Oncorhynchus tshawytscha*). Summer-run steelhead and spring-run Chinook salmon are present in the river during summer, but are very rare relative to the winter-run steelhead and fall-run chinook. Adult cutthroat trout are present in the Smith River during summer at densities that may be higher than any other river in California.

The Smith River National Recreation Area (USFS) and the California Department of Fish and Game have attempted to monitor summer adult fish populations of the Smith River since 1982. Due to variable staff and funds, the monitoring effort has not been consistent from year to year, and sometimes lacks the effort required to entirely cover the main forks of the river. In 2000, the Smith River Alliance began formal assistance to this monitoring program by training and leading volunteers in the fish counting protocol, and coordinating surveys in the South Fork Smith River. This project is part of the Watershed Institute program of the Smith River Alliance. The objective is to provide participants with an educational experience and to generate high-quality data.

Results

Thirty volunteers participated in the 2002 Fish Count in 2001, as well three employees of the U.S. Forest Service and three from the California Department of Fish and Game. Participants included local residents, and enthusiasts travelling from as far as Sacramento. All volunteers were trained in safety and protocol consistent with methods used for previous surveys of this type in the Smith River. Seventeen of the volunteers participated in a fish counting workshop on Friday, August 23. . No surveys of adult fish occurred in the Smith River during the summer of 2002 other than the South Fork effort described here.

Seven reaches of the South Fork Smith River, totaling 15 miles in length, were surveyed for all adult fish on August 24, 2002. Each reach was covered from top to bottom by a team of three to five snorkelers. Snorkelers used team strategy to search for and accurately count all adult fish within seven categories: small adult cutthroat (<12"), large adult cutthroat (>12"), summer steelhead (>18"), half-pounder steelhead (14-18"), resident rainbow trout (>10"), spring Chinook, and sucker (>10"). In addition to the reach totals presented in Table 1, two half-pounder steelhead, seventeen resident rainbow trout, and seven suckers were observed. Water temperature was 65 deg. F in the two middle reaches where measurements were taken.

from Mike McCain

Table 1: Summary of Adult Fish Counted by Reach

Reach	Miles	Cutthroat <12"	Cutthroat >12"	Chinook	Steelhead
Indian Bar to Hurdygurdy Cr.	1.5	45	24	0	0
Hurdygurdy to Rattlesnake Cr.	2.3	129	65	0	0
Rattlesnake to Rock Creek Ranch	3.5	37	73	10	3
RCR to upper concrete bridge	2.2	48	41	2	0
upper bridge to Carter Falls Cr	1.4	15	12	1	0
Lil' Jimmy to above Surprise	2.7	75	73	1	1
Ab Surprise to Slalom Crse Finish	1.4	26	19	0	0
TOTAL	15.0	330	283	14	4

The density of adult cutthroat trout was 40.9 fish per mile. The density of cutthroat >12" was 18.9 fish per mile. Adult cutthroat <12" may include fish as small as 6", yet in 2000 and previous surveys, the small adult cutthroat category has been limited to fish 10-12" in length. As a result this year's count of small adult cutthroat may not be comparable to previous surveys.

The numbers of adult cutthroat trout are somewhat consistent among survey years, while the numbers of chinook salmon and steelhead trout vary from few to very few. Table 2 shows the results for all fish species in the years since 2000 when the volunteer survey effort began. Evaluation of trends in population size would require at least seven years of data.

Table 2: Comparison of Fish Count Results from 2000, 2001, and 2002

Year	2000	2001	2002
Cutthroat<12"	116	329	330
Cutthroat>12"	101	235	283
Chinook	1	2	14
Steelhead	2	1	4
Half-Pounders	2	1	2
Resident Rainbows	2	6	17
Suckers	1	5	7
Miles Covered	8.1	13.2	15

This report has been supplied to the USFS and CDFG. For more information, or to help with next year's volunteer fish count, please contact Gary Reedy at (707)826-0315 or reedy@humboldt1.com.