

NEVADA DEPARTMENT OF WILDLIFE
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORTS

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2018

NATIVE SPORT FISHERIES MANAGEMENT
MOUNTAIN WHITEFISH
EASTERN REGION



**NEVADA DEPARTMENT OF WILDLIFE, FISHERIES DIVISION
ANNUAL JOB PROGRESS REPORT**

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NEVADA DEPARTMENT OF WILDLIFE, FISHERIES BUREAU ANNUAL PROJECT REPORT

State: Nevada
Project Title: Statewide Fisheries Program
Job Title: Native Sport Fish Management
Sub Job Title: Mountain Whitefish
Period Covered: January 1, 2018 through December 31, 2018

SUMMARY

In 2018, 121 Mountain Whitefish were moved from the lower Salmon Falls River and stocked upstream of the permanent fish barrier. No Mountain Whitefish had been found above the barrier since 1972, but their presence was confirmed downstream of the barrier in 2016. Further reintroduction efforts are warranted in future years to establish Mountain Whitefish in the remainder of the Salmon Falls drainage.

BACKGROUND

The Salmon Falls River originates in the northeastern portion of Elko County and encompasses a drainage area of approximately 1,000 square miles. The land ownership is a mixture of United States Forest Service (USFS), Bureau of Land Management (BLM), and privately owned lands. The majority of privately owned lands in Nevada are located in the lower reaches of the river and are active cattle ranches. The river flows in a northerly direction for 30 miles where it enters Idaho and then the Salmon Falls Reservoir. The river is one of the largest in Nevada with a very large fish assemblage present. Native species to the drainage include Redband Trout (*Oncorhynchus mykiss gairdneri*), Mountain Whitefish (*Prosopium williamsoni*), Redside Shiner (*Richardsonius balteatus*), Speckled Dace (*Rhinichthys osculus*), Chiselmouth (*Acrocheilus alutaceus*), Longnose Dace (*Rhinichthys cataractae*), Mountain Sucker (*Catostomus platyrhynchus*), Largescale Sucker (*Catostomus macrocheilus*), Bridgelip sucker (*Catostomus columbianus*), Northern Pikeminnow (*Ptychocheilus oregonensis*), and Paiute Sculpin (*Cottus beldingii*). Northern Leatherside Chub (*Lepidomeda copei*) is believed to be native to the drainage but has not been documented recently. Chinook Salmon (*Oncorhynchus tshawytscha*) is extinct from the drainage.

Introduced species include Smallmouth Bass (*Micropterus dolomieu*), Lahontan Cutthroat trout (*Oncorhynchus clarkii henshawi*), Brown Trout (*Salmo trutta*), Rainbow Trout (*Oncorhynchus mykiss*), Channel Catfish (*Ictalurus punctatus*), Brook Trout (*Salvelinus fontinalis*), and Yellow Perch (*Perca flavescens*). The Salmon Falls River has an extensive history of stocking of nonnative trout, primarily Brown Trout, hatchery produced Rainbow Trout, and Brook Trout.

In August 1960, the Salmon Falls River system was treated with rotenone to reduce an abundant "coarse" fish population. The following year, large numbers of coarse fish were observed ascending the lower river system from Salmon Falls Reservoir. For

the first few years following the rotenone treatment, the trout fishery was noted to have improved but the deterioration of the fishery was soon evident in the lower river reaches within Nevada. A permanent fish barrier across the river near the Idaho state line was completed by the BLM in 1972. The river was retreated with Antimycin A in 1972 and it was noted that a complete kill did not occur. The river was restocked with hatchery Rainbow Trout and Brown Trout in the fall of 1972. All of the native fishes are known to have survived the treatments, with the exception of Mountain Whitefish and Northern Leatherside Chub.

Eight 100-meter transects were sampled within the Burnt Meadow reach of the river in 2015. A very sizeable and healthy Brown Trout population was documented, but no Mountain Whitefish or Northern Leatherside Chub were found.

In 2016, five stations on the Salmon Falls River were sampled within the lower stream reaches in Nevada. A total of 16 Mountain Whitefish were sampled during the survey, all below the permanent barrier constructed in 1972. No Mountain Whitefish were present upstream of the barrier. Approximately 2 to 3 age classes of Mountain Whitefish were sampled, indicating that they were successfully reproducing. During the survey, nine Mountain Whitefish were opportunistically moved upstream of the barrier during the survey.

In 2017, 25 Mountain Whitefish were moved upstream of the barrier. Eight additional fish species were sampled, all of them native with the exception of Smallmouth Bass, Brown Trout, and Rainbow Trout. Fish species captured included Redside Shiner, Speckled Dace, Longnose Dace, Chiselmouth, Northern Pike Minnow, and three species of suckers. Additionally, a single dead Walleye (*Sander vitreus*) was located on the stream bank while sampling. Walleye provides a common and popular recreational fishery in Salmon Falls Reservoir in Idaho, but this is the first time it has been documented in the Salmon Falls River in Nevada.

OBJECTIVES and APPROACHES

Objective: Native Sport Fish Management

Approaches:

- Reintroduce Mountain Whitefish in the Salmon Falls River at select locations above the permanent fish barrier.

PROCEDURES

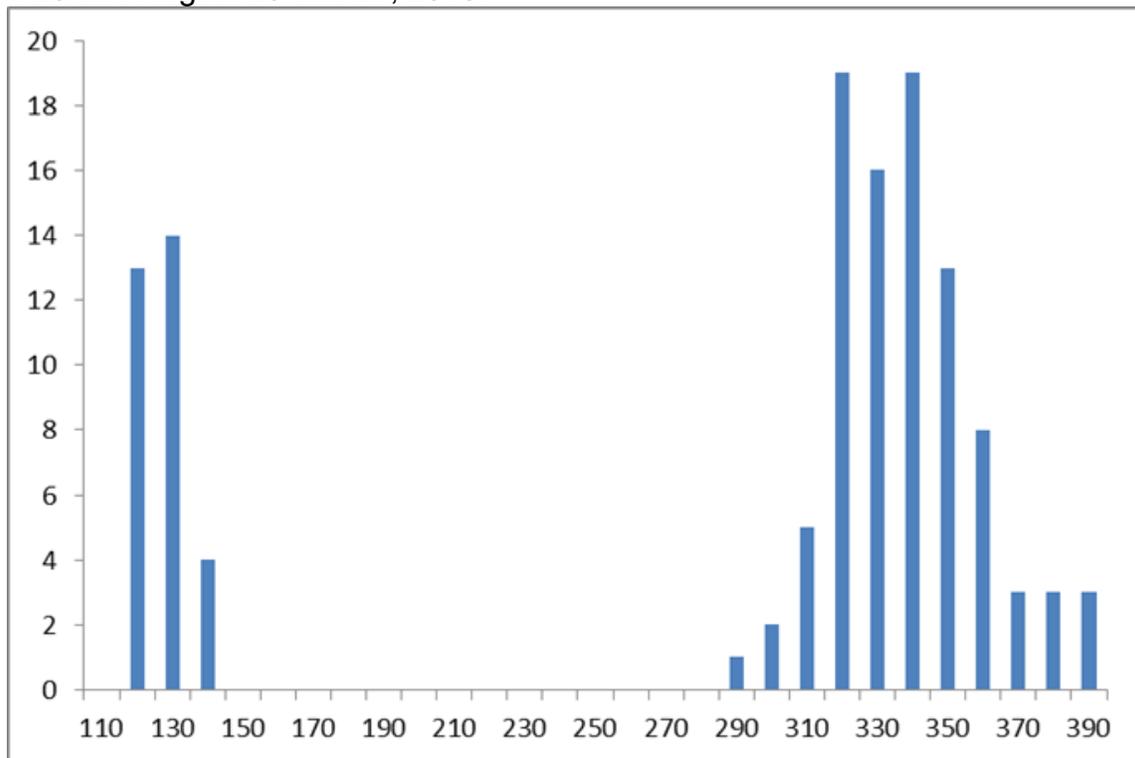
The project was designed to restore the Mountain Whitefish population upstream of the permanent barrier. Selected sites directly below and up to a half-mile downstream of the permanent barrier were opportunistically electroshocked with a Smith-Root LR-20B Backpack Electrofisher. Due to the location being inaccessible to vehicular travel, all captured Mountain Whitefish were placed in livewell buckets and carried upstream of the

barrier where they were released. All Mountain Whitefish were measured and checked for body condition before release.

FINDINGS

A total of 121 Mountain Whitefish were moved upstream of the barrier. Figure 1 illustrates the length frequency of the Mountain Whitefish moved. Approximately 2 to 3 age classes of Mountain Whitefish were represented in the sample moved above the barrier.

Figure 1. Length frequency of Mountain Whitefish from the Salmon Falls River on June 27 to 29 and August 20 and 21, 2018.



Eight additional fish species were sampled; all of them were native with the exception of Smallmouth Bass, Brown Trout, and Rainbow Trout. Fish species captured included Redside Shiner, Speckled Dace, Longnose Dace, Chiselmouth, Northern Pike Minnow, Sculpin spp., and three species of suckers.

Additionally, two walleye were sampled. In 2017, a single dead walleye was located on the stream bank while sampling and served as the only record of walleye in the Salmon Falls River. Walleye provides a common and popular recreational fishery in Salmon Falls Reservoir in Idaho, but this is the first time it has been documented in the Salmon Falls River in Nevada. The presence of Walleye in the river confirms the need to maintain a functional fish barrier in the river. The barrier is preventing non-native species currently found in Salmon Falls Reservoir from invading the remainder of the watershed.

MANAGEMENT REVIEW

The single objective to reintroduce Mountain Whitefish above the Salmon Falls River fish barrier was completed in 2018.

RECOMMENDATIONS

Mountain Whitefish should continue to be reintroduced to the remainder of the Salmon Falls River above the fish barrier where habitat is suitable. In addition to the river reach directly above the permanent barrier, another reach to stock Mountain Whitefish should include the Burnt Meadows area of the river.

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