

## Massawepie Lake General Biological Survey (Survey #622311)

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Massawepie Lake (SL-2-59-39-P369) is a 451-acre lake within the Massawepie Conservation Easement and in the Town of Piercefield, St. Lawrence County. This survey was conducted to evaluate round whitefish populations in Massawepie Lake, where they were historically present. Massawepie Lake was first stocked with round whitefish in 2013. Since then, 15,289 round whitefish have been stocked. Round whitefish populations were previously evaluated in 2014 and 2016. No round whitefish were captured during those surveys.

On October 19, 2022, eight 150-foot experimental gillnets were set overnight. Gillnets were set in varying depths from 3.9 feet to 47.2 feet. Water temperatures and dissolved oxygen levels, recorded from the surface to a depth of 40 feet in three-foot intervals, indicated favorable conditions for the coldwater species and round whitefish (i.e., temperatures  $<10^{\circ}\text{C}$  and dissolved oxygen  $>6\text{mg/l}$ ). We captured no round whitefish; however, we captured lake trout, rainbow smelt, and lake whitefish and five other species previously captured (Table 1). Largemouth bass were captured for the first time and may have come from waters, known to have largemouth bass, that are hydraulically connected to Massawepie Lake. While there are some concerns with predation on round whitefish by bass, lake trout and rainbow smelt, lack of capture may be because we are not effectively sampling them. Massawepie Lake has ample and well partitioned habitat for round whitefish, and historically had a population. We recommend continuing efforts to restore round whitefish to Massawepie Lake, including offshore stocking of larger fish.

Table 1. Fish species and number collected during 2022 survey.

<b>Species</b>	<b>Number</b>
Brown bullhead	16
Lake Trout	3
Lake Whitefish	4
Largemouth Bass	6
Pumpkinseed	2
Rainbow Smelt	3
Rock Bass	27
Smallmouth Bass	12
White Sucker	47

