

**COLORADO RIVER RECOVERY PROGRAM
FY 2012 PROPOSED SCOPE OF WORK for:**

Project #: 126b

Colorado River supplemental lethal removal of smallmouth bass and northern pike.

Agency: Colorado Parks and Wildlife

Submitted by: Lori M. Martin
Colorado Parks and Wildlife
711 Independent Ave.
Grand Junction, CO 81505
Main: 970-255-6126
FAX: 970-255-6111

Sherman Hebein
Colorado Parks and Wildlife
711 Independent Ave.
Grand Junction, CO 81505
Main: 970-255-6186
FAX: 970-255-6111

Jenn Logan
Colorado Parks and Wildlife
50633 Hwy 5 and 24
Glenwood Springs, CO 81601
Main: 970-947-2923
Fax: 970-947-2936

Harry Crockett
Colorado Parks and Wildlife
317 W. Prospect St.
Fort Collins, CO 80526
Main: 970-472-4339
Fax: 970-472-4457

Date: February 20, 2007; revised 4/30/2007 by Pat Nelson; 10/30/08 by Sherman Hebein;
05/28/09 by Tom Chart, 02/02/2012 Sherman Hebein

Category:

- Ongoing project
- Ongoing-revised project
- Requested new project
- Unsolicited proposal

Expected Funding Source:

- Annual funds
- Capital funds
- Other (explain)

I. Title of Proposal:

Supplemental lethal removal of smallmouth bass and northern pike in the Colorado River between Silt and Beavertail Mountain.

II. Relationship to RIPRAP:

Colorado River Action Plan: Mainstem

III. Reduce negative impacts of nonnative fishes and sportfish management activities.

III.A. Develop and implement control programs in reaches of the Colorado River occupied by endangered fishes.

III. Study Background/Rationale and Hypotheses:

Study Background/Rationale:

The USFWS (Burdick 2007, 2011) has previously documented the need for smallmouth bass and northern pike removal in the Colorado River.. This study will supplement the USFWS efforts within the same USFWS study area by adding additional removal passes within the smallmouth bass and northern pike concentration areas identified by Burdick (2007 and 2011).

IV. Study Goals, Objectives, End Product:

Study Goal:

- 1) To assist the USFWS in reducing the number of smallmouth bass and northern pike in 52.3 river miles between Silt (RM 248.0), Colorado and Beavertail Mountain (RM 195.7) thereby benefiting natives fishes of the Colorado River Basin

Study Objective:

- 1) To remove as many smallmouth bass and northern pike as possible between Silt and Beavertail Mountain via one full removal pass. An additional 2 days will be allocated for removal in areas identified during the first pass as high concentration areas.

End Product:

CPW will follow quality assurance and quality control protocols when organizing the data collected. All of CPW validated data will be provided to the USFWS lead, D. Ryden. CPW will not perform data analysis for this supplemental project; all data collected will be analyzed by the USFWS.

V. Study Area:

The study area for this supplemental project will focus on:

- 1) the 52.3 mile reach between Silt (RM 248.0) and Beavertail Mountain (RM 195.7).
- 2) 2 additional removal days will occur in reaches of the highest smallmouth bass and/or northern pike concentration. The reach or reaches will be identified during the first pass.

VI. Study Methods/Approach:

Capturing and removing smallmouth bass and northern pike within main channel (shorelines) and backwater habitat (when accessible) will be the focus of this supplemental sampling effort. Incidental contact with Colorado pikeminnow, razorback sucker, and/or bonytail will be handled per the protocol below. This study will occur between August and September. Six day trips across two weeks will constitute one pass. A minimum of one pass will be completed for smallmouth bass and northern pike

removal across the entire section of Silt to Beavertail. An additional 3 days will focus on areas of higher concentration of smallmouth bass and/or northern pike.

Two, two-man electrofishing crews will utilize self-bailing rafts with mounted 15 horsepower motors within each river segment to perform removal sampling in the main channel. Each crew will simultaneously move downstream with Smith Root GPP 5.0 electrofishers. One crew will work one side of the river, while the second crew will work the other side. No river reach will be electrofished on consecutive days, to allow for resident native fish to recover and redistribute.

Backwaters (when accessible) and where CPW has obtained permission to sample will also be included within the study. Both crews will sample backwater areas along both sides of the river. Output power will be adjusted within backwaters based upon changes in river conductivity. Additionally, output power will be reduced during the raft approach to the backwater mouth. Both processes will minimize the potential for electrofishing injuries to fish.

Each raft will process fish collected. All smallmouth bass, largemouth bass, northern pike, Colorado pikeminnow, razorback sucker, and bonytail captured will be identified and measured in total length to the nearest millimeter. Endangered fish encountered will also be weighed to the nearest gram, and scanned for the presence of PIT tags. Individuals without PIT tags will be implanted with a new PIT tag following the appropriate protocol; tags will be provided by the USFWS. Capture locations for endangered fish will be recorded to the nearest tenth of a river mile. UTM coordinates associated with capture locations will also be recorded, when possible. All endangered fish captured will be processed and released immediately. All smallmouth bass, largemouth bass, and northern pike collected will be lethally removed.

Incidental contact with other nonnative game fish except salmonid species (including centrarchids, walleye, gizzard shad, grass carp, and yellow perch) will result in lethal removal. Disposal of all the aforementioned fishes will be as follows: following capture, fish will be euthanized in the field and preserved with ice. All other dead fish not provided to the Recovery Program-P. Martinez will be disposed of in the Mesa County landfill southeast of Grand Junction.

Water conductivity and GPP 5.0 settings will also be recorded. Electrofishing effort will also be recorded by the two GPP 5.0s utilized. All data will be collected on the same forms and per the same guidelines that the USFWS will be following. All data collected by CPW will be provided to the USFWS upon completion of this supplemental study.

VII. Task Description and Schedule:

Task 1. Sample study area to capture and lethally remove smallmouth bass.

Schedule: August- September 2012

Task 2. Organize and validate data collected. Submit data collected to the USFWS.

Schedule: September 2012; data due to USFWS by October 1.

VIII. FY-2012 Work

Deliverables/Due Dates:

Data due to USFWS 10/1/2012

FY-2012 Budget by Task:

Task 1. Sample study area to capture and lethally remove smallmouth bass and other incidental non-native fishes, non-salmonids encountered.

Labor=

Three Technician I:

Salary (4, 40 hour weeks @ \$14.46/hour=\$2,314) + Benefits (14.6%=\$338) +

Indirect Costs (27% of \$2,652=\$716)=\$3,368 x 3 positions= **\$10,104**

Equipment=

Winterize motors/trailers/generators= **\$3,000**

Maintenance of 2 generators (oil and fuel)= **\$850**

Task 2. Organize and validate data collected. Submit data collected to the USFWS.

Labor=

One Technician I:

Salary (2, 40 hour weeks @ \$14.46/hour=\$1,157) + Benefits (14.6%=\$169) +

Indirect Costs (27% of \$1,326=\$358)= **\$1,684**

FY2012 All Tasks Total \$15,638

FY-2013 Work

Deliverables/Due Dates:

Data due to USFWS 10/1/2013

FY-2013 Budget estimate:

Task 1. Sample study area to capture and lethally remove smallmouth bass and other incidental non-native fishes, non-salmonids encountered.

Labor=

Three Technician I:

Salary (4, 40 hour weeks @ \$14.46/hour=\$2,314) + Benefits (14.6%=\$338) +

Indirect Costs (27% of \$2,652=\$716)=\$3,368 x 3 positions= **\$10,104**

Equipment=

Winterize motors/trailers/generators= **\$3,000**

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One Technician I:

Salary (2, 40 hour weeks @ \$14.46/hour=\$1,157) + Benefits (14.6%=\$169) +

Indirect Costs (27% of \$1,326=\$358)= **\$1,684**

FY2013 All Tasks Total \$15,638

IX. Budget Summary:

**Please note that the future compensation rate for the Technician I class may increase beyond CPW's control. Therefore, the budget total provided below may increase over time, reflecting the compensation rate increase.

FY-2012 \$ 15,638

FY-2013 \$ 15,638

X. Reviewers:

UCRP Biology Committee

XI. References:

Burdick, B. D. 2011. Colorado river smallmouth bass removal. Scope of work prepared for the Recovery Implementation Program for the Endangered Fishes of the Upper Colorado River Basin. Recovery Program Project Number 126. U. S. Fish and Wildlife Service, Colorado River Fishery Project, Grand Junction, Colorado.

Burdick, B. D. 2007. Colorado river smallmouth bass removal. Scope of work prepared for the Recovery Implementation Program for the Endangered Fishes of the Upper Colorado River Basin. Recovery Program Project Number 126. U. S. Fish and Wildlife Service, Colorado River Fishery Project, Grand Junction, Colorado.