



Lake Information

WATERSHED	LAKE CLASS
Upper Liard	C
SURFACE AREA	ELEVATION
1,410 ha	680 m
MAXIMUM DEPTH	AVERAGE DEPTH
32 m	14.5 m
SURFACE TEMP	REGULATIONS
17.3°C	Special Management
SAMPLING DATES	NET SETS
July 7-12	46

Location

Watson Lake is located approximately 4 km north of the community of Watson Lake, in the southeastern Yukon, along the Robert Campbell highway. This lake lies within the Kaska Dena Council Traditional Territory.

Access and Use

Watson Lake is a popular recreational lake with access available at the government campground and along the Robert Campbell highway. The Watson Lake airport is situated on the north shore; it was constructed just prior to the development of the Alaska Highway.

Watson Lake 2015

Overall Status

Lake Trout

The lake trout population in Watson Lake displayed a lower than average density when compared to Yukon lakes of similar size and productivity. This may indicate that the lake trout population in Watson Lake is small and at risk of depletion if fishing pressures increase.

Lake Whitefish

Results from the 2015 survey indicated a healthy population of lake whitefish, with considerable habitat for this species.

Recommendation

The recommendation for future surveys of Watson Lake is to increase the number of net set and collection of age structures for analysis. This will help increase our ability to detect changes in population and provide information on the health of this population.

Lake Trout

Overview

During the Watson Lake 2015 survey, a total of 41 lake trout were captured.

Population Estimate and Density

The population estimate of lake trout in Watson Lake was **4,105** (range: 1,831 – 6,445). This equated to a density of 2.9 large-bodied lake trout per hectare.

Length and Weight

These lake trout ranged in size (fork length) from 182 mm to 830 mm, with an average length of 513 mm and weight of 1,728 g.

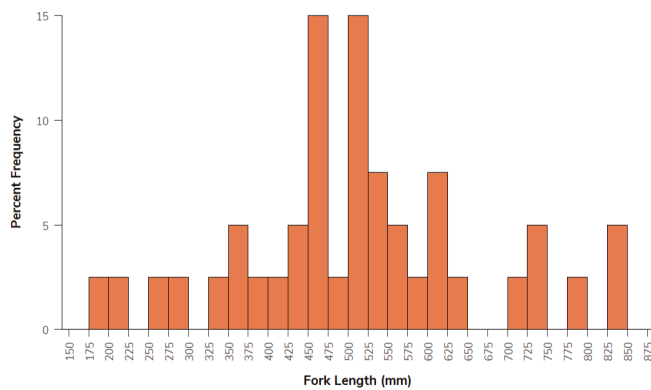


Figure 1. Length frequency distribution of sampled lake trout in Watson Lake (2015), n = 41.

Age and Growth

Age Structures were obtained from 14 lake trout. Ages ranged from 6 to 25 years.

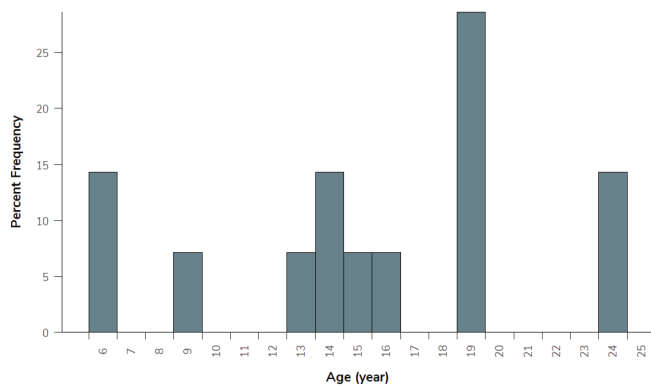


Figure 2. Age frequency distribution of age-analyzed lake trout in Watson Lake (2015), n = 14.

Suggested citation:

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

Lake Whitefish

Overview

A total of 415 lake whitefish were captured during the 2015 Watson Lake survey, ranging in size from 219 mm to 472 mm in length. The average fork length was 396 mm, and the weight was 808 g. Age structures were obtained from 61 lake whitefish. Ages ranged from 4 to 31 years.

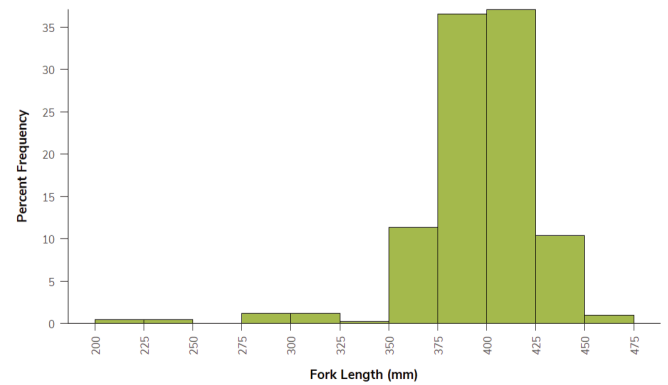


Figure 3. Length frequency distribution of sampled lake whitefish in Watson Lake (2015), n = 415.

Temperature and Dissolved Oxygen

Temperature and dissolved oxygen profiles were taken on July 23, 2015. Given the observed temperatures, suitable lake trout habitat was found between 10 m and lake bottom.

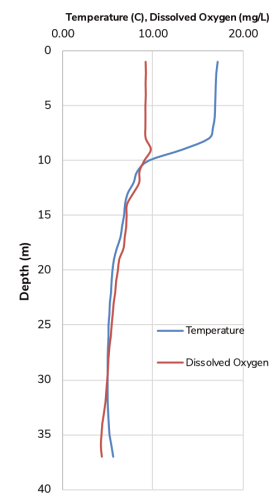


Figure 4. Temperature (C) and dissolved oxygen (mg/L) as measured in Simpson Lake, July 23, 2015.