

Project Summary
Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Assess the Recovery of Westslope Cutthroat Trout and Arctic Grayling in Restoration Areas

Discipline: Natural

Type of Project: Research/Technical Assistance

Funding Agency: National Park Service

Other Partners/Cooperators: USGS, Montana Cooperative Fishery Research Unit

Student Involvement: Yes, MS Graduate Assistant

Effective Dates: 09/01/2017 - 06/30/2021

Funding Amount: \$125,357

Investigators and Agency Representative:

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Project Abstract: The overall goal of this project is to determine the status of westslope cutthroat trout and arctic grayling reintroduced in Yellowstone National Park over the past decade.

Specific objectives are to:

- 1) Conduct field investigations to determine success of westslope cutthroat trout and arctic grayling recovery efforts by assessing abundance; population size structure; individual growth and condition; and verifying that natural spawning is occurring.
- 2) Use recently collected and historical data to compare population metrics of the restored westslope cutthroat trout in East Fork Specimen Creek to that of the previous, hybridized population that was removed.
- 3) Conduct watershed-wide surveys and map the spatial distributions of westslope cutthroat trout and arctic grayling in relation to reintroduction sites within the restoration watersheds.
- 4) Use advanced molecular (genetics) techniques to estimate the relative contributions of westslope cutthroat trout sources (Sun Ranch Brood; Last Chance Creek; Geode Creek; etc.) to the recovering populations.
- 5) Make recommendations to NPS managers regarding the need (if any) for additional stocking or other conservation actions in the restoration areas.

Keywords:

Yellowstone National Park, Montana State University, westslope cutthroat trout, arctic grayling, recovery, assesment