

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-O Colorado pikeminnow and other native species through the reduction of piscivorous, nonnative centrarchids in riverine backwaters.

In 1999, two electrofishing passes were made through the upper reach of the Colorado River in spring (March 29 - April 23) and two passes in fall (October 19-29) as planned. Many non-native centrarchids, carp, white suckers and black bullhead were removed. Field work for this project will continue for two more years (through 2001). A summary report will be completed in 2002.

IV. Study Schedule:

- a. Initial year: 1999
- b. Final year: 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:

	Spring	Fall
Black bullhead	124	132
Black crappie	4	3
Bluegill	2	128
Channel catfish	13	0
Common carp	548	549
Green sunfish	1563	1515
Green sunfish x bluegill	4	0
Largemouth bass	77	503
Smallmouth bass	1	1
White sucker	278	328
Northern pike	0	1

These data indicate that the spring removal effort did not have a significantly depletive effect, i.e., catch rates in fall were essentially unchanged from those in spring. In fact, largemouth bass appear to have increased in numbers between spring and fall.

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 99 Budget

- A. Funds Provided: 50,000
- B. Funds Expended: 50,000
- 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 12/2/99
Principal Investigator Date