



# Little Atlin Lake

## Overview

Little Atlin Lake, in south-central Yukon, experiences high recreational fishing pressure, due to its popularity as a Northern pike fishery and its proximity to the growing Yukon capital of Whitehorse.

The Department of Environment received concerns over the current level of pressure from the Carcross/Tagish Renewable Resource Council. The Department analyzed results from the past 20 years of surveys to determine potential impacts to lake trout and Northern pike populations. This included results from two lake trout population surveys and seven angler surveys.

This summary report provides an overview of our findings and recommendations. For more information, download the full report at [Yukon.ca/fishing](http://Yukon.ca/fishing) or contact [fisheries@yukon.ca](mailto:fisheries@yukon.ca).

## Recreational Angling Pressure

Since 1998, angler survey results have shown a rise in recreational pressure. This increase in pressure is likely a result of the Yukon's population increase.

Northern pike remain the preferred targeted species on Little Atlin, with 45% of anglers seeking Northern pike. In comparison, 20% of anglers target lake trout and lake whitefish, respectively.

These results warrant the concerns raised to the Department about increased angling pressure.

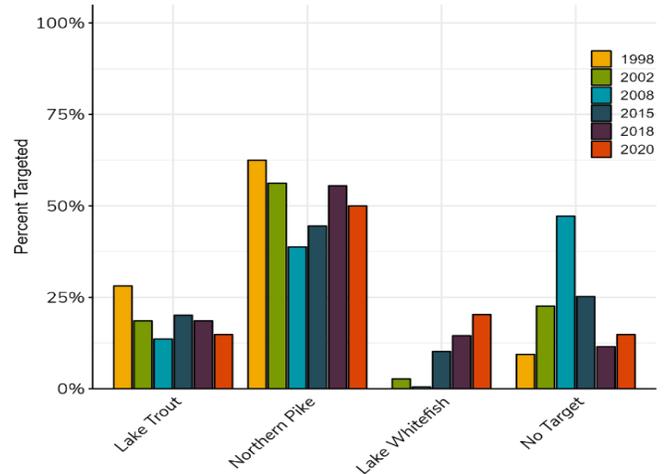


Figure 1. Percentage of reported species targeted by anglers between 1998 and 2020.

## Lake Trout

Our lake trout population estimates in 2015 and 2021 show a 64% decline over this period. During these surveys, there was also a decline in the number of lake trout captured in each net. Concerns for this population include:

- limited available habitat during the warm summer months;
- population estimates are trending downward;
- angler catch rates have decreased;
- current upper slot size does not afford protection for recruiting fish; and
- no protection for recruiting and spawning fish.

## Northern Pike

The Northern pike fishery has grown in popularity over the years. Key points regarding this population include:

- unknown population abundance;
- decreasing angler catch rates;
- decline in pike older than 8 years; and
- increased catch and release.

# Monitoring Recommendations

To continue monitoring this population and the success of the regulatory recommendations, we are proposing the following monitoring program.

## Lake Wide: Habitat Monitoring

To further understand changes in thermal habitat volume, nutrient levels, and temperature, we are recommending the following program:

- **2024:** Conduct detailed bathymetric mapping.
- **2024 – 2029:** Monitor changes in water temperature across various depths.
- Monitor nutrient levels every 5-years.

## Northern Pike: Population Monitoring

The lack of a defined Northern pike program prevents us from accurately determining the status this population. Therefore, we are recommending the development of a Yukon-wide Northern Pike Monitoring Program.

## Lake Trout: Recreational Angling Pressure

We are recommending a continued angler survey program to determine effort, catch rates and harvest rates. This program will consist of the following surveys.

- **2023:** Conduct a summer angler survey.
- **2024/2025:** Conduct a winter ice-fishing angler survey.
- **2025:** Conduct a summer angler survey.

## Lake Trout: Population Monitoring

Long-term monitoring of the Lake Trout population will help us detect any change in abundance and condition. To ensure we are effectively monitoring this population, we recommend the following survey schedule.

- **2026:** Conduct population assessment.
- **2031:** Conduct population assessment.
- **Ongoing:** Conduct population assessments every 5 years.

For more information, please see the full Little Atlin Lake, Fisheries Status Report on [Yukon.ca](http://Yukon.ca) or contact [fisheries@yukon.ca](mailto:fisheries@yukon.ca).