Southern Lakes Angler Education and Outreach

Spring 2022

Prepared for the Carcross / Tagish Renewable Resources Council





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Prepared for the Carcross / Tagish Renewable Resources Council By Lars Jessup

Acknowledgements:

The Carcross/Tagish Renewable Resources Council and the author would like to thank all the anglers who shared their knowledge and views with us this spring. We had many great conversations. We would also like to thank Carcross/Tagish First Nation and Environment Yukon for helping draft the survey and providing their support. All photos in this report are from Don Toews and the author. This project was funded by the C/TRRC.

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Overview

Fish and fishing are very important to residents of the Southern Lakes. Increasing angling pressure and associated angler behaviour and ethics is a growing concern of the Carcross/Tagish Renewable Resources Council (CTRRC) and communities in the Southern Lakes, especially related to the impacts of catch and release. These concerns were evident in the 2022 local knowledge survey of the Southern Lakes (Jessup and Larsen, 2022) and are reflected in the 2020-2025 Community-Based Fish and Wildlife Workplan for the Carcross/Tagish Traditional Territory. In this workplan, the parties committed to "develop and implement a collaborative respectful angling strategy and communications materials with licensed anglers and the GC/TFN that focuses on fishing ethics and limiting excessive live release" fishing.

The CTRRC recognizes education and outreach with anglers as an ongoing initiative. The 2022 spring engagement campaign followed up previous work in 2020 by the same partners (see Carcross/Tagish Renewable Resources Council and Dennis Zimmerman, 2020) as well as the Respect for Fish initiative, also supported by C/TRRC (see Zimmerman, 2020). The 2022 program focused on 4 high-use fisheries in the Southern Lakes: the Lubbock River and Snafu, Tarfu, and Little Atlin Lakes. We placed educational signs at each location, had conversations with anglers, and collected angler feedback with a survey delivered in-person and online.

Goals and Objectives of the 2022 Campaign

- 1. Reduce the number of fish caught and released at 4 fisheries of concern in the Southern Lakes.
- 2. Improve the survival of fish that are live-released by sharing best-practices on live release techniques and fish handling.
- 3. Discuss with anglers the rational behind live-release angling and the First Nation ethics around catch and release.
- 4. Collect angler knowledge and opinions related to fishing, fish stocks, angling regulations, and catch and release.



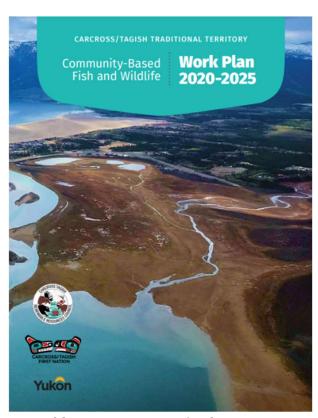
Guided by the Community

Angler education and outreach, with a focus on the ethics and practice of catch and release fishing, was a directed outcome of the 2020-2025 Community-Based Fish and Wildlife Workplan for the Carcross/Tagish Traditional Territory. During outreach events in Carcross, Tagish, Marsh Lake, and Mount Lorne during the planning process, residents raised several concerns related to fish and fishing. The following are excerpts from the plan:

"At the community meetings, many participants also raised concerns about declines in fish numbers, particularly about lake trout (daleiyí) but also grayling (t'ási), cisco (yaaw), and northern pike (Tásleiyí)."

"Specific community concerns were raised about catch limits, live release ethics, poor fish handling practices, overfishing, tourism, and overcrowding at boat ramps and in fishing areas, degradation of fish habitat, and climate change."

"Yukoners have varying views on catch and release, known as live release in Yukon. Many First Nations, including meeting participants, view the practice as 'playing with your food' and do not support it. Even among the non-Indigenous anglers there is a belief that the purpose of fishing should be to put a meal on the table. [On the] other hand, recreational anglers see live release as a conservation practise, returning those fish to the ecosystem that are over the maximum size limit or within slot limits."



Cover of the 2020-2025 community plan.

See Appendix 1 for the specific Objectives, Action, and Outcomes related to fish within the 2020-2025 community plan.





2022 Activities

The 2022 angler outreach campaign used the following approaches: place educational signage at the key fisheries; talk about catch and release fishing with anglers, including ethics and techniques; and gather opinions and views of anglers with a directed survey. The 2022 outreach and education activities focused on 4 high-use fisheries:

- Lubbock River (<u>X</u>áat tláa | Fish Mother)
- Snafu Lake (Naagas'éi Áayi | Fox Lake)
- Tarfu Lake (Gooch Áayi | Wolf Lake)
- Little Atlin Lake (Xáat Tlein Áayi | Big Fish Lake)

In-person engagement activities were performed on Saturdays once at each location during the spring of 2022. The surveyor spoke with all visitors at each location during the in-person engagements. CTRRC members, and on one occasion Carcross / Tagish First Nation (CTFN) Environmental Monitors, joined the surveyor and talked to anglers during each on-site engagement. All anglers at each location were asked if they would be willing to share their knowledge and opinions by completing a survey (see Appendix 2). This survey was created in partnership with CTFN and Yukon Department of Environment. The CTRRC offered incentive in the form of a draw prize for anglers at each location. Not all anglers agreed to fill out surveys, and often not every member of an angling party completed a survey. At each location, we distributed and collected surveys, discussed the Carcross/Tagish RRC and their mandate/role, discussed the community concerns related to catch and release, and had many great conversations with anglers.



"Handle with Respect" sign created with multiple partners in 2020 and repurposed in 2022.

A display of 3 signs was used during the in-person events to garner interest, inform, and engage. The signs were re-purposed from the 2020 spring angler campaign, altered very

slightly and customized to each fishery. Additional partners were involved in creating the 2020 signs, including the Yukon Fish and Game Association, Respect for Fish, and the Yukon Fish and Wildlife Management Board. In addition to the in-person engagements, a single sign, "Handle with Respect", was left at each location throughout the spring period, along with a poster describing the campaign and asking anglers to take the online survey at the CTRRC website. See Appendix 3 for images of each sign used during the 2022 campaign.

Engagement Results

We spoke with 71 anglers in person, 44 of whom completed surveys, with an additional 28 surveys completed online for a total of 72 completed surveys. The online survey respondents reported fishing at additional locations, including Tagish/Tagish River (7 respondents), Carcross (5), and Marsh Lake (4), as well as areas outside the traditional territory (e.g., Scout Lake, Teslin Lake, and McLean Lake).

Summary of in-person angler engagement activities, 2022 CTRRC spring angler outreach and education.

Location/Da te	# Angling Parties Observed	# Anglers	# Completed Surveys
Lubbock River May 21	6	10	6
Tarfu Lake May 28	6	14	10
Snafu Lake June 4	9	19	11
Little Atlin Lake June 11	12	28	17
Online			28
Total	33	71	72



Anglers completing survey at Snafu Lake, June 4,

Highlights

In-person angler engagements provided an opportunity to engage with anglers and share the RRCs message about catch and release as well as learn from angler experiences. We spoke with a wide variety of anglers with a diversity of views. The following are some of the highlights from the 2022 engagements:

- Most anglers surveyed were Yukoners with a lot of angling experience that fish these locations regularly.
- Across the 4 locations, most anglers were targeting pike (especially at Little Atlin, Snafu, and Tarfu Lakes), followed by lake trout (mostly at Little Atlin and Snafu Lakes) and grayling (Lubbock River and Tarfu Lake).
- Anglers mostly felt that fish populations were healthy, although this differed by location.

- Their primary motivation in fishing was to spend time on the land with family and friends, followed by catching a fish to eat. Fewer anglers were motivated to catch a big fish or to catch many fish.
- Most respondents felt that catch and release was a useful management tool for conservation but were split on whether catch and release brings unnecessary pain to fish or should be limited through regulation.
- Most anglers were aware they were fishing on Carcross/Tagish Traditional Territory, but few of them felt that it impacted their angling practices.
- The majority of anglers claimed to understand the regulations, with most agreeing with them. However, when questioned about their concerns, several reported concerns related to the regulatory regime.



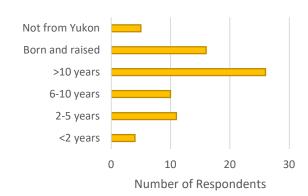
Sign display at Snafu Lake, June 4, 2022.

Angler Engagement Survey Results

Where were the survey participants from?

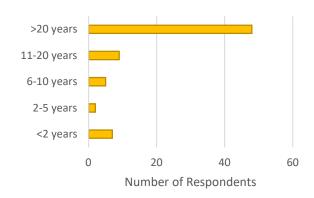
Whitehorse Yukon Community Canada outside Yukon Outside of Canada 0 20 40 60 80 Number of Respondents

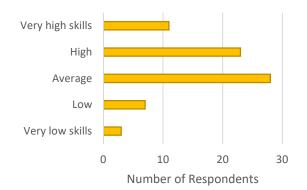
How long have they lived in Yukon?



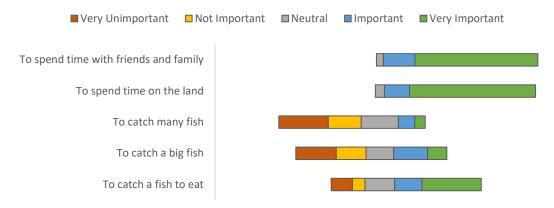
How long have they been anglers?

How do they judge their own angling skills?

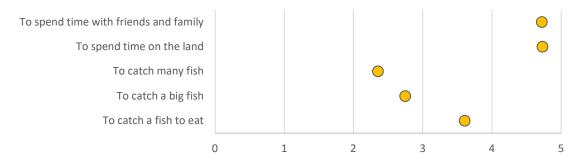




What were their motivations in fishing?

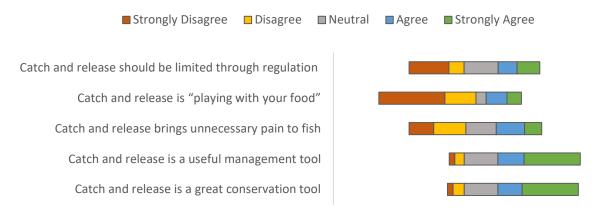


This figure shows the proportion of responses in each category, centred around the neutral response to give an indication of the spread of responses, both positive and negative.



This figure shows the same data but displayed as the average response along the 5-point scale, where 0 is Very Unimportant, 3 is Neutral, and 5 is Very Important. This reveals whether the average response was generally positive or negative. For example, anglers were more likely to be motivated to catch a fish to eat than to catch many fish.

What were their views on catch and release?

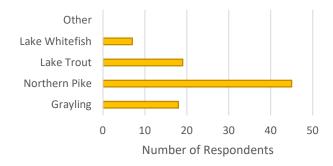


This figure shows the proportion of responses in each category, centred around the neutral response to give an indication of the spread of responses, both positive and negative.

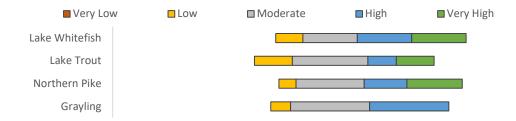


This figure shows the same data but displayed as the average response along the 5-point scale, where 0 is Strongly Disagree, 3 is Neutral, and 5 is Strongly Agree. This reveals whether the average response was generally positive or negative.

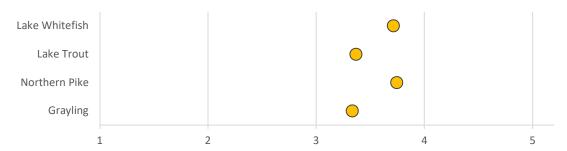
Across all locations, what species were they targeting?



For the species that was targeted, how did they feel the population was doing?



This figure shows the proportion of responses in each category, centred around the neutral response to give an indication of the spread of responses, both positive and negative.



This figure shows the same data but displayed as the average response along the 5-point scale, where 0 is Very Low, 3 is Moderate, and 5 is Very High. This reveals whether the average response was generally positive or negative.

On Traditional Territories

	Yes	No
Are you aware you are fishing on First Nations traditional territory?	64 (90%)	7 (10%)
Does this influence your fishing experience in any way?	12 (18%)	55 (82%)

On the Angling Regulations

	res	INO
Do you understand the catch, size, and gear restrictions for this fishery?	68 (99%)	1 (1%)
Do you agree with the catch, size, and gear restrictions for this fishery?	62 (90%)	7 (10%)

"What are your concerns regarding fish and fisheries in Yukon?" (A selection of quotes from anglers)

"A fish education course is necessary. Fish handling is poor everywhere, mainly due to lack of available information/training/education. Mandatory FEED course!"

"I wish the fishing education / regulations were mandatory, as they are for hunting."

"Pike are getting fished hard; however, the numbers still seem high. Lots of fish >73 cm. Would prefer to keep 1 large fish if it didn't hurt the population. Larger fish here in my experience take more damage from catch and release."

"Trout have rebounded in Tarfu and Snafu. Would be good to see retention on a limited basis. We've been fishing these two lakes for a decade, multiple times per year, and the ban has really worked."

"Long-time angler on this lake. Lake trout population has gone up significantly. Seems to be very few grayling. Pike locations have changed as the lake trout population has increased. Tougher to catch pike within slot last year."

"Too much pressure on populations, especially "higher-value" species (i.e. lake trout) and closer to Whitehorse. Poor catch and release practices. Little education (for locals, but especially visitors) on appropriate fishing practices - why do we require ethics/practical training for hunting, but not fishing? Too little understanding of/appreciation for different perspectives on fish harvesting. In many cases, fish population stewardship seems to lack incorporation of Yukon First Nation values and decision-making authority - not sure this is good for populations, or in keeping with Final Agreements."

"I believe pike size brackets should be increased [to allow retention of bigger pike]."

"Would really like to see opportunities to catch and eat a trout occasionally. This opportunity seems to be disappearing in more accessible parts of the Yukon."

"People following regulations seems to be an issue."

"Increased traffic of boats leading to increased disturbance, increase of traffic on the ice leading to increased disturbance. Approximately 18 percent of fish die from catch and release, 18 percent of 100 seems acceptable, 18 percent of 1000 has an increased disturbance."

"There are too many boats on the water on the weekends and the pollution on the water is not good, there needs to be better monitors on the water and safety for the people on the waters and people need to be accountable for their actions and not harm the fish and the cycle of the fish like river fishing just take what you need it will help the supply so our grandchildren will have this in the future."

"I think fish should be more restricted to the numbers you are allowed to catch. Too many fish are being taken from the lakes and populations of lake trout I've noticed are becoming quite low in many areas."

"Impacts on the health of the fish after a catch and release. Holes in mouth impact suction-feeding and create air bubble noise for lunge feeders."

"Overcatching while catch and release. Measuring fish should be to the fork of tail rather than tip, too easy to "adjust" measurement with tip, fork is not. Thankful we are caring for populations in Yukon, good job."

"Too many people fishing that have no regard for catch limits or size regulation."



 ${\it Coffee on the Lubbock \, River, May \, 21, \, 2022.}$

Recommendations

- Continue angler engagement activities in future years, increasing in-person engagements, if feasible.
- Strengthen partnerships with CTFN. Work with CTFN to create educational materials that can be distributed to anglers to share perspectives related to share, care, and respect for fish. Many anglers that were interviewed shared some Indigenous perspectives related to fish and catch and release while others were neutral or did not share these views. A respectful, informative, and engaging pamphlet might find success in spreading Indigenous ethics among the licensed angler community.
- Work to broaden the online outreach activities, particularly related to the development and implementation of the online FEED (Fishing Education and Ethics Education) course.
- Continue gathering public perceptions around angler ethics and regulations, by adapting the survey in future years.
- Expand on questions related to the regulations. We received limited information through the yes/no format of the "do you agree with the regulations" question. Many people may have been hesitant to reply "no", or, agreed with some but not others. The comments and concerns recorded revealed a more nuanced view of the regulatory regime.
- Expand on the concept of traditional territory or knowledge of Indigenous values impacting angling behaviour. This will be particularly relevant once/if educational materials are created and distributed. Ninety percent of anglers acknowledged that they were fishing on CTFN territory, but only 18% felt this affected their angling behaviours. This is an opportunity for outreach.

References

Carcross/Tagish Renewable Resources Council and Zimmerman, D. (2020). Southern Lakes fisheries angler education and outreach campaign – Spring 2020.

Fish and Wildlife Planning Team. (2020). Community-Based Fish and Wildlife Workplan for the Carcross/Tagish Traditional Territory. Government of Yukon, Department of Environment, Whitehorse, YT.

Jessup, L. and Larsen, M. (2022). Local knowledge survey of the Southern Lakes, 2022. Carcross/Tagish Renewable Resource Council Report.

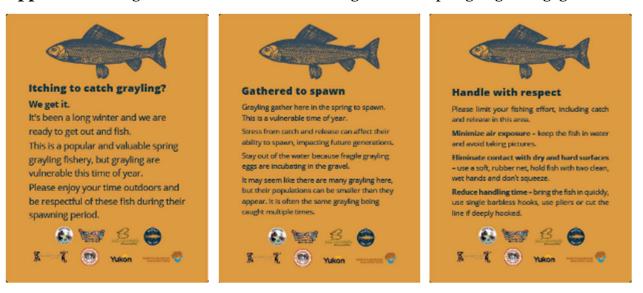
Zimmerman, D. (2020). Respect for fish – Generating new conversations around Yukon's fish and fisheries. Carcross/Tagish Renewable Resources Council Final Report, 2019-2020.

Appendices

Appendix 1 – Implementation Table excerpted from the 2020-2025 Community-Based Fish and Wildlife Workplan for the Carcross/Tagish Traditional Territory related to The Fish (Wé \underline{X} áat).

OBJECTIVES	ACTIONS AND OUTCOMES	ROLES	TIMELINE
Increase education and outreach with residents, non-residents, and First Nation Citizens on regulatory live release and the need for selective harvest tools for management	Develop and implement a collaborative respectful angling strategy and communications materials with licensed anglers and the GC/TFN that focusses on fishing ethics and limiting excessive live release.	C/TRRC, GC/TFN & YG	Ongoing
	Develop and deliver Fishing Education and Ethics D (FEED) workshops and online education focused on best practices around fish handling in order to reduce regulatory live release mortality.	YG & C/TRRC	2021-2025
Develop a signage strategy to support fishing education at key fishery take-off points	Develop a communication strategy that provides awareness for anglers including regulations, best practices, advisories, etc. Install signs as per the strategy.	YG	2021 - 2023
Develop a site-specific plan for high-use fishing areas	 Site-specific plans are created for priority areas including Lubbock River, Snafu Lake, Tarfu Lake, Little Atlin Lake, and Lewes Lake. Continue the creel surveys and initiate human dimensions and licensed angler behavior change research for the Lubbock River grayling fishery. 	YG, C/TRRC & GC/TFN	2021 - 2023

Appendix 2 – Signs used at each location during the 2022 spring angler engagement.



Grayling themed signs displayed at Lubbock River. The "Handle with Respect" was left posted from early May until mid-June.



Pike and lake trout themed signs displayed at Snafu and Tarfu Lakes. The "Handle with Respect signs were left posted from mid-late May until mid-June.







Pike and lake trout themed signs displayed at Little Atlin Lake. The "Handle with Respect" sign was left posted from the end of May until mid-June.

Appendix 3 — Blank survey form used during 2022 spring angler engagement. This survey was adapted for online use and posted to the CTRRC website during May and June 2022. The survey was a collaboration between CTRRC, CTFN, and YG, with input from Dennis Zimmerman who coordinated the 2020 angler engagement campaign.

Angler Social Survey – Southern Lakes 2022

Su	rvey complet	ed at (location	n):			REAL PROPERTY OF THE PROPERTY
1.	How often d My first time	o you fish at t Occasionally not every	y, but	,	3-5 times/year	>than 5 times/year
2.	What specie Grayling	s are you targ Northern Pike	•	•	tefish Other: _	
	For the spec ow Abundance 1	ies you are ta 2	rgeting, how	do you thin	k the populatio High Abundar 5	n is doing? (circle)
	Where do yo Whitehorse	ou live? (circle Yukon Comm	•	ınada outside Y	'ukon Outsid	e of Canada
5.	How long ha	ve you lived in 2-5 years		rcle) >10 years	Born and raise	ed NA
6.	How long ha	ve you been a 2-5 years	an angler? (c 6-10 years	ircle) 11-20 years	>20 years	I don't fish
	How would y ery Low Skills 1	you judge you 2	r angling ski 3	lls compared	to an average a Very High Ski	, ,
8.	What are yo	ur motivation	s in fishing?	(check) Not		Very

	Not Important				Very Important
	1	2	3	4	5
To catch a fish to eat	0	Ο	Ο	0	0
To catch a big fish	0	0	0	0	0
To catch many fish	0	0	0	0	0
To spend time on the land	0	0	0	0	0
To spend time with friends and family	0	0	0	0	0

ARCROSS TAGIO

9	Were you	satisfied	with your	angling	experience	Sychot	(circle	١,
9.	vvere you	Satistieu	with your	angiing	experience	touay!	(CII CIE	٠,

Very Unsatisfied				Very Satisfied
1	2	3	4	5

10. What are your views on catch and release angling? (check)

	Strongly Disagree				Strongly Agree
	1	2	3	4	5
Catch and release is a great conservation tool	0	0	0	0	0
Catch and release is a useful management tool	0	0	0	0	0
Catch and release brings unnecessary pain to fish	0	0	0	0	0
Catch and release is "playing with your food"	0	0	0	0	0
Catch and release should be limited through regulation	0	0	0	0	0

- 11. A) Are you aware you are fishing on First Nation traditional territory? (circle) Yes | No
- 11. B) Does this influence your fishing experience in any way? (circle) Yes | No Please describe:

12. Do you understand the catch, size, and gear regulations that are in place for this fishery? (circle) Yes | No Comments:

13. Do you agree with the catch, size, and gear regulations that are in place for this fishery? (circle) Yes | No Comments:

14. What are your concerns or comments regarding fish and fisheries in Yukon?	
Date completed:	