

Life Lines: Discarded Fishing Line Retrieval and Recycling

Final Report

October 12, 2020

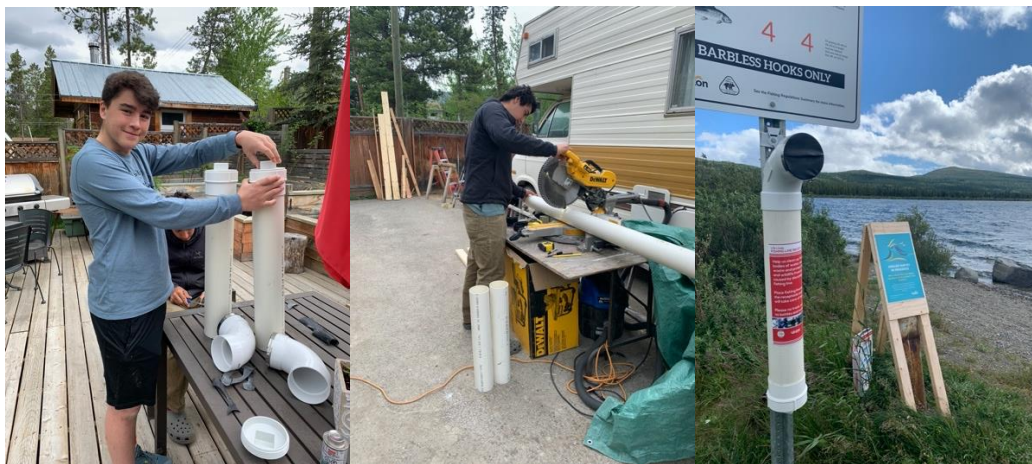
Team Members:

Sara Charlton - Grade 12, FH Collins Secondary School - Project Manager
Aleix Toews - Grade 12, FH Collins Secondary School - Director of Sponsorship
Max Zimmermann - Grade 11, FH Collins Secondary School - Director Community Support
Ljubica Tokic - Grade 12, FH Collins Secondary School - Director of Research
Bella Mouchet - Grade 11, FH Collins Secondary School

Dennis Zimmermann – Big Fish Little Fish Consultants - Mentor
Meera Sarin - Teacher and Social Justice Coordinator - School Support

Project Activities

- Activities completed:
 - o Building and installation of five fishing line receptacles:
 - Lubbock Prototype (temporary - May 10, 2020)
 - Hidden Lakes, Pump House (July 26, 2020);
 - Fish Lake (July 26, 2020);
 - Jackson Lake (July 26, 2020);
 - Yukon River Intake (September 17, 2020)
 - Little Atlin Lake (temporary – June 10, 2020)



- Collection of fishing line at receptacle locations (includes brief clean-up of each area).



- Two clean-ups of Yukon bodies of water:
 - Pumphouse Lake and Chadburn Lake (April 22, 2020)
 - Yukon River (September 27, 2020)
- Planning and facilitating of World Rivers day in Whitehorse
 - Providing food and drink for volunteers.
 - Disposing of waste.
 - Advertising the event at schools, social media and on the radio.
 - Provided door prizes for volunteers.
- Presented our project to the F.H. Social Justice Club
 - Providing pizza for students.
 - Informing students on how to dispose of fishing line
 - Showing students the condition of Yukon bodies of water



- How our goals were met:

- Ultimate Goal: Clean up our lakes and rivers, raising awareness, educating, and developing a fishing line receptacle and recycling program.

Goal	Description	Was it met?	How?	How did this contribute to wildlife and habitat?
Signage	To have signage to inform people of the harms caused by fishing line and how to properly dispose of it	Not yet – we ran out of time over the summer to make informative signs	There are signs on the receptacles that advertise the project but no information on why the project is important and why/how monofilament is an issue.	We have not done this yet. If we had this would involve putting a man-made object on the land however we feel that the positive consequences are worth the negative.
Receptacles	Place three receptacle in and around Whitehorse at popular fishing spots	Yes	We have placed a total of five receptacles in different locations: Hidden Lakes (July 26, 2020), Fish Lake (July 26, 2020), Jackson Lake (July 26, 2020), Yukon River Intake (September 17, 2020), and a test receptacle at Lubbock (May 10, 2020)	We put a man-made object on the land however we feel that the positive impacts are worth it. We have collected quite a bit of fishing line from the receptacle so, we can assume that there is less ending up in the environment.
Recycling	Collect the fishing line and either send it away to be properly recycled or use it to make art	50/50	The fishing line has been periodically collected however, it has not been recycled or made into art yet.	We have not done this yet
Clean up	To minimize the amount of	Yes	We have collected _____ monofilament	There is now less garbage polluting

	additional monofilament and other garbage that ends up in and around lakes and rivers as well as clean up what is already there.		from the receptacles. We have done two clean ups of Yukon bodies of water: A clean up of Chadburn Lake (April 22, 2020), and a cleanup of the Yukon river (September 27, 2020). We also spent some time picking up garbage when we checked on the receptacles.	the environment in the areas we did clean-ups.
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Communications

Our project is very well supported by the community. We spoke with the following organizations and they were willing to support our project in the following ways:

- Kwanlin Dun First Nation – community support, potential location for testing
- Society of Yukon Bird Observatories – community support
- Environmental Dynamics Inc. – community support, funding potential
- Yukon Fish and Game Association – community support, newsletter/communications
- City of Whitehorse – community support, funding potential
- Environment Yukon – community support, project support, funding
- Yukon Conservation Society – community support
- Hougen’s Sports lodge – community support, depot for fishing line
- Big Fish Little Fish Consultants – community support, mentor support
- Respect for Fish – community support, communications support

These meeting helped us decide where we should/can put up receptacles as well as the steps necessary to get approval to put up the receptacles. A graphic designer working at EDI provided graphic design support in-kind to design the stickers.

We were able to get the following media reports:

- CBC article: *It's unreel: Students tackle fishing line pollution in Whitehorse lakes* (October 20, 2019)
 - o Mentioned the Yukon Fish and Wildlife Enhancement Trust as our funders wherever possible.

North

It's unreel: Students tackle fishing line pollution in Whitehorse lakes



'Once you start finding it, it is everywhere. And there's huge bundles of it,' said student Sarah Charlton

CBC News · Posted: Oct 20, 2019 7:00 AM CT | Last Updated: October 20, 2019



Some Whitehorse high-schoolers say they found a 'shocking' amount of discarded fishing line in and around some local lakes — and they're looking for solutions. (Submitted by Dennis Zimmerman)

When Sarah Charlton and some fellow students went looking for lost or discarded fishing line at some Whitehorse lakes, they weren't sure how much they'd find.

They gave themselves 20 minutes at each of two popular fishing lakes, to get a rough measure of what they were dealing with.

"It was kind of crazy," Charlton said. "At first, you kind of look around, you don't see much — but once you start finding it, it is everywhere. And there's huge bundles of it."

"It was hard to leave after 20 minutes, because there's so much more."

Max Zimmerman, another one of the students, said it was "a shocking amount."

The group of four students from F.H. Collins Secondary School came up with the idea for something called the "[Three Percent Project](#)," a national program that offers mentorship to students tackling local issues.



Sarah Charlton says they found line in the water, and sometimes wrapped around trees. (Submitted by Dennis Zimmerman)

The fishing line idea originated with Zimmerman's dad, Dennis, who's an environmental consultant. He calls lost or discarded fishing line "a silent killer."

"It deeply impacted me, many years ago, when I saw this northern harrier hawk all tangled up, and that died," Dennis Zimmerman said.

"It really did inspire me to kind of want to do more cleanups."

- [Woman finds lots of poop while paddling Yukon River, wants campers to be more responsible](#)

Max Zimmerman and his friends at the school's social justice club decided to run with the idea. The Three Percent Project teamed them up with a mentor, and Dennis Zimmerman is also helping out.

"I think it's a really cool, practical, hands-on, Yukon-focused project that can really help fish and wildlife — because they are getting tangled up and killed out there," Dennis said.

Looking for solutions

The project is still taking shape. Visiting a couple of lakes was just the first step — now, the students are looking for possible solutions.

"Part of the project would be to inform people, so we're hoping if we could make signs that told how to properly dispose of [fishing line], and what the harm that it causes is," said Charlton.

One idea that the students are looking at is installing receptacles at some popular lakes, where anglers can dispose of unwanted line. It can then be properly disposed of (submitted by Dennis Zimmerman)



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Another possibility is to install special receptacles at popular fishing lakes, to collect unwanted line. They plan to build a prototype, and look for other local organizations to get involved.

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"People can put it in [the receptacles] if they don't want to bring it home and dispose of it themselves. So, it's really just to inform people and to reduce the amount that ends up in the environment," said Charlton.

Any line collected in the receptacles could later be cut up, or possibly recycled. The students might even use it for an art project.

"We're still brainstorming on that," said Max Zimmerman.

- Yukon News article: *Reeling in used fishing line* (June 30, 2020)
 - o Mentioned the Enhancement Trust as our funders



Crystal Schick/Yukon News Max Zimmermann, one of the three F.H. Collins Secondary School students that created a fishing line receptacle in hopes of reducing fishing line litter, finds a bundle of fishing line falling out of a garbage bin at Hidden Lakes in Whitehorse on June 22.

Reeling in used fishing line

Project will see four collection receptacles put in place around Whitehorse lakes

Tangled balls of fishing line are a common find around waterways in the Yukon and a group of F.H. Collins Secondary School students may have a solution to reduce that drastically.

Sara Charlton, Aleix Toews, and Max Zimmermann are continuing with a project they started during the school year that will see their fishing line receptacles placed at four lakes in the Whitehorse area, at least to start.

"We may expand (on that) later," Zimmermann said, describing the initial four as a bit of a pilot project.

The receptacles are made out of PVC pipe with a covering on the end that prevents wildlife from getting in while still allowing a small opening where discarded fishing line can be dropped in. Signs will be placed on each, letting fishers know how they work and the impact they may have.

As the three students explained during an interview in the Hidden Lakes area of Whitehorse June 22, the project came about after a presentation by the 3% Project at their school. The 3% Project is an organization challenging youth to take local action on climate change.

All members of F.H.'s social justice committee, Charlton, Toews and Zimmermann worked to come up with a project that would make a difference in the territory. Zimmermann recalled his dad Dennis' work with fish and the issue of errant fishing line in and around water bodies in the territory.

The trio pointed out not only does the errant fishing line contribute to more plastic being left in the water, but wildlife can become tangled in the fishing line wherever it is left. Even if it is discarded into the trash, if it is not cut into small pieces, birds can end up getting tangled in it at the landfill.

With that, the group started looking at better ways of collecting discarded fishing line, eventually coming up with the idea of using the pipe pieces.

"It would have been a good learning experience," Charlton said citing mentorship opportunities. Zimmermann adding he would have liked to learn more about what others were doing to take action on climate change.

He also said the group was pretty proud to have their work selected for the final summit.

Despite the summit not happening at this time due to COVID-19 and the school year being officially wrapped up, the trio is pleased to continue their work on it through the summer.

As Charlton said, knowing just how big the problem is and having a means to make a difference makes her want to continue the effort.

"All three of us definitely like being outside," Toews said, adding that wildlife is important to him so he wants to do something to help.

Four receptacles will be placed at some of the more popular fishing lakes around the city in the coming weeks with another set to be on display at Hougen's Sports lodge.

The three students said if it proves successful, receptacles may be placed at more Yukon waterways in the future.

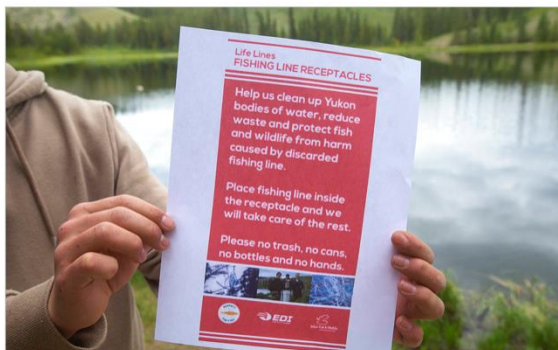
A small test run of a unit on a small creek near Little Atlin Lake revealed the receptacle could have the potential to divert discarded fishing line from the water or nearby shore with tangled discarded lines thrown into the unit with some visitors opting to discard their used fishing line in the receptacle.

The group also ran a survey during the school year, which showed support for the initiative.

"I think a lot (of people) would use them," Toews said.

Their initial efforts secured interest in making more with funding support and in-kind help from Respect for Fish (Dennis Zimmermann's consulting firm), the Yukon Fish and Wildlife Enhancement Fund, EDI (which has provided professional graphic designs for the stickers to be placed on the units and posters) as well as the Kwanlin Dün First Nation which has provided permission for units to be placed nearby some of its lakes and Hougen's Sports lodge, which is set to have a receptacle on display.

The project was also selected among the top 50 from across the country submitted to the 3% project. That position would have meant a trip to a Skill Up Summit May 11 to 14 in Toronto had COVID-19 not cancelled those plans. Each of the 50 projects selected would have been presented there.



- Whitehorse Daily Star article: *Dedication to cleaning up the environment* (October 2, 2020)