



## Lake Information

<b>WATERSHED</b>	<b>LAKE CLASS</b>
Yukon Headwaters	F
<b>SURFACE AREA</b>	<b>ELEVATION</b>
35,458 ha	662 m
<b>MAXIMUM DEPTH</b>	<b>AVERAGE DEPTH</b>
307 m	62 m
<b>SURFACE TEMP</b>	<b>REGULATIONS</b>
14.2°C	Conservation Waters
<b>SAMPLING DATES</b>	<b>NET SETS</b>
August 8-14	140

### Location

Tagish Lake is a large lake with multiple basins (Windy Arm, Taku Arm, Nares, Graham Inlet, Moose Arm), located in the southern Yukon. This is a transboundary lake with British Columbia and is within the Traditional Territory of the Carcross/Tagish First Nation and the Taku River Tlingit First Nation.

### Access and Use

Tagish Lake is accessed via the South Klondike Highway and Tagish Road. Main access points are at Carcross and Tagish. There are two government campgrounds and multiple boat ramps on this lake. There are multiple private residences found along this lake.

# Tagish Lake 2015

## Overall Status

### Lake Trout

Tagish Lake is one of the largest lakes in the Yukon and the lake's multiple basins and depth make it difficult to effectively sample lake trout populations using the SPIN program. The lake trout population in Tagish Lake appears healthy. It has a large-bodied population. Numbers are similar to lakes of comparable size (Kluane, Atlin).

### Lake Whitefish

The 2015 Tagish Lake survey results indicate a healthy population of lake whitefish. There is significant available habitat for this species. This population had similar catch rates as other Yukon lakes of this size.

### Recommendation

The recommendation for future surveys is to perform an Angler Harvest Survey on the southern lakes system to gauge angling pressure.

## Lake Trout

### Population Estimate and Density

The population estimate for lake trout in Tagish Lake was **162,460** (estimate range: 100,263 – 227,310). This equates to a density of 4.6 lake trout per hectare. Given the wide range of our population estimate, we believe the strength of this estimate can be improved.

### Length and Weight

These lake trout ranged in size (fork length) from 243 mm to 805 mm. Sampled fish had an average length of 480 mm and an average weight of 1,438 g.

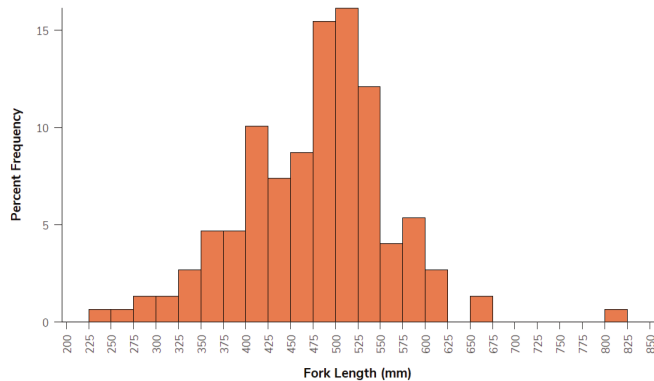


Figure 1. Length frequency distribution of lake trout in Tagish Lake (2015), n = 149.

### Age and Growth

Age Structures were obtained from 37 lake trout. Ages ranged from 5 to 25 years.

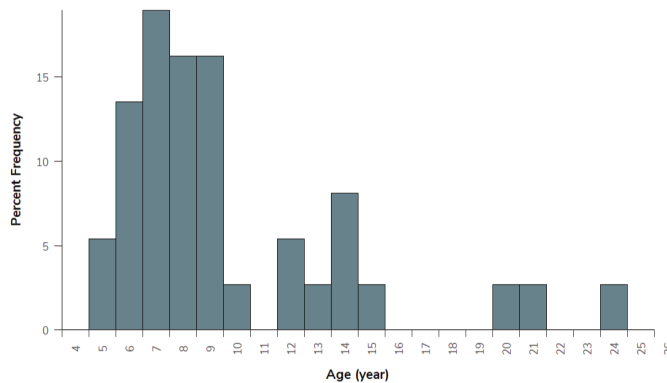


Figure 2. Age frequency distribution of age-analyzed lake trout in Tagish Lake (2015), n = 37.

### Suggested citation:

Government of Yukon. 2024. Lake Trout and Lake Whitefish Monitoring Program: Tagish Lake 2015. Government of Yukon, Whitehorse, Yukon, Canada.

## Lake Whitefish

### Overview

A total of 41 lake whitefish were captured during the 2015 survey. They ranged in size from 200 mm to 510 mm in fork length, with an average length of 419 mm and an average weight of 1,036 g. Age structures were only obtained from 4 lake whitefish. Ages ranged from 8 to 19 years.

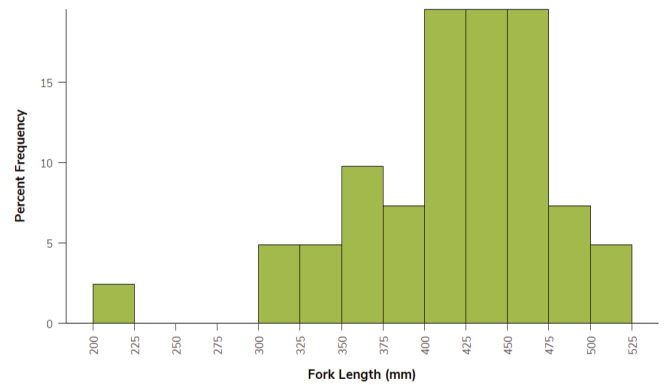


Figure 3. Length frequency distribution of lake whitefish in Tagish Lake (2015), n = 41.

## Temperature and Dissolved Oxygen

Profiles in the Main basin showed a strong thermocline, which weakened progressively at Graham and Engineer basins; however, overall, Tagish Lake was suitable for lake trout.

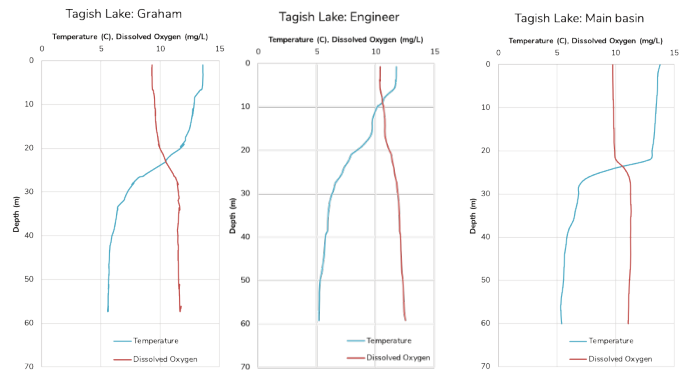


Figure 4. Temperature (C) and dissolved oxygen (mg/L) as measured at Graham, Engineer, and the Main basins of Tagish Lake during the August 2015 survey.