

I. Project Title: Assessment of larval Colorado pikeminnow presence and survival in low velocity habitats in the middle Green River

II. Principal Investigator(s):

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III. Project Summary:

Fall Interagency Standardized Monitoring Program (ISMP) sampling of age-0 Colorado pikeminnow (CPM) has been conducted annually since the mid-1980s to assess the abundance and distribution of young fish. Since 1994, these surveys have shown a reduction in the abundance of age-0 CPM in the alluvial section of the Green River between Split Mountain and Desolation Canyon (Utah Division of Wildlife Resources, unpublished data). Other studies monitoring the upstream abundance of larval CPM drifting from the Yampa Canyon spawning site during the same time suggest that larval fish production has not decreased from previous levels when age-0 CPM were more abundant in this reach (K. Bestgen, pers. comm., Bestgen et al. 1998). Several possibilities exist for why age-0 CPM are not being caught as frequently as they once were, including an increase in nonnative predatory fishes, nonnative competitors, and habitat changes. Other researchers have been or are currently working on issues such as changes in habitat related to flow and temperature. This study seeks to address the possible influence nonnative fishes may have on age-0 pikeminnow as they arrive and grow in backwater habitats. A second focus is to confirm the arrival and entrainment of larval pikeminnow into backwaters in this reach.

IV. Study Schedule: Final field year (FY 2011) deferred to 2012

V. Relationship to RIPRAP:

GENERAL RECOVERY PROGRAM SUPPORT ACTION PLAN

- III. Reduce negative impacts of nonnative fishes and sportfish management activities (nonnative and sportfish management).
- III.A. Reduce negative interactions between nonnative and endangered fishes.
- III.A.2. Identify and implement viable active control measures.
- III.A.2.c. Implement and evaluate the effectiveness of viable active control measures.
- III.A.2.f. Develop control program for removal of small nonnative cyprinids in backwaters and other low velocity habitats.

GREEN RIVER ACTION PLAN: MAINSTEM

- III. Reduce impacts of nonnative fishes and sportfish management activities (nonnative and sportfish management).
- III.A.4. Develop and implement control programs for nonnative fishes in river reaches occupied by the endangered fishes to identify required levels of control.
- III.A.4.b. Nonnative cyprinids and centrarchids in nursery habitats.
- III.A.4.b.(1) Small nonnative cyprinids from backwaters and other low velocity habitats in the lower Green River.

VI. Accomplishment of FY 2011 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings

Task 1. Determine abundance of larval pikeminnow present in drift at Split Mountain and arriving in backwaters in the Ouray reach.

Larval Fish Lab reported pikeminnow larvae were first detected with drift nets at Echo Park on 25 July 2011 and last observed on 15 August 2011 (K. Bestgen, pers. comm.). Results from the Echo Park sampling are preliminary, thus actual abundance of larval pikeminnow is not available at this time.

Task 2. Deplete nonnative fish in backwaters prior to larval CPM drift and experiment with a blocking scenario to keep backwaters free of nonnative fish.

Due to prolonged high flows in 2011 and uncertainty of the confounding effects they may have had on the fish community, habitat conditions, pikeminnow spawning success, along with numerous other variables, we elected to defer this project until FY 2012 (no funds were expended). Our decision is further justified by the complete absence of young of year pikeminnow in annual fall ISMP monitoring conducted under project #138.

Task 3. Determine fish community in manipulated and control backwaters.

See above explanation.

Task 4: Report Preparation

Annual report November 2011

VII. Recommendations:

- Continue this research to examine the possible influence nonnative fishes may have on age-0 pikeminnow survival as they arrive and grow in backwater habitats (defer final year of project to FY 2012).

VIII. Project Status: On track and ongoing

IX. FY 2011 Budget Status

- A. Funds Provided: \$104,441
- B. Funds Expended: \$ 0
- C. Difference: 104,441
- D. Percent of FY 2011 work completed: 0%
- E. Recovery Program funds spent for publication charges: \$0

X. Status of Data Submission: deferred

XI. Signed: Joseph A. Skorupski Jr. and Tildon Jones 11/8/2011
Investigators Date