

I. Project Title: Wahweap Operation and Maintenance

II. Bureau of Reclamation Agreement Number: R14AP00007

Project/Grant Period: Start date (Mo/Day/Yr): 05/01/2014
End date: (Mo/Day/Yr): 9/30/2018
Reporting period end date: 9/30/2014
Is this the final report? Yes _____ No X

III. Principal Investigator(s):

Zane Olsen
Utah Division of Wildlife
P.O. Box 286
Big Water UT 84741
435-675-3714
zaneolsen@utah.gov

IV. Abstract:

Wahweap State Fish Hatchery, located at Big Water, Utah, rears bonytail for stocking in the Upper Colorado River Basin for the Upper Colorado River Recovery Program. Wahweap also maintains a refuge population of razorback sucker brood stock for the Upper Colorado River Recovery Program.

V. Study Schedule: On going

VI. 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

VII. Accomplishment of FY 2014 Tasks and Deliverables, Discussion of Initial Findings and Shortcomings:

- Wahweap Hatchery Superintendent assisted the Recovery Program in staffing the information booth at the Colorado River Water Users Association annual Conference and the Utah Water Users Conference. Wahweap Staff provided live bonytail for the display and took care of them for the duration of the meetings.

- Wahweap Hatchery personnel assisted the Bureau of Reclamation and National Park Service with a Native Fish Aquarium display at the Carl Haden Visitor Center at the Glen Canyon Dam. This tank displays razorback sucker and bonytail chub. The tank was discontinued for FY 2014.
- Wahweap had an enormous year in bonytail reproduction and was able to stock/transfer 103,854 fish. Fish were in great shape averaging 105.1 millimeters total length (mm TL) and 11.9 grams (g). Fish had an average fat content of 3.27, a C-factor of 2,477, and no deformities were observed in our sub sample.

Wahweap also PIT-tagged 15,671 fish in October 2013 and then stocked them in May 2014. Fish were also in great shape coming out of the winter months with a fat content of 2.65, a C-factor of 3.11, a 35% male to 65% female sex ratio, and no deformities were observed in our sub sample. Fish averaged 235.5mm in length and 117.6g, with over 10,000 of them 250mm plus.

Colorado Fish Stocked in FY-2014

Stock Date	Contact Name	Lot #	River Name	Stocking/Transfer Location	# Stocked	Tagged
11/23/2013	David Ward	120501CBBTWW01	N/A	FWS, Flagstaff AZ	5,093	NO
11/25/2013	Zane Olsen	120501CBBTWW01	Colorado	Colorado Department of Transportation Pond, CO	40,238	NO
11/26/2013	Greg Garnett	130501CBBTWW01	N/A	Lake Mead Hatchery, AZ	52,600	NO
5/21/2014	Zane Olsen	130501CBBTWW02	Dolores	Rio Mesa Res. Group Camp Ground	5,923	NO
Total Number of YOY 2014 Stocked:					103,854	

5/21/2014	Zane Olsen	100501CBBT-Dexter-01	Dolores	Rio Mesa Res. Group Camp Ground	5,280	Yes
5/27/2014	Zane Olsen	100501CBBT-Dexter-01	White	Bonanza Bridge	5,233	Yes
5/29/2014	Zane Olsen	100501CBBT-Dexter-01	San Rafael	Lower San Rafael Bridge	5,158	Yes
Total Number of Adult Fish Stocked:					15,671	

- Fish were also treated for Asian Tape worm with Praziquantel @ 2.5 milligrams per liter (mg/L) for a 24-hour static bath before tagging and no worms were observed. Fish will again be treated before stocking/transfer for confirmation.
- Wahweap used 60 bonytail (young of year 2010, 2011, 2014) for the yearly Fish Health Inspection. Fish over all were in great shape. During this year's inspection we observed no Asian Tapeworm (*Bothriocephalus acheilognathi*). Infection across the hatchery is very low and Wahweap is working closely with Dr. Chris Wilson (State of Utah Fish

Pathologist) in developing a plan 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 DWR14-094 and DWR-095.

- Wahweap Hatchery has conducted Health Condition Profiles (HCP) on all fish stocked in FY-2014.
- Wahweap was able to provide school tours to over 1,500 students this year from Arizona, Utah, and the Navajo Nation.

Colorado River fish remaining on station in the fall of 2014:

Species	Year class	Number	Average Size	# of Ponds
Bonytail	2010	31,662	226.0mm	7
Bonytail	2011	34,666	210.15mm	6
Bonytail (WW)	2014	29,687	65.58mm	1
Razorback	Brood	217	471.0mm	1
Razorback	Brood 1	668	279.53mm	1
	Total Number:	96,900		

VIII. Recommendations:

Continue rearing bonytail at Wahweap to meet the stocking needs of the Recovery Program. Maintain razorback back-up brood stock. Supply either species as requested by the Recovery Program. PIT-tag bonytail in the fall and stock in the spring. Work on the eradication of Asian Tapeworm from the Wahweap Hatchery rearing facility. Evaluate some needed upgrades.

IX. Project Status:

Ongoing fish culture, propagation, and development at the Wahweap State Fish Hatchery.

X. FY 2014 Budget Status

A. Funds Provided:	\$204,000
B. Funds Expended:	\$204,000
C. Difference:	\$ 0.00
D. Percent of the FY 2014 work completed:	100%
E. Recovery Program funds spent for publication charges:	\$ 0.00

XI. Status of Data Submission: PIT tag data will be submitted to database manager after spring stocking 2015.

XII. Signed: Zane Olsen Principal Investigator Date November 10, 2014