

# Grand Junction *Fish and Wildlife Conservation Office*

Interior Region 7



Photo by Mike Gross USFWS.

A cold frozen Colorado River below Price Stubb Diversion near Palisade, Colorado, December 2020.

## ***Highlights - November-December 2020***

- **Grand Junction Fish and Wildlife Conservation Office (FWCO)**
  - November-December Activities:
    - Travis Francis named Deputy Project Leader for Grand Junction Fisheries Office.
    - Data submissions and Annual Reports prepared for submission.
- **Ouray National Fish Hatchery, Grand Valley Unit (Ouray NFH-GVU)**
  - November-December Activities:
    - Grading Razorback Sucker (*Xyrauchen texanus*) at 24 Road Hatchery.
    - Using INAD approved anesthetic while measuring Razorback Sucker at Palisade High School Fish Hatchery .
    - Daily activities at 24 Road Hatchery indoor recirculation facility.
- **Coordination activities with partners update**

# November-December 2020

## Grand Junction Fish and Wildlife Conservation Office

### Activities: Travis Francis named Deputy Project Leader for the Grand Junction Fisheries Office.



Travis Francis has accepted the role of Deputy Project Leader with Grand Junction Fish and Wildlife Conservation Office (Grand Junction FWCO). Travis will continue to conduct the ongoing field projects he is currently involved in, but will also take over supervising Grand Junction FWCO's staff of Biological Technicians at the beginning of next field season. Travis has been a familiar face around the Upper Colorado River Endangered Fish Recovery Program (UCREFRP) with 18 years of experience performing fisheries research on and around the upper Colorado River basin working for the U.S. Fish and Wildlife Service (USFWS) and the UCREFRP. As a fish biologist for USFWS Region 6, Travis has performed a plethora of fisheries research associated with both the UCREFRP and San Juan River Basin Recovery Implementation Program. For nearly two decades, his responsibilities have ranged across a number of areas including: database manager for the UCREFRP, Humpback Chub (*Gila cypha*) biologist in charge of monitoring populations in Black Rocks on the Colorado River, propagating of Razorback Sucker (*Xyrauchen texanus*) and Bonytail (*Gila elegans*) at the Ouray National Fish Hatchery – Grand Valley Unit, operating two major fish passage facilities on the Colorado and Gunnison rivers, conducting nonnative fish removal in the Colorado, Yampa and San Juan rivers as well as conducting native fish surveys in Lake Powell. Furthermore, Travis has authored numerous annual USFWS agency reports, scopes of work and journal publications, as well as, played a pivotal role in the design and development of the STReAMS integrated database for the Recovery Program. Travis has repeatedly proven himself to be an asset to the Upper Colorado River Endangered Fish Recovery Program and U.S. Fish and Wildlife Service. He is an exceptional employee and we wish him the best in his new position.

Photo by Tristan Francis, Fruita, Colorado.



Travis Francis holding an endangered Colorado Pikeminnow (*Ptychocheilus lucius*) before releasing it into the Colorado River near Fruita, Colorado. Photo taken Spring 2020.

# November-December 2020 Grand Junction Fish and Wildlife Conservation Office: Reports submitted



## Population Status of Humpback Chub, *Gila cypha*, and Catch Indices and Population Structure of Sympatric Roundtail Chub, *Gila robusta*, in Black Rocks, Colorado River, Colorado, 1998-2017



Picture 1. Humpback chub on grid board (2012). Photo credit: T. Francis, USFWS.

Upper Colorado River Endangered Fish Recovery Program Project Number 131 (22a3)

Draft Report

November, 2020

Submitted by Travis Francis

## Monitoring Large-Bodied, Young-of-Year, and Larval Fishes of the Upper Colorado River and the Lower Gunnison River, Colorado in Response to Reoperation of the Aspinall Unit Reservoirs 2011-2016

Derek Elverud

Grand Junction FWCO  
U.S. Fish and Wildlife Service  
Grand Junction, Colorado

Draft Report--10/30/2020  
Upper Colorado River Endangered Fish Recovery Program  
U.S. Fish and Wildlife Service  
Denver, Colorado

Upper Colorado River Endangered Fish Recovery Program Project Number 163

U.S. Bureau of Reclamation Agreement R15 PG00083

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Submitted by Derek Elverud

### COLORADO RIVER RECOVERY PROGRAM FY-2016-2017 SCOPE OF WORK *Aspinall-related fish monitoring - Gunnison and Colorado rivers*

Project No. 163

Reclamation Agreement number: R13PG40018  
Reclamation Agreement term: June 3, 2013 - Sep. 30, 2017

Lead Agency: U.S. Fish and Wildlife Service  
Colorado River Fishery Project

Submitted by: Derek Elverud, Fish Biologist  
Barb Osmundson, Contaminants Specialist  
Dale Ryden, Project Leader

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Date Last Modified: April 25, 2014

**Category:**

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

**Expected Funding Source:**

- Annual funds
- Capital funds
- Other (explain)

I. Title of Proposal: Monitoring multiple life stages of the fish community in the lower Gunnison and upper Colorado rivers, with emphasis on Colorado pikeminnow and razorback sucker populations, in response to reoperation of the Aspinall Unit and implementation of the Selenium Management Plan.

II. Relationship to RIPRAP:

- Gunnison River Action Plan: Gunnison River Mainstem
  - V. Monitor populations and habitat and conduct research to support recovery actions.
    - V.A. Conduct research to acquire life history information and enhance scientific techniques required to complete recovery actions.
- Colorado River Action Plan: Colorado River Mainstem
  - V. Monitor populations and habitat and conduct research to support recovery actions.
    - V.A. Conduct research to acquire life history information and enhance scientific techniques required to complete recovery actions.

# 163 Aspinall-related fish monitoring - Gunnison and Colorado rivers: FY 2015-2016

Submitted by Derek Elverud

Photo by Josh Terrell, Sacramento, CA

# November-December 2020 Ouray National Fish Hatchery, Grand Valley Unit Activities: Grading 2020 Razorback Sucker at 24 Road Hatchery.



December 2 - Just like humans, all fish grow at different rates. Some grow fast and some grow slow. Periodically, Ouray National Fish Hatchery - Grand Valley Unit (Ouray NFH-GVU) will grade the Razorback Sucker (*Xyrauchen texanus*), separating them into similar sizes. Grading fish is a necessary aquaculture technique used to help maximize growth, reduce cannibalism, prevent competition between large and small fish, and meet management requirements. These 2020 year class Razorback Sucker were hatched April 28, 2020 and were reared in the grow-out ponds at Horsethief Canyon Native Fish Facility in Fruita, Colorado where they spent the warm summer months. The young endangered fish were brought back into the indoor 24 Road Hatchery facility for the winter where water temperatures can be manipulated in order to maximize growth. They have grown significantly since being brought indoors, necessitating a trip through the bar grader where they were separated into two size classes. The smaller sized fish are currently 155-165 millimeters, and the larger size is 240-265 millimeters. Both size classes will be closer to 350-400 millimeters before they are released into the upper Colorado River fall of 2021. Photos by Brian Scheer USFWS.



**Photo left:** Razorback Sucker are graded at Ouray NFH-GVU by gently gathering them and placing them into a bar grader which allows small fish to pass through the bars, leaving the larger ones within the grader. The bars can be separated at different intervals allowing for different size fish gradings.

**Photo top right:** This large size class Razorback Sucker averaged 258 millimeters.

**Photo bottom right:** This smaller size class Razorback Sucker averaged 163 millimeters.

# November-December 2020

## Grand Junction Fish and Wildlife Conservation Office

### Activities: Using INAD approved anesthetic while measuring Razorback Sucker at Palisade High School Fish Hatchery.



December 10 - Palisade High School (PHS) Fish Hatchery students took lengths and weights on their first year's crop of endangered Razorback Sucker (*Xyrauchen texanus*) being cultured by students on-campus. The fish were anesthetized with Aqui-S 20E as an alternative to the commonly used anesthetic chemical MS-222 to help lower stress of the fish during handling. The PHS Fish Hatchery was recently approved to be a study investigator within the Investigational New Animal Drug program (INAD) process for the U.S. Fish and Wildlife Aquatic Animal Partnership Program (AADAP). Students observed and documented the time to attain a "handleable" level once the fish were under sedation. After sedation, students monitored and documented the time for these fish to be deemed "recovered" (up and swimming). AADAP will use this data in their database to provide guidance to other hatcheries when using Aqui-S 20E in the future. The nearly 200 Razorback Sucker being cultured by students in partnership with the Upper Colorado River Endangered Fish Recovery Program at PHS recovered from the handling great, exhibiting zero signs of stress and no mortalities in subsequent days. Students learned a wide array during this process including numerous useful aquaculture techniques, applying for and conducting a research project and the value of partnerships in the scientific community. These endangered Razorback Sucker are planned to be stocked into the Colorado River at Palisade, Colorado during Spring 2021. The current lengths of the fish ranged from 70-151 millimeters but will be closer to 300 millimeters when fish are released into the Colorado River. Photos by Mike Gross USFWS.



**Top left:** PHS Fish Hatchery manager and science teacher Pat Steele carefully measuring the Aqu-S 20E anesthetic before students handle the fish.

**Top right:** PHS student fish culturist Elle Steele observing and documenting the time it takes for a Razorback Sucker to recover from the anesthetic.

**Bottom left:** Fish culturist Kyle Roten carefully anesthetizing the Razorback Sucker before handling them as a tool to lower stress on the young fish.

**Bottom right:** Fish culturist Addie Steele weighing the young sedated fish.



# November-December 2020

## Ouray National Fish Hatchery, Grand Valley Unit

### Activities: Daily activities at 24 Road Hatchery.



Ouray National Fish Hatchery-Grand Valley Unit (Ouray NFH-GVU) currently utilizes two facilities in order to meet stocking goals of endangered Razorback Sucker and Bonytail: 24 Road Hatchery (indoor recirculating facility), and Horsethief Canyon Native Fish Facility (outdoor grow-out pond facility). During the cold winter months, Razorback Sucker and Bonytail are transported back to the 24 Road Hatchery indoor facility where water temperatures can be manipulated to maximize growth of these endangered fish during the colder winter months. Below are just some of the essential daily activities that employees at Ouray NFH-GVU perform every day, 365 days a year at 24 Road Hatchery. Photo by USFWS staff.



**Left:** “Hatchery 1” **Right:** “Hatchery 2”. 24 Road Hatchery has two independent recirculating aquaculture systems under one roof. The two systems have a total of 91 tanks with roughly 32,000 gallons of water when at full operating capacity.



The 91 automatic fish food feeder belts are pulled back and wiped down every morning. The feed is dispersed into every tank for 12 hours, which in-turn allows the hatchery filtration systems ample time to retain proper water quality before the next feeding.



The solids are siphoned daily between effluent standpipes on all culture tanks. This helps to reduce the Biological Oxygen Demand (BOD) placed on the system.



A 7% water change is performed on both recirculating systems daily to help lower nitrite levels and other undesirable. This water tank holds 1,500 gallons of fresh water.



**Photo left:** One of the two recirculating systems at 24 Road Hatchery uses a biological bead filter to isolate solids (uneaten fish food and fecal material). The bead filter holds most of the heterotrophic bacteria used in the breakdown of organics. Depending on the densities of fish in “Hatchery 1”, the bead filter needs manual “backflushing” to remove the solids from the system every one to four days. In photo: Haden VanWinkle.



10 to 15 culture tanks are typically scrubbed down daily. In photo: Mike Berg



Haden VanWinkle fabricating a new upgraded measuring board. In photo: Haden VanWinkle.

# *November-December 2020*

## *Grand Junction Fish and Wildlife Conservation Office: Meetings and coordination activities with partners.*



**O**uray NFH-GVU 11/9/2020: Dale Ryden met with Kevin Niemela regarding the Bonytail propagation program for the national programmatic hatchery review document Kevin's preparing for submission to USFWS Headquarters

11/10/2020: Dale and Brian Scheer met with representatives federal, state and tribal partners to discuss the future hatchery needs for the Upper Colorado River Endangered Fish Recovery Program (UCREFRP) and San Juan River Basin Recovery Implementation Program (SJRBRIP)

12/7/2020: Ouray NFH-GVU staff delivered excess razorback sucker (previously scheduled to be destroyed) to David Ward of the USGS's Grand Canyon Monitoring and Research Center (GCMRC) to be used in predation experiments related to reintroduction of native fish species back into the western Grand Canyon

December 2020: Ouray NFH-GVU worked with Palisade High School (PHS) to gain approval for PHS to be a study investigator within the Investigational New Animal Drug (INAD) program (part of the USFWS's Aquatic Animal Drug Approval Partnership program - AADAP). This approval allows PHS Fish Hatchery staff to use Aqui-S 20E anesthetic for fish handling activities at their endangered fish hatchery. Mike Gross and Brian Scheer are the INAD program's sponsors/overseers for this project

**G**rand Junction FWCO 11/2, 11/10 and 11/17/2020: Dale - Three meetings between Legacy Regions 2 and 6 (FAC and Ecological Services) and the two endangered fish Recovery Programs regarding the current status and future anticipated direction of Colorado River endangered fish recovery issues.

11/4/2020: Dale - SJRBRIP Coordination Committee meeting (included federal, state, tribal, water user and environmental partners)

11/5/2020: Dale - UCREFRP Biology Committee meeting (included federal, state, water user and environmental partners)

11/9/2020: Dale met with USFWS (FAC and ES) and UCREFRP staff regarding the Recovery Program's annual Sufficient Progress letter

11/23/2020: Dale met with Legacy Region 6 FAC Project Leaders and Regional Office staff to discuss new format for FY-2021 Supervisory Employee Performance Appraisal Plans

12/15-17/2020: Ben Schleicher - SJRBRIP Biology Committee meeting and Habitat Workshop (included federal, state, tribal, water user and environmental partners)



# *Grand Junction Fish and Wildlife Conservation Office Staff*

**Project Leader - Dale Ryden**  
**Administrative Officer - Vacant 43 months**

## **Grand Junction FWCO Staff:**

**Deputy Project Leader - Travis Francis**  
**Fish Biologist - Darek Elverud**  
**Fish Biologist - Ben Schleicher**  
**Biological Science Technician - Michael Berg**  
**Biological Science Technician & Educational Outreach - Mike Gross**

## **Ouray National Fish Hatchery - Grand Valley Unit Staff:**

**Fish Biologist - Brian Scheer**  
**Biological Science Technician - Haden VanWinkle**  
**Biological Science Technician - Aaron Matthews**

# *Grand Junction Fish and Wildlife Conservation Office About Us*



The Grand Junction Fish and Wildlife Conservation Office in Grand Junction, Colorado (formerly known as Colorado River Fishery Project, aka CRFP) consists of both a field office (FWCO) and an endangered fish hatchery, known as the Ouray National Fish Hatchery-Grand Valley Unit.

The CRFP field office was established in 1979 to perform research and management actions aimed at helping recover four endangered fish species of the upper Colorado River basin: Razorback Sucker, Colorado Pikeminnow, Humpback Chub, and Bonytail.

Ouray NFH-GVU was established in 1992 as CRFP's endangered fish propagation center and currently produces over 20,000 endangered Bonytail and Razorback Sucker annually.

The Grand Junction Fish and Wildlife Conservation Office works in the Colorado, Gunnison, San Juan and Yampa rivers in Colorado, Utah and New Mexico, as well as in Lake Powell in Utah.

## ***Ouray National Fish Hatchery - Grand Valley Unit***

### **Current fish on station:**

#### ***Horsethief Canyon Native Fish Facility***

Razorback Sucker Broodstock 500 (325mm-425mm)

Bonytail 5,000 (90mm-140mm)

#### ***24 Road Hatchery***

Razorback Sucker 13,000 (180mm-265mm)

Razorback Sucker 3,600 (140mm-165mm)

Bonytail 9,000 (130mm-170mm)