

Alberta Conservation Association
2023/24 Project Summary Report

Project Name: Sturgeon River Wetland (Fisheries)

Fisheries Program Manager: Peter Aku

Project Leader: Kevin Fitzsimmons

Primary ACA Staff on Project: Jason Blackburn, Isabelle Crawford, Troy Furukawa, Kade McCormick, and Ariel Schlereth

Partnerships

Lac Ste. Anne County

Key Findings

- Northern pike and walleye were the most abundant fish in Matchayaw Lake and represented by several size classes of fish.
- Majority (60%) of fish were captured in the top 3 m of the water column where dissolved oxygen was generally tolerable for fish.
- Below 3.0 m of depth, dissolved oxygen declined and became generally unsuitable for fish.
- We captured only one small-bodied fish (spottail shiner) in minnow traps.

Details

Wetlands and riparian areas are integral components of a healthy ecosystem, providing important habitat for many species of wildlife, fish, invertebrates, and plants. Alberta Conservation Association is partnering with Lac Ste. Anne County to collect baseline fisheries from the Sturgeon River and from nearby Matchayaw Lake along a 58-hectare parcel of land near the Town of Onaway that is bisected by the Sturgeon River. Our data collection is a baseline for long-term monitoring of habitat restorations at the property to improve wetland function, water quality, and enhance wildlife and fish habitat. We set seven gillnets and nine minnow traps in

Matchayaw Lake to characterize the fish community in the lake. In total, we captured 218 fish from six species comprising northern pike, walleye, white sucker, yellow perch, and lake whitefish. Northern pike and walleye were the most abundant species captured in the lake and were represented by several size classes of fish, though smaller size classes of presumably younger pike were poorly represented in our catch. Other sport species (lake whitefish and yellow perch) were captured in low abundance. We captured only one spottail shiner in minnow traps. The majority (60%) of fish were captured in the top 3 m of the water column where dissolved oxygen (DO) was generally tolerable for walleye (>5.0 mg/l) and northern pike (>3.0 mg/l). DO rapidly declined in the 3–6 m depth stratum where we captured 39% of our catch. Only two fish were captured in the 6–12 m depth stratum where DO was generally unsuitable for walleye and northern pike.

Fish, invertebrate, and water quality surveys on the mainstem of the Sturgeon River planned for 2023 have been deferred to 2024 as water levels in the Sturgeon River were too low in the spring/summer of 2023 to allow for completion of the work.

Photos



Photo 1. Measuring dissolved oxygen at Matchayaw Lake. Photo: Troy Furukawa.



Photo 2. Alberta Conservation Association staff, Kade McCormick, with walleye captured in a gill net. Photo: Troy Furukawa.

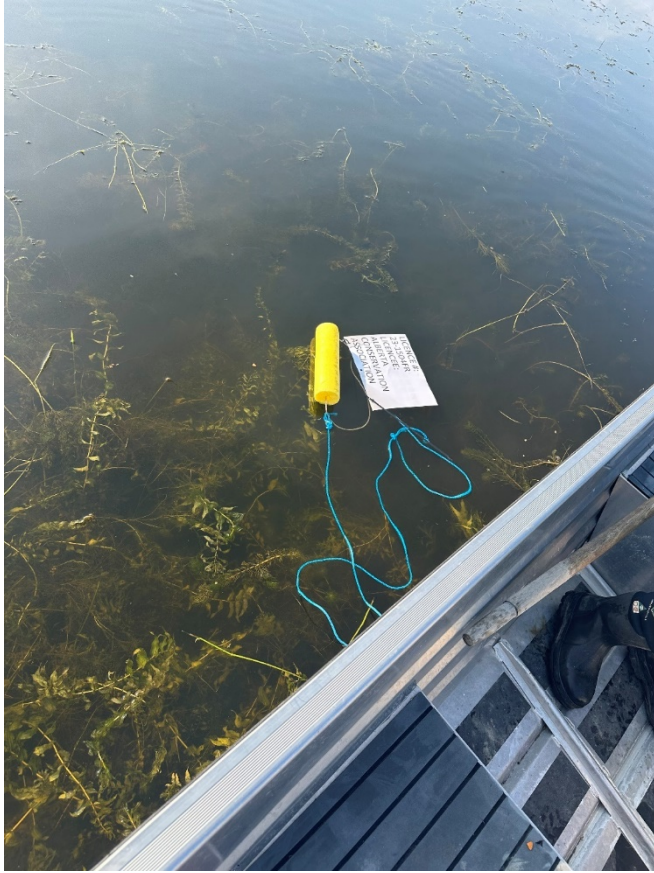


Photo 3. Minnow trap set in near-shore water. Photo: Ariel Schlereth