

UPPER COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM

FY 2020 ANNUAL REPORT

PROJECT: 29B

Project Title

Operation and Maintenance of Ouray National Fish Hatchery Randlett Unit

Bureau of Reclamation Agreement Number:

N/A

Project/Grant Period:

Start date: 10/01/2019

End date: 09/30/2020

Reporting period end date: 09/30/2020

Is this the final report? Yes _____ No X

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Abstract:

Ouray National Fish Hatchery (ONFH) Randlett Unit was established in May 1996 as a fish refuge and technology development facility to assist in the recovery of the four listed Colorado River fish: razorback sucker, Colorado pikeminnow, bony tail, and humpback chub. In 2020, ONFH Randlett Unit exceeded fish production/stocking goals established by the Upper Colorado River Endangered Fish Recovery Program (Recovery Program) for razorback sucker and stocked the bony tail available. The hatchery will continue to maintain humpback chub collected from Desolation Canyon in 2009 as a refuge population and potentially as a source of future brood stock. ONFH participated in the bony tail feed study conducted by Dr. Gibson Gaylord at the Bozeman Fish Technology center. The fish were slow to take the feeds which could be for a number of reasons including that these fish had been in the ponds for a minimum of two years and were used to more natural feeds or from increased stress of being inside. Bonytail have a tendency to get fat in the recirculating hatchery, developing fatty livers. This study will hopefully produce a diet that meet the bonytail's nutritional need without causing obesity.

Study Schedule:

1996-Ongoing

Relationship to RIPRAP:

General Recovery Program Support Action Plan

IV. Manage genetic integrity and augment or restore populations.

IV.A. Genetics management.

IV.A.4 Secure and manage genetic stocks in refugia.

IV.A.4.a. Razorback sucker

IV.A.4.b. Bony tail chub

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- IV.A.4.c Humpback chub
- IV.A.4.a.(1) Middle and Lower Green River.
- IV.C. Operate and maintain facilities.
- IV.C.1. Ouray National Fish Hatchery.

Green River Action Plan: Main Stem.

- IV.A. Augment or restore populations as needed.
- IV.A.1. Develop State stocking plan for the four endangered fishes in the Green River.
- V.A.1.c. Implement plan.

Accomplishment of FY 2020 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

Stocking goals established by the Recovery Program include the annual production and distribution of 6,000 razorback sucker averaging 350 mm and 10,000 bonytail averaging 250 mm into the middle and lower Green River in Utah. The hatchery exceeded stocking goals during 2020 for razorback sucker (RZ) stocking 8,360 RZ averaging 373 mm. We stocked 4,355 bony tail (BT) averaging 308 mm total length out of the 10,000 bony tail target. Fish distribution during 2020 resulted in 6,088 razorback sucker stocked in the Green River near Ouray NFH, and 2,271 razorback sucker stocked at Green River UT. 3012 BT were stocked in the White River at the Enron boat ramp and 1,343 stocked at Swayze's boat ramp in Green River UT. Bonytail stockings began in May and were completed in September 2020. The first stocking was completed on May 1, 2020. The morning stocking had a river temp of 16.4 C @ 8am. However, the river temp was 19.1 C @ 8:30pm the same day thus over 18C. Razorback sucker stocking was achieved in October. See Table 1 for specific stocking data.

Both avian and salamander depredation was controlled during 2019 and 2020 allowing adequate survival to meet and exceed stocking schedules. Bonytail swim-up fry were requested from Dexter, NM in 2020. Razorback sucker were not spawned in 2020 due to Covid 19 concerns and because we had a surplus of 2019 razorback sucker. In addition, the staff at Ouray modified fertilization protocols of the nursery ponds producing natural feed that lasted until early August on bonytail Fry ponds. HCP data are not available for fish stocked in 2020.

Salamander control continues to be an ongoing process but pre-emptive efforts from the hatchery crew have significantly reduced salamander depredation. With the reduced depredation a more traditional production strategy has resumed at the hatchery, eliminating the need to retain "extra" fish to ensure stocking requests are achieved. With this being said. In June 2020, a pond with ~5,000 bonytail that was slated to be stocked in August was infected with Ich (*Ichthyophthirius multifiliis*). Despite our best efforts, the pond was a total loss leaving us short of our stocking goal of 10,000 bonytail.

This fall the staff at Ouray cooperated with the Green River FWCO, Program Director's Office and the Southwestern AARC to assist in acquisition of YOY Colorado pikeminnow for development of brood stock. Unfortunately, no YOY pikeminnow were found in the middle Green River this year. The hatchery used salary savings to purchase two regenerative blowers to meet the future needs of pond aeration to replace the individual 1/3hp pumps on each pond. Once installed, these blowers will reduce annual cost of replacing 5 + individual 1/3hp pumps each year (@\$367.17ea.) which we plan on installing this spring for the 2021 grow out season.

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LED lighting continues to reduce electrical consumption as well as reducing stress on the fish and the new hatchery tanks are working very well.

Recommendations:

Recommendations for the ONFH include installation of two more replacement wells probably in approximately four years. Bird protection netting over the 0.2 ac ponds should be replaced in the next few years as well as pond liners in ponds A4-6 and B4-6. We recommend continuing the stocking of bony tail into receiving waters of 18° C or higher and to be stocked into back waters connected to the river when possible.

Project Status:

On track and ongoing.

FY 2020 Budget Status

Funds Provided: \$0, \$635,287 was budgeted from USFWS funds as part of the required cost share.

Funds Expended: \$635,287

Difference: \$0

Percent of the FY 2020 work completed, and projected costs to complete: 100%

Recovery Program funds spent for publication charges: -0-

Status of Data Submission

PIT tag data submitted to Program Director's Office on October 23, 2020

Signed:

Matthew G. Fry Principal Investigator

10/28/2020

Table 1.

2020 Stocking data

Water Body	River Mile	Stocking Date	Common Name	Number of Fish	Mean Total Length	Mean Weight	Year Class
Green River	132.9	9/11/2020	bonytail [chub]	1343	251.2	147.5	NA
White River	24	5/1/2020	bonytail [chub]	3012	301.8	273.7	NA
Green River	261.8	9/11/2020	razorback sucker	701	328.7	320.8	NA
Green River	261.8	9/16/2020	razorback sucker	592	340.2	400.2	NA
Green River	261.8	9/23/2020	razorback sucker	1148	349	473	NA
Green River	120.1	9/28/2020	razorback sucker	2271	344	434.7	NA
Green River	261.8	9/30/2020	razorback sucker	2657	351.3	486.4	NA
Green River	261.8	10/20/2020	razorback sucker	991	330.4	372.9	NA