

Respect for Fish – Angler Behaviour Change Through Outreach and Education

Final Report – Yukon Fish and Wildlife Enhancement Trust

February 2021 – Dennis Zimmermann – Big Fish Little Fish Consultants



The Respect for Fish Initiative – phase 3 focused on implementing the outreach and education associated with best practices and in fish handling. Ultimately, the intention is to:

- increase resiliency in Yukon fisheries;
- decrease mortality in “regulatory” and voluntarily released fish; and
- increase shared values and respect for fish.

Project Activities:

What activities did you complete during your project?

Over the course of the fiscal year, the YFWET enabled Respect for Fish to conduct the following activities related to outreach, education, presentations, stewardship, interviews/discussions, and research.

Outreach

- Spring Grayling Vulnerable Fisheries Campaign - supported the participation of YFWET within the vulnerable spring grayling fisheries - Lubbock River and other southern lakes locations. A complementary initiative partly co-funded through the Carcross/Tagish Renewable Resources Council (C/TRRC). The full report entitled: *Carcross/Tagish Renewable Resources Council and Dennis Zimmermann, Big Fish Little Fish Consultants. June 2020. Southern Lakes Fisheries Angler Education and Outreach Campaign* is presented in full in the appendix.
- Wildwise Yukon - Partnership on catch and release education (includes C/YFN and KDFN). Supported research, science, writing and provided images and feedback. Included signs designed by Wildwise Yukon to be placed at various boating/fishing locations in the Southern Lakes.
- Filming and Photography with Blue Green Media – best practices in fish handling – grayling at the Lubbock River. Have an inventory of professional quality grayling footage and photos to use for future outreach and education.
- Filming with Fishing with Rod – three youtube videos related to Respect for Fish, new conversations around fish and fisheries as well as indigenous perspectives on catch and release:

Images from Various Outreach Initiatives:



ishing #conservation #salmon

Do You Fish with Purpose? A Conversation on Why We Go Fishing | Fishing w

127 views • 16 Sept 2020

👍 146 🗨️ 9 ➦ SHARE



Home Q

Yukon Fishing Challenges and Opportunities



Dennis Zimmermann of Big Fish Little Fish Consultants located in White Horse YT speaks with Lawrence Gunther about community interests and values, and catch and release fishing in the Yukon Territories. Denis also reveals his favorite Yukon fish species to pursue and fishing locations.



Top row - L-R - Fishing with Rod youtube video, Blue Fish Radio - Podcast.

Middle row - L - R - Spring Vulnerable Fisheries Campaign, Wildwise Catch and Release sign

Bottom row - L - R - Blue Green Media photo example, Fishing with Purpose Hoodies

- <https://youtu.be/BWCWtzN57OE> - DO YOU FISH WITH PURPOSE? A CONVERSATION ON WHY WE GO FISHING – 3,127 views
- <https://youtu.be/4tsmgzglfsw> - MANAGING FISHERIES THROUGH SHARED VALUES – 1,652 views
- <https://youtu.be/iHJoen-IVqk> - LAKE TROUT FISHING in REMOTE YUKON TERRITORY CANADA! – 14,207 views
- <https://youtu.be/c0J2rtdZRxU> - CATCH AND COOK NORTHERN PIKE! BEST EATING FISH! – 21,104 views
- Respect for Fish Facebook Posts – (i.e. barotrauma, vulnerable grayling, importance of not fishing over Lake Trout Redds, World Fish Migration Day)
- Coastal Routes Podcast – University of Guelph – on Yukon catch and release and fishing under covid. <https://coastalroutes.org/podcasts> (Episode 15)
- Blue Fish Radio – National interview and podcast on perspectives on catch and release. <https://bluefishradio.com/yukon-fishing-challenges-and-opportunities/>.
- While funding from the YFWET was not used, a complementary project was developed to provide Respect for Fish, Yukon Built, “Fish with Purpose” Hoodies. These hoodies were sold at a local retailer with all proceeds going to the Yukon Fish and Game Association and the Carcross/Tagish First Nation/Kwanlin Dün First Nation (KDFN) and the Ta’an Kwäch’än Council for youth related outreach.

Education - FEED

- The majority of time related to this YFWET project revolved around the development of curriculum for the Fishing Education and Ethics Development course. This involved extensive research, partnership development (with Keep Fish Wet and Yukon-based Apprendo Learning Systems), online curriculum development. The “prototype” for the course has been developed online and will be tested over the Feb-March 2021 period with a soft-launch planned for April 2021.
- FEED partnerships developed with all the RRCs and the Kwanlin Dün First Nation (other Yukon First Nations are considering partnerships).
- Met with approximately 20 grade 11 students in the Experiential Science Program (Mr. Preto). The FEED curriculum was presented and discussed with the youth (Feb 2021).
- Meeting with approximately 20 grade 4/5 students at Takhini Elementary in Feb 2021 to cover the online curriculum.



Catch and Release – Education and Outreach in the Face of Polarization Dennis Zimmermann

Feb 9, 2021
Mr. Preto's Experiential Science 11 Class



KEEP FISH WET 

Fish on Yukon

Understanding Yukon Fishing Regulations, Catch and Release and Fish Handling Best Practices and Tips









Top - Title slide from the various PowerPoint presentations made through this project.

Bottom – Title slide from the FEED course curriculum currently as a prototype online. Please contact Dennis Zimmermann, Big Fish Little Fish Consultants – for copies or access to the online course.

Presentations

- Yukon Forum – Lands and Resources Committee and the CYFN Fish and Wildlife Committee – *Catch and Release – Education and Outreach in the Face of Polarization* Presentation (November and Dec. 2020).
- Carcross/Tagish RRC to discuss the Respect for Fish initiative and the FEED program (April and Dec. 2020).
- Alsek RRC on catch and release within the Kathleen River area and Champagne Aishihik First Nation traditional territory (Jan 2021).
- Wildwise Yukon - Board of Directors (April 2020).
- Yukon Fish and Wildlife Management Board updates periodically.
- Tagish River Habitat Protection Area Steering Committee – testimony on catch and release w/n the HPA area (Oct. 2020).

Stewardship

- Mentored Yukon youth in their YFWET project to collect discarded fishing line through building and monitoring fishing line receptacles. Supported shoreline clean-ups, reporting, budgeting and events.

Interviews and Discussions

- Cameron Sinclair – YG Sr. Fisheries Biologist.
- Joel Potie – Nacho Nyak Dun First Nations.
- John Trotter – Haines Junction resident.
- Lowell Tait interview – Whitehorse Lake Trout angling expert.
- Shawn Taylor – YG Regional Biologist Haines Junction.
- Sascha Danylchuk – Executive Director/Scientist - Keep Fish Wet.

Research

- Conservation Conflict Transformation (CCT) brief and research related to catch and release.

How did your activities contribute to your goals and objectives?

There are few efforts focused on fishing in the Yukon. There are many initiatives related to hunting and much of the effort and budget is directed this way. Through consistently promoting the Respect for Fish messaging, there has been an increase in interest and awareness in the complexity around catch and release. It is being discussed at many tables including the YFWMB's Angling Working Group, Yukon Forum - Lands and Resources Committee and the CYFN Fish and Wildlife Committee. These three groups and committees have the ability to come up with additional, complementary initiatives around Respect for Fish and the ethics around catch and release. In addition, the KDFN, and all the RRCs have expressed an interest in supporting the FEED course.

The extent to which the goals: increase resiliency in Yukon fisheries; decrease mortality in “regulatory” and voluntarily released fish; and increase shared values and respect for fish have been met are difficult to measure. The latter goal of shared values and respect for fish has been a success demonstrated by the numerous organizations that took part in the Spring Grayling Fisheries campaign. The shared messaging used in that campaign was a testament to the success of this project.

The metrics associated with project were met with respect to number of presentations (8) as well as the numerous communications materials presented (3 videos, photos, and press releases).

Note and variances to your goals, objectives or work plan and explain why they occurred.

Like most initiatives that took place in 2020-2021, dealing with covid-19 was a consideration. There were few face to face meetings or opportunities for engagement. ZOOM meetings were held with most organizations while some meetings did take place on the land.

One variance to our goal, which is in the process of being completed at this time, was the timing around the development and delivery of the FEED course. It took much longer than anticipated with the “prototype” having been developed as of January 2021. Project partners are in the process of testing it at this time. Anglers will be testing it between March and April with a soft launch April 1.

Explain how the results of your work contributed to the protection, enhancement or restoration of fish, wildlife or their habitat.

Aside from accomplishing the goals as stated above, this project highlighted the importance around: 1) low productivity in Yukon’s rivers and lakes, 2) increasing human pressures on fish and fisheries, 3) poor handling practices associated with release leading to increased fish mortality, 4) climate change induced increases in water temperature as the “master factor” and 5) angler engagement and awareness is limited.

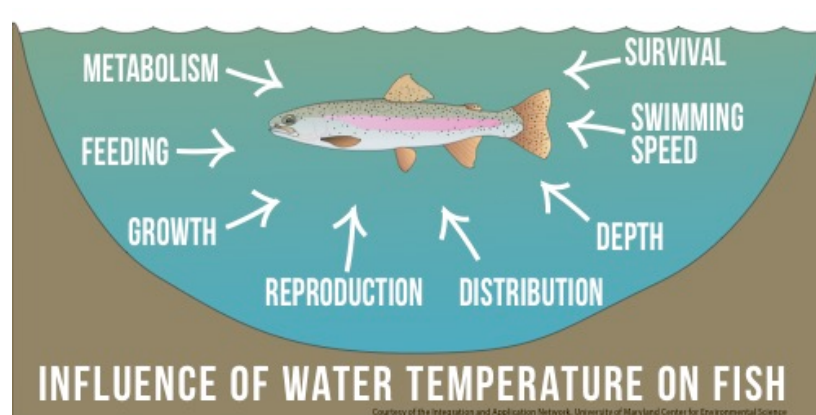
Low Productivity - Yukon’s freshwater fisheries harvest occurs in rivers and lakes which are low in primary productivity and consequently less productive than southern Canadian lakes. Within these systems, fish are slow growing and recover slowly from any form of collapse (Sinclair and Perry, 2020).

Increasing Human Pressures - There is increasing pressures on Yukon’s fisheries from a variety of users. In particular, licensed recreational fishing is increasing at an annual growth rate for Yukon of 2% for Yukon residents (including First Nation anglers) with license sales increasing by 35% (Sinclair and Perry, 2020). Yukon has the second highest participation rate of recreational angling within Canada (16%) with 15,000 licenses sold. Licensed recreational anglers harvest approximately 86%

of Yukon's freshwater fish with First Nations harvesting approximately 7% (Environment Yukon, 2010).

Fish Mortality Associated with Poor Handling Practices – The science and research associated with catch and release of fish has grown substantially over the last 15 years. Whether the fish are released voluntarily (as a conservation measure) or from a regulatory perspective (i.e. slot sizes with a fish too large or too small or the wrong species) the science has demonstrated that angler handling practices are one of the largest determinants of fish survival. Yukon anglers release 83% of their fish caught with mortality rates on released fish, such as lake trout at 21.2% +/- 8.7% (DFO 2019) (Huhn and Arlinghaus, 2011). Anthropogenic factors include: hook type, use of natural baits and barbed hooks (Huhn and Arlinghaus, 2011). Behaviors identified in Yukon associated with increased rates of mortality include: excessive catch and release, use of downriggers with temperature sensitive species/barotrauma and increased air exposure due to social media posting of photos (Carcross/Tagish RRC and Zimmermann, 2020).

Temperature as the “master factor” – Climate change presents a serious threat to the productivity and sustainability of recreational fisheries (Hunt et al., 2016; Paukert et al. 2016; Townhill et al. 2019). Yukon's experiencing significant changes with an increase of 2.3 degrees between 1948 and 2016. This is close to three times the rate at which global temperatures are rising (Government of Yukon, 2020). As seen in the diagram below, water temperature influences fish in numerous ways. As mentioned in the north, climate change is increasing at a higher rate than southern jurisdictions, which in combination with anthropogenic impacts can have a compounding effect (Keep Fish Wet Presentation, 2019).



Angler Engagement – There have been few opportunities for anglers, First Nation citizens and the general public to engage and discuss fisheries concerns and opportunities. Outside of the formal fishery regulatory review process every two years, there are few materials, little information and venues for this to take place.

The effects of increasing water temperature and handling practices are important stressors on fish can be communicated to anglers and addressed through behaviour change and adaptation approaches.

If you were to do the project again what would you do differently?

It is a complex project with many moving parts. Outreach and education within covid was difficult to navigate. The only area that could have been changed would have been trying to bring anglers together to discuss. Numerous meetings were held with First Nations and Land Claim organizations or committees regarding Respect for Fish or catch and release. This is very important, however, consistent angler engagement is required to build trust and connection to licensed public anglers. There are still so few opportunities for them to participate, learn and share their perspectives. It is difficult to “bridge” and move forward together under the Umbrella Final Agreement when there is little meaningful engagement and dialogue. Moving too far ahead without bringing along one of the stakeholder groups most impacted by regulatory changes to licensed fishery may only result in additional conflict. This is an issue across many of our fish and wildlife management project and programs.

Additionally, one could have invested more time in developing the curriculum for the FEED course earlier in the fiscal year. It was continually pushed back and did not happen until three quarters through the year (Oct-Dec) which made testing the prototype prior to this reporting period difficult.

Communications:

What did you do to ensure your results were shared with appropriate groups, people or governments?

The nature of the project involved sharing results and facilitating discussions with Governments, NGOs, RRCs and other Chapter 16 organizations and committees. Presentations shared relevant aspects of the project in order to further the discussion. For example, most presentations focused on the political complexities around catch and release, research, and science based best practices. The project also highlighted strategies to make progress with additional outreach and education and ultimately angler behavior change. Some groups, such as the Yukon Forum – Lands and Resources Committee and the CYFN Fish and Wildlife Committee asked for multiple presentations which supported moving more in-depth with conversation.

Describe how you recognized the Enhancement Trust and/or its mandate?

The YFWET was featured as a supporter and funder on all presentations as well as on Spring Grayling Vulnerable Fisheries Campaign and the upcoming FEED course.

Additionally it was mentioned on social media posts and the Respect for Fish website.

Suggested Citation for this Report:

Respect for Fish – Angler Behaviour Change Through Education and Outreach, Final Report for the Yukon Fish and Wildlife Enhancement Trust. Dennis Zimmermann, Big Fish Little Fish Consultants. February 2021.

Project Facilitated and Final Report Written by:

Dennis Zimmermann, MSc.
Big Fish Little Fish Consultants
P: 867-336-3474
E: bflfyukon@gmail.com



Southern Lakes Fisheries Angler Education and Outreach Campaign - Spring 2020

Education and Outreach Focussed on Grayling, Northern Pike and Lake Trout at the Lubbock River, Little Atlin Lake and additional accessible locations in the Southern Lakes.



Carcross/Tagish Renewable Resources Council

June 2020

Campaign and Outreach Facilitated by:

Dennis Zimmermann - Big Fish Little Fish Consultants



Overview:

Increased fishing pressure in the accessible Southern Lakes was already a concern, prior to covid-19. The concern for vulnerable Lubbock River Grayling and Little Atlin Lake Trout was the impetus for this campaign led by the Carcross/Tagish Renewable Resources Council (C/TRRC). The C/TRRC working with partners Carcross/Tagish First Nation (C/TFN) and the Department of Environment (DOE), hired Dennis Zimmermann with Big Fish Little Fish Consultants to develop an outreach and education campaign in the spring of 2020.

The outreach and education campaign featured numerous tactics and means by which various messages could be presented to the licenced Yukon angling public. Tactics included the installation of signage at approximately 11 locations, a press release, social media communications and outreach over four weekends between May and June at the Lubbock River and one weekend at Little Atlin Lake.

Feedback from anglers and the public has been positive both on social media, in-person responses, and anecdotally comments from the community. Some of the greatest successes of this campaign include:

- facilitating a positively focussed and proactive fisheries campaign during a time of increased fishing pressure (covid-19);
- broad partnerships (11 partners) including four First Nation Governments, Government of Yukon, not for profits, and co-management boards;
- generating awareness around the sensitivities associated with vulnerable Southern Lakes fisheries and beginning difficult conversations around catch and release fishing, best practices in fish handling, and general respect for fish;
- supporting a rare partnership with First Nations, RRCs and the licensed angling public through the Yukon Fish and Game Association; and
- providing a rare platform for outreach and science, and a means for licensed public anglers participation and information exchange.



Lubbock River Fishery Outreach (May 2020) pictures, including team members, kids and families fishing , signage and installing a discarded fishing line receptacle.

Context and Problem We Are Trying to Solve:

Spring grayling runs in the more accessible areas within the Southern Lakes were facing concerning levels of pressure prior to covid-19. These spring grayling runs are popular given they offer an opportunity to fish on water to eager anglers after a long winter. Other fisheries are not accessible or favourable due to the ice/water conditions. In addition, small Lake Trout populations with limited summer habitat at Little Atlin Lake are of conservation concern.

Given covid-19 there was anticipated to be increased pressure on these Southern Lakes fisheries due to Whitehorse anglers not being able to redistribute effort throughout Yukon and Alaska. Accessible areas, such as Lubbock River, Nares River, Johnson's Crossing, Takhini River, Marsh Lake and more, were anticipated to see more pressure on these vulnerable spawning populations.

Current regulations don't limit catch and release effort leaving this as a voluntary effort on the part of anglers. With no requirement for angling education in Yukon some anglers are unfamiliar with fish handling best practices that will reduce mortality or physiological stress on an actively spawning population. There will also be less enforcement or presence of Conservation Officers, Game Guardians, or Ecological Monitors given covid-19 re-deployment. Finally, there is also a secondary concern around the handling practices associated with large Lake Trout targeted and caught on the larger southern lakes (i.e. Tagish, Bennett and Marsh Lakes).

During these uncertain times, fishing is a positive activity that can engage an entire family. These extraordinary circumstances under covid-19 provide a reason, and opportunity to develop a positive, informative, and partnership-driven educational campaign focussed on voluntary behaviours, angler stewardship, and respect for the resource.

Goal:

Educate anglers on fish handling best practices and specific vulnerabilities associated with harvesting and excessive catch and release on various fisheries in the Southern Lakes areas.

Objectives:

- Share science-based best practices in fish handling to reduce mortality of catch and release practices.
- Reinforce the existing regulations and the need to live release larger mature spawning fish.
- Voluntarily reduce angler effort and excessive catch and release.
- Highlight specific information on specific fish and fisheries (i.e. creel data, weir counts – where available)

Specific angler behaviours looking to change:

- Voluntarily reducing angler effort (i.e. hours fished, number of fish caught) during the spring run of grayling (during covid-19).
- Reducing the number of fish caught and released (voluntary and regulatory).
- Raise awareness of fisheries related conservation concerns in the Southern Lakes.
- Support using single-barbless hooks as a means for voluntary and regulatory release of fish.
- Utilizing fish handling best practices – minimize air exposure, eliminate contact with dry and hard surfaces, and reduce handling time.



The posters that were placed in prominent locations at the Lubbock River, Little Atlin Lake and numerous other locations within the KDFN, TKC and TTC traditional territories.

Values and Acknowledgements:

- Getting families out fishing, hunting and generally outdoors, especially after a long winter is a good thing and should be encouraged.
- People need to stay healthy and connected to the natural environment.
- There are other priorities, such as human health and covid-19 transmission that need to stay top of mind.
- Yukoners are sensitive to over-regulation and conservation messaging at this time given the numerous engagement processes and resource conflicts (i.e. Adaptive Moose Management Regulations).
- In the absence of emergency regulations, educational messaging needs to support broad partnerships, be simple, positive, and not vilify activity of the public OR they will disregard, tune out or disregard the advice.
 - Positive – should support fishing and respectful behaviours.
 - Partnership driven – co-management and driven by grass-roots organizations such as the YFGA, C/TRRC and supported by Governments (Yukon and First Nations).



Little Atlin Lake Fishery Outreach (June 2020) pictures, including creel survey, team members meeting, kids and families fishing, signage and support Lake Trout signage (YG).

Partners:

The following 11 partners were associated with this campaign:

- Carcross/Tagish RRC (project sponsor and financial supporter)
- Carcross/Tagish First Nation
- Government of Yukon - Environment Yukon
- Kwanlin Dün First Nation (paid for their own printing and installation)
- Ta'an Kwäch'än Council (paid for their own printing and installation)
- Yukon Fish and Game Association (provided \$200 in printing support, distributed to their membership via email/Facebook/Outdoor Canada Magazine)
- Respect for Fish
- Keep Fish Wet/Keepemwet Fishing (provided best practices in fish handling science)
- Teslin Tlingit Council (paid for their own printing and installation)

- Yukon Fish and Wildlife Enhancement Trust (secondary supporter of Respect for Fish)
- Yukon Fish and Wildlife Management Board.



Left to Right: YFGA participation included an email to all members and submission to the *Outdoor Edge*, as well as fishing rods and tackle enjoyed by Pheonix, 8 yrs old.

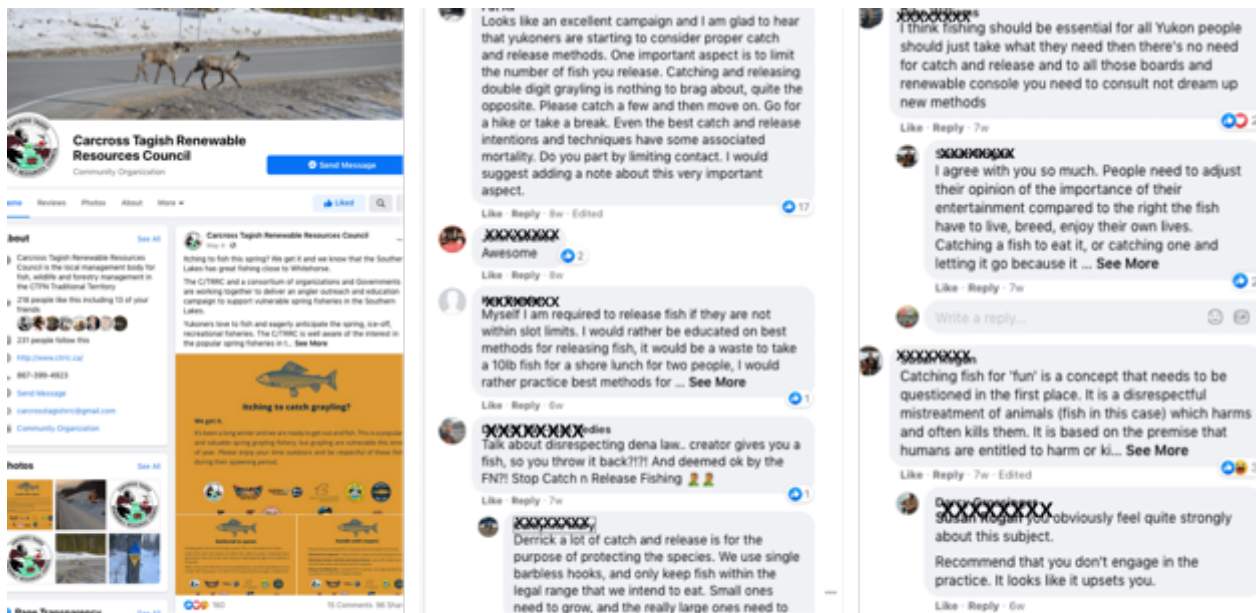
Tactics and Results:

The following tactics were employed by the C/TRRC and partners through this campaign:

- **Signage** - at key access points (seven plus locations) for Grayling signs within the Southern Lakes (multiple locations including the C/TFN, KDFN, TKC and TTC traditional territories)
 - Lubbock River
 - Marsh Lake bridge
 - Jackson/Louise Lake
 - Fox Creek, Fox Lake and Little Fox Lake
 - Johnsons Crossing (other two other TTC Locations TBD)
- **Signage** - at Little Atlin Lake for Northern Pike and Lake Trout.
- **Outreach at Lubbock River** – 3 weekends within the month of May for Lubbock River Grayling outreach and education:
 - Set up a trailer and large boards. Facilitated education with individual anglers. Most anglers read the signs. We also tried to share statistics

and gather their perspectives and provide an opportunity for feedback.

- On the large boards provided by the C/TRRC. Posted paper with: What is special about these Grayling/Pike/Lake Trout? Why should we care? What can we do to support Grayling/Pike/Lake Trout? This provided an opportunity to gather anglers perspectives, share key messages and present relevant research and data. These were informed by existing studies and discussions with biologists, First Nations and RRC members.
- YFGA loaned their rods and set them up which were shared them with families that were fishing and perhaps not set up well (especially kids)
- Handed out the DOE 2020 fishing regulations.
- **Outreach at Little Atlin Lake** – weekend of June 27/28th. Signs posted on the boards at the boat launch area. Distributed fishing regulations and generated angler conversation.
- **Social Media** – C/TRRC and Respect for Fish Facebook page posts with the posters. Facebook paid ads (\$60). C/TRRC - Number of likes: 178, Number of shares: 97 and 15 Comments.
- **Media Release** – CBC Interview with Dave White and Yukon News Story (Ken Reeder and Dennis Zimmermann). Copy of the press release in the appendix.
- **Creel** - at specific locations. DOE supported through this initiative.
- **Monitoring** – visited additional locations at Little Atlin, Snafu and Tarfu Lakes to identify the associated angling and camping pressure with campgrounds closed at that time.
- **Discarded Fishing Line Receptacles** – Youth driven project installed two receptacles at Lubbock River and Little Atlin Lake.
- **Photos** - with a professional photographer taken for educational purposes to focus on best practices in fish handling for Grayling.
- **Yukon Fish and Game Association** – an email sent out to all members with key messages regarding this campaign as well a story featured in their membership publication insert in *Outdoor Canada* magazine.



The C/TRRC Facebook page with a post focussing on the campaign. Comments shown support the campaign and the concern and diversity of opinions re: catch and release.

General Observations:

The following were general observations from the campaign:

- Having a Presence – found a balance being on-site and “taking up real-estate” and supporting anglers and their experience. Subtle presence without enforcement and stewardship and positive reinforcement. It was beneficial to have the DOE creel person on-site as well as the supplementary harvest data to analyze.
- Conversations around Management – some anglers wanted to chat and we were able to get into the narrative around fisheries management. Talk about the complexities, and the tools available for fisheries management (i.e. outreach and education vs. regulation).
- Signs – were left up in prominent locations while we were not on-site.
- Discuss regulations – while this was education and outreach, it was beneficial to share thoughts on the regulatory regime and gather perspectives from anglers (i.e. small-bodied lake trout and the minimum slot sizes not being reached by sexually mature fish). The more engaged anglers were very curious about this as well as the data and science.
- Anecdotal Comments – received feedback from anglers that they had heard about the campaign prior to arriving either through Facebook or read the email from YFGA. There were some that voluntarily did not want to fish, or minimized their effort.

- Covid-craziness – a significant increase in fishing pressure was observed on most fishing areas by mid-June in the Southern Lakes. The Lubbock River area was full most weekends with campers, however, there was often room for more anglers as many were just camping. By mid-June all campgrounds in the area were full by mid-week with the Little Atlin boat launch area hosting nine campers on the long weekend.
- Campers – there were many people and families just camping and not fishing. Side by sides, ATVs, kits, paddleboards and other camping recreational activities took place at the Lubbock River
- Tone – it was important to keep it positive. Anglers commented that we “struck the right cord”. At times, it almost became a celebratory tone at the Lubbock River bridge when kids would catch fish.
- Teach – part of the engagement involved teaching kids how to fish, how to catch, handle and land fish, help them with gear and encouragement.
- Excessive Catch and Release – very few caught and release excessively. Those that knew how to fish would have the opportunity to catch many Lubbock River Grayling or Little Atlin Pike. Message was have fun, catch a few and take it easy on the fish. Note: everybody thinks they are good at catch and release.
- Suckers – spawning suckers at the Lubbock River was an interesting observation and provided an opportunity to learn more and appreciate the fish in general.
- Well-behaved – very little poor behaviour – few “bad eggs” i.e. lifting grayling up at bridge, dragging fish, snagging fish. There were some over-sized Grayling and Northern Pike with anglers not knowing or did not have anything to measure. Additionally, some anglers did not kill their fish prior to providing to the creel (i.e. still alive in a bucket with no water).

In an effort to target messaging to specific angler demographics the following angler profiles were observed. Note, these were generalizations based on observation at the Lubbock River and conversations with these anglers.

- **Fishing Families** - families with young children there to catch a fish with their child. Often had quads and other activities to keep the children busy.
- **Childless Young Couples** - more serious anglers but also interested in the overall camping and wilderness experience as well.
- **Serious Dudes** – males that were there to fish. Also called the “hit squad” as they would park quickly, jump out of the truck, get away from the crowd and fish. Not necessarily interested in the signage.
- **Casual Compadres** - more casual angling pairing that were out for a day of fishing. They were pleased whether they caught anything or not.

- **Novice Anglers** – not aware of how to catch Grayling, however, heard this was a good place to catch a fish. Poor handling practices and gear choices due to lack of knowledge.
- **Fly-fishing Purists** – decked out with the gear that consider spring Grayling part of their annual ritual prior to other fisheries. Can easily catch fish and practice voluntarily catch and release.
- **First Nation Citizens** – citizens and families that are C/TFN or First Nation citizens that have a connection to this area and enjoy catching a Grayling or Pike for subsistence.
- **Retired Campers** – older couples, with friends enjoying camping “off the grid”. Side by sides and other camping related activities as well. One party stayed ~ 10 days at the Lubbock River with a 30 foot motorhome trailer.
- **Ethnic Families** - members of the South Asian communities that enjoy fishing, often fish with multiple families and harvest fish for food.



Other Grayling sign locations: left to right, KDFN traditional territory at Jackson/Louise Lake and the Marsh Lake Bridge. C/TFN traditional territory at Nares Bridge in Carcross.

Suggestions for Future Projects:

The campaign was successful and well received. The following are suggestions for future years:

- **Continued annual presence** would be beneficial to continue this effort for multiple years at the Lubbock River and Little Atlin Lake with the option of rotating outreach and education locations such as, Tagish (Six Mile) boat launch and bridge, Nares River, Snafu Lake and Tarfu Lake campgrounds. Possibility of an annual outreach and education event with more

engagement, partnerships, and activities (i.e. Pike Filleting, fly fishing lessons, assuming no covid-19 concerns).

- **Facilitate information and dialogue** amongst anglers interested in fishing in the Southern Lakes. This can be done through social media or facilitated forums bringing anglers together. The upcoming Community-Based Fish and Wildlife Workplan or Tagish River HPA for the Carcross/Tagish Traditional Territory may provide action items in this regard. Hosting a pre-season report or post-season meeting with science, TK and information on the respective status of specific species and locations in the Southern Lakes.
- **Southern Lakes public fishery strategy** - Raise the profile of Southern Lakes fisheries and coordinated efforts. Include focussed presentations and dialogue with C/TFN, YFGA, YFMWB, DOE, boat retailers, fishing guides, Yukon Energy Corporation, Kwanlin Dün First Nation and more.
- Target **specific angler demographics**. Understanding which angling segment to be targeted and which tactics to approach them (i.e. new anglers at the Lubbock River and large boat anglers targeting large Lake Trout at Large Lakes).
- Focus on **specific angler behaviours** to change. General best practices in fish handling information and angling regulations are useful to all anglers, however, specific behaviours such as excessive catch and release, using single-barbless hooks (avoiding treble-hooks, and best practices in fish handling for large Lake Trout from large boats.
- Continue to Focus on **specific locations and species** (i.e. Little Atlin, Lubbock River, Six Mile River, Tagish Lake) – the more specific to that lake or river the better as anglers often frequent the same areas and have a connection or knowledge of that location.
- **Align this research and observations with DOE Creel Data.** Bring together the data, reports/studies, creel into a Southern Lakes Public Fishery Strategy in partnership with C/TFN and DOE. This would be aligned with implementation items in the Community-Based Fish and Wildlife Workplan. This would support regulatory efforts and potential changes.
- Support fisheries training and education related to **Online Education in Fish Handling Best Practices and a Fisheries Education and Ethics Development Course** (FEED) for the Southern Lakes.

Press Release



For Immediate Release
2020

May 4,

Itching to Fish this Spring? Campaign to Support Vulnerable Spring Fisheries

All Media Contacts

Tagish, Yukon Territory

The Carcross/Tagish Renewable Resources Council (C/TRRC) and a consortium of organizations and Governments are working together to deliver an angler outreach and education campaign to support vulnerable spring fisheries in the Southern Lakes. The outreach and educational campaign includes outdoor signage, a social media campaign and a physical presence in certain areas.

Yukoners love to fish and eagerly anticipate the spring, ice-off, recreational fisheries. The C/TRRC is well aware of the interest in the popular spring fisheries such as: Nares River, Lubbock River, Marsh Lake, Little Atlin Lake, Snafu Lake and Tarfu Lake. Given their proximity to Whitehorse, these areas have seen an increasing amount of fishing pressure over the last decade. Some specific populations of grayling and lake trout are of notable concern and have been subject to regulation changes in order to address this increasing pressure.

Given covid-19 there is anticipated to be increased recreational fishing this spring and the C/TRRC is concerned that some of the more vulnerable, Southern Lakes spawning populations may struggle with this stress. Fish such as grayling, gather and spawn in the spring and are targeted by catch and release recreational fisheries. This stress from catch and release can affect their ability to spawn, which can impact future generations.

Ken Reeder, C/TRRC Chair states “we know that fishing is a great way for families to get out and enjoy the beautiful Southern Lakes. We also know that some of our

populations of grayling are smaller than they appear. Often it seems like there are many grayling in a particular area, but it is often the same grayling being caught multiple times. We want anglers to enjoy themselves, while limiting their fishing effort, including catch and release, and treat fish with respect”.

Current regulations don’t limit catch and release effort leaving this as a voluntary effort on the part of anglers. With no requirement for angling education in Yukon, some anglers are unfamiliar with fish handling best practices that can reduce mortality or physiological stress on an actively spawning population.

Dennis Zimmermann, a local fish and wildlife consultant responsible for delivering the campaign states “we are pleased to see such a great level of partnership in this campaign. These organizations are working together through education and outreach to demonstrate a shared stewardship of these fish and fisheries. We hope the licensed angling community follows the best practices and does their part to contribute to the conservation and sustainability of these vulnerable fish at this time of year”.

The campaign is funded by the C/TRRC and the Yukon Fish and Wildlife Enhancement Trust (YFWET). Partners in the initiative include: C/TRRC, YFWET, Carcross/Tagish First Nation, Yukon Fish and Game Association, Yukon Government, Kwanlin Dün First Nation, Ta’an Kwäch’än Council, Taku River Tlingit, Respect for Fish, Keepemwet Fishing, and the Yukon Fish and Wildlife Management Board.



YUKON NEWS



A fisherman casts his line into the Yukon River in Whitehorse on May 5, 2017. Fishermen travelling to the Southern Lakes region this season are being asked to show restraint and respect to help protect vulnerable grayling and lake trout populations. (Tom Patrick/Yukon News file)

Fishermen urged to show restraint, respect when fishing in Southern Lakes region

JACKIE HONG / May. 8, 2020 1:00 p.m. / [LOCAL NEWS](#) / [NEWS](#)



The Carcross/Tagish Renewable Resources Council is urging fishermen travelling to the Southern Lakes region this season to show restraint and respect to help protect vulnerable grayling and lake trout populations.

The council, along with a group of other organizations and Yukon First Nations governments, launched an awareness campaign on May 4 reminding fishermen to catch only what they need and limit catch-and-release activities.

The campaign comes in anticipation of an increase in activity in the Southern Lakes region due to COVID-19 potentially deterring Yukoners, particularly Whitehorse residents, from travelling Outside instead, C/TRRC chair Ken Reeder told the News May 5.

"We're not saying don't come and fish and enjoy it — we want everybody to get outdoors and you know, enjoy bringing the kids fishing," Reeder said.

"Just respect the fish, handle them properly and really think about, you know, how many fish do I need to harvest and take home? Maybe I can just get by