

COLORADO RIVER RECOVERY PROGRAM  
FY 2013 ANNUAL PROJECT REPORT

RECOVERY PROGRAM  
PROJECT NUMBER: 132

I. Project Title: Population estimate of humpback chub in Westwater Canyon, Colorado River, Utah.

II. Bureau of Reclamation Agreement Number: R09AP40848

Project/Grant Period: Start date: 10/1/2010  
End date: 9/30/2014  
Reporting period end date: 9/30/2013  
Is this the final report? Yes \_\_\_\_\_ No  X

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IV. Abstract: The Upper Colorado River Recovery Implementation Program has set goals that require maintaining six self-sustaining populations of humpback chub. Westwater Canyon on the Colorado River contains one of the five remaining populations of the endangered humpback chub in the Upper Colorado River Basin. Monitoring efforts are essential to evaluate the population of humpback chub in Westwater Canyon and meet the recovery goals. We used trammel netting and electrofishing to capture and PIT tag humpback chub and roundtail chub in Westwater Canyon in 2012. Population estimates were subsequently calculated for both species using Program Mark. Humpback chub monitoring in Westwater canyon concluded in calendar year 2012 (FY 2013). All work, analysis, and annual reporting of the data were completed by November of 2012. This report relates to the completion of the field work in FY 2013 (October 2012) and work on the final report.

V. Study Schedule: Initial year 1998, ongoing.

VI. Relationship to RIPRAP:

GENERAL RECOVERY PROGRAM SUPPORT ACTION PLAN

V. Monitor populations and habitat and conduct research to support recovery actions (research, monitoring, and data management).

V.A. Measure and document population and habitat parameters to determine status and

biological response to recovery actions.

#### COLORADO RIVER ACTION PLAN: MAINSTEM

- V. Monitor populations and habitat and conduct research to support recovery actions (research, monitoring, and data management).
  - V.A. Conduct research to acquire life history information and enhance scientific techniques required to complete recovery actions.
  - V.C.2. Westwater Canyon
- VII. Accomplishment of FY 2013 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

Task 1: Complete 3 sampling trips in Westwater Canyon from September-October 2011-2012.

- FY11 – one trip was completed in September 2011.
- FY12 – two trips were completed during October 2011 and one trip was completed during September 2012.
- FY13 – two trips were completed during October 2012.

The final two of three passes for 2012 were completed by October 30 (FY 13).

Task 2: Data will be entered into a database on the computer and transferred to the UCRRP database manager by January 15 each year.

- FY12 – data entered and submitted Jan 2013.
- FY13 – data entered and submitted Jan 2014.

All data was entered and transferred to the database manager in January 2013.

Task 3: An annual progress report including: 1) number of passes made; 2) estimator model used (and why) and point estimate ( $\hat{N}$ ); 3) confidence interval; 4) probability of capture ( $\hat{p}$ ) and coefficient of variation (C.V.); 5) length frequency charts with demarcation of subadults and adults; and 6) percentage of subadult to adult fish, which will be submitted by November 15 each year.

- FY11– Annual report submitted Nov 2011.
- FY12 – Annual report submitted Nov 2012.
- FY13 – Annual report submitted Nov 2013.

During calendar year 2012, all data was compiled and initial adult and recruit estimates were provided to the Recovery Program in FY 2012 annual report.

Task 4: Prepare final report (FY13)

The final report is being prepared and a draft will be submitted by February 2014.

