Nechako Research
NEWSLETTER

June 2026 | Volume 8 | Issue 2

RIO TINTO RESEARCH CHAIRS

RioTinto | BC Works

NHG Northern Hydrometeorology Group

Freshwater Fish Ecology Laboratory | UNBC

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Territorial Acknowledgement

Working on traditional First Nations territories in a scientific context is a humbling and deeply appreciated privilege. The opportunity to work hand-in-hand with Indigenous communities is a gift for which we are sincerely grateful. This collaboration not only enriches scientific understanding but also fosters mutual respect and cultural exchange. We are grateful for the trust and partnership extended to us, and we strive to approach this work with the utmost gratitude and responsibility. We acknowledge that our work takes place within the unceded traditional lands of 15 First Nations:

- Binche Whut'en
- Cheslatta Carrier Nation
- Lake Babine Nation
- Lheildli T'enneh
- Nadleh-Whut'en
- Nak'azdli Whut'en
- Nee-Tahi-Buhn Indian Band
- Saik'uz
- Skin Tyee Band
- Stellat'en
- Takla Lake
- Tl'azt'en
- Ts'il Kaz Koh (Burns Lake) Band
- Wet'suwet'en First Nation
- Yekooche First Nation

Netʃa koh (Nechako River) at Cottonwood Island Nature Park in Prince George

The Nechako River is referred to as Netʃa koh, meaning 'Big River' in the traditional language of the Dakelh Nations.

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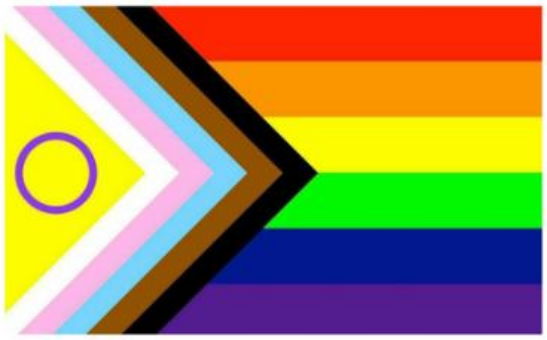
In this issue of the Nechako Research Newsletter, you will find updates from the current teams of researchers, including updates from the spring season and plans for the summer season.



Happy Pride Month!

Contents

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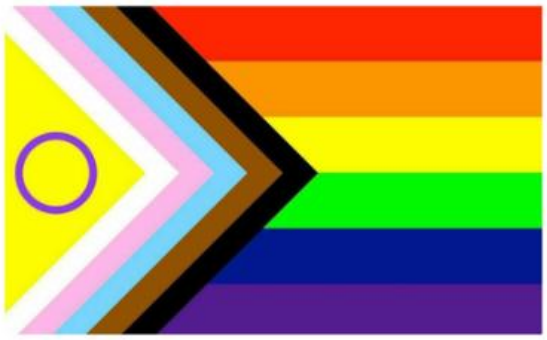


Happy Pride Month!

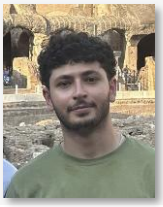
NHG Team

Stephen Déry
Project Leader

Dr. Stephen Déry is the Rio Tinto Research Chair in Climate Change and Water Security.

Rio Tinto Research Chair team members from the Northern Hydrometeorology Group.

Erica Lee
Research Manager
Newsletter Editor



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Dylan Broeke
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M.Sc. Student
Field Technician

Nisarga Sharma
M.Sc. Student

Serenity Poirier
M.Sc. Student
Field Technician

NHG Team Updates

New Team Members

Maria Tavares

Hello, I'm Maria. I'm returning to the NHG this year in dual roles as both a Master's student and a field technician. This marks my third field season collecting water temperature and weather station data, and I'm excited to contribute to another year of important data collection! I hold a Bachelor of Science from York University and a Diploma in Paramedicine from Humber College in Ontario. After 16 years working as a paramedic in Ontario, I moved to British Columbia to pursue undergraduate and subsequently graduate studies in Environmental Science and Geography. In my free time, I enjoy home renovation projects, spending time with family, and experimenting with new recipes.

Serenity Poirier

I am Serenity Poirier, a Master's student with the Northern Hydrometeorology Group (NHG) at the University of Northern British Columbia. My academic background includes two bachelor's degrees in Outdoor Recreation and Leisure Studies as well as Classics and Archaeology, along with a minor in Geomatics. My research focuses on understanding how canyon topography influences incoming solar radiation and river temperature dynamics within the Nechako Canyon downstream of Kenney Dam. Through the use of GIS, remote sensing, and field observations, I hope to contribute to a better understanding of thermal processes relevant to future watershed and aquatic habitat management. Outside of research, I enjoy reading, music, hiking, canoeing, and exploring the landscapes of northern British Columbia.

Farewell to Devin and Maz

Devin Wittig

Thank you Devin for your contributions to the NHG! After graduating with a Master's degree with the NHG, Devin served as a Research Skills Development Trainee, furthering his work on atmospheric rivers. Best wishes for this next chapter of yours!

Maziyar Dowlatabadibazaz

Thank you Maz for your contributions to the NHG! As Data Manager, Maz's work has transformed how the NHG manages and shares data with others, particularly his work building the NHG Data Visualization Tool and Data Request Tool. Best wishes for this next chapter of yours!

Stephen's NHG Updates

Stephen Déry
Project Leader

Happy Summer Solstice!

Summer is already upon us meaning the field season is now fully underway for the Northern Hydrometeorology Group (NHG)! Spring brought a mixed bag of conditions to parts of the Nechako Watershed including Prince George. After a mild winter, spring started with a late season snowfall blanketing the region with up to 20 cm of snow in mid-April. Soon thereafter, the snow melted and conditions dried up rapidly. From 16 April to 20 May, the Environment and Climate Change Canada weather station at Prince George Airport (YXS) reported a meager 1.3 mm of precipitation with only three days reporting any precipitation accumulation.

Temperatures also spiked during this period with daily maximums in the low 20°C range by the first week of May. These conditions all marked a stark change in the atmospheric pattern across western Canada and the onset of a flash drought. With the deep mountain snowpacks, however, headwater streams and major rivers saw major spring freshets this year in contrast to the past few drought years. This led to full replenishment of the Nechako Reservoir and the need to release extra water from the Skins Lake Spillway during spring, mimicking a freshet pulse down the Cheslatta and Nechako rivers.

All eyes are now shifting to the equatorial eastern Pacific Ocean as the sea-surface temperatures (SSTs) shift from La Niña (cool SSTs) to neutral conditions this spring. The National Oceanic and Atmospheric Administration (NOAA) in the United States are now forecasting the onset of El Niño (warm SSTs) in the equatorial Pacific Ocean by this summer. Current predictions from NOAA report an 82% chance of El Niño emerging in May-July 2026, and a 96% chance for December 2026 to February 2027. NOAA also suggests there is a combined 2-in-3 chance the El Niño will be strong to very strong by November 2026 to January 2027. Climate models anticipate the equatorial Pacific SSTs to reach 2°C above average conditions by late fall, reaching the threshold of a "super El Niño". If so, this could have major repercussions on the Nechako Watershed as El Niño generally favours warm, dry winter conditions in the region.

Several members of the NHG provide updates on their research in this issue of the Nechako Research Newsletter. For instance, Dr. Mehdi Bateni discussed ongoing research on the 2022-2025 major drought that afflicted the Nechako Watershed. This work reveals that the 2022-2025 drought was unprecedented in the Nechako Watershed and was marked by two particularly dry periods (September 2022 to January 2023 followed by May to December 2023). Meanwhile, MSc student Serenity Poirier describes plans for her research project that will explore solar radiation loading in the Nechako Canyon. This research will contribute to a new project led by UNBC's Integrated Watershed Research Group (IWRG) on its fourth phase of integrated watershed research in the Nechako Watershed partially supported by the Nechako Environmental Enhancement Fund. Field crew leader Dylan Broeke also highlights key achievements on field activities this spring across the Nechako Watershed along with plans for this summer.

Among the NHG's field activities this summer will be the deployment of a new meteorological station at Takla Lake. Earlier this spring, an application was submitted to the Partnering Fund of the BC Real Estate at UNBC to support the acquisition of a new weather station to track hydrometeorological extremes at Takla Lake. This effort will be in partnership with Takla Nation and Tl'azt'en Nation along with the Nechako Watershed Roundtable's Large Lakes Monitoring Group. We thank all our partners that provided letters of support for this funding application. We anticipate deploying the new weather station by mid- to late summer at Takla Lake.

On 30 June, my one-year sabbatical will end and I will henceforth return to a more regular daily schedule, particularly in the fall when I will be co-teaching a UNBC course on biometeorology. The sabbatical has been most productive with the completion of multiple funding applications, journal publications, presentations and field activities. Among other plans for this summer and fall will be the preparation of a funding application to the Discovery Grant program of the Natural Sciences and Engineering Research Council of Canada (NSERC). Furthermore, we have now received a positive decision this summer on a grant application to the MITACS Accelerate program that will support two master's students who will expand our research on atmospheric rivers for the Rio Tinto Research Chair in Climate Change and Water Security.

Over the past three months, the NHG continued its engagement with multiple partners and organizations across the Nechako Watershed and beyond. For instance, I had the opportunity to present a talk on climate change in the Nechako Watershed to the Mud River/Beaverly Farmers' Institute in late March. A month later, I delivered a similar talk to the Nechako Watershed Roundtable's (NWR's) Climate Change Adaptation and Resilience workshop in Prince George. I also presented a summary of the NHG's new data visualization tool for water temperature at a workshop for the NWR's Large Lakes Monitoring Group. Other recent outreach activity included a live interview with Akshay Tandon of CTV News Channel on 20 March to discuss the prolonged atmospheric river event that led to localized floods in BC's Lower Mainland. Consult the "Outreach" section of the newsletter for further details on all recent outreach activities undertaken by the NHG and FFEL members.

With summer upon us, our team will be criss-crossing the Nechako Watershed to collect data and perform routine maintenance on our eight weather stations, 35 water temperature loggers and several tipping bucket rain gauges. Thanks to all those who continue to support our data collection effort, including several First Nations, consulting companies, stewardship societies, and small business and property owners. Without your support, we simply could not assemble such a complete and useful database of hydrometeorological data for the Nechako. We therefore look forward to connecting with many of you during our field activities this summer.

Wishing everyone a Happy Summer Solstice and a most pleasant summer season!

Stephen Déry

Nechako Canyon, May 2026

Decoding the Nechako drought: What 76 years of data reveal about a warming basin

Mehdi Bateni
Research Associate

The 2022–2025 drought in the Nechako River Basin was the longest on record, testing the resilience of our local ecosystems, communities, and water management infrastructure. To understand why this particular dry spell hit so hard, the Northern Hydrometeorology Group analyzed 76 years of climate data. The findings provided a clear and sobering answer: rising temperatures, rather than just a lack of rain, were the primary driver of the crisis (Figure 1).

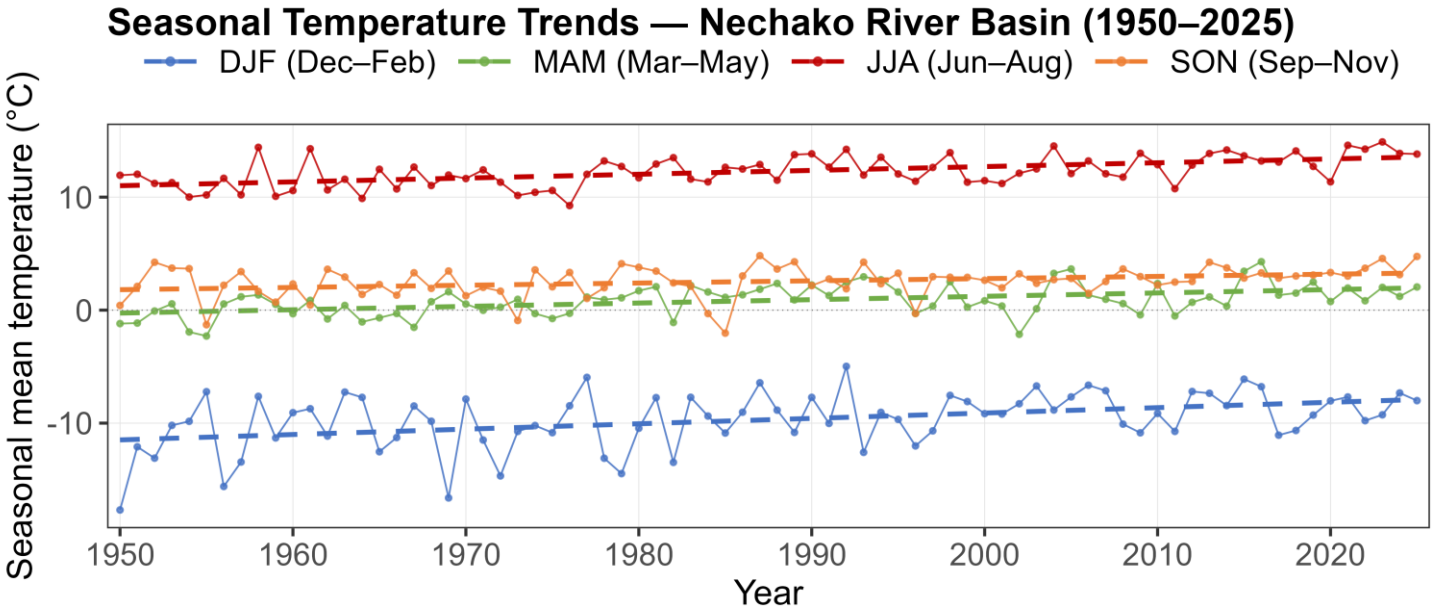


Figure 1. 76-year climate trends showing how rising temperatures drove the prolonged drought by increasing evapotranspiration and depleting the basin's water balance.

The Watershed "Budget"

To understand what is happening in the Nechako, it helps to think of a watershed's water balance like a household budget. Precipitation is your income. Evaporation and plant water use (transpiration) — combined as evapotranspiration — act as the tax. In cooler, historical climates, this tax was relatively low. Average rainfall was enough to keep river levels stable and soils healthy. But as global temperatures rise, the atmosphere's thirst increases, driving up the tax rate. Even when precipitation returns to normal levels, more water evaporates into the air before it can saturate the soil or flow into the rivers. During the recent drought, this heat-driven loss kept the basin in the red.

The data tell a definitive story. Though an initial rainfall shortage sparked the drought, rains largely returned by spring 2023. Yet rivers stayed low and soils remained unusually dry. Looking closely at the numbers, it is clear that warming alone accounted for nearly all the prolonged severity. This was not just a precipitation drought; it was a heat drought.

For decades, water planning in British Columbia relied heavily on predictable snowpacks and historical rainfall averages. But as average temperatures climb, normal precipitation no longer guarantees an adequate water supply. The data reveal a clear chain reaction: rising temperatures are steadily reducing our critical winter snowpack, which directly diminishes streamflows and trigger hydrological drought. When summer river flows drop, water temperatures inevitably spike. This combination of low, warm water puts immense stress on vulnerable fish habitats that rely on cool, abundant flows to survive. Reservoir operations, hydropower generation, and these essential summer river flows must now be balanced against the atmosphere's growing demand for moisture (Figure 2).

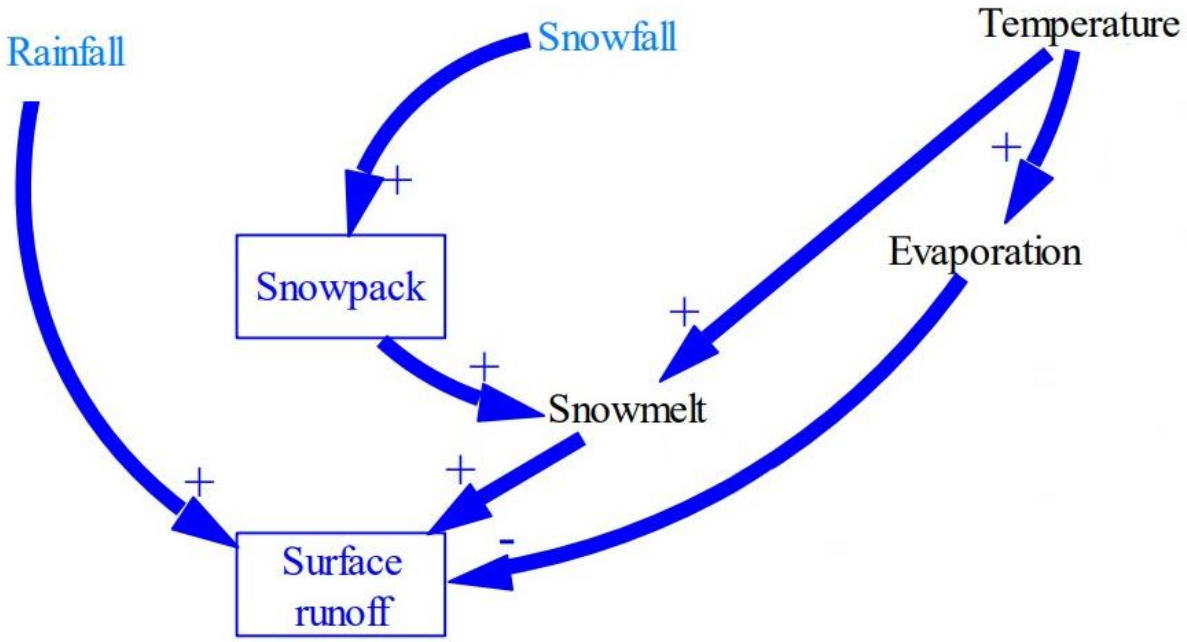


Figure 2. Causal loop diagram illustrating the cascading impacts of basin warming: shrinking snowpack, reduced summer streamflow, and the resulting strain on water management operations. Arrows represent causal links between variables, where plus signs (+) indicate a positive relationship (an increase in the source variable causes an increase in the destination variable) and minus signs (-) indicate a negative relationship.

Beyond the riverbanks, the compounding severity of these droughts creates dangerous feedback loops across the landscape:

- *Agriculture and Groundwater*: As drought intensifies and soil moisture vanishes, agricultural yields decline. To save their crops, farmers are forced to drastically increase their irrigation needs, which threatens long-term water security.
- *Wildfires and Precipitation*: Severe drought conditions dramatically elevate the region's wildfire risk. When catastrophic fires claim large swaths of forest cover, it fundamentally alters the landscape's natural evapotranspiration cycle. Losing this forest canopy can actually suppress local precipitation further, feeding right back into the drought cycle.

We are working to transform these insights into practical, actionable tools for water managers, Indigenous partners, and local communities. Our next priority is to explore how we can better anticipate the complex ecological chain reactions triggered by warming-driven droughts. Understanding these cascading domino effects—rippling across forests, farms, and fisheries—is vital to safeguarding the Nechako's ecosystems, infrastructure, and the people who depend on them.

Following the sun: Mapping solar radiation in the Nechako Canyon

Serenity Poirier
M.Sc. Student

My MSc research in the Natural Resources and Environmental Studies program at the University of Northern British Columbia focuses on mapping incoming solar radiation within the Nechako Canyon downstream of the Rio Tinto Kenney Dam. The study area spans approximately 9 km between Kenney Dam and Cheslatta Falls and is expected to become increasingly important when the proposed NeToo hydropower project and new water release facility are developed. Under this scenario, water releases from Kenney Dam would return a larger portion of the Nechako River to more natural flow conditions, replacing some or all of the current diversion through the Skins Lake Spillway. Understanding the factors that influence thermal conditions within the canyon will become increasingly important for future watershed and aquatic habitat management.

The canyon walls create complex shading patterns that affect how much solar radiation reaches the river surface throughout the day and across seasons. Since incoming solar radiation is one of the primary drivers of river temperature change, my research aims to better understand how canyon topography may contribute to downstream warming within this section of the Nechako River. To investigate these processes, I will use geographic information systems (GIS), remote sensing, digital elevation models (DEMs), and climate datasets to model terrain-corrected incoming solar radiation across the canyon corridor. High-resolution topographic datasets, including LiDAR data collected by the Cheslatta Carrier Nation, may help improve the spatial accuracy of the analysis.

An important component of the project will involve validating modeled solar radiation estimates with field observations. Plans are underway to install a new weather station within the canyon to collect environmental data such as incoming solar radiation, air temperature, and other atmospheric variables. These observations will be compared against modeled results as well as data from the existing Rio Tinto weather station at Kenney Dam. By integrating field measurements with geospatial modelling, the project aims to improve understanding of the local microclimatic conditions that influence river temperature dynamics within the canyon environment.

This work may contribute important baseline information for future water management decisions related to the Summer Temperature Management Program (STMP), dam operations, and potential restoration activities in the Nechako system. Mapping areas of high solar exposure may also help identify stretches of river where riparian vegetation conservation or restoration could provide effective shading and cooling benefits for aquatic ecosystems. In collaboration with broader watershed research initiatives, the project may ultimately help improve understanding of how water releases, tributary inputs, and solar radiation interact to shape thermal conditions within the Nechako River downstream of Kenney Dam.

Field season update

Dylan Broeke
Field Manager

During the end of April, the field crew, consisting of three master students: Maria Tavares, Serenity Poirier, and Kainen Parmar, joined back together with field manager Dylan Broeke to refamiliarize with the equipment and software. Before the field season kicked off with trips to active sites, the entire team took part in a three-day Wilderness First Aid course. On top of this, new field crew member Serenity took part in a Swiftwater Rescue Technician course.

The first trips that took place were local trips to water temperature loggers, as well as building a new weather station at Ness Lake. This Ness Lake weather station was for training and preparation to rebuild the same tower in the field later this season. Due to the immense snowpack, some of the local water temperature sites were inaccessible from the high-water levels, making retrieval impossible until a later date.

At all local water temperature loggers, data were successfully downloaded with graphs within expectations. Unfortunately, data were lost at the Tatuk Lake weather station as the solar panel failed at some point during the last year, causing the battery and data logger to fail. A new solar panel will soon be replaced to repower the station. During a trip to the Nulki Lake weather station, the complete data set was downloaded with very interesting values on the frost probe, showing that the soil at 20 cm depth did not thaw until April.

As this is being written, the field crew will be departing this week to Cheslatta Carrier Nation to collect data and perform routine maintenance at multiple sites, including two weather stations, two water temperature loggers, and one tipping bucket rain gauge. With many weeklong trips coming up, this will be a busy but productive summer with multiple new projects being built and lots of data collected.

Nechako Canyon, May 2026

FFEL Team

Dr. Eduardo Martins is the Rio Tinto Research Chair in Climate Change and Freshwater Fish Ecology.

Rio Tinto Research Chair team members from the Freshwater Fish Ecology Lab.

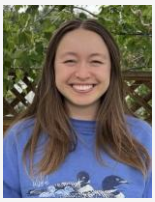
Freshwater Fish Ecology Laboratory | UNBC

Eduardo Martins

Project Leader

Melody Mah

Research Manager



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M.Sc. Student

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Ph.D. Student

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M.Sc. Student

Eliseu Peixoto

M.Sc. Student

Jonny Russell

M.Sc. Student

FFEL Updates

Eduardo Martins
Project Leader

With the second field season on the Stellako River fast approaching, this issue of the newsletter marks an important milestone for our rainbow trout thermal ecology study: the recent publication, in the journal *Ecological Applications*, of the our first peer-reviewed paper on this incredible study system. Led by MSc student Carly Walters, the study used 35 years of snorkel count data collected by the Ministry of Water, Land and Resource Stewardship to investigate how temperature, stream discharge, sockeye salmon returns, and density influenced the survival, growth, and population dynamics of Stellako River rainbow trout (*Oncorhynchus mykiss*).

Among the key findings, summer temperature strongly reduced the survival of the smallest size class of rainbow trout (10-30 cm), whereas larger fish (> 50 cm) were largely unaffected by temperature, but their survival increased with higher sockeye salmon returns (the full paper is available as Open Access at https://doi.org/10.1002/eap.70199). This finding raises fundamental questions about why larger fish are able to persist through warm summers that seem to be detrimental to smaller fish. Are they using thermal refuges more effectively, outcompeting smaller fish for cooler microhabitats, or are they simply more physiologically tolerant?

These are the questions that Carly Walters and Allie Pugh continue investigating through their ongoing crunching of the massive datasets they collected in 2025, and in this issue both students share some recent insights. Carly's contribution focuses on the behavioural and energetic dimensions of thermal habitat use by adult rainbow trout. Using radio telemetry tags equipped with sensors that record body temperature, depth, and activity, she is examining how rainbow trout select thermal habitats and what these decisions cost them energetically. Her work will help determine whether the differential survival observed across size classes in the population study can be explained by differences in thermoregulatory behaviour and habitat use.

Allie presents her initial exploration of the acoustic telemetry data from 2025, which reveal for the first time the broader spatial scale of habitat use by Stellako rainbow trout. Of the 43 acoustically tagged fish, 26 entered either François Lake or Fraser Lake at least once during the monitoring period, spending on average ~45 days in lake habitats before returning to the river or moving elsewhere. Indeed, one tagged individual was caught by a local angler at the west end of François Lake, approximately 100 km from its release site. These results highlight the importance of connectivity between the Stellako River and the surrounding lakes, and suggest that lake habitats may serve roles beyond what we initially anticipated (e.g., as feeding habitat, thermal refuge, or both) during the warmest months of the year.

Meanwhile, MSc student Kirsten Mathison and PhD candidate Lucas Moura are preparing to begin their thermal tolerance experiments on juvenile rainbow trout and mountain whitefish in the Stellako River this summer. Their work, featured in the previous issue of the newsletter, will complement the field observations by providing controlled measurements of thermal limits and recovery capacity. We look forward to sharing progress from these experiments in upcoming issues, as well as continued analyses from the Stellako field data as Carly and Allie advance their MSc research.

We remain deeply grateful to the Stellat'en First Nation for welcoming us to conduct this research in their traditional and unceded territory, and to the many community members and volunteers who continue to support this important work.

The energetic cost of temperature dependent habitat use and behavioural state of rainbow trout in the Stellako River

Carly Walters
M.Sc. Student

In a recent publication (Walters et al. 20261), we used 35-years of snorkel count data to investigate how temperature, stream discharge, sockeye salmon returns, and density influenced Stellako River rainbow trout (*Onchorhynchus mykiss*) survival, growth, reproduction, and population growth rates. We found that the survival of the smallest size class of rainbow trout in the Stellako River was strongly negatively influenced by temperature, whereas the survival of the largest size class of fish was strongly positively influenced by sockeye salmon returns (Figure 3). In addition, the growth rate of the population was driven by the survival of the smallest fish through the effects of temperature, as well as unknown sources of environmental effects on the population.

While temperature had a strong effect on the smallest size class of fish, it had a limited influence on the vital rates of larger rainbow trout. Temperature is the primary abiotic characteristic regulating freshwater fish biology; therefore, there must be something else happening in this population. We hypothesized that the limited effect of temperature on the survival of larger rainbow trout may be due to the larger fish utilizing thermal refuge more effectively or outcompeting smaller fish for critical cool water habitat. Alternatively, this may be because smaller fish have higher metabolic rate per unit mass than larger fish, incurring higher metabolic costs at increased temperatures. These are some of the topics that we are investigating in the Stellako River Rainbow Trout Thermal Ecology study. In this study, we are exploring how adult rainbow trout in the Stellako River survive periods of thermal stress. Do they occupy cooler habitats or move to the surrounding lakes? What impacts do extreme temperatures have on the biology and behavior of fish that remain in the Stellako River?

The objective of my graduate research is to investigate the use of thermal habitats by rainbow trout in the Stellako River and how this influences their behavior and the energetic costs associated with habitat selection. By combining thermal habitat modelling with radio telemetry tags equipped with body temperature, depth, and activity sensors, I am disentangling the behaviors that fish undertake under certain thermal conditions. This will inform the energetics associated with certain activities and how they vary with habitat selection and temperature. This study expands our knowledge of rainbow trout in the Stellako River and how they may respond to an increasingly warmer climate and changes in the availability of thermal habitat.

Rainbow trout and sockeye salmon, Stellako River, August 2025

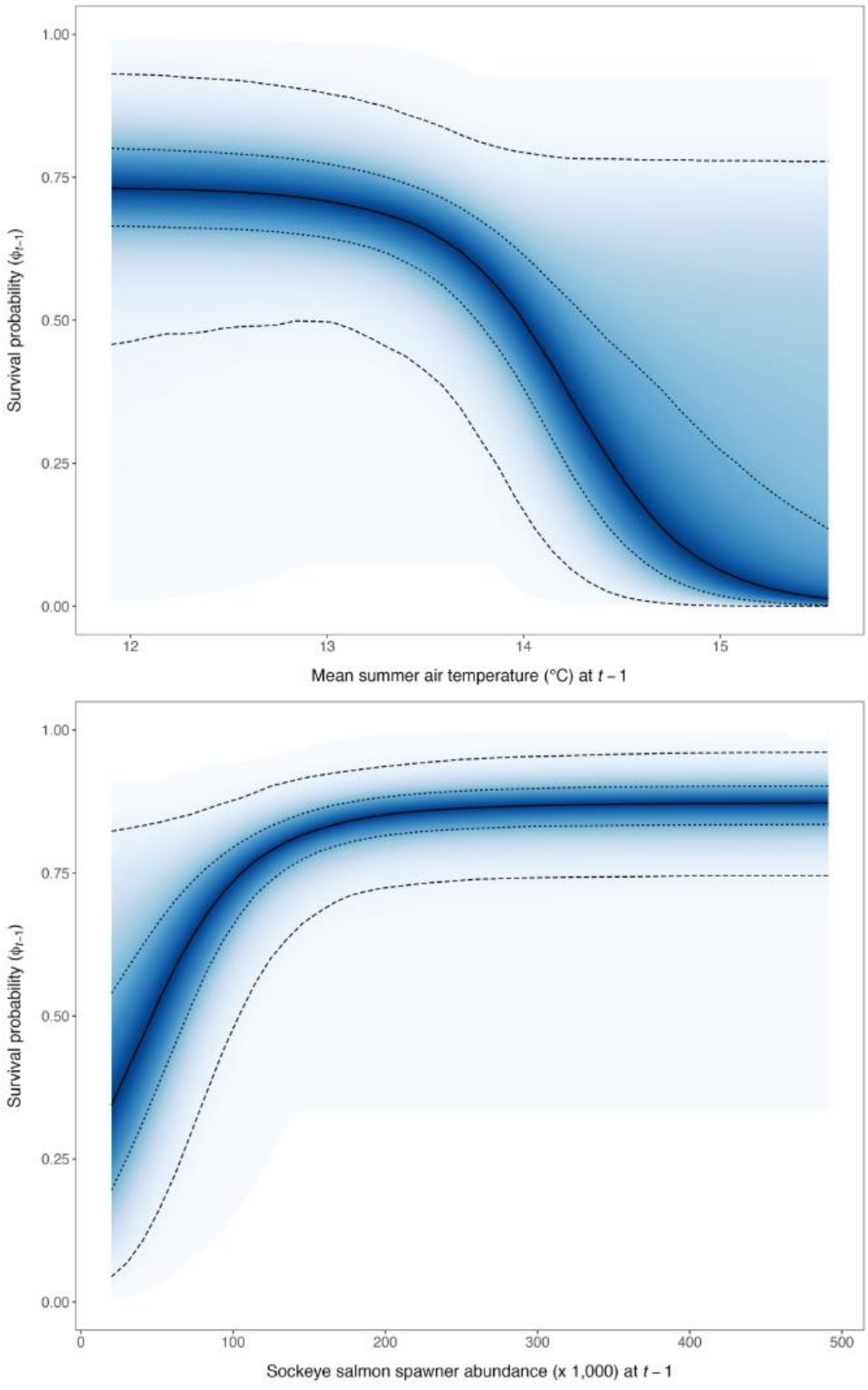


Figure 3. Survival probability of size class 1 declined sharply with mean summer air temperature above 13.5°C (top plot), whereas survival probability of size class 3 increased with sockeye salmon abundance up to 150,000 fish (lower plot).

[1]Walters, C.L., N., Gantner, J. Hagen, I. Spendlow, R. Pillipow, and E. G. Martins. 2026. "Disentangling the Contributions of Density Dependence and Independence to Population Growth Rates." Ecological Applications 35(2): e70199. https://doi.org/10.1002/eap.70199

Following the fish: Acoustic telemetry results from the 2025 Stellako River field season

Allison Pugh
M.Sc. Student

During the summer of 2025, 43 rainbow trout were surgically implanted with acoustic transmitters and tracked throughout the Stellako River, François Lake and Fraser Lake. An array of 26 acoustic receivers deployed throughout the watershed recorded fish movement from June to September, providing details of the behaviour and movement patterns by rainbow trout during the hot months of the Stellako River system (Figure 4).

Figure 4. Map of the deployed acoustic receivers throughout the Stellako River watershed from June-September 2025. Green circles indicate acoustic receiver locations, while the number within the circles represents the number of acoustic receivers deployed at each site. The blue line represents the Stellako River centerline.

The results varied in individual movement and behaviour. While the majority of fish were caught and released within the upper 4 km of the Stellako River, many trout moved considerable distances throughout the watershed. By the end of the monitoring period, 20 fish were detected within river habitats, 20 fish were last detected within lake habitats, and 3 fish remained near their release locations.

Stellako River, June 2025

One of the most notable findings was the frequent movement between the river and lake environments. Twenty-six of the 43 tagged rainbow trout entered either François Lake or Fraser Lake at least once during the monitoring period. Fish that entered the lake habitats spent ~45 days within the lakes before returning to the river or moving elsewhere within the watershed. Notably, one of the tagged fish was caught by a local angler at the west end of François Lake, approximately 100 km away from its release site. Some fish only briefly visited lakes, while others traveled throughout the lakes for extended periods of time (Figure 5).

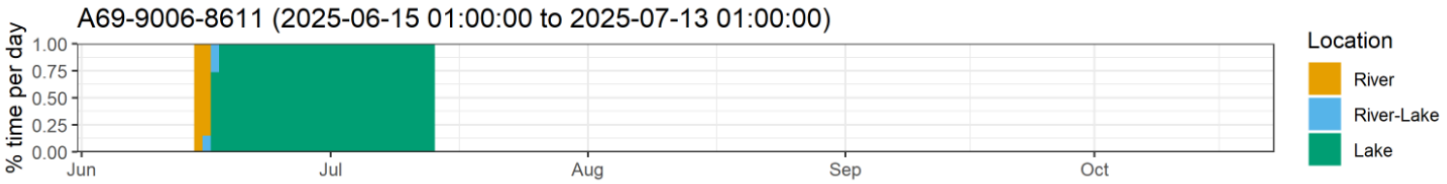


Figure 5. Example of the movement of rainbow trout A69-9006-8611 which was caught in August at west end of François Lake.

These movement patterns highlight the varying habitat types that rainbow trout use throughout the Stellako watershed. These preliminary observations suggest that connectivity between the Stellako River, François Lake and Fraser Lake are important for supporting rainbow trout habitat use during the summer months. The use of lake habitats may provide access to alternative feeding opportunities, cooler water temperatures, or refuge from stressors occurring within the river.

Future analyses will examine how fish movement correspond to river temperature, thermal heterogeneity, and the availability of thermal refuges identified through temperature monitoring and thermal infrared imagery. Understanding when and why rainbow trout move will address a fundamental gap in the movement ecology of this ecologically, culturally, and recreationally significant species.

Rainbow trout, Stellako River, August 2025

Outreach

Communicating our findings through various means continues to be a top priority!

Presentations

Northern Hydrometeorology Group

- 2026/03/25 - Déry, S. J. Climate change and its impacts in Beaverly, the Chilako and Nechako Watersheds. Monthly meeting of the Mud River/Beaverly Farmers' Institute, Beaverly, BC.
- 2026/04/28 - Déry, S. J. Climate change and its impacts in the Nechako Watershed. Nechako Watershed Roundtable Climate Change Adaptation and Resilience workshop, Prince George, BC.
- 2026/04/29 - Déry, S. J. A new data visualization tool for quality-controlled water temperature data collected in the Nechako Watershed. Nechako Watershed Roundtable Large Lakes Monitoring Group workshop, Prince George, BC.
- 2026/06/03 - Déry, S. J. and Thériault, J. M. The Monitoring Extreme Climate and Hydrometeorological Extremes (MECHE) Observatory. 2026 Congress of the Canadian Meteorological and Oceanographic Society, virtual congress.

Freshwater Fish Ecology Lab

- 2026/04/07 - Mathison, K. (2026). Too Hot to Handle: Thermal Stress & Recovery. 2026 UNBC 3-Minute Thesis (3MT) Competition. Prince George, BC.
- 2026/05/04 - Mathison, K. (2026). Too Hot to Handle: Thermal Stress & Recovery. 2026 Western Regional 3-Minute Thesis (3MT) Competition. Regina, SK.
- 2026/05/13 - Walters, C., N. Gantner. and I. Spendlow. Disentangling the contributions of density dependence and independence to population growth rates. Internal presentation for the BC Ministry of Water Land and Resource Stewardship.

Media Interactions

Northern Hydrometeorology Group

- 2026/03/20 - Prolonged atmospheric river event and flooding in BC's Lower Mainland, CTV News, CTV News Channel (Toronto, ON).
- 2026/03/25 - Current low snowpacks at low elevations in the Nechako Watershed and impacts on soil moisture, CKPG News, CKPG (Prince George, BC).

Freshwater Fish Ecology Lab

- 2026/04/28 – Mathison, K. Three Minute Thesis winner studies heat stress in rainbow trout. UNBC Media Release (Prince George, BC).
- 2026/04/23 - Walters, C. Advancing understanding of trout population change to guide conservation and management efforts. UNBC Media Release (Prince George, BC).

Resources

Updates to the Northern Hydrometeorology Group's Data Visualization Tool

- We've added hourly air temperature data for most of our monitoring stations, which can now be overlaid directly on top of the water temperature graphs for easy side-by-side comparison

Check out our websites!

https://web.unbc.ca/~sdery/rtrc

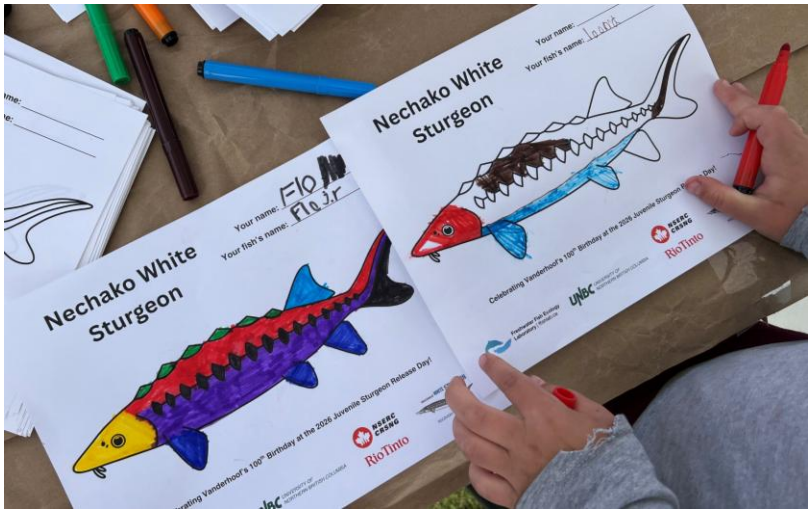
https://www.ffishlab.ca/

Outreach – Youth Engagement

On Friday, June 5th, members of the Freshwater Fish Ecology Lab and the Northern Hydrometeorology Group led interactive outreach booths at the Sturgeon Release Day in Vanderhoof, BC. Hosted by the Nechako White Sturgeon Recovery Initiative, this annual event brings nearly 1,000 students from the Nechako Lakes School District to engage with fish conservation in their backyard. School groups arrived throughout the day, with each class naming and releasing one of 63 juvenile white sturgeon raised in the Vanderhoof hatchery to help maintain the wild population. Classes moved between 18 booths, with FFEL's and NHG's booths at the start of the madness.

FFEL's booth guided youth through how they study fish; students learned hands-on how to identify, measure, tag, and track fish. Exercising their new skills, youth turned from elementary school students to junior fish biologists in minutes. Nearby FFEL's booth, the NHG's booth guided youth through how they study weather and climate; students learning how to measure air and soil temperature, humidity, winds, pressure, lightning strikes, rainfall, and snowpack. After learning how different equipment functions, youth were guided through a weather station activity to piece different sensors onto their own weather station. The students churned out many creative designs, spotlighting the next generation of climate scientists. The FFEL and NHG booths were great successes! FFEL and NHG are excited for the next outreach event and can't wait to return to next year's Sturgeon Release Day!

Outreach – Youth Engagement



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NHG Northern Hydrometeorology Group

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