Alberta Conservation Association

2024/25 Project Summary Report

Project Name: Native Trout Recovery Evaluation

Fisheries Program Manager: Peter Aku

Project Leader: Mike Rodtka

Primary ACA Staff on Project: Andrew Clough, Isabelle Crawford, Kevin Fitzsimmons, Troy Furukawa, Tyler Johns, Chad Judd, Lindsay Marley, Kade McCormick, Adam Peters, Kelly Riehl, Ariel Schlereth, and Jaclyn Vanderfluit

Partnerships

Alberta Native Trout Collaborative
Canadian Nature Fund for Aquatic Species at Risk
Government of Alberta

Key Findings

- We surveyed 35 sites across four sub-watersheds: Elk Creek, Rocky Creek, Livingstone River, and Oldman River.
- We captured 1,748 fish consisting of five species: brook trout, brown trout, bull trout, mountain whitefish, and westslope cutthroat trout (WSCT). We also captured a suspected bull trout x brook trout hybrid in Elk Creek.
- The timeseries data we collected is necessary to evaluate native trout recovery success in our study watersheds.

Details

WSCT and bull trout are listed under the *Species at Risk Act,* which identifies many anthropogenic threats to native trout in the province. Alberta's Native Trout Collaborative is a group of government and non-government organizations tasked with assessing native trout populations and promoting recovery of at-risk populations. Through this collaborative, the upper watersheds of the Clearwater and Oldman rivers were identified as priorities for native trout

recovery. Recovery effort in the watersheds began in 2017 and are ongoing including, trail remediation and decommissioning, instream habitat enhancement, and livestock exclusion fencing and off-stream watering systems. Our project is designed to help assess the success of these efforts by collecting basic fish species relative abundance, distribution, and population size structure data.

In 2024, we sampled the Elk and Rocky sub-watersheds in the upper Clearwater River and the Livingstone and Oldman sub-watersheds in the upper Oldman River using backpack and tote barge electrofishing gear. Our work continues a time series which began in 2018. Sites were 300 m (backpack) or 500 m (tote barge) in length, and we counted all captured fish by species and measured weight (g) and fork length (mm).

From July 26 to August 19, 2024, we surveyed 35 sites and captured 1,748 fish. In the upper Clearwater River study area, we sampled 20 sites and captured 827 fish including 550 bull trout. In the upper Oldman River study area, we sampled 15 sites and captured 921 fish including 133 bull trout and 751 WSCT. Catch counts do not include young-of-the-year fish. Bull trout and WSCT were the most abundant and widely distributed fish species in the Clearwater and Oldman study areas respectively. Other species captured were brook trout (n=35), brown trout (n=241), mountain whitefish (n=37), and a single suspected bull trout x brook trout hybrid in Elk Creek.

This is the first year of the project which is scheduled to continue for the next four years. Our results will allow assessment of ongoing recovery efforts to increase native trout distribution and abundance in our study areas and help inform native trout assessment and recovery techniques in the province more broadly.

Photos

Photo 1. ACA staff members approaching a tote barge electrofishing index site on the Livingstone River. Photo: Jason Blackburn

Photo 2. ACA staff member measuring a mountain whitefish from the Livingstone River. Photo: Jason Blackburn

Photo 3. Hooking scar on a WSCT from the Upper Oldman River. Photo: Jason Blackburn

Photo 4. ACA staff members backpack electrofishing Rocky Creek. Photo: Chad Judd