

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

II. Principal Investigators:

Darek Elverud (Lead)
Paul Badame (Project Leader)
Utah Division of Wildlife Resources
Moab Field Station
1165 South HWY 191 - Suite 4
Moab, UT 84532
435-259-3782 (Elverud)
435-259-3780 (Badame)
(fax) 435-259-3785
darekelverud@utah.gov
paulbadame@utah.gov

III. Project Summary:

Westwater Canyon on the Colorado River contains one of the five remaining populations of the endangered humpback chub (*Gila cypha*) in the Upper Colorado River Basin. Recovery goals identified by the Upper Colorado River Recovery Implementation Program require maintaining several populations of humpback chub within the Upper Colorado River Basin. Monitoring efforts are essential to evaluate the population of humpback chubs in Westwater Canyon and meet the recovery goals. In 2008, trammel netting and electrofishing were used to capture and PIT tag humpback chub and roundtail chub (*Gila robusta*) in Westwater Canyon. Population estimates were subsequently calculated for both species using Program Mark. Humpback chub monitoring in Westwater canyon concluded in calendar year 2008 or fiscal year 2009. All work, analysis, and annual reporting of the data were completed by November of 2008. This report relates to the completion of the field work in FY 2009 (October 08) and the completion of a final report by December 2009.

IV. Study Schedule:

- a. Initial year: FY 2007
- b. Final year: FY 2009

V. Relationship to RIPRAP:

Colorado River Action Plan: Mainstem
V.C. Estimate humpback chub populations
V.C.2. Westwater

VI. Accomplishments of FY 2009 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

Task 1: Three pass mark-recapture sampling for humpback chubs in Westwater; fall 2007 (FY-07 and FY-08); and fall 2008 (FY-08 and FY-09).

The final two of three passes were completed by October 30 (FY 09).

Task 2: Compile data annually, prepare preliminary population estimate to be made available before the winter Colorado River researchers meeting and provided to the Recovery Program and USFWS for evaluation. Estimates will include numbers of adults (>200 mm TL) in the population, as well as recruitment by juveniles (150-199 mm TL); Nov-Dec 2007 (FY-08); and Nov-Dec 2008 (FY-09).

During calendar year 2008, all data was compiled and initial adult and recruit estimates were provided to the Recovery Program in FY 2008 annual report.

Task 3: Complete a final report describing population size and structure of humpback chub in Westwater by June 2009 (FY09).

The final report has been prepared, however completion was delayed into the summer of 2009 pending the humpback chub population estimate workshop. At that time a determination was made to not combine the Westwater and Black Rocks estimates into one overall population analysis. The report is currently being finalized and will be sent for review as rescheduled during an October 2009 Biology Committee meeting.

VII. Recommendations:

Fund fall population estimates based on calendar year of completion: Fall humpback surveys are scheduled to occur each year during September and October falling on the split in federal fiscal years. This split has also been carried to funding and reporting causing significant funding gaps within each field season, sometimes up to six months. It also results in reports such as this, where no pertinent analysis is provided, only a back accounting that the work was completed a year ago.

VIII. Project Status:

Project is on track and ongoing. The final report will be ready to start the review process by the deadline of December 2009. No changes in objective, deadlines, predicted funding, project direction are foreseen.

IX. FY09 Budget:

A. Funds budgeted: \$ 52,740

B. Funds expended/obligated:	\$ 52,740
C. Difference:	\$ 0
D. Percent FY2009 work completed:	100%
E. Recovery Program funds spent for publication charges:	\$ 0

X. Status of data submission: Data was transferred to USFWS by December 15, 2009.

XI. Signed: Darek Elverud Date: 11/10/2009