

**COLORADO RIVER RECOVERY PROGRAM
FY-2012 ANNUAL REPORT**

Project 146

Stationary PIT detection system in the Maybell Canal, Yampa River, CO

Lead Agency: U.S. Bureau of Reclamation

Submitted by: Dave Speas

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- I. Project Summary: Evaluation of entrainment of Colorado pikeminnow in the Maybell Canal near Maybell, CO is required by the Yampa Programmatic Biological Opinion (USFWS 2005). To determine whether entrainment is taking place, we installed a stationary passive internal transponder (PIT) detection system in the Maybell Canal on April 20, 2011. The system was operated without disruption during the 2011 and 2012 irrigation seasons (April through late October). No PIT tagged native or endangered fish were detected during the 2011 irrigation season, however one tagged roundtail chub and one tagged Colorado pikeminnow were detected during July and August of 2012, respectively.
- II. Study schedule: November 2010 through November 2012.

III. Relationship to RIPRAP:
Green River Action Plan: Yampa and Little Snake rivers

II. Restore habitat

II.A.2. Reduce /eliminate entrainment of Colorado pikeminnow at diversion structures.

II.A.2.a. Identify and evaluate existing structures for entrainment of Colorado pikeminnow.

II.A.2.b. Develop and implement remedial measures, as necessary, to reduce or eliminate entrainment.

IV. Accomplishments of FY2012: The goal of this study is to determine likelihood of Colorado pikeminnow entrainment in the Maybell Canal, Yampa River near Maybell, Colorado. Tasks to be completed in 2012 consisted of the following:

Task 1: April-October 2012: Activate and operate system; download antennae data, perform diagnostics, repair system if necessary; system shut-down and disassembly (end of irrigation season).

Task 2: November 2012: Annual report.

Task 3: March 2013: Draft report submitted; comments reviewed; final report submitted to Recovery Program coordinator.

With minor deviations, all scheduled tasks for 2012 were completed as planned. Principle investigators activated the PIT system on April 18, 2012, three days after water began flowing in the canal. Colorado State University personnel visited the system on May 4, 2012 to inspect the system and conduct follow-up tag detection distance tests. They reported no damage due to debris entrainment, erosion, cattle encroachment or other issues. They visited the canal again on August 26 and reported similar findings.

The system operated without disruption from April 18 through November 2, 2011 and detected two individual fish. On July 11, 2012, a tagged roundtail chub (3D9.1C2D152229) was detected by the system. The fish was tagged on April 20, 2010 by the Colorado Division of Parks and Wildlife (TL = 460 mm, W = 900 g). On August 20, 2012, a Colorado pikeminnow (3D9.1C2D04C993) was detected on one of the PIT system loops at 1:30 AM. The fish had been tagged on June 6, 2012 between Yampa river mile 25.2 and 24.5 (Yampa Canyon; TL = 479 mm, W = 799 g).

With assistance from landowner Darryl Steele, we accessed the job site once again on November 2, 2012 and disassembled the system and removed it from the Maybell Canal. This equipment is currently being stored at Utah State University.

V. Recommendations: Evaluate detection data in relation to Yampa River Colorado pikeminnow population size, previous canal capture data reported by Hawkins (2009), entrainment criteria specified in the Biological Opinion, hydrology, and other relevant environmental, biological and regulatory aspects.

VI. Project status: project is on track and ongoing.

VII. FY12 Budget Status:

Funds provided: \$6,718

Funds expended: \$2,628

Difference: \$4,090

Percent of FY2012 completed: 61% (final report preparation pending).

Recovery Program funds spent for publication charges: N/A

VIII. Status of data submission: data currently being compiled and edited at Utah State University.

IX. Signed: /s/ Dave Speas 11/14/12

X. References

Hawkins, J. 2009. An evaluation of fish entrainment into the Maybell Ditch on the Yampa River, Colorado, 2007 and 2008. Report to the Upper Colorado River Endangered Fish Recovery Program, Lakewood, CO.

USFWS (U.S. Fish and Wildlife Service) 2005. Final programmatic biological opinion on the Management Plan for Endangered Fishes in the Yampa River Basin dated January 10, 2005. Mountain-Prairie Region (6). Denver, Colorado.

ANNUAL PERFORMANCE PROGRESS REPORT (PPR)

BUREAU OF RECLAMATION AGREEMENT NUMBER: R11AP40059

UPPER COLORADO RIVER RECOVERY PROGRAM PROJECT NUMBER: 125

Project Title: Monitoring of Potential Colorado Pikeminnow Entrainment in the Maybell Canal, Yampa River, Colorado.

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Project/Grant Period:

Start date (Mo/Day/Yr): 09/23/2011

End date: (Mo/Day/Yr): 08/30/2015

Reporting period end date (Mo/Day/Yr): 11/30/2012

Is this the final report? Yes _____ No X

Performance: In 2012, Colorado State University personnel completed their required tasks by visiting the remote PIT tag antenna system site system through the irrigation season. We visited the site on May 4 to inspect the system and conduct follow-up tag detection distance tests. We visited the site again on August 26. We reported damage to the access road on that date and coordinated with the local landowner to arrange alternate routes to access the site. We made a final site visit on Nov 2 and assisted in dismantling the structure and hauling it off site.