

I. Project Title: Electrofishing Removal of Non-native Fish from Nursery Habitats in the Upper Colorado River

II. Principal Investigators:

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III. Project Summary:

Larvae, young-of-the-year, and yearling-sized Colorado pikeminnow are highly susceptible to predation by introduced centrarchids, i.e., largemouth bass (*Micropterus salmoides*), green sunfish (*Lepomis cyanella*) and black crappie (*Pomoxis nigromaculatus*), which also inhabit Colorado pikeminnow nursery habitats. To date, catch rates of largemouth bass and green sunfish have been highest in the upper reach, from the top of Westwater Canyon, Utah to Palisade, Colorado. During fall ISMP sampling in 1996, catch rates of largemouth bass in upper reach backwaters were the highest ever observed. Our goal is to increase survival rate of age-0 Colorado pikeminnow and other native species through the reduction of piscivorous, nonnative centrarchids in riverine backwaters.

As in 1999, two electrofishing passes were made in 2000 through the upper reach of the Colorado River in spring (March 8 - April 5) and two passes in fall (August 21-October 24) as planned. Many non-native centrarchids, carp, white suckers and black bullhead were removed. Field work for this project will continue for one more year (through 2001). A summary report will be completed in 2002.

IV. Study Schedule: 1999-2002.

V. Relationship to RIPRAP: Colorado River Action Plan: III. A. Reduce negative interactions between nonnatives and endangered fishes.

VI. Accomplishment of FY 99 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

Tasks

1. Remove nonnatives from backwaters: this task was met; many nonnatives were removed. What proportion was removed of those that were present is difficult to determine. The following numbers of fish were removed:

	1999	1999	2000	2000
	Spring	Fall	Spring	Fall
Black bullhead	124	132	881	359
Black crappie	4	3	1	7
Bluegill	2	128	92	101
Channel catfish	13	0	460	42
Common carp	548	549	1354	1771
Green sunfish	1563	1515	2226	1836
Largemouth bass	77	503	172	1700
Smallmouth bass	1	1	3	3
White sucker	278	328	906	302
Northern pike	0	1	3	0

These data indicate that the spring removal effort did not have a significantly depletive effect in either year, i.e. catch rates in fall were essentially unchanged from or even greater than those in spring (with a couple of exceptions to this in 2000). Comparing totals for 1999 with those of 2000, black bullhead, channel catfish, common carp, green sunfish, white sucker and largemouth bass increased in number, whereas black crappie, bluegill, smallmouth bass and northern pike remained the same. No species declined in abundance from 1999 to 2000.

VII. Recommendations:

Finish this field effort in 2001 as planned and then determine whether this effort is having enough of an effect that increased survival of endangered fish can be anticipated. If so, additional years of removal effort may be recommended.

VIII. Project Status: Project is ongoing and on-track. Field work is scheduled to continue through 2001 and report writing and completion in 2002.

IX. FY 2000 Budget Status:

A.	Funds Provided:	52,000
B.	Funds Expended:	52,000
C.	Difference:	0
D.	N/A (BR projects)	
E.	Publication Charges	0

X. Status of Data Submission: Capture records will be submitted to the database manager at the completion of the study.

XI. Signed: *Doug Osmundson*, December 6, 2000