

COLORADO RIVER RECOVERY PROGRAM  
FY 99 ANNUAL PROJECT REPORT

RECOVERY PROGRAM  
PROJECT NUMBER: 22g

- I. Project Title: Refining population estimates for FY 1999
- II. Principal Investigator(s): Dr. Ronald J. Ryel  
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- III. Project Summary: This project is designed to review the power of present ISMP sampling methods to estimate the numbers of adult endangered fish in the Green and Colorado Rivers. The project was originally designed to be completed in FY 1999, but was delayed until FY 2000 to coincide with the development of recovery goals in early 2000 for the four endangered fishes. An overview of the approach and preliminary results for the power of estimates for Colorado pikeminnow and humpback chub in the Colorado River were presented September 1, 1999 at the CRRP Biology Committee meeting.
- IV. Study Schedule: to be completed in FY 2000.
- V. Relationship to RIPRAP: General Recovery Program Support Action Plan V. A. Measure and document biological response to recovery actions.
- VI. Accomplishment of FY 99 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings: The schedule of this project has been shifted to FY 2000. The following is a brief review of the project tasks and progress on each.

*Task 1 – Review methodologies used to estimate populations.* This has been done for Colorado pikeminnow for the Colorado River, and initial information has been received concerning humpback chub in the Colorado River.

*Task 2 – Determine sampling necessary to improve population estimates.* This has been done for Colorado pikeminnow for the Colorado River and for humpback chub for the Black Rocks populatoin in the Colorado River. Further refinement of the necessary sampling effort will be conducted after Recovery Goals are finalized in early 2000.

*Task 3 – Determine the effectiveness of the monitoring program to assess population dynamics.* This has been done for Colorado pikeminnow for the Colorado River and for

humpback chub for the Black Rocks population in the Colorado River.

*Task 4 – Produce report outlining findings and provide recommendations for improvements to population estimation methods. This task will begin in early 2000.*

*Task 5 – Prepare final report. This will be done after Tasks 1-4 are completed.*

- VII. Recommendations: This project will be important in determining the sampling program necessary to meet the recovery goal criteria for Colorado pikeminnow and humpback chub. Recommendations from this project may suggest changes to the ISMP. No significant changes to this program are recommended except to relate the results more directly to the Recovery Goals being developed in early 2000.
- VIII. Project Status: The project is on-track and ongoing. The delay of this project to the end of FY 2000 was discussed with the Biology Committee during the September 1, 1999 Biology Committee meeting. The committee concurred that it made sense to delay the project to address the Recovery Goals being developed in early 2000.
- IX. FY 99 Budget Status
- A. Funds Provided: \$ 10,000
  - B. Funds Expended: \$ 920 spent to date, but not billed to USU yet in FY 2000
  - C. Difference: \$ 9,080 left to be spent in FY 2000
  - D. Percent of the FY 99 work completed, and projected costs to complete: About 10% with 9.2 % spent.
  - E. Recovery Program funds spent for publication charges: \$ 0
- X. Status of Data Submission (Where applicable): n/a
- XI. Signed: Ronald J. Ryel      12-9-99  
Principal Investigator      Date