

COLORADO RIVER RECOVERY PROGRAM  
FY 2010 ANNUAL PROJECT REPORT

RECOVERY PROGRAM  
PROJECT NUMBER: FR-BW\_SYNTH

I. Project Title: Historical assessment of factors affecting young Colorado pikeminnow abundance and physical habitat availability in the Green River, Utah.

II. Principal Investigator(s):

Lead Agencies: Larval Fish Laboratory, CSU and Argonne National Laboratory

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Jointly Submitted by: Larval Fish Laboratory, CSU, Argonne National Laboratory

III. Project Summary: The Green River Study Plan recommends research to evaluate the effect of base flow variability on backwater habitat maintenance and quality. Responsive to that recommendation, this proposed study will begin as a synthesis of physical and biological information already collected in Reaches 2 and 3, including evaluating potential links between physical habitat data and abundance dynamics of age-0 Colorado pikeminnow. This work will assist with evaluation of studies that aim to obtain a better understanding of how base flows and base flow variability affect backwater maintenance and quality in Reaches 2 and 3.

IV. Study Schedule: Initial Year 2009 (revised to 2010 based on data acquisition delays)

Final year 2011 (revised to 2012 based on data acquisition delays)

Based on data acquisition delays, we propose an amended schedule that is one year later than the original schedule as follows:

- Prepare draft synthesis report and deliver to Recovery Program Coordinator by September 30, 2011.
- Revise draft report to address coordinator comments and send to the Biology Committee and peer reviewers (November 30, 2011).
- Revise draft report to address comments from Biology Committee and peer reviewers. (Estimated final report delivery: January 15, 2012).

V. Relationship to RIPRAP (*Version: March 8, 2000*):

Green River, I.D.1.e. (4) Integrate biological and physical data on backwaters.

VI. Accomplishment of FY 2010 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings: Shortly after initiation of this project, errors or missing data were discovered in the dataset that described the historical abundance of fishes in backwaters of the Green River. Additionally, some data from the lower Green River may have been lost, but the extent of that was unknown.

On October 21, 2009 the principal investigators and Recovery Program office held a conference call to discuss this setback. We jointly decided that the biological and geomorphic aspects of this study need to proceed concurrently, because the analyses are interrelated. Therefore we agreed that until a reliable dataset is available all work on this project would be postponed. Analysis of the pikeminnow data from the lower Green River was also delayed because of file incompatibilities. After obtaining the final dataset, work was delayed due to other commitments. At present, the age-0 pikeminnow dynamics analysis for middle Green River is largely completed and that for the lower Green River has been started.

Data sets pertaining to annual backwater habitat availability based upon topography information collected by Argonne in the Middle Green River during 2004-2010 have been obtained and initial data review and analyses have been conducted. Additional geomorphic data and information regarding past analyses of backwater habitats by other researchers will be gathered during FY 2011 and analyses will be completed and synthesized in conjunction with the biological analyses during FY 2011.

VII. Recommendations: Because of delays in obtaining the historical data and file errors, this work is behind the original schedule but is proceeding.

VIII. Project Status: Reinitiated after data files were received in good order. Analyses and synthesis to be completed during FY 2011, resulting in submission of a draft report.

IX. FY 2010 Budget Status

Larval Fish Laboratory

A. Funds Provided: \$61,860

B. Funds Expended: \$10,300

C. Difference: \$51,560

D. Percent of the FY 2010 work completed, about 15% and projected costs to complete: remaining budget.

E. Recovery Program funds spent for publication charges: None

Argonne National Laboratory

A. Funds Provided: \$60,088

B. Funds Expended: \$0

C. Difference: \$60,088

D. Percent of the FY 2010 work completed, about 5% and projected costs to complete:  
remaining budget.

E. Recovery Program funds spent for publication charges: None

X. Status of Data Submission (Where applicable): NA

XI. Signed: Kevin R. Bestgen 15 Nov. 2010  
Reporting Principal Investigator Date