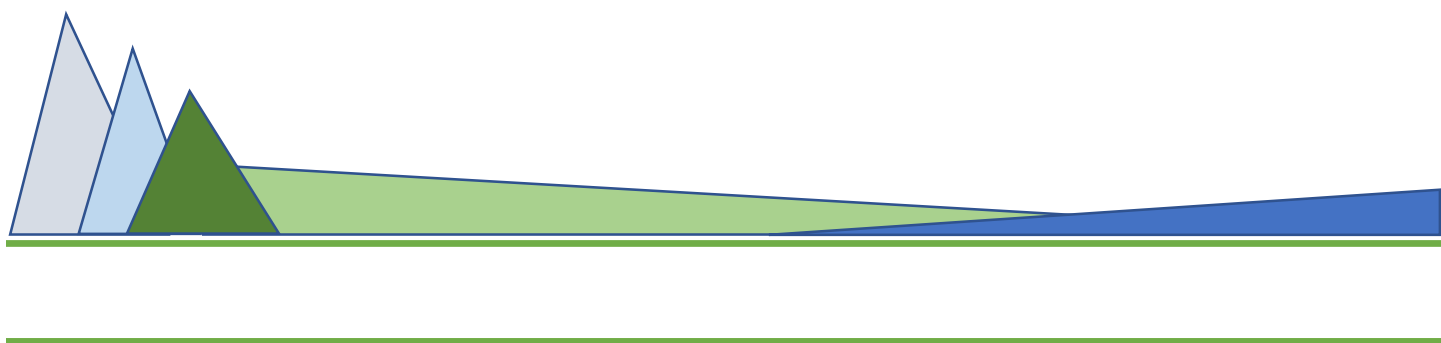


Local Knowledge Survey of the Southern Lakes 2022

Carcross / Tagish Renewable Resources Council





Local Knowledge Survey of the Southern Lakes 2022

Prepared for the Carcross / Tagish Renewable Resources Council

By

Lars Jessup and Matt Larsen
2022

Acknowledgements:

The Carcross/Tagish Renewable Resources Council and the authors would like to thank all the participants of the survey for sharing their knowledge, experiences, stories, and time with us. We would also like to thank Mark Wedge and Carcross / Tagish First Nation for reviewing the survey and providing their support. All photos in this report are from Andrew Serack, unless stated otherwise, and used with permission. This project was funded by the C/TRRC.

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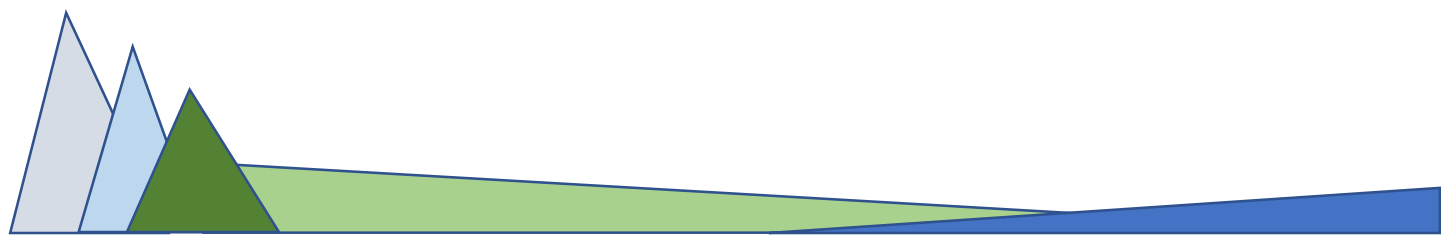


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Overview

This survey includes contributions from 15 residents of the Yukon Southern Lakes region within the territory of the Carcross/Tagish First Nation. Participants were recruited through word of mouth, with the C/TRRC seeking people who spend lots of time on the land. Efforts were made to survey both Indigenous and non-Indigenous participants as well as men and women.

In a typical year, these residents spend an average of 2,140 days on the land pursuing a variety of activities from gathering berries and other foods, collecting firewood, hunting, fishing, trapping, and recreating. This expansive local knowledge is not regularly recorded yet could be a valuable source of information for decision-makers. This survey was the first of its kind in the Southern Lakes, tracking the experiences of those close to the land and monitoring trends in the environment and human activity.

Participants were asked to share their experiences and observations on the land over the past year compared to other years. Topics included wildlife, fishing, human activities, gathering, hunting, trapping, gardening, and wood cutting. The survey was designed to better understand the land, water, and animals, the impacts and activities of the human population, and the relationship of the individual participants with the land.

This report displays the data visually, shares quotes from survey participants, and discusses the themes that emerged from the survey results.

“Many people ignore this information, so this is a good way to get this information across. Comparing across years would be very useful, animals have cycles... good to understand this with local information.”

“Great to incorporate local knowledge with other knowledge sources.”

“This should be done on an annual basis, should have been happening over the last twenty years and we would have a hell of a dataset.”

WHO WERE THE PARTICIPANTS?

15



■ Female ■ Male



■ C/TFN Citizens

TOTAL YEARS EXPERIENCE IN SOUTHERN LAKES

706

TOTAL DAYS SPENT ON THE LAND IN 2022

1,975

Survey Methods

The survey interviewed 15 residents of the Southern Lakes between February and April 2022. The results represent the observations of the participants from spring of 2021 to late winter of 2022. The participants were recruited through word of mouth. The number of participants was limited by the logistical constraints of the survey, including time and funding.

Surveys were done in person by the authors, and in most cases, audio recordings were used to facilitate accurate data transcription. Participants were able to skip portions of the survey, depending on their interest, and not every participant completed each section. Interviews took approximately 2 hours to complete. All participants signed a consent agreement prior to being interviewed. Not all participants agreed to be identified, so for consistency, no identities are revealed within the report.

The C/TRRC wanted to record quantifiable data where possible to allow comparisons through time with potential future surveys. At the same time, they wanted to enable the stories of the survey participants to be told. For this reason, the survey was designed to collect a mix of qualitative and quantitative data. Results in the report reflect this methodology and are displayed as a mix of charts, quotes, and descriptions.

The analysis of qualitative data was thematic, highlighting emerging themes and storylines. The responses and comments of participants were grouped into themes based on the content of the responses allowing analysis of overall survey results for qualitative data. Quantitative data were typically simplified into categories such “More than”, “Average”, or “Less than”, or participants were asked to select options from a list. This simplified the responses for survey participants, but importantly, this type of categorical data can be converted to a single average value to allow comparison with future surveys.

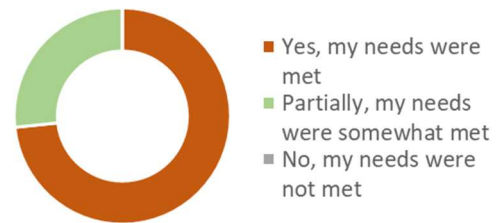
In many, if not most, cases there was a spread in responses across the category options. To allow readers to evaluate the responses, the data are presented visually, showing the number of responses in each category. The authors felt that this raw data was more informative for the reader, as it shows the spread of responses, rather than simply showing the average response.

The history of the interviewees in the region and their ongoing experience on the land represent a substantial reservoir of knowledge. However, the results have no statistical significance and should not be taken to represent broader public opinion.

Highlights

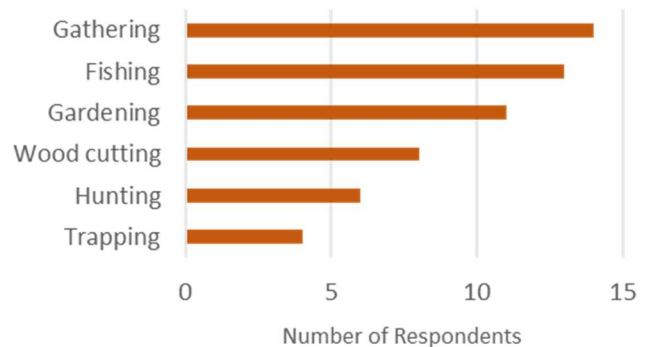
Were you able to maintain your relationship with the land over the past year?

Whether respondents relied on the land for subsistence, recreation, spirituality, or other reasons, their needs were largely met over the last year. Several responded that their needs were only partially met while none indicated their needs were not met.



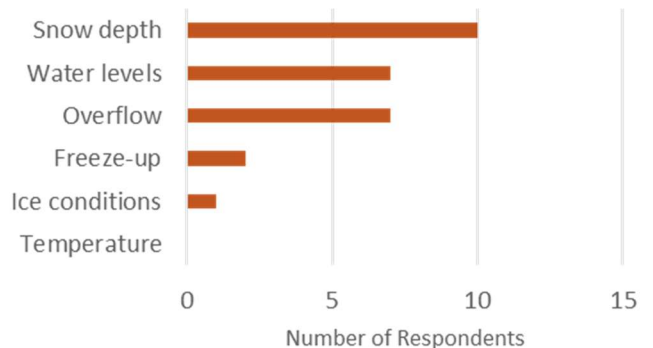
Activities on the Land

Respondents were asked about their own activities on the land last year under several categories. Gathering activities, including berry picking, were the most common shared activity among survey participants. A mix of respondents both with and without subsistence harvest rights provided a diverse perspective under the hunting and fishing categories.



Did the weather conditions create challenges for you out on the land?

Snow depth, followed by water levels and overflow were the most common conditions that affected participants' activity out on the land last year. The timing of freeze-up as well as winter ice conditions were also factors.

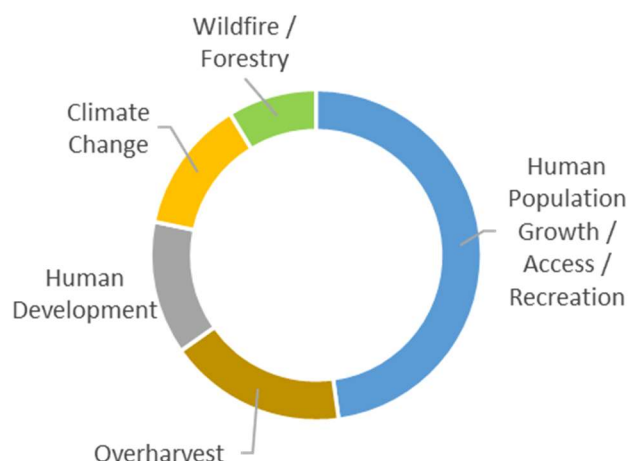


What is the biggest concern you have for fish, wildlife, birds, or their habitats in the Southern Lakes?

In the survey wrap-up, participants were asked to reflect on what their biggest concern was for fish, wildlife, and their habitats. They were also asked about potential solutions to their concerns. This provided a valuable look at local perceptions of the most pressing issues facing fish, wildlife, and land in the Southern Lakes.

Responses were grouped into broad themes to visually represent the results. Some responses were grouped into more than one theme. Many responses were related to human population growth and associated recreational activities and access into important habitats. Other themes identified were overharvest of fish or wildlife populations, human development, climate change, and wildfire risk and forestry. The following are a selection of responses from participants.

“The total human population of Yukon is having the biggest impact. What is our sustainable population that still allows us to live this lifestyle (on the land)? We are losing caribou habitat, wildlife habitat; the total human activity is too much across the Southern Lakes. Human use has shifted, used to be mining, now there is more tourism and recreation, impacting every season. New arrivals (to Yukon) don’t know much about the land and the people, how to respect traplines, respect traditional territories, and other activities. Education is important here.”



“Keeping the habitat intact under the pressures of human population growth. Public information about the impacts of recreation, educating the land users, snowmobilers, dog mushers, anglers, and others. A broad education campaign is needed... lots of people would do the right thing if they knew how. Enforcement would be my last option.”

“Used to be more birds that nested in the Tagish area, but they don’t anymore because of the dam, moves the water levels too much, erodes the banks. The dam also affects the fish, washes the eggs away, banks are less stable. The birds, ravens and swallows too, are all affected. Don’t see the muskrat anymore either.”

“People and their easy access to the land and all the impacts they have. Climate change is a big thing too, but with COVID it was noticeable that people are everywhere. In important habitats people should stay on certain access routes only to minimize impacts.”

“Education works better than a big stick, to enforce the rules you have to be out there. Disturbance to wildlife at that sensitive early winter season, animals are trying to conserve. When people go up high early with the snowmobiles... when they go in the Wheaton, the South Canol too, they climb up in those areas. People should stay down low in the early winter in sensitive areas. The RRC along with the First Nation and Yukon Government should all partner on messaging, collective knowledge, put it all together, just a good message from everybody.”

“Important habitat has been lost due to development; this also removes the land for anybody else to use”

“Caribou recovery should include restriction of snowmobile use within winter habitat. Late winter is a critical time, they are often stressed, there should be a decrease in human activity in the winter range during this time.”

“The length of time it takes to make a regulation change, some areas need to be closed to hunting. There are some people taking too many grayling from the bridge in Carcross.”

Observations of Animals



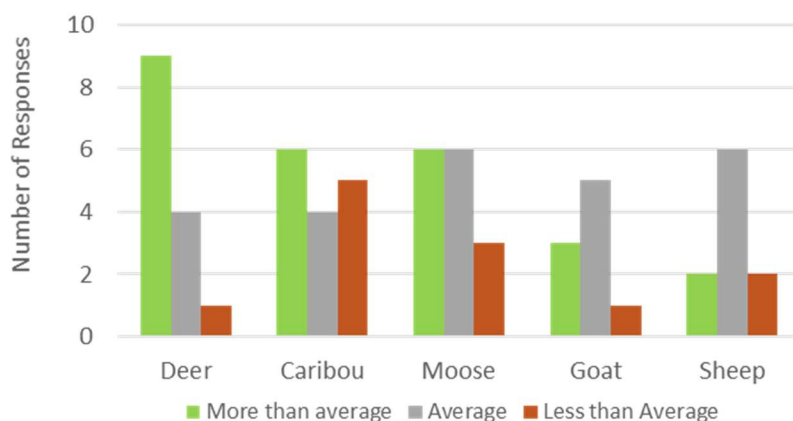
Participants were asked about their observations of animals over the past year, broken into sections about ungulates, predators, and other animals.

Ungulates

When asked how many ungulates they saw compared to other years, most respondents reported seeing more deer, but trends were less obvious for other species. However, the responses indicated that most people saw either average or more caribou, moose, sheep, and goats last year. Caribou was the most commonly reported as less than average, but this was balanced by responses for more or average numbers of caribou. Of those that reported fewer caribou, several linked fewer caribou sightings with deep snow and did not believe that there were fewer caribou in the population. Others pointed to historic caribou numbers, reminding us that the caribou have not yet recovered to what they used to be.

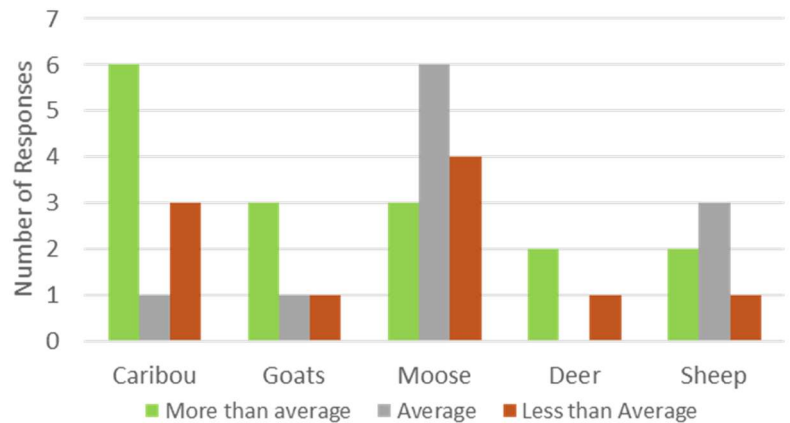
Of those that reported seeing fewer than average numbers of sheep, both individuals specified concern for the small sheep population on Caribou Mountain. Beyond localized concerns for moose around Carcross, Tagish and Annie Lake Road, there were few other concerns expressed about the population levels of caribou, moose, sheep, or goats. Only one observation of other ungulates was made, with one individual reporting hearing elk bugling near Lewes Lake, Jakes Corner, and Camp Yukon.

HOW MANY ANIMALS DID YOU SEE COMPARED TO OTHER YEARS?



Participants were asked how many young of the year (calves, lambs, fawns, and kids) they saw. More people reported seeing higher than average numbers for caribou and average or below average for moose. Fewer people reported seeing young of the year for sheep, goats, and deer. Goats were reportedly higher-than-average while responses were split for sheep and deer. One individual believed that high snow over the past two winters has been difficult for young of the year for all species, and there have been fewer as a result.

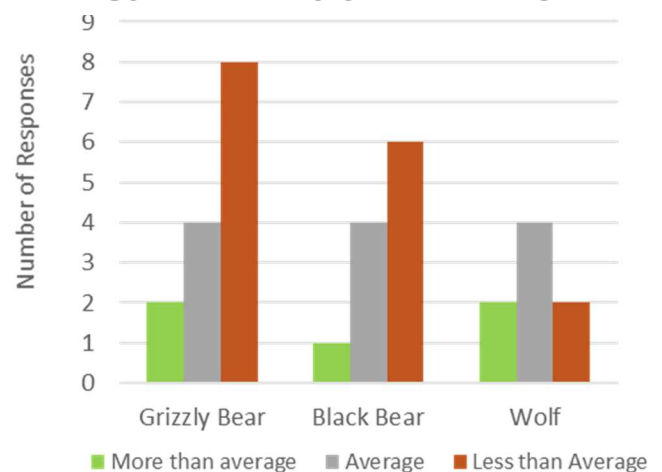
HOW MANY YOUNG OF THE YEAR DID YOU SEE COMPARED TO OTHER YEARS?



Predators

Most people saw fewer bears last year and several participants noted they saw no bears last year, which was unusual. At least one participant noted that the berries have been good for a couple years and linked this to the low numbers of bears seen. The issue of bear conflicts in communities was raised by a couple people, both positive and negative. At least one participant felt strongly that the bear populations were healthy and there were more bears around even though they may not be seen as often. Despite fewer bears being seen, no concerns were expressed.

HOW MANY ANIMALS DID YOU SEE COMPARED TO OTHER YEARS?



about the health of bear populations.

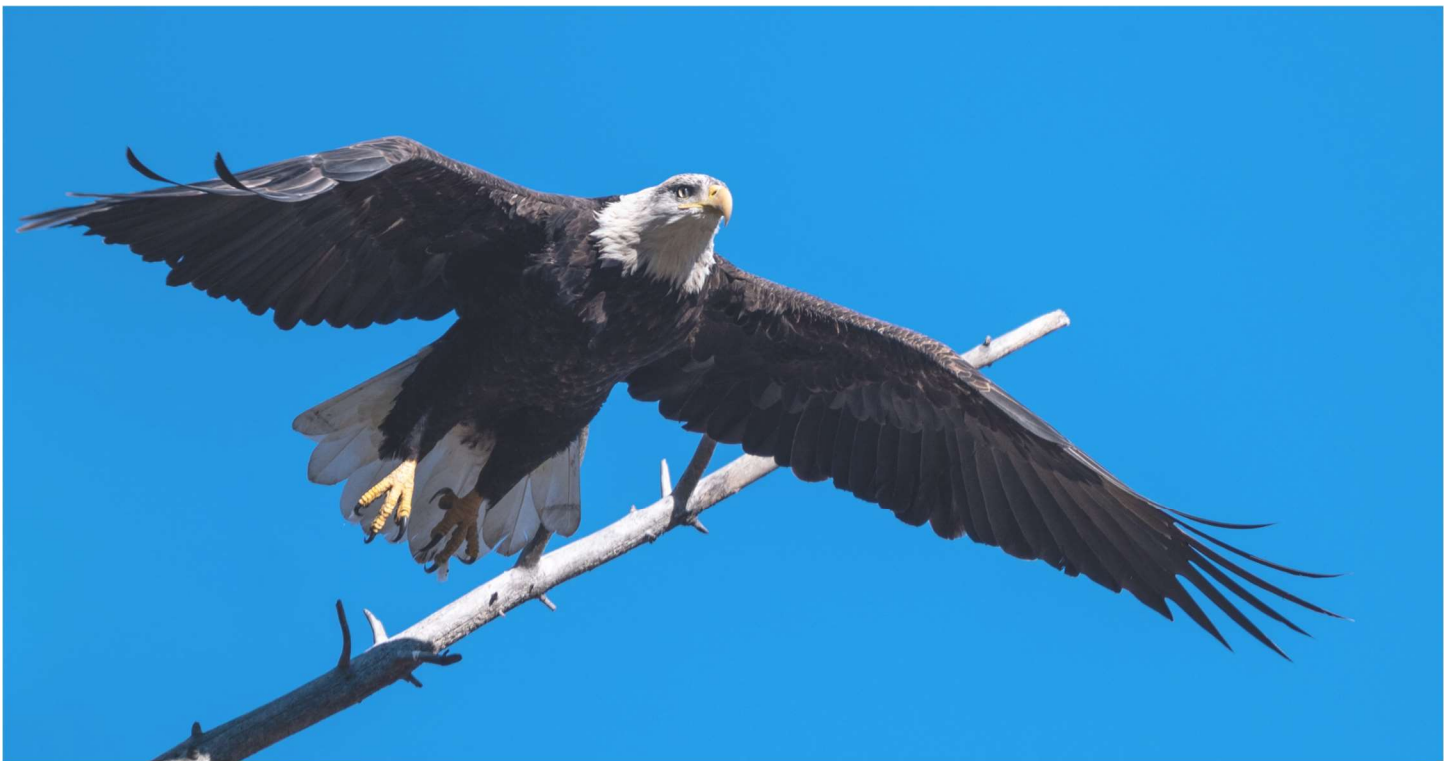
Fewer people reported seeing wolves, although several commented about wolf numbers based on the tracks they observed. The responses were evenly spread, with most people reporting seeing average numbers of wolves. One person indicated that the deep snow limited wolf travel and their tracks were not as common to see this past winter. A couple participants expressed concern that wolf populations are too high because wolf harvest through trapping and hunting is declining. Others felt that wolves were holding their own, mostly linked to prey availability, and that there are not too many or too few.

Two people reported seeing or hearing of cougar being sighted last year.

“Local residents [Cowley Lake area] have done a good job of minimizing attractants which has reduced the number of conflicts with bears.”

“Wolves and bears are getting braver, coming into our communities more often; they should be hunted near the communities to discourage them from coming in.”

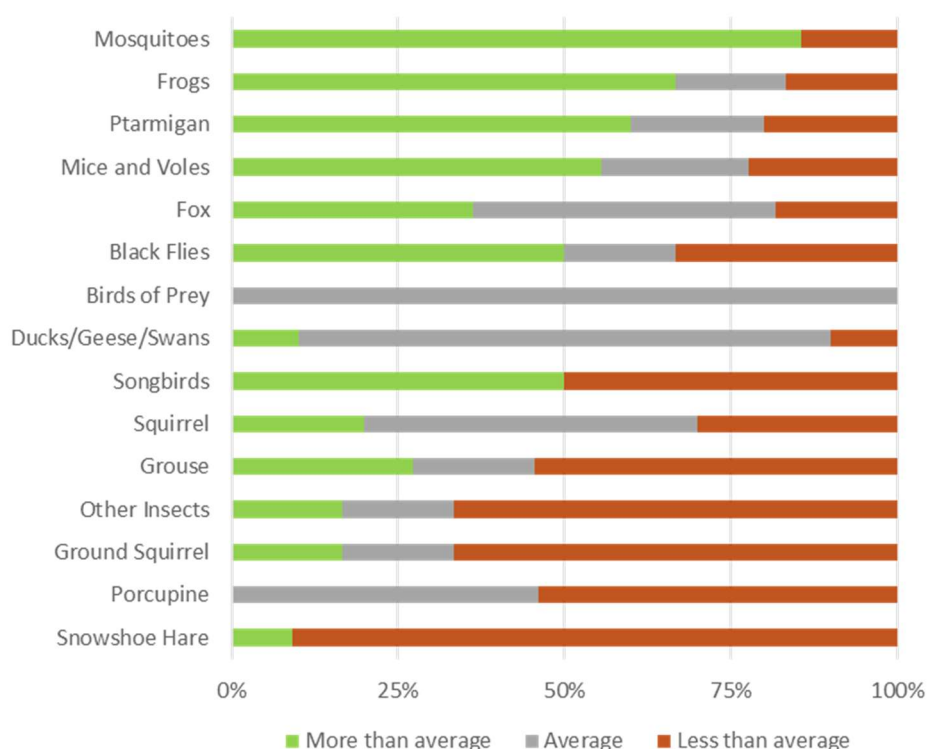
“Other thing about moose and caribou calves is that they are the favourite food of grizzlies, the bears will move quick to get those calves when they are first born. Some people are trying to save the bears, stop people from hunting them. This doesn’t make sense. Bears are not threatened, and we are still hunting the moose and caribou.”



Other Animals

This section was intended to capture animals commonly observed but not counted under other sections of the survey. While not exhaustive, the list included many common species of interest and allowed participants to comment on other species not listed.

Numbers of mosquitoes, frogs, ptarmigan, and mice and voles were mostly reported to have been above average over the past year. Foxes, black flies, birds of prey, ducks, geese and swans, songbirds, and squirrels were mostly reported as average or with split responses. Grouse, ground squirrels, porcupine, and hare were mostly reported as below average. A few people also reported other insects, such as wasps and leaf miners as being lower than average. One individual mentioned seeing about the same numbers of ravens and coyotes. One individual mentioned seeing more coyotes.



Several people commented that ground squirrels were coming back from very low numbers several years ago, but that last year the numbers were down again. One respondent reported that there are fewer near the roads, but still lots up in the mountains. One comment was made that fewer black ground squirrels have been seen lately.

Many people commented that the hare cycle is currently at the low but that there are starting to be a few more hare around lately and that the population will soon climb. One respondent linked low hare numbers with low grouse numbers observing that predators will turn to other prey when hare are scarce.

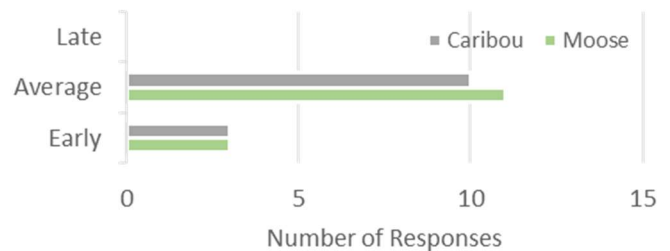
“Things are doing good overall, not like a couple years ago when things were stressed. Nature is resilient, Elders say if we let areas rest, they will come back. Sometimes we don’t do that, we need to limit activities sometimes, spread those pressures around.”

Moose and Caribou Winter Habitat Use

Survey participants were asked specifically about their observations of moose and caribou over the past winter. Winter is a critical period for wildlife, and for moose and caribou it is the time of year when they are most likely to be impacted by human activities and development.

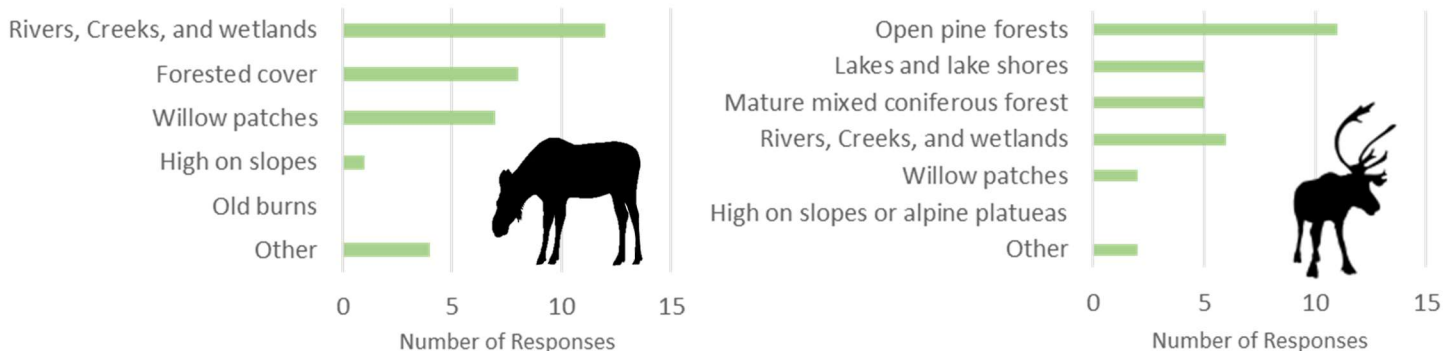
Both caribou and moose move from higher elevation ranges in the late fall and early winter to their preferred winter ranges as the snow builds up high. Most survey respondents reported that the timing for this move was average to slightly early compared to other years. Many people mentioned beginning to see them down low in December.

WHEN DID MOOSE AND CARIBOU MOVE TO WINTER RANGE?

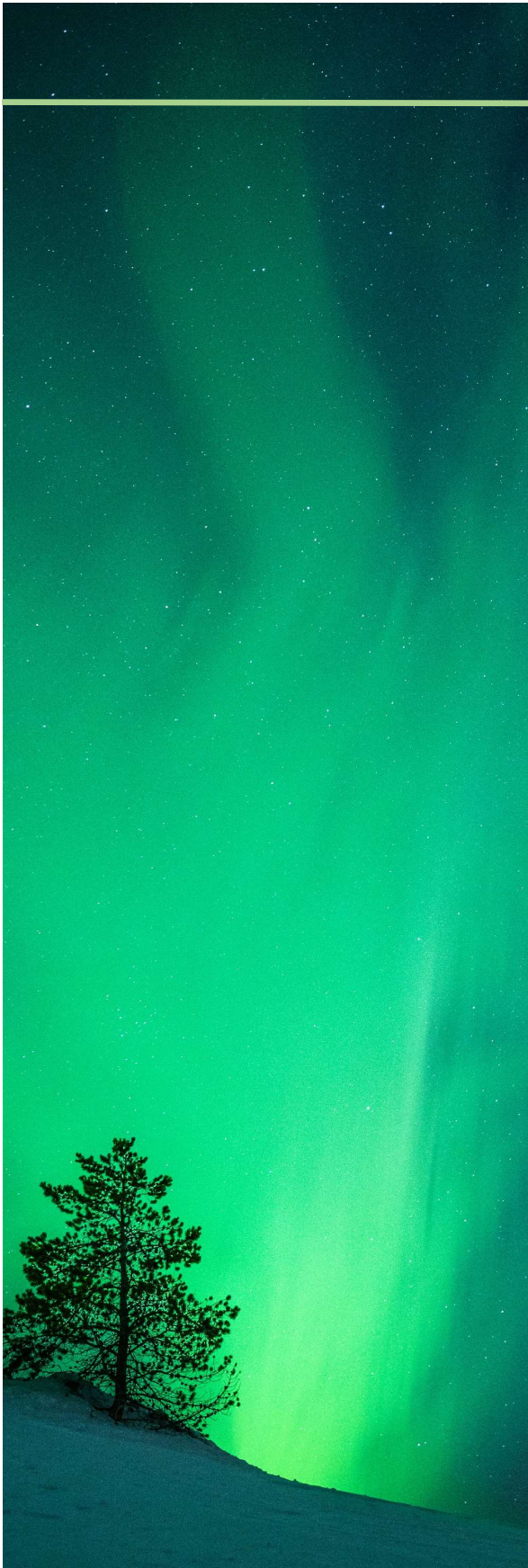


Survey participants were given a range of typical winter habitat types for moose and caribou and asked where they most often saw moose or caribou this past winter. If people reported other types of habitats, they were classified as “other”. The most-reported location recorded as “other” for moose was near residential areas, while for caribou it was roadsides.

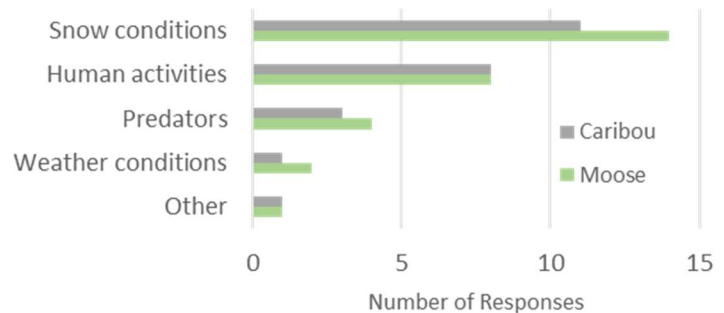
WHERE DID YOU MOST OFTEN OBSERVE MOOSE AND CARIBOU?



“Noticed caribou eating more arboreal lichens this winter, maybe because the snow was deep and digging was difficult. Noticed more caribou than usual along the lake shores.”



WHAT FACTORS MOST AFFECTED WHERE MOOSE AND CARIBOU WINTERED THIS YEAR?



Participants were also asked to comment on what factors most affected where the animals wintered this past year. Snow conditions were the most reported factor affecting both moose and caribou winter habitat use, followed by human disturbance, then predation.

Combined, this information shows both which types of habitats were most important over the past year as well as what pressures the animals faced. The dominant habitat types and factors affecting their habitat use may change year to year with varying environmental conditions or patterns of human land-use. Several participants reported that the deep snow conditions were causing moose and caribou to change their winter habitat use, spending time in different areas.

“Used to see some moose up high on the hill sides this time of year. On the movement down in the winter, its hard to say what is average anymore because it is changing so much with the changing weather.”

“Snow conditions is a big thing, especially with the snow we have had the last two years. Wolves are a big thing too... some moose come into the communities to avoid predators out in the bush.”

“Human activities affect where they winter, especially skidoos, UTVs, and more people on fat bikes.”

Gathering and Gardening

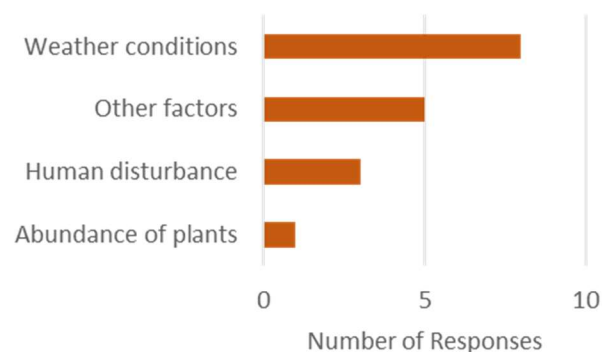
Gathering and gardening was the most common activity type among survey participants with 14 (93%) people either picking berries, gathering other edibles or medicines, gardening, or cutting firewood.

DAYS SPENT GATHERING

Total	333
Average	28
Median	14

Weather conditions and the presence of other people were the most reported factors affecting gathering efforts. The “other factors” primarily included the time available for gathering. Weather conditions included heat, rain, and other conditions that affected the ripening and abundance of berries, as well as high water, and deep snow (specific to firewood cutting). People reporting human disturbance as a factor shared an opinion that there were a lot of other people out last year, especially berry pickers and wood cutters. Abundance of plants was reported once in reference to firewood. Several people thought that COVID-19 contributed to an increase in the number of people out picking berries. Others felt that COVID-19 negatively impacted their own gathering activities, highlighting the importance of gathering as a social and community activity which was impacted by COVID-19 restrictions.

WHAT AFFECTED YOUR GATHERING EFFORTS?

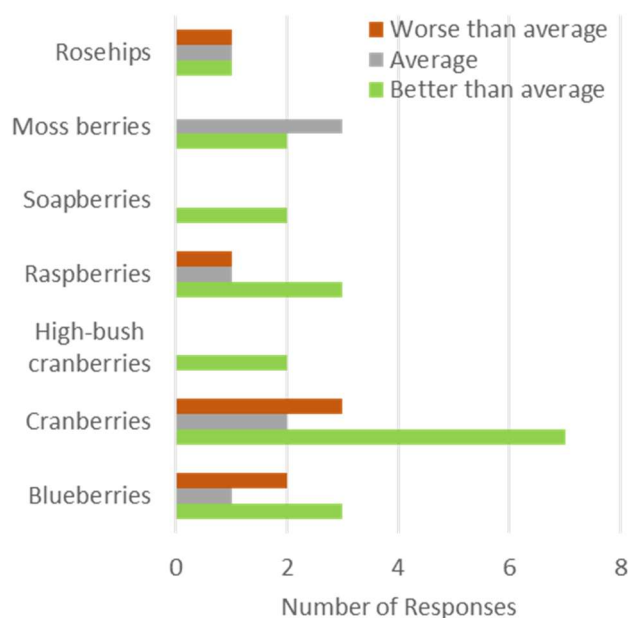


“Lots of people up at the White Pass picking berries these days, they are everywhere. People are taking out more people, learning the spots. Sometimes they wreck the bushes, they don’t know how to pick. We can’t hunt ground hogs up there anymore, too many people.”

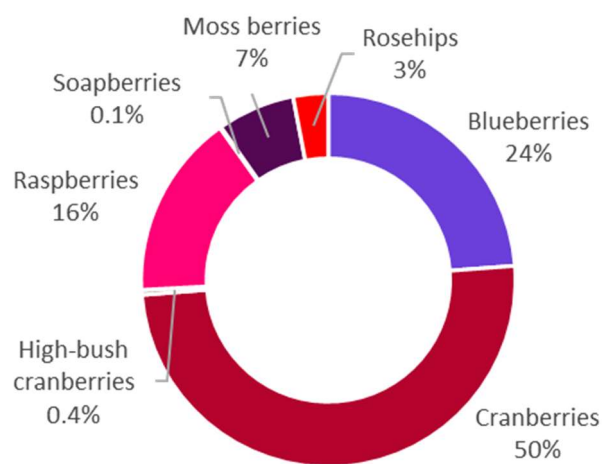
Berries

Participants reported picking cranberries, blueberries, raspberries, moss berries, rosehips, high-bush cranberries, and soapberries. An estimated total of 231 L of berries were reported to be harvested with cranberries making up the bulk of the harvest at 50% and soapberries the smallest proportion of the harvest at 0.1%. Most people reported it to be a good year for berry picking. Across all berries, there were 20 reports for better than average picking, 8 reports of average picking, and 7 reports of below average picking. Cranberries were the most likely to be categorized as better than average. Responses were variable for each species, potentially highlighting the regional differences in growing conditions for berries across the Southern Lakes.

HOW WAS THE PICKING?



WHAT WAS PICKED?



Other Harvested Items

Three people reported harvesting mushrooms, with two reporting better than average mushroom picking and one report of worse than average. Other harvested items included bark, spruce tips, spruce and fir sap, poplar buds, dandelion roots, arnica, yarrow, horsetail, and various herbs for teas. Most respondents did not report whether it was a good or bad year for gathering these other items.

Firewood

Nine of the participants reported cutting firewood this past year. They cut between 1 and 10 cords each, and a total of 40 cords. There were several respondents who cut a little wood on their property and then bought wood to fill their needs while others cut their entire winter supply. There was wide recognition of personal firewood cutting as a valued activity, and many respondents commented on the need to provide opportunities for residents. There was general agreement that the current availability of firewood (the permitting system and currently established fuelwood cutting areas) was not meeting the needs of residents. There were comments on the increasing cost of firewood as well as the diminishing amount of standing dead in the established personal fuelwood harvesting areas. Some respondents expressed a desire to have more firewood harvesting areas near communities where fire risk may be high, while others wanted to ensure that winter firewood harvest did not disturb wintering caribou. Several respondents have noticed an increase in the number of people cutting firewood and observed that there are not enough places for them to legally cut wood. One respondent expressed interest in green sawlogs for personal milling, an opportunity that is not currently allowed under regulation.

“People should have access to firewood in places where there is a risk of fire, then they aren’t in areas that we don’t want them and are cutting where the wood should be thinned. We should welcome them in there instead of paying for firesmart.”

“Wildfire is the biggest risk. McGowen Lands should be used to create fuel breaks... produce timber and firewood to utilize the resource. Here we are in a forest, and we can’t get firewood or wood for building.”

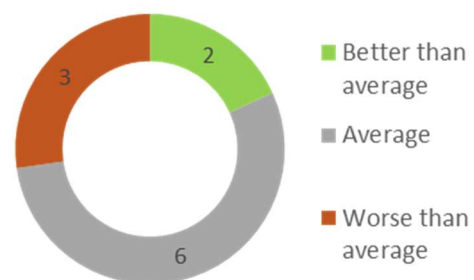
“There are more wood cutters out there, more competition for wood. I recognize that they need a place to cut, so there need to be more places for them to go.”



Gardening

Gardening was a common activity among survey participants with 11 people gardening last year. Several people reported their gardens as a significant annual food source. Variable conditions across the Southern Lakes were again evident in the spread of responses about how good the gardening was. Several people recalled the late spring and cold spring weather as impacting their gardens. Some reported the summer as wet, while other reported it as dry with their garden requiring lots of water.

HOW WAS THE GARDENING?



Fishing

Thirteen (87%) respondents reported fishing this past year, spending a total of 93 days out fishing. Most people targeted either lake trout or whitefish, with fewer respondents reporting targeting grayling, pike, and burbot. The most common method used was open-water angling followed by gill netting, then ice fishing, and set lines through the ice.

DAYS SPENT FISHING

Total	93
Average	8
Median	6

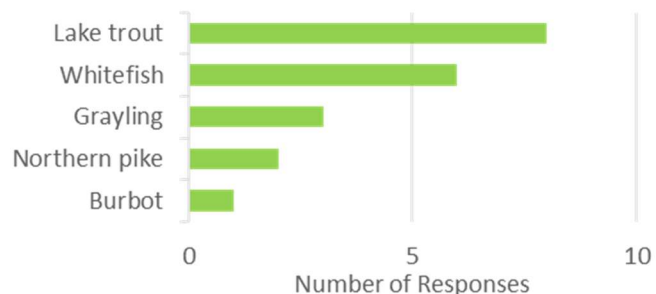
Respondents were asked to report on the quality of fishing compared to other years. Most reported the fishing quality to be average or better than average, with only 1 respondent reporting a decline in angling quality. However, specific concerns about fish stocks were raised for lake trout in Bennett Lake, grayling in Tagish, Lubbock, Nares, Watson, and Wheaton Rivers, and whitefish in Squanga Lake.

When asked how many other anglers they observed, most respondents reported an increase in the number of anglers in the Southern Lakes. However, one participant observed that high water prevented many boats from Bennett Lake, reducing the angling pressure there last summer. Several people expressed concern about the number of fish being caught and released, especially with the rising numbers of anglers.

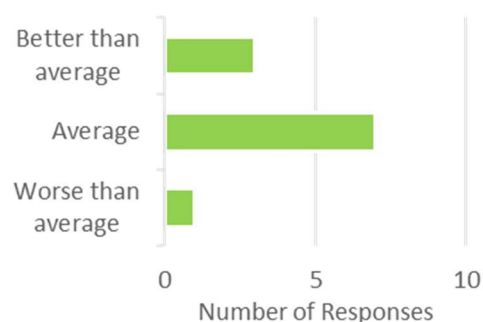
In response to past community concerns, we asked specific questions about spring grayling fisheries but found that few respondents fished for grayling in the spring. Of those that did, Nares was the most common location followed by Lubbock River. They reported average to worse than average fishing, with one respondent reporting that current grayling populations are lower than they used to be at both locations.

When asked what affected their fishing efforts, most people mentioned high water levels or available time, while one person mentioned the number of other anglers.

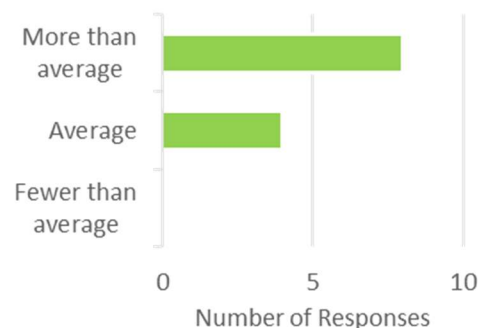
SPECIES FISHED

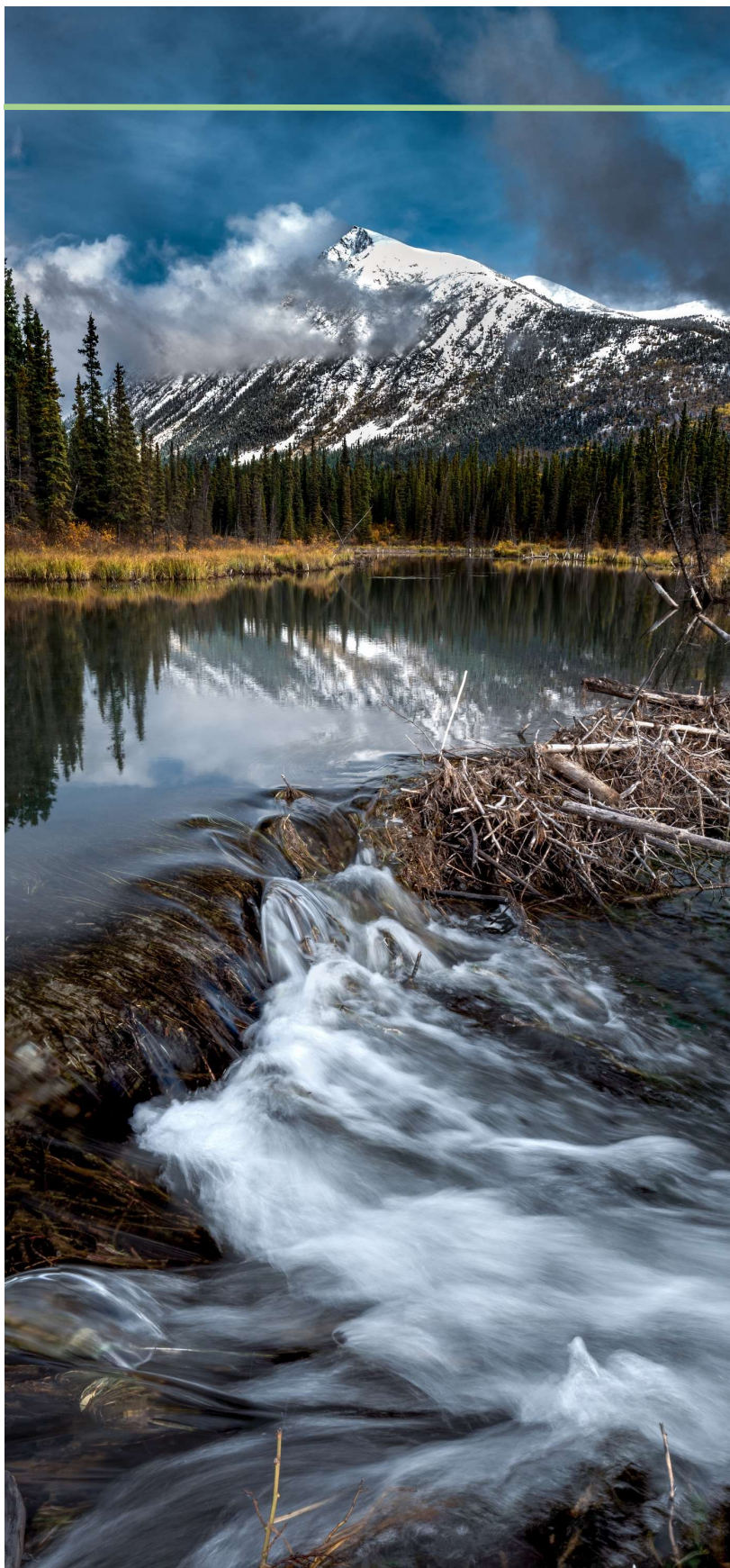


HOW WAS THE FISHING?



HOW MANY OTHER ANGLERS DID YOU SEE?





"I saw a big dead trout in the Tagish River, somebody probably caught then released that then it died. Catch and release for the slot size I can agree with, but somebody just going out there and doing it for the sake of it, I don't agree. You watch them fishing for hours and hours, how many fish are they catching? I like fishing too, but don't get more than I need."

"We used to catch a lot of grayling when we were kids in Tagish, but you don't see them as much anymore. All the creeks had grayling, so many... fluctuating water levels from the dam, lots more people on the water, more pollution."

"I have not fished in the Lubbock for grayling in the spring for a long time. Now there are people all over the place... too crowded now."

"There was a lot of debris in the water last summer, broke the transducer off my fish finder."

"There used to be more grayling in the Wheaton River, no grayling lately."

"We set net in October for humpback whitefish so you can get the eggs for Elders. The fishing for whitefish is good."

"Catch and release... take what you need, what you are allowed to take. It is not a sport, doesn't matter if it is barbless. Everything is living, they all have feelings, shouldn't be played with."

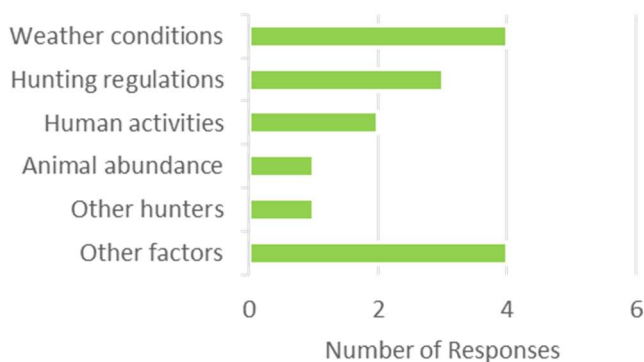
Hunting

Six (40%) of the survey respondents hunted in Southern Lakes this past year, spending a total of 113 days on the land hunting. Moose was the most common species hunted, followed by sheep, deer, and small game. The legacy of the ongoing Southern Lakes Caribou Recovery Program was evident as no Carcross/Tagish citizens reported hunting caribou, while caribou hunting is closed for licenced hunters.

Three hunters reported being successful hunting moose this past year, while no hunters reported success for sheep, deer, or small game. There was no pattern in the number of moose seen by hunters, with 2 reports of average, 2 of less than average, and 1 of more than average. One hunter reported seeing more young moose over the last couple years. Several hunters observed that there have been more hunters on the land lately; at least one individual linked this to COVID-19. One person expressed concern about moose populations in the area and said they didn't hunt this past year to let the animals rest. One hunter expressed concern about the small sheep population on Caribou Mountain.

Hunters reported weather conditions as the most common factor that affected their hunting efforts. High water was reported to affect hunters' ability to access hunting areas as well as the ability of wildlife to travel. Changing fall weather patterns were reported to be changing the behaviour of moose during hunting season. Under other factors, available time and relative food needs were reported as factors affecting efforts. Concerns about wildlife populations, the presence of other hunters, and human activities other than hunting were all reported by at least one participant.

WHAT FACTORS AFFECTED YOUR HUNTING?

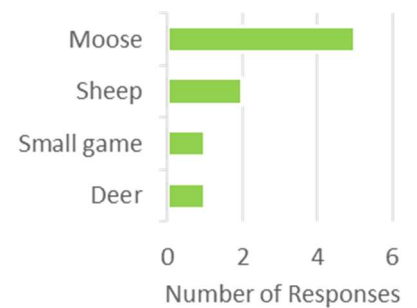


Non-Indigenous hunters reported the current hunting regulations, particularly the Permit Hunt Authorizations (PHAs), as limiting their ability to hunt in the Southern Lakes. PHAs are in place for moose, deer, sheep, and goats within the Southern Lakes area. Most of these hunters reported hunting elsewhere in Yukon.

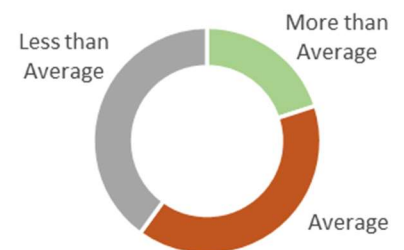
DAYS SPENT HUNTING

Total	113
Average	23
Median	17

WHAT WAS HUNTED?



HOW MANY MOOSE DID YOU SEE?



Many respondents relayed the importance of hunting for connecting with the land, supporting the social fabric of the community, and for subsistence. Several hunters reported the increased difficulty in hunting in the Southern Lakes with the growing population and limitations around hunting from roads and near residences.

“It’s the next generation we need to work on. Our grandchildren. We need the kids out on the land otherwise it doesn’t mean anything. They need to experience it to appreciate it; if you don’t get out on the land, hunting or harvesting, cleaning fish and doing this stuff, it doesn’t mean anything.”

“Young hunters need better education, we’re seeing wounded animals, people not tracking them down. Hunters also need better education on how to process and store their meat, we see meat wastage because of freezer burn, but this can be avoided if it is handled properly.”

“It is the social factor, subsistence and harvesting is a combination of social factors and food. How do we create the social support structures out on the land so people don’t have to do it alone?”

“There are lots of people around, so you always have to be really careful when you are shooting.”

“Can’t really hunt moose in Southern Lakes anymore because of the permit system so I usually hunt elsewhere. I have applied on the PHA in the past, but there are so few opportunities.”

Trapping

Four participants reported trapping this past year, spending a total of 235 days out on the land trapping. Several participants made comments about trapping but did not trap this past year.

DAYS SPENT TRAPPING	
Total	235
Average	78
Median	70

The small number of active trappers in the survey limited the ability to identify trends in the data. Reports from trappers on the quality of the trapping by species varied substantially. Similarly, there was little alignment between trappers on the status of fur populations on their traplines. This could highlight the potential differences in abundance between traplines. For example, trappers agreed that lynx are in the low of their cycle, but two trappers reported an increase in lynx compared to previous years, while others maintained that the populations have not started to rebound. Fur conditions were largely reported to be prime for all species where comments were received except lynx, which several trappers reported was poor due to lack of prey.

When asked which factors affected trapping over the past year, trappers commonly pointed to the impacts of human disturbance on the wildlife and their trapping activities, followed by overflow and snow levels as the biggest factors. The cost of trapping, the price of fur, poor ice conditions, and weather were also mentioned as factors. Several trappers mentioned that they cannot target marten as they have no quota. All traplines in the Southern Lakes fall in the Marten Conservation Area which establishes harvest quotas for trappers.

In one way or another, all trappers lamented the decline of the trapping industry. Trappers shared ideas of what could be done to support the industry, including subsidies, development of local markets, and growth of trapping as tourism. Several indicated that a local tannery would be a boon to the local industry and a potential business opportunity. One person commented on how social media has affected the trapping industry, making it easier for critics to voice opinions to a wider audience, having largely negative effects on trappers and the industry.

HOW IS THE FUR POPULATION DOING ON YOUR TRAPLINE?

	Better than Average	Average	Worse than Average
Beaver	3	1	0
Lynx	2	0	3
Wolf	1	2	0
Wolverine	1	0	1
Marten	1	0	1
Coyote	1	0	0
Mink	0	1	0
Otter	0	1	0

Number of Responses

WHAT AFFECTED YOUR TRAPPING EFFORTS?





“It’s a lifestyle, there is not a living in it anymore. But if you could do the tourism side of it, you could make some money teaching people this stuff. There are places I know where we could get beaver, teach them how to skin it, they could take it home, get it tanned. Where else can you do that?”

“People are trapping less which means that some of the predators are becoming more plentiful, this has effects on the whole food chain.”

“The whole western extraction model based on the big fur markets isn’t going to work anymore. We have to rethink it and do it local. With the price of fur now, we are mostly selling locally, crafters are helping create the local market. A tannery would really help.”

“A fur subsidy might help, but it is too often focused on money. We should provide a subsidy to people on the land whether they harvest or not, we need to keep them out on the land and keep the culture going. It’s a lifestyle now, not about economics anymore.”

“Other human activities have an impact, don’t want to open up the trail too early because as soon as it is open dog teams and snowmobiles get on there, which has an impact on the animals and trapping.”

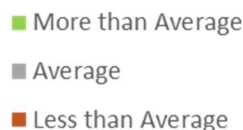
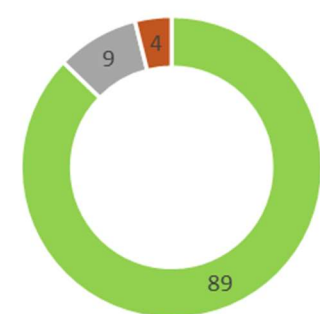
Other Human Activities on the Land

Participants were asked about their observations of human activities on the landscape. For each activity type, participants were asked if they had observed more than average, average, or less than average activity compared to other years as well as any areas of concern.

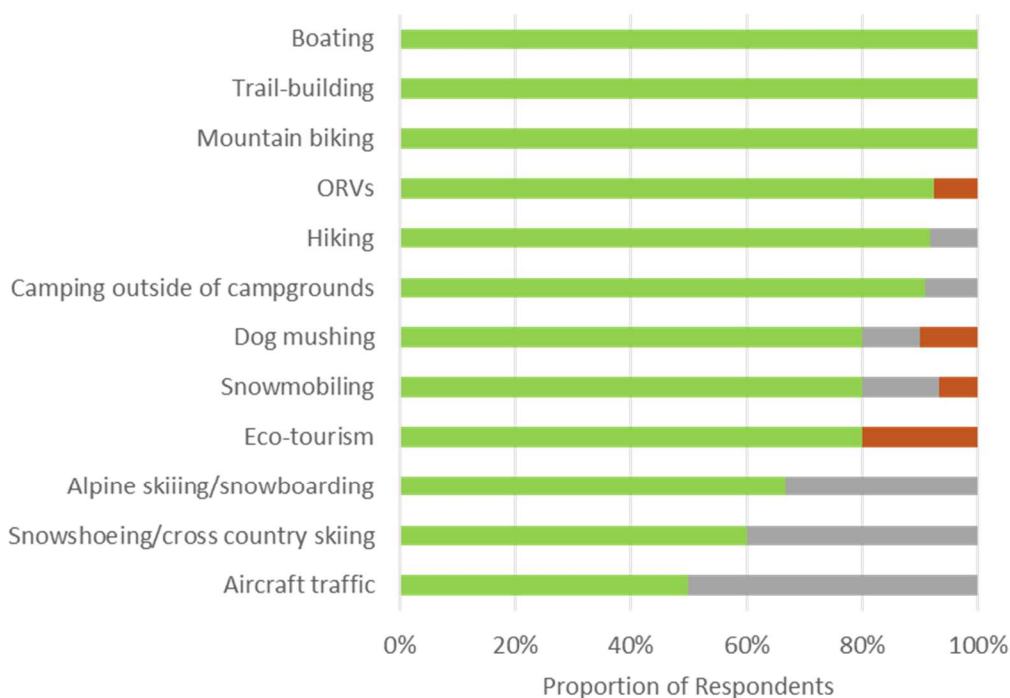
Compiled across all activity types, survey participants overwhelmingly reported an increase in human activities. Of 102 total responses, 89 indicated an increase in activity, while only 4 reported a decline. This section of the survey showed the most agreement among participants.

HOW MUCH ACTIVITY DID YOU OBSERVE COMPARED TO OTHER YEARS?

All Responses Combined



Responses by Activity Type



Many participants believed that the COVID-19 pandemic resulted in increased human activity on the land despite tourism being down, with Yukon residents spending more time outside. The increase in garbage and waste from these activities was specifically mentioned as a problem, with several indicating that something needs to be done to manage waste. The number of loose dogs accompanying people out on the land was an ancillary concern mentioned. While this question specifically asked about the impacts of human activities on the land, several respondents mentioned the impacts of permanent human developments as an ongoing concern, particularly in sensitive habitats such as the inflows and outflows of lakes.

Respondents were asked which activity they believed to be the most impactful to the environment. The answers varied and covered a wide range of concerns, however, a common thread was the concern about

human access into important wildlife habitats. Off-road vehicle use, followed by snowmobiles and dog-teams were the most common activities of concern. Several people pointed out that off-road-vehicle activity is key as it often creates trails and access for other users. The growing total human population of the Yukon was also mentioned by several participants as a key concern. The growing number of boats on the water and the effect on fisheries was also mentioned.

Concerns around snowmobile use and dog-mushing activity were often made in the context of impacts to moose, caribou, and other wildlife. Disturbance to caribou in particular was a commonly cited concern. Several participants believed that off-trail snowmobile activity has a substantially greater impact than on-trail activity. The growing prevalence of snowmobile ditch-riding along the roads and highways was mentioned by several people as a concern, especially where it overlaps with caribou movement corridors. Respondents also noted seeing extensive off-trail snowmobile activity in areas that don't normally see this type of riding. One participant mentioned seeing snowmobile tracks running over beaver lodges and muskrat pushups, feeling that this showed disrespect to the animals and a lack of understanding about the biology of the species. One participant shared insights about the difference between attitudes of those who access the land on foot versus those who have easy access with machines.

“When the animals are up high and the skidoos get up there early, then the animals get pressed before they want to come down. They get chased out of there, moving before they want to, wasting energy.”

“Up high in the late fall time, post-rut, when the seed sets (pregnancy). If there is too much stress, they won't become pregnant. That is when the snowmobiles get in there, areas like Tally-Ho.”

“When you travel on foot, you have a different appreciation of the land, a different respect. The impacts of technology give people more access, changes your perception of the land. Your respect for the landscape is diminished and the scope of your impacts is widened.”

“Need to do some planning around hiking because of the impacts on wildlife, but also on our hunting and gathering activities. Trails are often made public knowledge, some of these are traditional trails and areas.”

“The pandemic has resulted in a significant increase in outdoor recreation within the southern lakes across the board, snowmobiling, ATV, boating, hiking, biking, camping. People were not able to travel and were stuck in smaller groups. There were more groups out on the land, putting pressure on everything in the area.”

Weather and Climate

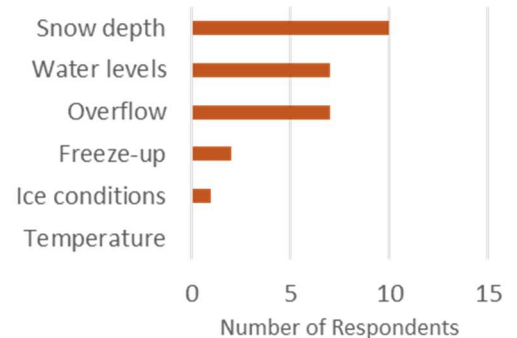
Snow depth, followed by overflow and water levels were the most common conditions that affected participants' activity out on the land last year. While several people commented that freeze-up has been taking longer than it used to, many reported that freeze-up happened on time due to cold temperatures in early winter. Temperatures in southern Yukon were reported to be near normal for November and colder than normal in December (Yukon Snow Survey Bulletin, April 1, 2022).

Water levels were very high throughout the Southern Lakes last year, affecting people's ability to get out on the land as well as the animals and plants that people rely on. Survey respondents reported the high water as affecting their gathering, hunting, and fishing activities. Several mentioned the affect on animal movement.

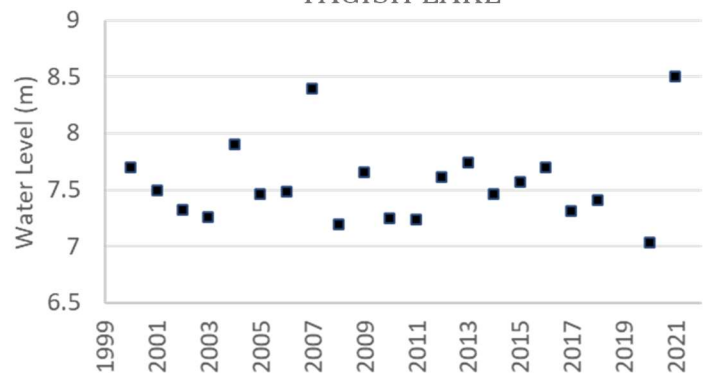
Snow depth this past winter was also above average, reportedly affecting wood cutting and trapping activities as well as the animals this past winter. Snow levels in the Southern Lakes were well above average in 2022, with snow at the Tagish monitoring station at 157% of historical averages (Yukon Snow Survey Bulletin, April 1, 2022). Many people commented that this was the second year in a row of higher than normal snow levels. There were comments on how this affects animal movement and activity, with at least one mentioning that they thought that the calves of moose and caribou were being particularly impacted.

"Climate change is a big factor here, used to get huge pressure cracks in the southern lakes (ice), this is the first time in the last decade I have seen a pressure crack in Bennett Lake... it's warming up. Good ice this year, but not as thick as it used to be"

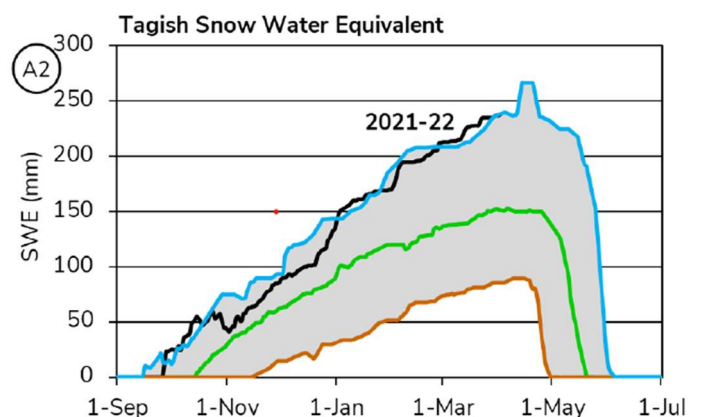
What conditions affected your ability to get out on the land?



ANNUAL MAXIMUM WATER LEVELS
TAGISH LAKE



Source: Government of Canada (2022). Hydrometric data from Tagish Lake, 10-Mile water station. Retrieved from: https://wateroffice.ec.gc.ca/index_e.html



Source: Yukon Snow Survey Bulletin (April 1, 2022). Retrieved from: https://yukon.ca/sites/yukon.ca/files/env/snow_bulletin_april_2022_en.pdf

Recommendations

We asked project participants for their advice regarding potential future surveys of this type. There was widespread support for the survey and many expressed wishes for it to continue. The following is a summary of recommendations made by participants.

Recommendations from participants for future surveys

- Survey should be done in the spring (April or May), following the traditional gathering season and after the winter trapping season is over
- Provide maps with bigger scale or potentially digital maps that could be shared with participants
- Make some portions of the survey publicly accessible (online) to increase responses
- Create a system for people to report their interesting or unusual sightings that could be linked to this project and reported annually
- Provide future participants with a journal to help them keep notes through the year in preparation for the following year's survey
- Provide a background information package for participants about the wildlife populations, land development, ongoing planning initiatives. This could include historical knowledge and trends over the longer-term
- Should be done on an annual basis



References

Government of Canada (2022). Hydrometric data, Tagish Lake, 10-Mile water station. Retrieved from: https://wateroffice.ec.gc.ca/index_e.html.

Yukon Snow Survey Bulletin. (2022, April 1). Retrieved from: https://yukon.ca/sites/yukon.ca/files/env/snow_bulletin_april_2022_en.pdf

