

# Common Fish in the Tłıchǫ Region

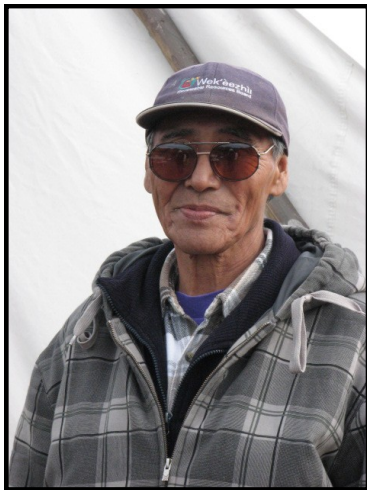


## Dedication

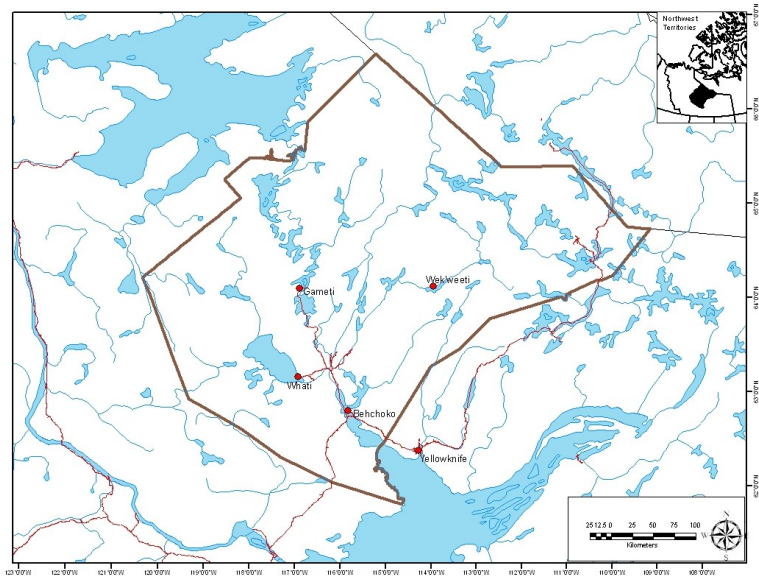
This Guide is dedicated to the memory of Harry Mantla, who wanted the stories and old ways to be remembered and used as a tool for living.

Harry was a great trapper and harvester. He dedicated his time and shared his valuable knowledge of Tłıchq cultural traditions through stories and his experiences with all people. Harry was an outstanding individual who made a difference in the community by teaching the younger generations to keep Tłıchq traditions and values alive.

The knowledge he shared will be used long into the future and we are thankful for that. We will miss his fun-loving way of being on the land and will always remember him in our prayers as a loving, kind, soft spoken person.



# Map



The Wek'èzhìi boundary as defined in the Tłı̨çq̓ Agreement. Tłı̨çq̓ people have used this area and the surrounding region for many years, and maintain a connection to the land through the traditional use of fish and other natural resources. The four Tłı̨çq̓ communities Gamètì, Wek'weètì, Behchokò and Whatì, as well as Yellowknife, are shown.

## Story

This Guide was originally published in 2012 through the initiative of Karin Clark and Paul Vecsei. It is intended as a basic guide to the fish species that are most commonly caught in the Tłı̨chq̓ region of the Northwest Territories. This Guide does not include all the species that could be encountered.

Thanks to Harry Apples, Adele Camille, Eddie Camille, Jonas Football, Nick Football, Robert Mackenzie, Harry Mantla, Elizabeth Michel, Dora Migwi, Bernadette Naskin, Elizabeth Rabesca, Celine Tatzia and Francis Williah of Behchok̓, as well as Georgina Chocolate and Albertine Eyakfwo, for their contributions to the Tłı̨chq̓ names of fish. Thanks also to Rosa Mantla, Tammy Steinwand, Mary Seimens and Lucy Lafferty with Tłı̨chq̓ Community Services Agency for their review and comments.

Thanks to Paul Vecsei for his descriptions of the fish, and all his photographs.

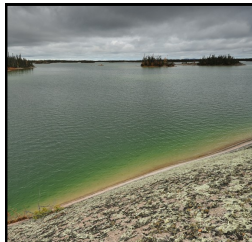
A 2014 version was updated by Paul Vecsei and Boyan Tracz. Georgina Chocolate and Jonas Lafferty provided additional translation and comments. Susan Beaumont, Hilary Machtans and Jody Pellissey assisted with the final review. This 2016 version builds on the 2014 version and was updated by Paul Vecsei and Boyan Tracz, with input from Hilary Machtans and Rosa Mantla.

# Contents

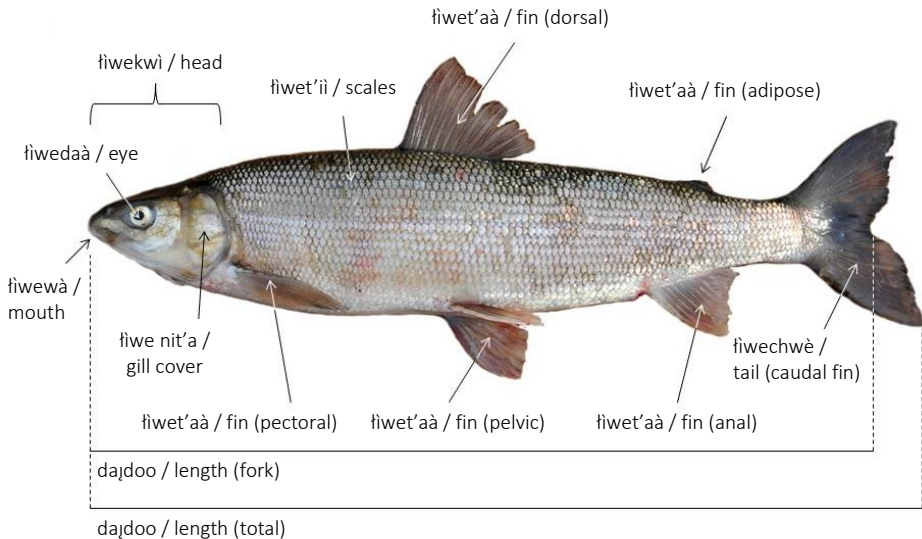
Dedication	i
Map	ii
Story	iii
Contents	iv
Fish Anatomy (external)	1
Fish Anatomy (internal)	2
Nq̄hkwèè - Burbot (Loche)	3
Łiwezq̄q̄ - Lake Trout	4
ǰhdaa - Northern Pike (Jackfish)	5
Ehts'èq̄ / Ehch'èq̄ - Walleye (Pickerel)	6
Wiile - Inconnu (Coney)	7
Ts'étǰa - Arctic Grayling	8
Łih - Lake Whitefish	9
Łih - Round Whitefish	10
Łihtsoa - Cisco	11
Dehdoo - Longnose Sucker	12
Kwìezhìi - White Sucker	13

Dahts'a - Ninespine Stickleback	14
Dahts'a - Spottail Shiner	15

Fish Habitat:	
Examples of Lakes in Wek'èezhìi	16
Russell Lake	17/18
Marian Lake	19/20
Lac la Martre	21/22
Rae Lakes	23/24
Snare Lake	25/26
Fish in Their Habitat	27/28
Support / References	29

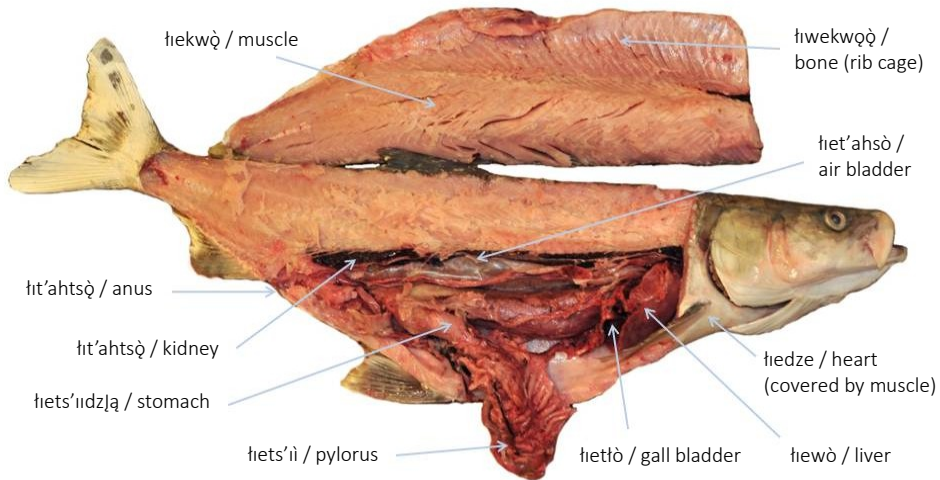


# Fish Anatomy - External (Tłchq / English)



NOTE: This figure shows generalized fish anatomy; there may be slight differences among species. The labels are Tłchq terms for Lake Whitefish anatomy.

# Fish Anatomy - Internal (Tł̄chq̄ / English)



NOTE: This figure shows generalized fish anatomy; there may be slight differences among species. The labels are Tł̄chq̄ terms for Lake Whitefish anatomy.



## **Nq̄kwèè - Burbot (Loche)**

**HABITAT:** Deep cold, clear lakes with rocky bottoms. Also occurs in large rivers. In late winter, can be caught in shallow water under the ice.

In summer, they are known to live at depths of up to 330m (1000 ft).

**BIOLOGY:** A deepwater species, spawning takes place in late winter when lakes are still ice covered. Adult Burbot eat other fish, but also scavenge along the bottom for invertebrates.

**SIZE:** 1-2 kg, rarely over 5 kg; 50-70 cm.

**FOOD VALUE:** A much appreciated food fish for most community members. Liver is consumed by T̄h̄q̄ people.





## łiwezqò - Lake Trout

**HABITAT:** Deep cold, clear lakes and rivers with rocky bottoms. Usually found in shallow water in late fall and winter.

**BIOLOGY:** Lake Trout spawn in fall, usually over rocky shoals in lakes. Some populations enter rivers and spawn in shallow rapids over rocky substrates. Lake Trout are fish eaters and may reach an age of 50 years.

**SIZE:** 2-4 kg common, but may reach 15-25 kg; 50-80 cm (in the NWT).

**FOOD VALUE:** Valued as a food fish, it can be made into “split fish” and smoked for future cooking over the fire, boiled, or fried. Food value is greatly affected by the season they are caught. For example, fish taken after spawning may have no fat and the meat is mushy or “rubbery”.



## **Jhdaa - Northern Pike (Jackfish)**

**HABITAT:** Shallow weedy waters in back bays of large lakes. Also common in slow-moving, weedy areas of rivers.

**BIOLOGY:** Northern Pike move into shallow weedy bays and streams for spawning in spring. They are ambush predators feeding on a variety of things, including other fish, frogs, insects and even ducklings!

**SIZE:** 2-4 kg common, but may reach 7-15 kg; 50-110 cm (in the NWT).

**FOOD VALUE:** Tłchq people enjoy the rib-belly flap section and some even favour the fillets. Overall, not a primary target in the subsistence fishery, but highly appreciated by a few.



## **Ehts'èè / Ehch'èè - Walleye (Pickerel)**

**HABITAT:** Shallow waters in lakes or large rivers.

**BIOLOGY:** Walleye migrate from lake habitat into shallow streams for spawning in early spring. They are predators and feed on other smaller fish.

**SIZE:** 1-2 kg common, rarely over 7-15 kg; 40-65 cm (in the NWT).

**FOOD VALUE:** Valued by communities and as a commercial species. Favored by many.



## Wiile - Inconnu (Coney)

**HABITAT:** Shallow clear or turbid waters. Common in Great Slave, Marian and Russell Lakes. Seasonally abundant in Marian Lake and large inflowing rivers throughout the Great Slave Lake basin.

**BIOLOGY:** Inconnu have long spawning migrations from lakes into rivers in the fall (such as in the Marian River). Inconnu feed on other fish, primarily ciscoes. Fast growing fish, but relatively short-lived.

**SIZE:** 3-8 kg common, but may reach up to 20 kg; 60-100 cm.

**FOOD VALUE:** Valued food fish by the Tł̨ch̨q̨ people. It is often shared among communities.



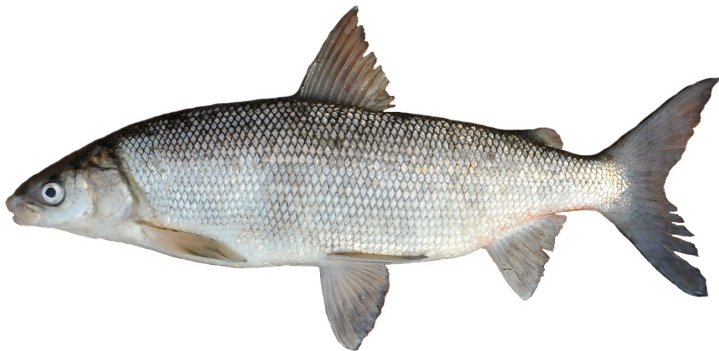
## Ts'étjā - Arctic Grayling

**HABITAT:** Shallow clear streams, rivers and lakes.

**BIOLOGY:** In spring, Grayling migrate from lakes into shallow streams for spawning. Larger rivers have year-round Grayling populations. They feed on other smaller fish, but prefer insects.

**SIZE:** 0.5-1 kg typical, rarely 2 kg; 35-50 cm.

**FOOD VALUE:** Not specifically targeted, but a welcome change if captured. Cooked in similar fashion to Lake Whitefish. Usually too small for dry-fish method of preparation.



## Łih - Lake Whitefish

**HABITAT:** Shallow to deep clear waters in lakes and rivers.

**BIOLOGY:** Lake Whitefish are fall spawners and usually spawn over rocky shoals in lakes. Some populations enter rivers and spawn in shallow rapids over rocky substrate. They eat tiny fish, snails and insects.

**SIZE:** 1-3 kg common, but may reach up to 6 kg; 35-70 cm.

**FOOD VALUE:** Lake Whitefish is the most important food fish for the Tłıchǫ people. The eggs, “pipe”, and łets’ìi (pyloris) are delicacies. It can be cooked fresh or dried.



## Łih - Round Whitefish

**HABITAT:** Shallow, clear waters in lakes and rivers.

**BIOLOGY:** Round Whitefish are fall spawners in both lakes and rivers over rocky substrate. Eats small insects and benthic invertebrates.

**SIZE:** 0.5-1kg, never larger than 1.5 kg; 30-50 cm.

**FOOD VALUE:** Used in a similar fashion as Lake Whitefish (but not caught as often as Lake Whitefish; not as common).



## Łihtsoa - Cisco

**HABITAT:** Deep, cold, clear lakes with rocky bottoms. Also occurs in more turbid areas like Marian Lake. A small “dwarf” form is encountered in the North Arm of Great Slave Lake and inland lakes of the Tłıchq region.

**BIOLOGY:** Fall spawner. Certain populations have well-known migrations; for example into Great Slave Lake tributaries like the Snowdrift, Beaulieu and Yellowknife Rivers.

**SIZE:** Usually less than 1 kg, but sometimes up to 1.5 kg; 20-45 cm (in Great Slave Lake).

**FOOD VALUE:** If caught, it is sometimes used as bait for trap lines.





## Dehdoo - Longnose Sucker

**HABITAT:** Prefers cold, clear deep lakes with rocky bottoms.

**BIOLOGY:** Spring spawner entering small streams or rivers shortly after ice-out. The Longnose Sucker is a bottom feeder, sifting through pebbles and muck in search of food.

**SIZE:** 1-2 kg, rarely 3 kg; 40-55 cm.

**FOOD VALUE:** Not targeted as a food fish but often cooked on an open fire if caught.



## **Kwìezhìi - White Sucker**

**HABITAT:** Common in shallow, warm bays in large lakes and rivers.

**BIOLOGY:** Spring spawner entering small streams or rivers shortly after Walleye and Longnose Suckers. The White Sucker is a bottom feeder, sifting through pebbles and muck in search of food.

**SIZE:** 1-2 kg rarely 3 kg; 40-55 cm.

**FOOD VALUE:** Favoured by some Tłı̨ch̨ community members. The body and head is split open and cooked over an open fire.



## Dahts'a - Ninespine Stickleback

**HABITAT:** Shallow streams, lakes, ponds and rivers with thick submerged vegetation.

**BIOLOGY:** Spawns in the spring in stagnant water among aquatic plants; the male builds an elaborate nest. Feeds on tiny invertebrates.

**SIZE:** Very small (5 cm).

**FOOD VALUE:** Not eaten.



## Dahts'a - Spottail Shiner

**HABITAT:** Shallow lakes or stream habitat. Avoids strong currents in rivers, but are often present in large numbers in pools or along the shoreline.

**BIOLOGY:** Summer spawner, feeds on plants and aquatic invertebrates.

**SIZE:** Very small (5 cm).

**FOOD VALUE:** Not eaten.

## Fish Habitat: Example of Lakes in Wek'èezhìì



Wile (Inconnu or Coney) and łih (Lake Whitefish) together underwater.  
Can you tell the difference? You can always go back a few pages for clues.

## Russell Lake

Nearest Community: Behchokò

Russell Lake is approximately 42km long and 1 to 6km wide. The lake is shallow with numerous islands and weedy bays. A few isolated areas of the main basin reach a depth of 5-10m but otherwise, the lake is characterized by 1-2m depths. Russell Lake has more nutrients (mesotrophic) and is more productive than many of the surrounding lakes with lower nutrient levels (oligotrophic).

Shallow bays rich with diverse aquatic and shoreline vegetation are common and provide essential habitat and nursery habitat for different life stages of several fish species. The fish community consists primarily of warm water species like Ehts'èë / Ehch'èë (Walleye or Pickerel), Dehdoo (Suckers) and Jhdaa (Northern Pike or Jackfish) but also cold water species such as Łih (Lake Whitefish) and Łiwezòò (Lake Trout).



## **Marian Lake**

Nearest Community: Behchokò

Marian Lake is approximately 35km long and 3 to 10km in width. The lake is very shallow with numerous islands. Marian Lake is so shallow (1-2m depths) that in winter it freezes to the bottom in most areas. The lake is very productive in summer (mesotrophic), and aquatic vegetation becomes dense.

The fish community is mainly seasonal, with few fish present in winter and a large number of fish using the lake as summer feeding habitat or a migratory corridor to the Marian River for fall spawning. A spring Ehts'èë / Ehch'èë (Walleye or Pickerel) fishery occurs in the southern portion of the lake prior to break up, near the tributary known as Doré Creek.





## Lac la Martre

Nearest Community: Whatì

Lac la Martre is the third largest lake in the Northwest Territories and ranks as the 21<sup>st</sup> largest in Canada. It is approximately 70km long and 25km wide, covering over 1,700km<sup>2</sup>. Lac la Martre is known for its clear waters. It is shallow, rarely deeper than 15m. Islands and shallow bays with aquatic and shoreline vegetation are present in parts of the lake. A wide range of habitats provide ideal conditions for several fish species.

The fish community consists of a mix of both warm and coldwater species like Ɂhdaa (Northern Pike or Jackfish), Dehdoo (Suckers), Ɂih (Lake Whitefish), Ɂihtsoa (Ciscoes) and Ɂiwezqò (Lake Trout). The lake is situated along a main north/south bird migration route.



## Rae Lakes

Nearest Community: Gamètì

Rae Lakes consist of a chain of interconnected lakes covering an area of approximately a 25km<sup>2</sup>. The lakes are deep with numerous small and large islands. Depth is variable but often reaches 30m even close to shore. Rae Lakes are similar to Snare Lake in that they have fewer nutrients (oligotrophic) than lakes further south in the region.

The fish community of Rae Lakes consists of primarily cold water species such as Łiwezòò (Lake Trout) and Łih (Lake Whitefish). However, Jhdaa (Northern Pike or Jackfish) are also present in the shallower bays. Despite its sub-Arctic location, the Rae Lakes are noted for having unusually large łih up to 5 kg. Also, a łih sampled in 2013 was estimated to be 48 years old, among the oldest ever recorded for this species.



## Snare Lake

Nearest Community: Wekweètì

Snare Lake is over 70km in length and is approximately 1 to 3km wide. The lake is relatively deep with numerous islands and a few shallow sandy bays. Depth is variable but typically ranges from 3-30m, with a maximum of 200m. Snare Lake has very little nutrients (oligotrophic) and is therefore less productive than lakes further south in the region.

The fish community of Snare Lake consists of primarily of cold water species such as Łiwewzòò (Lake Trout), Nòhkweè (Burbot), and Łih (Lake Whitefish). Ts'étjā (Arctic Grayling) are present in surrounding inflowing streams, and a few of the shallower bays even have Jhdaa (Northern Pike or Jackfish). The Snare Lake area is characterized by extensive wetlands.



## Fish in Their Habitat



A school of Eh (Lake Whitefish) moving over algae-covered rocks.





Łiwezqò (Lake Trout) cruising along the edge of deeper water.

Note: *The fish mentioned in the text for each lake are assumed to be examples of warm and cold water species of particular interest to community members, but they do not represent the fish community as a whole.*

Support for the Tłıchǫ Aquatic Ecosystem Monitoring Program (cumulative from 2010):

Wek'èezhìi Renewable Resources Board, Tłıchǫ Government and Tłıchǫ communities, Wek'èezhìi Land and Water Board, Department of Fisheries and Oceans Canada, the Northern Contaminants Program and Polar Knowledge Canada (both w/ Indigenous and Northern Affairs Canada), Department of Environment and Natural Resources, Department of Health and Social Services, and the Cumulative Impact Monitoring Program (all three w/ Government of the Northwest Territories), Environment and Climate Change Canada, Thorpe Consulting Services, Tides Canada, World Wildlife Fund/Loblaw Water Fund, and Golder Associates Ltd.

References:

Tłıchǫ Aquatic Ecosystem Monitoring Program: Lake Trout presence in Russell Lake based on discussions with elders during Russell Lake Fish Camps, September 2011 and 2015.

Ecosystem Classification Group. 2007 (rev. 2009). Ecological Regions of the Northwest Territories – Taiga Plains. Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT, Canada. viii + 173 pp. + folded insert map.

Ecosystem Classification Group. 2008. Ecological Regions of the Northwest Territories – Taiga Shield. Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT, Canada. viii + 146 pp. + insert map.

Google Earth satellite imagery used for measurements of lakes. Wikipedia entry for Lac la Martre used for supplementary details. Northwest Territories Power Corporation supplementary information used for Snare Lake depth.



