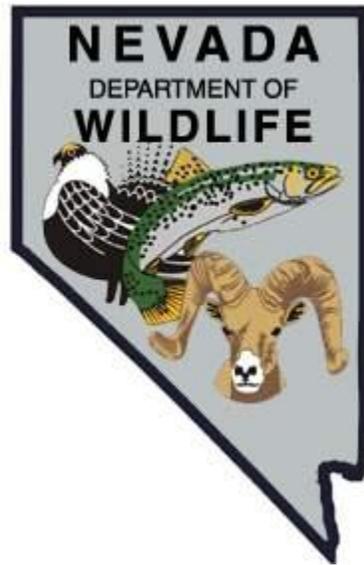


NEVADA DEPARTMENT OF WILDLIFE
STATEWIDE FISHERIES MANAGEMENT



FEDERAL AID JOB PROGRESS REPORTS
F-20-50
2014

LAHONTAN CUTTHROAT TROUT MANAGEMENT
EASTERN REGION



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

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

State: *Nevada*
Project Title: *Statewide Fisheries Program*
Job Title: *Lahontan Cutthroat Trout Management*
Subjob Title: *Current Creek LCT Introduction*
Period Covered: *January 1, 2014 through December 31, 2014*

SUMMARY

The planning, permitting, and conducting of the Currant Creek Rotenone treatment was completed in 2013. The Currant Creek Treatment was successful at removing all non-native fish from the stream as none was found during the 2014 electroshocking survey. A total of 17 LCT was captured from T Creek and transported to Currant Creek.

BACKGROUND

The Marys River Subbasin has the highest potential miles (169) and the greatest metapopulation potential (potential for interconnected Lahontan cutthroat trout, LCT, populations) of the nine subbasins within the Humboldt River Basin population segment of LCT. As such, the Marys River Subbasin is a very high priority for management activities. As of the most recent surveys, at least three streams within this subbasin have been found to contain non-native trout. In 1999, brook trout were found in the lower portion of T Creek and in the Orange Bridge area of the mainstem Marys River, while brook trout, rainbow trout, and possible cutthroat-rainbow trout hybrids were found in the 1998 survey of Currant Creek. An intensive physical removal project is being undertaken on the small brook trout population in the mainstem Marys River, while chemical removal is being proposed for the lower portion of T Creek and the lower portion of Currant Creek.

Currant Creek is located on the west side of the Snake Mountains in Elko County (T42N, R60-61E). This stream flows through approximately 10 miles of private land owned by the Marys River Ranch (including an irrigation reservoir of approximately two surface acres and a small stock pond on an upper tributary), two miles of private land owned by the Gibbs Ranch, and 2.5 miles of public land administered by the BLM. Elevations range from 5805' at the confluence with T Creek to 7400' at the uppermost headwater spring.

The most recent habitat and fish population survey on Currant Creek occurred in 1998. Aquatic habitat conditions were rated as good, with all parameters except pool quality rated fair to excellent. Between the surveys in 1979 and 1998, there was an improvement in pool:riffle ratio, pool quality, bank cover, and bank stability. Riparian habitat conditions also improved and were found to be fair to excellent at all stations except S#5, which was found to be poor. Changes in livestock management in the mid-

1980's and mid-1990's by the Marys River Ranch has led to an improvement in the overall habitat conditions on Currant Creek.

Brook trout, rainbow trout, and possible cutthroat-rainbow trout hybrids were found in Currant Creek in 1998. Brook trout occupied approximately six stream miles, from an elevation of 6050 to 6960 ft (just below the reservoir). No brook trout were found above the dam. Rainbow trout occupied approximately four miles from an elevation of 6520 to 7400 ft and in the stock watering pond on the upper tributary. All fish observed in the reservoir appeared to be rainbow trout. The lone trout that was identified as a possible hybrid was caught below the reservoir at an elevation of 6520 ft. Spotted frogs were also found on Currant Creek around the reservoir and in the stock watering pond in the upper tributary. No frogs were found in the large beaver dam complex below the reservoir, but they probably do occur there, as this is the only other "pond-like" habitat to be found on the stream. In 2012, the Marys River Ranch in cooperation with the USFWS Partners for Fish and Wildlife Coordinator constructed a fish barrier at the lower end of their property so the treatments of Currant and lower T creeks could be conducted in separate years.

In 2013, Currant Creek was treated using Rotenone to eradicate non-native trout species. Approximately 25 gallons of Rotenone was used for the entire two-day treatment. Station attendant observations documented a large number of deceased trout within the treatment area, with the tributary showing the lowest density. Brook trout, rainbow trout, and rainbow-cutthroat hybrids were the only trout species found. No live fish were documented by any of the station attendants after noon on the first day of treatment and it is anticipated that the project was a complete success. During the treatment, Columbia spotted frogs were documented at the reservoir, in the beaver ponds below the reservoir, as well as a small stock pond that was detached from the stream. These areas were visually monitored during the treatment as well as a week after treatment. Both inspections found frogs alive and healthy.

OBJECTIVES and APPROACHES

Objective: Native Sport Fisheries Management

Approach:

- Plan, permit, and conduct the rotenone treatment of Currant Creek (Marys River Subbasin) and its tributaries to remove all non-native trout (completed in 2013).
- Evaluate the stream through electrofishing surveys for two years to confirm the successful eradication of non-native trout.

PROCEDURES

The entire length of Currant Creek was electroshocked using a Smith-Root LR-20B Electroshocker and single pass method. Once the stream was declared fishless, LCT from T Creek were captured, transported via a live well, and then transplanted into known quality habitat locations along Currant Creek.

FINDINGS

The Currant Creek treatment was successful at removing all non-native fish from the stream as none were found during the electroshocking survey. A total of 17 LCT were captured from T Creek and transported to Currant Creek. No stress was observed during the reintroduction.

MANAGEMENT REVIEW

The planning, permitting, and conducting of the Currant Creek Rotenone treatment was completed in 2013. The Currant Creek Treatment was successful at removing all non-native fish from the stream as none were found during the 2014 electroshocking survey. A total of 17 LCT were captured from T Creek and transported to Currant Creek. LCT transplanting will continue until a naturally reproducing population is established.

RECOMMENDATIONS

Augmentations should be continued in 2015 to bolster the population in other portions of Currant Creek. LCT from upper T Creek will most likely be the donor source for future reintroductions. It will be necessary to conduct a fish population survey in the future to document the success of the reintroduction and to monitor the LCT population.

Project Participants:

- Nevada Department of Wildlife, U.S. Fish and Wildlife Service, and Marys River Ranch.

Project Duration (All Past, Present, and Planned Segments):

- Beginning July 1, 1995 and continuing until the species is delisted.

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Date: February 2015