

UPPER COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM

FY 2021 ANNUAL REPORT

PROJECT: 29c

Project Title

Wahweap State Fish Hatchery Operation and Maintenance

Bureau of Reclamation Agreement Number:

R19AP00059

Project/Grant Period:

Start date: 10/01/2018

End date: 09/30/2023

Reporting period end date: 09/30/2021

Is this the final report? No

Principal Investigator:

Zane Olsen, Hatchery Superintendent

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Wahweap State Fish Hatchery

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Abstract:

Wahweap State Fish Hatchery, located in Big Water, Utah, rears bonytail (*Gila elegans*) for stocking in the upper Colorado River basin for the Upper Colorado River Endangered Fish Recovery Program (Recovery Program). Wahweap also maintains a refuge population of razorback sucker brood stock for the Recovery Program.

Study Schedule:

Ongoing

Relationship to RIPRAP:

General Recovery Program Support Action Plan

IV Manage genetic integrity and augment or restore populations

IV.A. Genetic management

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

IV.A.4.a Razorback sucker

IV.A.4 Develop basin wide bonytail restoration plan and implement as approved

IV.C. Operate and maintain facilities

Accomplishment of FY 2021 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

Task 1. Rear, PIT tag, and stock bonytail, and report tag and stocking data.

- Wahweap PIT-tagged 11,020 fish in October 2020 and stocked 10,988 in April 2021 (Table 1). Spring HCPs performed; show fish coming out of the winter months with a mesentery fat score of 2.6 out of 4, a C-factor of 2,410 with a 60% male to 40% female sex ratio, 95% normal livers,

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and no observed deformities. Fish averaged 268.2 mm in length and 128.7 g.

- All fish stocked were treated for Asian tapeworm (*Bothriocephalus acheilognathi*) with Praziquantel @ 2.5 mg/L for a 24-hour static bath and no worms were observed during any treatments.
- Wahweap used 120 bonytail young of year (YOY), (YOY 2014, and YOY 2021), for the yearly Fish Health Inspection. During this year's inspection we observed one with Asian tapeworm. Infection across the hatchery is very low or unseen and Wahweap is working closely with Wade Cavender (State of Utah Fish Pathologist) to eradicate this parasite from hatchery ponds. Until the eradication, Wahweap has been instructed to treat each individual pond as a different rearing unit. Wahweap will treat prophylactically, with Praziquantel, all fish being stocked or transferred. Fish were given the Fish Health Approval number DWR 21-062 and DWR 21-063.
- The hatchery has conducted Health Condition Profiles (HCP) on all fish stocked or transferred in FY 2021 and they have been submitted to Wade Cavender (State of Utah Fish Pathologist) and sent to the Recovery Program.
- No bonytail sack fry were received from the Southwestern Native Aquatic Resources and Recovery Center in 2021.
- 67,973 fish remain on station as of fall 2021 (Table 2).

Task 2. Maintain backup razorback sucker brood.

- All razorback sucker were maintained in one on-site pond (Table 2).

Task 3. Rebuild concrete raceway for fish sorting and pathogen treatment.

- The new raceway constructed in the spring of 2020 was rebuilt under Contractor Warranty. The raceway had developed many cracks in the concrete that allowed water to leak through the walls. Total project rebuild cost was \$8,135.75 and was paid for by the Wahweap Hatchery Maintenance Budget.

Additional activities and accomplishments not included in the FY 2021 scope of work.

Outreach and Education

- Wahweap Hatchery Superintendent assisted the Recovery Program in staffing the information booth at the Utah Water Users Workshop. Wahweap Staff provided live bonytail for the display, took care of them for the duration of the meetings and assisted with outreach.
- Wahweap did not provide any school tours in this reporting period due to COVID-19.

Research and Support

- No research projects in 2021.

Facility Maintenance and Construction

- In 2021, we built a new 100,000-gallon concrete water tank, replacing the old steel tank that was undersized and worn out. The project cost was \$525,980.00 and was paid for by the Utah Hatchery Sportfish Program.

Fish Mortality Event

- No large fish mortalities in 2021 outside of normal hatchery operations.

Recommendations:

- Continue rearing bonytail at Wahweap to meet the stocking needs of the Recovery Program.
- Maintain razorback back-up brood stock and add 200 to 300 additional fish to maintain backup brood numbers.

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- Continue PIT-tagging bonytail in the fall and stocking in the spring.
- Work on the eradication of Asian tapeworm from the Wahweap Hatchery rearing facility.
- Evaluate some needed upgrades in facilities and fish culture equipment.
- Continue HCP for all fish prior to stocking or transfer The Recovery Program coordinates the annual collection and reporting for all Program hatcheries.

Project Status:

On track, ongoing, complete, etc.

FY 2021 Budget Status

Funds Provided: \$252,563.98

Funds Expended: \$252,563.98

Difference: \$0

Percent of FY 2021 work completed, and projected costs to complete: 100%

Status of Data Submission

PIT-tagged data for FY 2021 has been submitted to the Recovery Program and uploaded to STReaMS

Signed:

Zane Olsen

Principal Investigator

November 4th, 2021

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Table 1.

Upper Colorado River Recovery Program bonytail stocked or transferred in FY 2021 by Wahweap State Fish Hatchery.

Stock Date	Contact Name	Lot Number	River	Stocking Location	Number Stocked	Tagged
4/19/2021	Zane Olsen	140501CBBTWW01	Dolores	Rio Mesa Research Center	3,657	Yes
4/20/2021	Zane Olsen	140501CBBTWW01	San Rafael	24 Road Bridge	1,003	Yes
4/21/2021	Zane Olsen	140501CBBTWW01	San Rafael	Cottonwood Wash	2,717	Yes
4/22/2021	Zane Olsen	140501CBBTWW01	Green	Swasey's	3,611	Yes
Total:					10,988	

Table 2.

Upper Colorado River Recovery Program fish remaining on station as of fall 2021.

Species	Year Class	Number	Average Size (mm)	Number of Ponds
Bonytail	2016	30,493	252.9	8
Bonytail	2019	15,666	198.23	3
Bonytail	2020	21,495	154.15	4
Razorback	Brood	319	438.87	1
Total:		67,973		