

COLORADO RIVER RECOVERY PROGRAM  
FY 2018 ANNUAL PROJECT REPORT

RECOVERY PROGRAM  
PROJECT NUMBER:  
C29a/138

I. Project Title: Green River Canal Company (GRCC) Canal Salvage

II. Bureau of Reclamation Agreement Number(s)

USFWS Vernal: R15PG00083

Project/Grant Period: Start date (Mo/Day/Yr): 10/01/2014  
End date: (Mo/Day/Yr): 09/30/2019

UDWR Moab: R14AP00007

Project/Grant Period: Start date (Mo/Day/Yr): 05/01/2014  
End date: (Mo/Day/Yr): 09/30/2018  
Reporting period end date: 09/30/2018  
Is this the final report? Yes \_\_\_\_\_ No  X

III. Principal Investigators:

Zach Ahrens, UDWR  
1165 S Hwy 191, Suite 4  
Moab, UT 84532  
435-259-3783  
[zachahrens@utah.gov](mailto:zachahrens@utah.gov)

M. Tildon Jones, USFWS  
1380 S 2350 W  
Vernal, UT 84078  
435-789-0351  
[tildon\\_jones@fws.gov](mailto:tildon_jones@fws.gov)

IV. Abstract: During November 2017 sampling of the Green River Canal, Utah Division of Wildlife Resources and United States Fish and Wildlife Service personnel captured and translocated five endangered Colorado pikeminnow (*Ptychocheilus lucius*), one bonytail (*Gila elegans*), four razorback sucker (*Xyrauchen texanus*) and thirty-three native chubs (*Gila spp.*) to the mainstem Green River. Additionally, we recovered two razorback sucker mortalities from the canal. We also translocated two bluehead sucker (*Catostomus discobolus*), 108 flannelmouth sucker (*Catostomus latipinnis*), and 188 speckled dace (*Rhinichthys osculus*). These native fish were released alive in the mainstem Green River downstream of the Tusher diversion dam.

V. Study Schedule: 2014-ongoing

VI. Relationship to RIPRAP:

GREEN RIVER ACTION PLAN: MAINSTEM

II.B Restore native fish passage at instream barriers.

VII. Accomplishment of FY 2018 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

With permission from landowners and assistance from canal company staff, UDWR

Moab and USFWS Vernal crews sampled the canal via single-pass backpack electrofishing during 13-15 November 2017 (total effort = 10.5 hours). As in previous years, we timed sampling to coincide with de-watering.

Canal electrofishing yielded 10 live individuals from 3 endangered taxa. We captured and translocated five endangered Colorado pikeminnow (308 to 171 mm TL), one bonytail (TL=285 mm), and four razorback sucker (337 to 450 mm TL). We also recovered two dead razorback sucker from the canal. All Colorado pikeminnow were unmarked and implanted with new PIT tags prior to translocation. The bonytail and all razorback sucker were previously marked with PIT tags.

Other native fish captures included 33 *Gila spp.* Of these, most were apparent age-0 fish (median TL=66 mm), but we implanted a PIT tag in the sole adult chub (TL=207 mm). We also captured two bluehead sucker, 108 flannelmouth sucker and 188 speckled dace. All flannelmouth sucker over 150 mm in total length (n=9) were scanned for PIT tags; none were detected. We successfully translocated these fish to the Green River alive.

To document possible return of fish to the river from the canal during sluicing, we deployed two Biomark submersible PIT antennas between sluice gates and the Green River during de-watering. These submersible antennas detected no tags.

#### VIII. Additional noteworthy observations:

We encountered 12 non-native species during 2018 canal sampling, including – for the first time - the Utah chub (*Gila atraria*, n=7). The presence of these fish is likely explained by spilling from Scofield Reservoir on the Price Piver earlier in 2017 (Dan Keller – UDWR, personal communication). All black crappie (*Pomoxis nigromaculatus*), black bullhead (*Ameiurus melas*), gizzard shad (*Dorosoma cepedianum*), green sunfish (*Lepomis cyanellus*) and Utah chub were euthanized. Other non-native fish were tallied by species and returned to the canal alive. Fish captures are summarized in Table 1.

Fiscal Year 2017 recommendations included remote deployment of submersible PIT antennas into canal siphon pipes to assess possible isolation of endangered fish in these structures subsequent to canal de-watering. These portable antennas would be in addition to the year-round antennas on either side of the most upstream siphon. In the interest of timely completion of our primary task, we elected not to attempt this technique in FY 2018.

#### IX. Recommendations:

- Continue to salvage native fish from the Green River Canal until a permanent fish exclusion system is in place. Consider sampling after the fish exclusion system is in place to evaluate success.

- Continue to coordinate operation of sluice gates and other flow control structures to reduce canal water levels prior to sampling.

X. Project Status: Ongoing

XI. FY 2018 Budget Status

- A. Funds Provided: \$10,347 (UDWR), \$10,088 (USFWS)
- B. Funds Expended: \$10,347 (UDWR), \$10,088 (USFWS)
- C. Difference: \$0
- D. Percent of the FY 2018 work completed: 100%
- E. Recovery Program funds spent for publication charges: \$0

XII. Status of Data Submission:

USFWS data were compiled and submitted to database manager in January 2018.

XIII. Signed: Zach Ahrens, & M. Tildon Jones  
Principal Investigators

January 2018  
Date

**Table 1. Green River Canal fish captures, November 2017.**

<b>Species</b>	<b>Number of fish</b>
bonytail ( <i>Gila elegans</i> )	1
Colorado pikeminnow ( <i>Ptychocheilus lucius</i> )	5
razorback sucker ( <i>Xyrauchen texanus</i> )	6
bluehead sucker ( <i>Catostomus discobolus</i> )	2
black bullhead ( <i>Ameiurus melas</i> )	1
black crappie ( <i>Pomoxis nigromaculatus</i> )	2
brook stickleback ( <i>Culaea inconstans</i> )	3
channel catfish ( <i>Ictalurus punctatus</i> )	109
common carp ( <i>Cyprinus carpio</i> )	301
fathead minnow ( <i>Pimephales promelas</i> )	125
flannelmouth sucker ( <i>Catostomus latipinnis</i> )	108
green sunfish ( <i>Lepomis cyanellus</i> )	15
gizzard shad ( <i>Dorosoma cepedianum</i> )	15
red shiner ( <i>Cyprinella lutrensis</i> )	3514
sand shiner ( <i>Notropis stramineus</i> )	613
speckled dace ( <i>Rhinichthys osculus</i> )	188
unidentified native chub ( <i>Gila spp.</i> )	33
Utah chub ( <i>Gila atraria</i> )	7
white sucker ( <i>Catostomus commersonii</i> )	41

## ANNUAL PERFORMANCE PROGRESS REPORT (PPR)

BUREAU OF RECLAMATION AGREEMENT NUMBER: R14AP00007

UPPER COLORADO RIVER RECOVERY PROGRAM PROJECT NUMBER: 138

Project Title: Green River Canal Company (GRCC) Canal Salvage

Principal Investigator:

Zach Ahrens, UDWR  
1165 S Hwy 191, Suite 4  
Moab, UT 84532  
435-259-3780  
[zachahrens@utah.gov](mailto:zachahrens@utah.gov)

Project/Grant Periods:

Start date (Mo/Day/Yr): 05/01/2014

End date: (Mo/Day/Yr): 09/30/2018

Reporting period end date: 09/30/2017

Is this the final report? Yes \_\_\_\_\_ No  X

Performance: During November 2017 electrofishing (total effort=10.5 hours) of the Green River canal system, Utah Division of Wildlife Resources and United States Fish and Wildlife personnel salvaged five endangered Colorado pikeminnow (*Ptychocheilus lucius*), 33 native chubs (*Gila spp.*), two bluehead sucker (*Catostomus discobolus*) and 108 flannelmouth sucker (*Catostomus latipinnis*). These fish were released alive into the Green River mainstem. Data were submitted to the database manager in January 2018 and an annual report was provided in November 2018.

## ANNUAL PERFORMANCE PROGRESS REPORT (PPR)

BUREAU OF RECLAMATION AGREEMENT NUMBER: R15PG00083

UPPER COLORADO RIVER RECOVERY PROGRAM PROJECT NUMBER: C29a

Project Title: Green River Canal Company (GRCC) Canal Salvage

Principal Investigators: Tildon Jones and Chris Smith

1380 S 2350 W, Vernal, UT 84078

435-789-0351; [tildon\\_jones@fws.gov](mailto:tildon_jones@fws.gov)

Project/Grant Periods: Start date (Mo/Day/Yr): 10/01/2014

End date: (Mo/Day/Yr): 09/30/2019

Reporting period end date: 09/30/2017

Is this the final report? Yes \_\_\_\_\_ No  X

Performance: During November 2017 electrofishing (total effort=10.5 hours) of the Green River canal system, Utah Division of Wildlife Resources and United States Fish and Wildlife personnel salvaged five endangered Colorado pikeminnow (*Ptychocheilus lucius*), 33 native chubs (*Gila spp.*), two bluehead suckers (*Catostomus discobolus*) and 108 flannelmouth suckers (*Catostomus latipinnis*). These fish were released alive into the Green River mainstem. Data were submitted to the database manager in January 2018 and an annual report was provided in November 2018.