

Excerpts from **2001 ANNUAL PERFORMANCE REPORT**
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Job No.: c Title: Rivers and Streams Investigations
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ABSTRACT

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A creel census was conducted on the South Fork Boise River (SFBR) between Anderson Ranch Dam and Danskin Bridge (a distance of 19.9 km). The census began in May 2001 and continued through March 31, 2002. Total estimated angler effort was 34,696 hours, 26,324 by bank/wade anglers and 8,372 by boat anglers. An estimated 18,765 fish were caught, for an overall average catch rate of 0.54 fish/hour. Total effort increased 66% since a similar 1988 survey, while catch rate declined by over 50%. Effort during the winter whitefish season increased from 3,020 hours in 1988 to 6,490 hours in 2001-2002.

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South Fork Boise River Creel Census

A randomized creel census was conducted during the period of May 26, 2001 through March 31, 2002. Creel information was collected on three weekdays and three weekend days per month. Specific count days and times were randomly chosen. Creel clerks had predefined time intervals to conduct instantaneous angler counts. Counts were made by car in the roaded section between Anderson Ranch Dam and Danskin Bridge. The clerks began each count at Anderson Ranch Dam and worked downstream. Clerks conducted angler interviews randomly between counts. Angler names and addresses were also collected to create an angler database for future queries, regulation setting, and public meetings. Anglers were asked a series of questions including; total hours fished, if their fishing trip was completed, the total number of fish kept and released, and their residency status. Clerks also recorded fishing methods used (lures or flies) and type of angler (bank or boat). Volunteers helped to conduct this creel census at various times throughout the study period.

All census and interview data were entered into a program developed by Bill Babcock of the Colorado Division of Wildlife, Aquatic Research Section (C-SAP Creel Survey Analysis Program, Colorado Division of Wildlife Aquatic Research, Fort Collins CO.). For comparison to previous surveys, separate estimates were calculated for the total fishing season (May 26 – Mar 31), the general stream season (May 26 – Nov 30), and the winter mountain whitefish season (Dec 1 – Mar 31).

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South Fork Boise River Creel Census

During the entire May 26, 2001 – Mar 31, 2002 fishing season, an estimated 7,673 anglers fished in the study area. Total estimated angler effort on the SFBR was 34,696 h. Bank and boat anglers fished an estimated 26,324 and 8,372 h, respectively. Average

angling trip lengths were 5 h and 9 h for bank and boat anglers, respectively (Table 6). During the last complete-season creel survey of SFBR anglers in 1988, total estimated effort was 20,902 h (Mabbott and Holubetz 1990; Table 7). Our results indicate a 66% increase in annual angler use of the SFBR since 1988.

Anglers caught an estimated 18,765 fish during the May 2001 to March 2002 fishing season (Table 8). Bank and boat anglers caught an estimated 13,347 and 5,418 fish, respectively. All of the boat effort and catch occurred during the general stream season; there was no fishing from boats during winter when flows are reduced to 300 cfs.

Wild rainbow trout comprised 79% (14,815 fish) and mountain whitefish 19% (3,706 fish) of the total catch. Bull trout, northern pikeminnow *Ptychocheilus oregonensis*, kokanee, and largescale sucker *Catostomus macrocheilus* comprised the remaining 2% (233 fish) of the estimated catch. None of the anglers interviewed had harvested rainbow trout.

The combined catch rate for all fish caught between May 2001 and March 2002 by bank (0.51 fish/h) and boat anglers (0.65 fish/h) was 0.54 fish/h (Table 8). This was approximately 60% lower than the rate reported in 1988 (1.32 fish/h). The rainbow trout catch rate for bank and boat anglers was 0.36 and 0.63 trout/h, respectively (Table 8). During the general stream season (May 26-November 30) the estimated rainbow trout catch rate for all anglers was 0.42 trout/h (Table 9). Bank and boat angler effort was 28,205 h, which was 57% higher than in 1988 and the highest on record (Table 10).

Historical catch rates of rainbow trout during the general stream seasons between 1974 and 1988 ranged from 0.73 to 1.64 trout/h. The 2001 catch rate was less than half the catch rate observed in 1988 and one-fourth of the 1978 rate. Rainbow trout and mountain whitefish comprised 86% and 13% of the total catch, respectively. During the 1988 general stream season, rainbow trout and mountain whitefish comprised 76% and 23% of the total catch, respectively. We estimated that a total of 37 bull trout were caught during the survey period, which was 87% fewer than estimated in 1988 and the lowest on record since 1978 (Table 10).

Although angler effort in both the general season and winter season has increased since 1988, participation in the winter fishery increased proportionately more. Mabbott and Holubetz (1990) estimated about 3,020 h of effort during the winter of 1987-88. During the 2001-2002 winter season, effort was 6,490 h.

Table 6. Angler interview data for the South Fork Boise River below Anderson Ranch Dam between May 26, 2001 and March 31, 2002.

	Bank Anglers	Boat Anglers	Both
Total # anglers interviewed	301	70	371
Total # hours fished	1500.1	628.1	2128.2
Average hours fished/angler	4.98	8.97	5.74

Table 7. Estimated angler effort and catch during the combined general trout and

winter whitefish seasons on the South Fork Boise River 1987-88, and 2001-02.

Year	Effort (hr)			Total Catch			Total catch rate (fish/hr)
	Bank	Boat	Total	Wild rainbow trout	Mountain whitefish	Bull trout	
1987-88	NE	NE	20,902	18,040	6,870	362	1.21
2001-02	26,324	8,372	34,696	9,568	3,706	61	0.38

Table 8. Estimated total catch and total catch rate by species for bank and boat anglers on the South Fork Boise River below Anderson Ranch Dam between May 26, 2001 and March 31, 2002.

Species	Total Catch			Total Catch Rate (Fish/h)		
	Bank	Boat	Both (S.E.)	Bank	Boat	Both (S.E.)
Rainbow trout	9,568	5,247	14,815 (3,907)	0.36	0.63	0.43 (0.11)
Northern pikeminnow	92	0.0	92 (86)	0.00	0.00	0.00 (0.00)
Mountain whitefish	3,536	171	3,706 (1,072)	0.13	0.02	0.11 (0.03)
Kokanee	42	0.0	42 (32)	0.00	0.00	0.00 (0.00)
Bull trout	61	0.00	61 (33)	0.00	0.00	0.00 (0.00)
Largescale sucker	38	0.00	38 (22)	0.00	0.00	0.00 (0.00)
All species	13,347	5,418	18,765 (4,527)	0.51	0.65	0.54 (0.13)

Table 9. Estimated total catch and total catch rate by species for bank and boat anglers on the South Fork Boise River below Anderson Ranch Dam between May 26, 2001 and November 30, 2001.

Species	Total Catch			Total Catch Rate (Fish/h)		
	Bank	Boat	Both (S.E.)	Bank	Boat	Both (S.E.)
Rainbow trout	6,561	5,247	11,809 (3,863)	0.33	0.63	0.42 (0.14)
Northern pikeminnow	92	0.0	92 (86)	0.005	0.00	0.003 (0.00)
Mountain whitefish	1,569	171	1,750 (609)	0.08	0.02	0.06 (0.02)
Kokanee	42	0.0	42 (32)	0.002	0.00	0.001

						(0.00)
Bull trout	37	0.00	37 (23)	0.002	0.00	0.001 (0.00)
Largescale sucker	28	0.00	28 (20)	0.001	0.00	0.001 (0.00)
All species	8,340	5,418	13,758 (4,344)	0.42	0.65	0.49 (0.16)

Table 10. Estimated angler effort and catch during the general trout season on the South Fork Boise River from Anderson Ranch Dam to Danskin Bridge, 1974 to 2001.

Survey Period	Angler hours	Wild rainbow trout harvested	Hatchery rainbow trout harvested	Rainbow trout caught and released	Rainbow trout catch rate fish/h	Mountain whitefish caught	Bull trout caught
May 25 – Nov. 30 1974	26,443	5,710	11,832	1,730	0.73	1,727	51
May 29 – Nov. 30 1976	14,958	1,325	226	9,525	0.74	6,214	58
May 28 – Nov. 30 1977	12,117	1,103	0	10,715	0.98	2,022	8
May 27 – Nov. 30 1978	18,647	1,677	0	28,902	1.64	7,276	22
May 29 – Nov. 30 1982	13,568	668	0	18,292	1.4	1,590	54
May 28 – Nov. 30 1988	17,882	242	0	16,717	0.95	5,143	293
May 26 – Nov. 30 2001	28,205	0	0	11,809	0.42	1,750	37