Alberta Conservation Association

2024/25 Project Summary Report

Project Name: Native Trout Habitat Remediation

Fisheries Program Manager: Peter Aku

Project Leader: Brad Hurkett

Primary ACA Staff on Project: Troy Furukawa, Tyler Johns, Adam Peters, Kelly Riehl, Ariel Schlereth, Scott Seward, and Jacylyn Vanderfluit

Partnerships

Alberta Native Trout Collaborative
Canadian Nature Fund for Aquatic Species at Risk
Freshwater Conservation Canada
Government of Alberta
West Fraser

Key Findings

- We conducted electrofishing surveys at 23 sites in the Trout Creek watershed, covering a total of 7.52 stream kilometres (equivalent to 19,712 seconds of sample effort). This resulted in the capture of 1,308 fish of ten different species.
- There was a drastic decrease in westslope cutthroat trout (WSCT) abundance and distribution in the Trout Creek watershed since 2015.
- We completed electrofishing surveys at 21 sites in the Callum Creek watershed, sampling 5.26 stream kilometres (equivalent to 17,021 seconds of effort). This resulted in catching 1,437 fish of five different species.
- WSCT were documented for the first time in upper Callum Creek and Burton Creek and continue to occur in Sharples and Playle creeks.

- We assessed 5.2 km of off-highway vehicle (OHV) trail in the Upper McLeod River watershed for reclamation; OHV traffic will be rerouted to an existing all-weather access road.

Details

Alberta's native trout have declined significantly in abundance and distribution over the past century. Many factors are implicated in their decline, but habitat fragmentation and water quality degradation are considered critical threats to Alberta's native trout. Three hydrologic unit code 10 sub-watersheds along the East Slopes of Alberta were identified as areas for possible remediation of habitat degradation and watercourse crossings: Trout Creek, Callum Creek, and Upper McLeod River. In 2024, Alberta Conservation Association (ACA) completed watershed scale backpack electrofishing assessments in the Trout Creek and Callum Creek sub-watersheds. A total of 23 electrofishing surveys were completed in the Trout Creek sub-watershed resulting in a catch of 1,308 fish from ten species. Only two WSCT were captured at one site in King Bolt Creek, indicating a sharp decline in WSCT abundance and distribution compared to 2015 survey results. In the Callum Creek sub-watershed, we surveyed 21 sites, capturing 1,437 fish, from five different species including 156 WSCT. The highest number of WSCT were found in Sharples Creek (n = 114), followed by Playle Creek (n = 32). WSCT were also captured for the first time in upper Callum Creek (n = 7) and Burton Creek (n = 9). In the McLeod River watershed, we assessed 5.2 km of OHV trail, including five watercourse crossings, and found that the entire trail could be reclaimed, and OHV traffic rerouted to an existing all-weather access road that closely parallels the OHV trail.

Photos

Photo 1. ACA staff members Troy Furukawa, Ariel Schlereth, and Kelly Riehl electrofishing a small stream in the Callum Creek watershed. Photo: Adam Peters

Photo 2. Westslope cutthroat trout from an undocumented subpopulation captured in upper Callum Creek. Photo: Kelly Riehl

Photo 3. OHV trail leading into a watercourse crossing in the McLeod River watershed with evidence of soil erosion caused by OHV traffic. Photo: Scott Seward