Nechako Research NEWSLETTER

March 2025 | Volume 7 | Issue 1

RIO TINTO RESEARCH CHAIRS

RioTinto | BC Works

NHG Northern Hydrometeorology Group

Freshwater Fish Ecology Laboratory | UNBC

UNBC

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.

CONTENTS

In this issue of the Nechako Research Newsletter you will find updates from the current team of researchers, including updates from the winter season.

HAPPY EQUINOX!

An introduction from the Northern Hydrometeorology Group

Nechako River—February 2025

Spring is already upon us as yet another winter comes to a close. It was another unusual winter across northern BC with cold, snowy spells interrupted by much milder weather (often above freezing) and rain-on-snow events. Despite the emergence of La Niña in the tropical Pacific Ocean, this past winter was certainly not as cold nor snowy as anticipated. While the relatively wet fall has primed the soils with additional moisture, more precipitation is needed this spring to return lakes and rivers back to more normal levels after an extended and severe drought impacted the Nechako Watershed.

The March 2025 issue of this newsletter marks a transition in the format and content of the newsletter. As you will read later in this issue, we are pleased to announce new funding that will reinvigorate a partnership between UNBC and Rio Tinto, allowing us to expand our efforts across the Nechako Watershed. These are very timely developments given the NSERC / Rio Tinto Industrial Research Chair on climate change and water security ends on 30 June 2025. Henceforth, the newsletter will be rebranded as the **"Nechako Research Newsletter"** and will include progress updates not only from myself but also from my UNBC and Integrated Watershed Research Group (IWRG) colleague Dr. Eduardo Martins. Both of us were able to secure new research chair positions starting 1 January 2025 for a period of five years thanks to the generous support of Rio Tinto. Thus, we are combining efforts in providing quarterly updates through the Nechako Research Newsletter starting with this issue.

Members of the Northern Hydrometeorology Group (NHG) that I lead are providing a combined update in this issue of the newsletter. Indeed, we provide an overview of the hydroclimate of the Nechako Watershed in 2024 relative to historical conditions. We also provide an overview of the field activities undertaken across the Nechako Watershed during the past year and a summary of our data management activities. The contribution also includes a map of our active field sites in the Nechako Watershed and plans for the coming year.

Stephen Déry

The outreach section of this newsletter provides information on two presentations I delivered on climate change in the Nechako Valley and Watershed this past winter at Winston's Breakfast Group and at the annual general meeting of the Nechako Valley Regional Cattlemen's Association. These presentations continue to show the community's interest on climate change in the region and allow us to share the findings from our research to the broader community. You will also find a list of recent media interactions, videography, publications and other community engagement activities our team has been involved in this past winter.

There are no major changes to the composition of the team this winter; however, we are fortunate to have both Kainen Parmar and Maria Tavares supporting the team as part-time undergraduate research assistants, focusing mainly on data management issues. Our trio of field technicians from the 2024 field season, Kainen Parmar, Lynn Poeppelmann and Maria Tavares, are returning for the 2025 field season. We are also recruiting new team members for the summer and fall of 2025 – details in forthcoming issues of the newsletter.

Wishing everyone a most pleasant spring!

Stephen Déry

It is with a heavy heart that we wish to inform you that Angel, the beloved shih tzu and NHG mascot, passed away on 10 March 2025 at twelve and a half years of age. Angel frequently participated in field work and site visits across the Nechako Watershed while accompanying Stephen and other members of the NHG. We sincerely thank everyone in the Nechako Watershed for welcoming her in their homes and/or properties, providing her great experiences during our field work. Thanks for all of your support!

NEW FUNDING ANNOUNCEMENT

Rio Tinto | BC Works

We are delighted to announce the creation of two new research chairs at UNBC focused on the Nechako Watershed supported by Rio Tinto. Dr. Stephen Déry and Dr. Eduardo Martins have secured a combined $1.75 million from Rio Tinto's Aluminium Canada Fund to undertake 5-year programs of research on how climate change is affecting water security and freshwater fish in the Nechako Watershed.

Dr. Déry is a Professor in the Department of Geography, Earth and Environmental Sciences, a member of UNBC's Integrated Watershed Research Group (IWRG) who also leads the Northern Hydrometeorology Group (NHG), and the holder of the NSERC / Rio Tinto Senior Industrial Research Chair (IRC) on climate change and water security. With the IRC program of research ending on 30 June 2025, the new Rio Tinto Research Chair in climate change and water security allows Dr. Déry's team to build on this prior effort to tackle ongoing issues affecting the Nechako Watershed. Indeed, the 5-year program of research on climate change and water security that started on 1 January 2025 has three main themes: 1) hydrometeorological extremes including droughts and atmospheric rivers, 2) microclimates and climate change in the Vanderhoof agricultural belt, and 3) variability and predictability of water temperatures. Thanks to the renewed support from Rio Tinto, we will therefore be able to expand monitoring meteorological and water temperature conditions in the Nechako Watershed while furthering our understanding of various processes and phenomena such as droughts and atmospheric rivers.

Dr. Eduardo Martins is an Associate Professor in the Department of Ecosystem Science and Management and also a member of UNBC's IWRG. His research program has addressed broad questions related to the thermal ecology of freshwater fishes in the Fraser and Parsnip watersheds in British Columbia and in the Amazon basin in Brazil. The new Rio Tinto Research Chair in Climate Change and Freshwater Fish Ecology will allow Dr. Martins and his team to focus on pressing questions related to how fish respond to water temperature in the Nechako Watershed. This 5-year Research Chair also started on 1 January 2025 and will support two main research themes: 1) thermal preference and behavioural thermoregulation; and 2) thermal tolerance. Thanks to Rio Tinto's support, Dr. Martins' team will be able to expand the number of study species and populations as well as address the important question of whether thermal refuges can buffer the effects of climate warming on fishes found in the Nechako Watershed.

Lianne Olson, Rio Tinto's Senior Advisor, Communities Social Performance, made the official announcement of the two new Rio Tinto Research Chairs at the BC Natural Resources Forum (BCNRF), in Prince George on 15 January 2025. To mark the event, UNBC and Rio Tinto issued a joint media release announcing the two new research chairs. The BCNRF presentation included a 2-minute video highlighting the principal accomplishments of the IRC program of research since July 2019. Furthermore, there was a fireside chat led by Pam Ketlo, Nadleh Whut'en First Nation's Lands and Resources Manager with Andrew Czornohalan, Director of Energy and Watershed Partnerships at Rio Tinto's BC Works, and by Dr. Geoff Payne, President and Vice-Chancellor of UNBC, on the benefits of partnerships between industry, academic institutions and communities. Several interactions with media followed the announcement – please consult the outreach section of the newsletter for details.

From Left to right: Dr. Paula Wood-Adams, UNBC, Vice-President, Research and Innovation; Mark Barnes, UNBC, Interim Associate Vice-President, Strategy and Outreach, Office of Research and Innovation; Lianne Olson, Rio Tinto, Senior Advisor, Communities Social Performance; Stephen Déry; Eduardo Martins; Andrew Czornohalan, Rio Tinto, Director of Energy and Watershed Partnerships and Dr. Geoff Payne, UNBC, President and Vice-Chancellor. Photo by Michelle Cyr-Whiting, UNBC Communications and Marketing Office.

With the two Rio Tinto research chairs focused on the Nechako Watershed, the "Nechako IRC Newsletter" is undergoing a transition to reflect the research pursued by the two Chairholders. First, we are rebranding the newsletter as the "Nechako Research Newsletter" starting with this issue. Second, content in the newsletter will cover activities and research progress made by both Chairholders and their teams. This may, at times, include combined contributions as both teams will on occasion coordinate projects or field work activity. Third, we will continue to have periodic updates on the NSERC Alliance project led by Dr. André St-Hilaire and which also involves Drs. Déry and Martins. Finally, the production of the newsletter is now being shared by IWRG Research Manager Lucas Moura and the NHG/FFEL Research Manager Erica Lee. We hope you will continue to enjoy this newsletter and we welcome any feedback you have on its format and content.

We are incredibly grateful for this opportunity to expand our efforts in the Nechako Watershed and sincerely thank Rio Tinto for its tremendous support. This will allow us not only to undertake critical research in the Nechako Watershed to find local solutions to emerging issues but also train the next generation of hydrometeorologists and fish ecologists. Our sincere thanks as well to the UNBC Office of Research and Innovation including Mark Barnes (Interim Associate Vice-President, Strategy and Outreach) and Dr. Paula Wood-Adams (Vice President, Research and Innovation) for its continued support of the partnership with Rio Tinto. We also express our deep gratitude to the many individuals, colleagues, organizations and communities who continue to support our efforts at UNBC. We look forward to reporting on our progress through future Nechako Research Newsletters and interacting with you as our work unfolds over the next five years.

Stephen Déry and Eduardo Martins

"We are incredibly grateful for this opportunity to expand our efforts in the Nechako Watershed and sincerely thank Rio Tinto for its tremendous support. This will allow us not only to undertake critical research in the Nechako Watershed to find local solutions to emerging issues but also train the next generation of hydrometeorologists and fish ecologists."

THE TEAM

Meet the Rio Tinto Research Chair members from the Northern Hydrometeorology Group

Stephen Déry

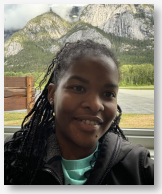
Project Leader

Justin Kokoszka

M.Sc. Candidate

Dylan Broeke

Field Crew Team Leader



Tamar Richards-Thomas

Post-Doctoral Fellow

Erica Lee

Research Manager

Mostafa Khorsandi

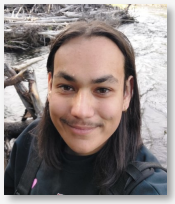
Post-Doctoral Fellow

Maria Tavares

Database Administrator

Lucas Moura

Research Assistant
Newsletter Editor



Kainen Parmar

Undergraduate Research assistant

YEAR IN REVIEW

Stephen Déry

In 2024, the Nechako Watershed experienced a relatively warm year with average precipitation. Based on the fifth generation of the European Centre for Medium-Range Weather Forecasts reanalysis (ERA5), air temperature averaged 2.7°C in 2024 (Figure 1). This is 1.1°C above the 1950-2024 average of 1.6°C and follows the record value of 4.1°C observed in 2023. Conditions in 2024 continued the pattern towards warmer air temperatures in recent years, with the linear trend suggesting a 2.2°C increase across the Nechako Watershed from 1950 to 2024. Precipitation in 2024 was slightly above average at 803 mm relative to the 789 mm expected on average. However, drought conditions that started in the summer of 2022 and through to 2023 persisted into the first half of 2024. A wet fall marked by frequent atmospheric rivers making landfall near the upper Nechako Watershed alleviated the drought somewhat by year's end. Warmer conditions led to greater than average rainfall (115%) while snowfall was significantly less than average (88%). Overall, the Nechako Watershed experienced above average air temperatures and normal amounts of precipitation during 2024.

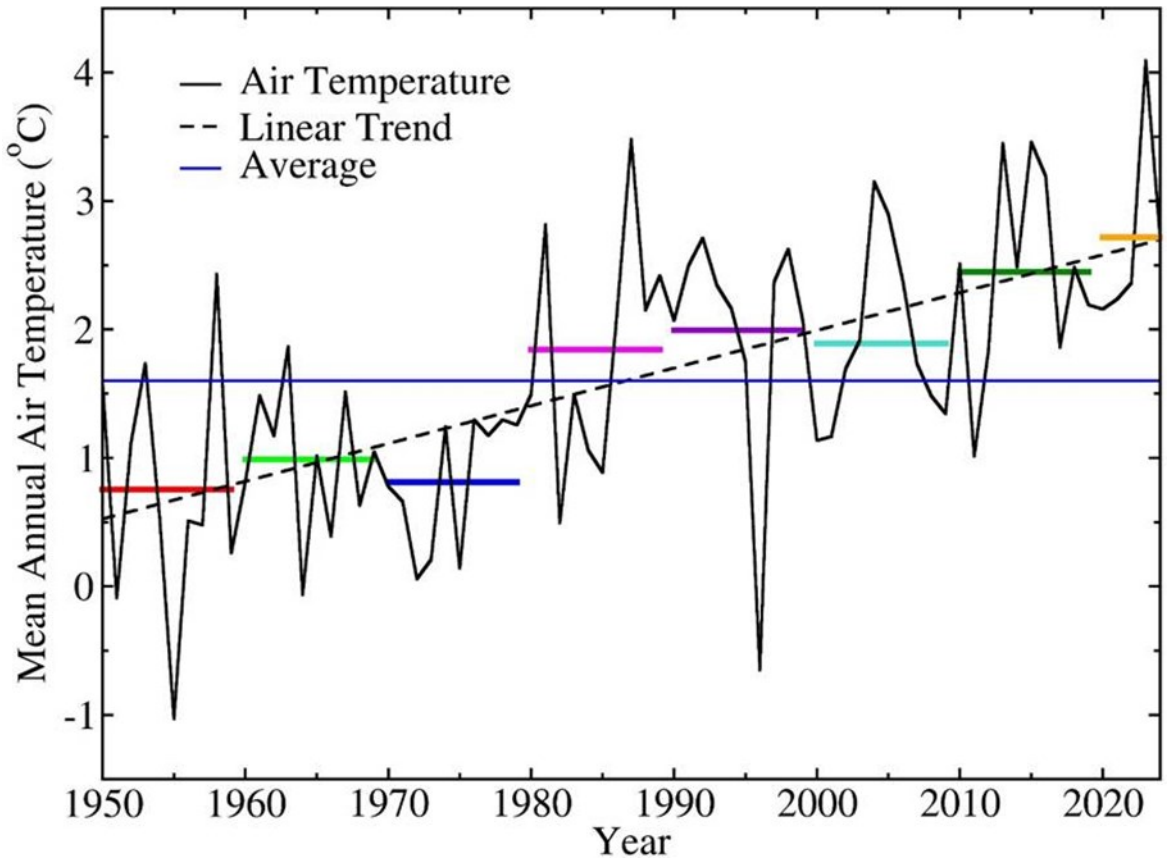
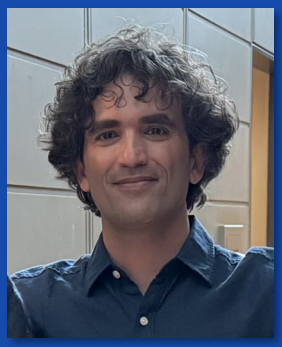


Figure 1: Mean annual air temperature spatially-averaged across the Nechako Watershed, 1950-2024 (**black line**). Also shown on the plot are the 1950-2024 average (**blue horizontal line**), the linear trend inferred through linear regression (**black dashed line**) and decadal averages (**coloured bars**).

YEAR IN REVIEW



Mostafa Khorsandi

The warm year of 2024 led to above-normal water temperatures. Figure 2, using observed data from 2017–2024, illustrates the interplay between discharge and water temperature at two stations: (a) Stuart River near Fort St. James (natural flow) and (b) Skins Lake Spillway, Nechako Reservoir (managed flow). Both stations have large upstream water bodies—Stuart Lake and Nechako Reservoir, respectively. The plots reveal the hysteresis effect of natural and managed flows on water temperature. In Stuart River, natural flow variations cause more pronounced seasonal temperature fluctuations, whereas the regulated Skins Lake Spillway exhibits a more controlled temperature response due to flow management during the summertime (mid-July to mid-August) under the Summer Temperature Management Program (STMP).

The monthly separation of values in both panels highlights how regulation mitigates high water temperatures. Managed releases from Nechako Reservoir help reduce extreme temperatures compared to the unregulated system, demonstrating that flow regulation can be an effective tool in controlling thermal conditions.

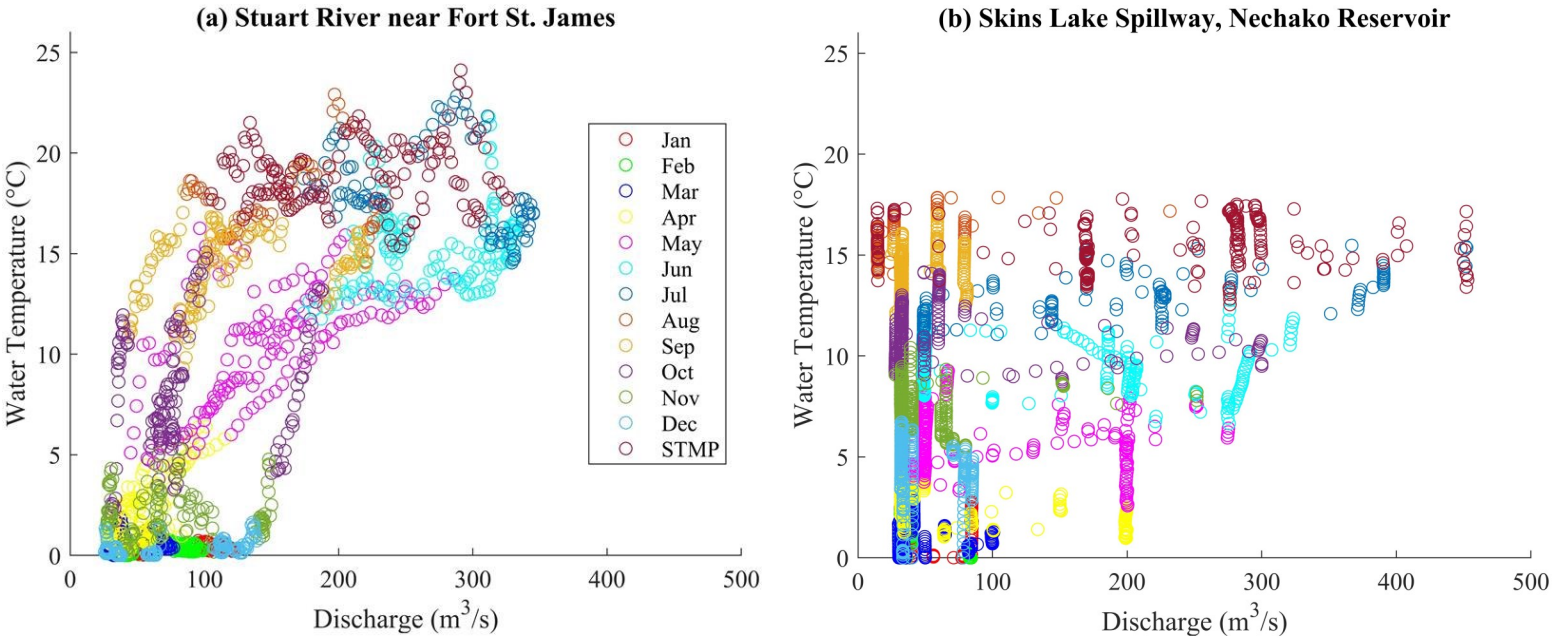


Figure 2: Observed daily mean water temperature versus daily mean river discharge for (a) Stuart River near Fort St. James (2019-2024, natural flow) and (b) Skins Lake Spillway, Nechako Reservoir (2017-2024, managed flow).

YEAR IN REVIEW

After several years of diligent data collection, we are pleased to report the completion of our quality assurance and quality control (QA/QC) process for the stream temperature data for the Nechako and Quesnel watersheds. This QA/QC procedure ensures the integrity and reliability of our datasets which are being increasingly used by both the public and professionals in the field. These data will not only provide a solid foundation for future analyses but also serve as a valuable resource for informed watershed management. As part of this process, we have generated a graph for each station that compares the current year's data against a multi-year averaged 7-day running mean. Building on this success, we are now in the process of developing a similar QAQC protocol for our weather station data. This step will ensure consistency and high quality across all aspects of our environmental monitoring program.

Justin kokoszka

Maria Tavares

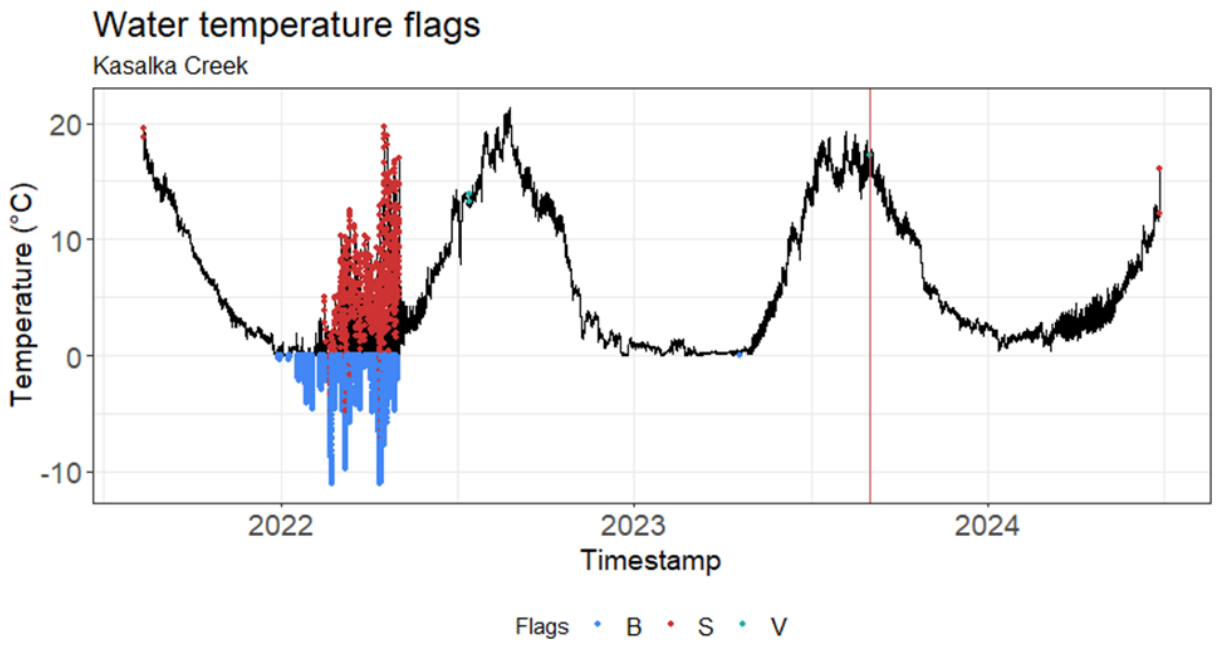


Figure 3: Water temperature (°C) at 15-minute intervals at Kasalka Creek. Flags indicate potential data quality issues for each 15-minute observation: B (below ice), S (spike), and V (site visit). Quality-assured observations are represented by the black line, and data gaps by vertical red lines. Quality control indicates the water temperature logger was exposed to air during the winter and spring of 2022, resulting in negative temperature readings and spikes due to air temperature fluctuations.

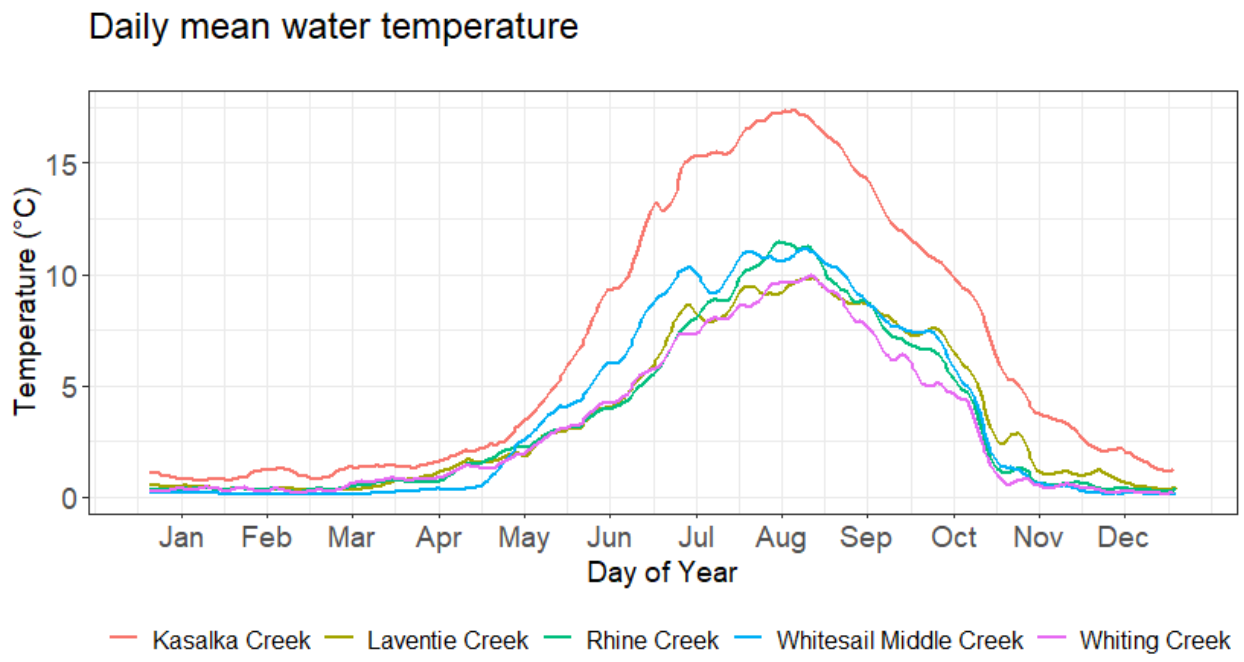


Figure 4: Annual daily mean water temperature (°C) shown as a 7-day running mean, for five sites within the Tahtsa River region, located in the western headwaters of the Nechako Reservoir.

"These data will not only provide a solid foundation for future analyses but also serve as a valuable resource for informed watershed management."

YEAR IN REVIEW

Dylan Broeke

Kainen Parmar

The 2024 field season was a very successful summer with minimal issues. This year, an in-depth training program was developed so that the field technicians that joined the NHG's team had an advanced knowledge of the systems and methodology of our field work. This proved to be incredibly beneficial as with 4 total field technicians having the knowledge of the hardware/software, building new sites, and continued work on existing sites was quick and efficient. Without the hard work and dedication of the new field technicians, the season would have been much more difficult.

Throughout the summer, every Water Temperature Logger (WTMP) was swapped from the HOBO MX2201 model to the more rugged MX2203 model. This change is to decrease loss of data from a logger failing during the winter. The Weather Station (WX) on Mt. Sweeney was unfortunately lost due to heavy snowfall during the winter, but that area of the Nechako Watershed now has a WX and complementary sensors at Huckleberry Mines. The setup at the mine took many months to complete but the WX, Parsivel Disdrometer, and Micro Rain Radar (MRR) are now fully functional. After the trouble shooting, particularly with the disdrometer, all three systems send data remotely to l'Université du Québec à Montréal (UQAM).

While working at the Mine, the field team created a brand new WX at Nadina River Spawning Channel which was the third WX built within the season, the others being at Nulki Lake and South at Quesnel Lake. The WX that was built at Nulki Lake features a soil frost probe that is the first of-its-kind for the NHG that measures soil temperature from 0 cm to 20 cm inclusive. This frost probe adds to the typical NHG WX which includes a ClimaVUE50, SR50, Apogee Net Radiometer, and T109 temperature probes.

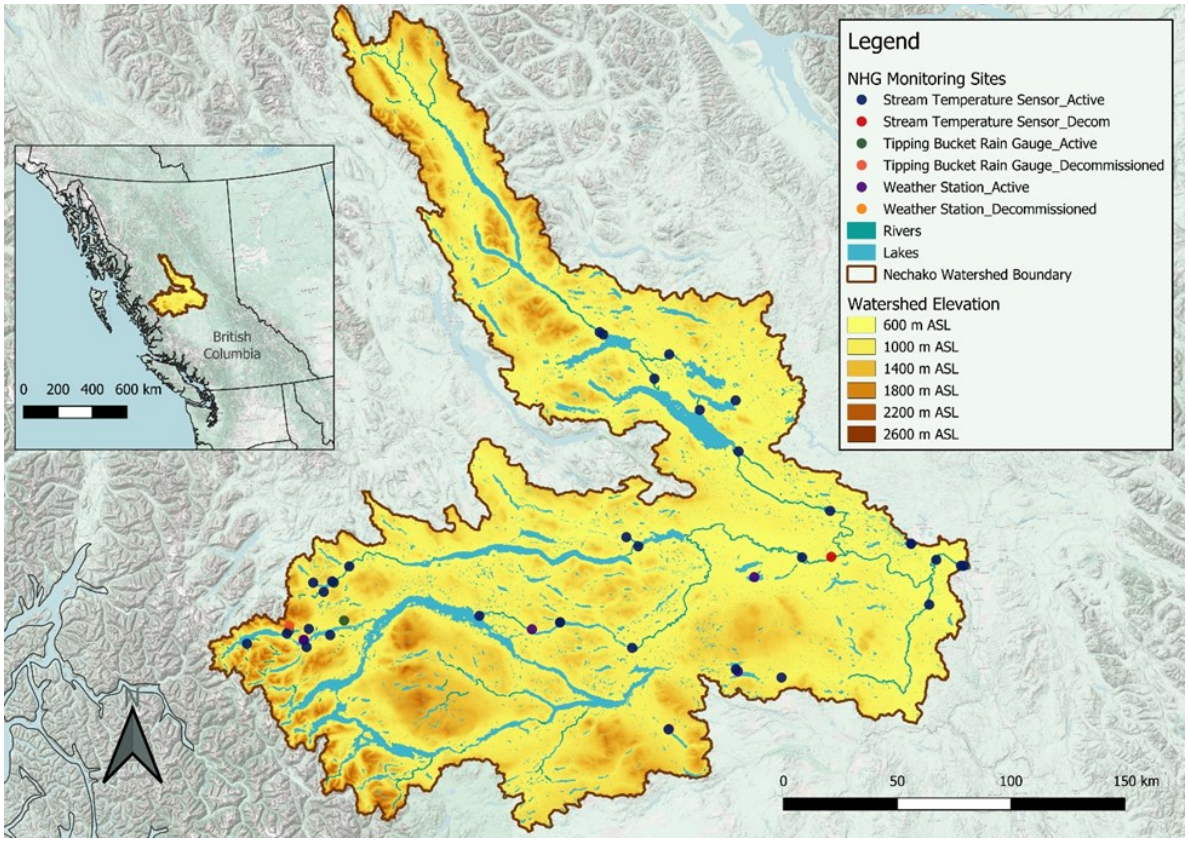


Figure 6: Updated 2024 Nechako Watershed NHG monitoring sites with stream temperature monitors in blue, tipping bucket rain gauges in green, and weather stations in purple. Decommissioned sites are shown in red and orange depending on site type.

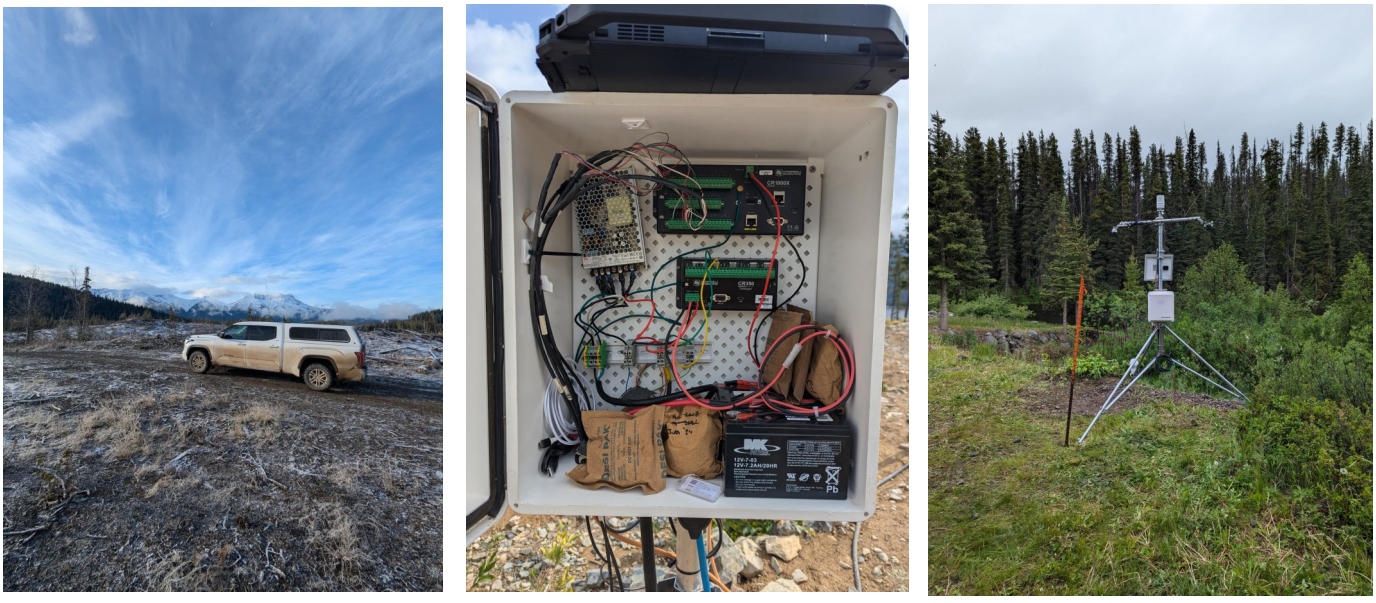


Figure 7: Pictures from the field work season.

YEAR IN REVIEW

Tamar Richard-Thomas

Three Atmospheric Rivers across the upper Nechako Watershed during Tahtsa Ranges Atmospheric River Experiment Field Campaign

Atmospheric rivers (ARs) that reach British Columbia's (BC's) Coast Mountains undergo orographic lifting, leading to intense precipitation that impact the region's hydroclimatology. This study complements the Tahtsa Ranges Atmospheric River Experiment (TRARE) field campaign by providing analyses of the characteristics and impacts of ARs on the upper Nechako during TRARE.

The aim of this study is to identify primary pathways of moisture transport and quantify the moisture fluxes (e.g., IVT). This study used three ARs identified as Events 3, 5, and 10, named according to their order of detection, using observational and ERA5 reanalysis datasets. The vertically integrated water vapor transport (IVT) steadiness factor (ISF, %) is obtained at seven-point locations labelled from P1 – P7 across the upper Nechako (Fig. 8b). ARs associated with Events 3 and 5 moved southwest-to-northeast with IVT steadiness factor (ISF) >90% (Fig. 8a). Event 10 experienced a southeast-to-northwest path, which aligns with the counterclockwise motion of the associated AR, with ISF <75% (Fig. 8a), due to the enhanced water vapor caused by the passage of a historical bombogenesis and AR south of BC. The moisture fluctuations during these events affect ecosystems and water resource management in the upper Nechako region.

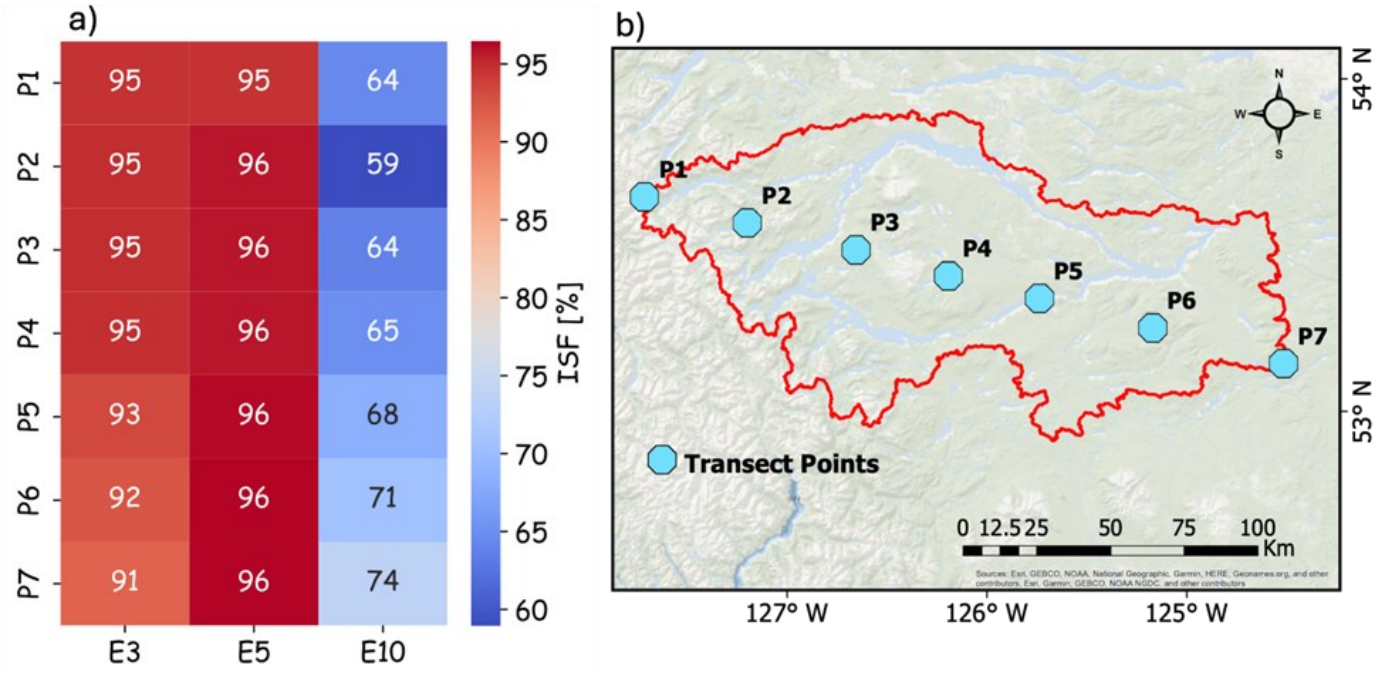


Figure 8: a) Integrated water vapor transport (IVT) steadiness factor (ISF, %) at each point location, P1 to P7, along a west-to-east transect in b) across the upper Nechako over the duration of Events 3 (E3), 5 (E5), and 10 (E10).

Greetings from the Freshwater Fish Ecology Laboratory

Eduardo Martins

The Freshwater Fish Ecology Laboratory (FFEL) at UNBC is dedicated to understanding fish ecology in freshwater systems, particularly in the context of climate change. Our research focuses on fundamental questions falling under three main themes:

1—Thermal ecology: How does temperature affect fish survival, reproduction, and behaviour?
2—Movement ecology: Where, when, and why do fish move?
3—Population dynamics: How and why do fish abundance change in time and space?

These seemingly disparate themes of research are actually tightly linked. Most fish cannot control their body temperature by physiological means, so their body temperatures match that of the water temperature around them, which thus affects their growth, reproduction, and survival. Since water temperature changes with seasons and daily cycles, fish regulate their body temperatures by moving to different areas if needed. For that reason, the variability in thermal conditions of the environment influence where fish live, how many survive and successfully reproduce, and how their populations change over time and space.

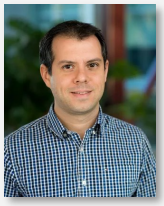
To conduct our research, we employ a variety of approaches, including field monitoring with biotelemetry and data loggers, laboratory and field experiments, and advanced statistical modeling. A major component of our work involves monitoring water quality parameters such as temperature and dissolved oxygen—two critical factors influencing fish physiology and behaviour. This research is essential for understanding how climate change and anthropogenic impacts in a watershed are altering aquatic ecosystems and impacting freshwater fishes.

In this issue of the Nechako Research Newsletter, two of the FFEL students share updates on their ongoing research in the Nechako Watershed that involves the monitoring of water temperature and dissolved oxygen. MSc student Abigail Oviatt summarizes temperature and dissolved oxygen trends in Fraser Lake during the summer of 2024. Her work highlights marked seasonal variations in these key water quality parameters. She is currently integrating the temperature and dissolved oxygen data with her detection data on tagged burbot (*Lota lota*) monitored with acoustic telemetry to investigate their use of the available oxythermal habitat in Fraser Lake. Similarly, PhD student Avery Dextrase synthesizes temperature and dissolved oxygen trends that were collected in a pool used by white sturgeon (*Acipenser transmontanus*) in the Nechako River last summer. Her work also involves the tagging of white sturgeon with temperature, depth, and activity sensing radio transmitters. Collectively, the data she is collecting will enable Avery to investigate oxythermal habitat use by white sturgeon as well as their ability to maintain preferred body temperatures with the available thermal habitats in the Nechako River during the summer. We look forward to reporting on future developments of Abigail and Avery's research and many other projects our students are currently starting or planning to do in the Nechako Watershed.

THE TEAM

Meet the Rio Tinto Research Chair members from the Freshwater Fish Ecology Lab

Freshwater Fish Ecology Laboratory | UNBC



Eduardo Martins

Project Leader

Allison Pugh

M.Sc. Student

Avery Dextrase

PhD Student

John Gray

PhD Student

Melody Mah

Research Assistant

Abigail Oviatt

M.Sc. Candidate

Annika Putt

PhD Candidate

Carly Walters

M.Sc. student

Erica Lee

Research Manager

Lucas Moura

PhD Candidate

MONITORING FRASER LAKE: 2024 TEMPERATURE AND OXYGEN TRENDS

Abigail Oviatt

Understanding Our Lake's Changing Conditions

Since 2021, we have continuously monitored Fraser Lake's temperature and dissolved oxygen (DO) levels to understand how seasonal variations and climate change affect the aquatic environment. By deploying temperature and DO loggers at different depths across multiple zones, we aim to track how these key habitat parameters evolve throughout the ice-free season.

Tracking Temperature Trends

Our 2024 temperature readings show a clear seasonal pattern, with surface waters warming rapidly in late spring and peaking in mid-summer before cooling again in the fall. Shallower loggers (0–5 m) recorded the highest temperatures, exceeding 25°C in some areas during peak summer, while deeper loggers (8–9 m) remained relatively cooler. Temperature stratification was evident across all monitored zones, reinforcing the thermal layering that influences lake ecology and species distribution.

Dissolved Oxygen Decline & Stratification

The combined temperature and DO plot provide further insight into how thermal stratification influences oxygen availability. DO levels gradually declined throughout the season, particularly at greater depths (20–26 m). While surface waters maintained higher oxygen levels, deeper waters experienced significant declines by mid-summer, with some areas nearing hypoxic conditions (<5 mg/L). This reduction in oxygen availability can impact fish habitat, particularly for species like burbot, which rely on cool, oxygen-rich waters.

What This Means for the Ecosystem

The observed patterns highlight the ongoing changes in Fraser Lake's oxythermal habitat. Warmer surface temperatures and declining deep-water oxygen levels could influence fish behaviour, habitat use, and overall ecosystem health. Continued monitoring will help us assess long-term trends and guide conservation efforts for species dependent on stable temperature and oxygen conditions.

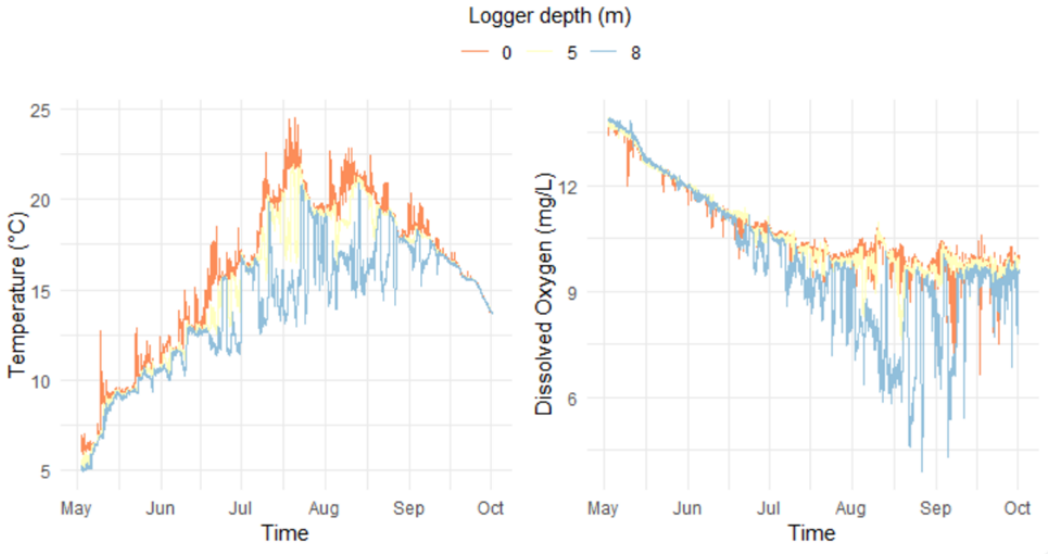


Figure 6. Time series of dissolved oxygen (mg/L) and temperature (°C) in zone 1 of Fraser Lake during 2024.

WATER TEMPERATURE AND DISSOLVED OXYGEN IN IMPORTANT NECHAKO RIVER WHITE STURGEON HABITAT

Avery Dextrase

In this project, we are investigating habitat availability and selection by two economically, socially, and ecologically important species in the Nechako River – white sturgeon and Chinook salmon. Given the increase in mean river temperatures and extreme thermal events due to ongoing climate change, this research will generate knowledge about the availability of thermal refuges (patches of colder water due to tributary or groundwater input) and their use (if available) by the study species to maintain body temperatures at preferred or non-stressful temperatures.

In 2024, preliminary field work and data collection were conducted for this project. This work included deploying temperature and dissolved oxygen loggers in important white sturgeon habitat in the Nechako River to monitor the temperatures and dissolved oxygen levels available to sturgeon. Eighteen temperature loggers and two dissolved oxygen loggers were deployed from mid-July to the end of October in 2024. In 2025, we plan to deploy a total of 100 temperature loggers and 20 dissolved oxygen loggers in white sturgeon and Chinook salmon habitat in the Nechako from April to October. Below we summarize the data collected last year in a deep, slow-moving pool near river kilometer (rkm) 110 of the Nechako River (Keilor's Point). Daily average temperature at the bottom of the pool and the surface of the river were very similar (Figure 7). Before the effects of STMP reached rkm 110, river water temperatures exceeded 24°C (Figure 7). After July 23rd, 2024, mean daily temperatures in the pool remained cooler than 20°C (Figure 7). Mean daily dissolved oxygen levels ranged from 7.7 mg/L to 11.8 mg/L and increased gradually over time as river temperatures decreased in the late summer and fall (Figure 7).

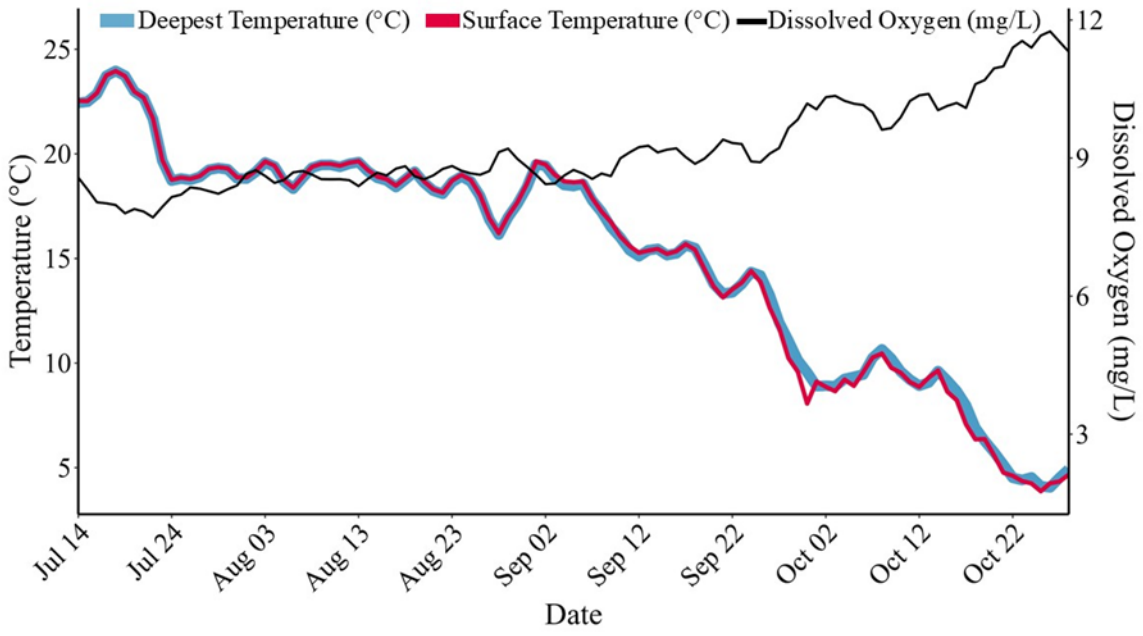


Figure 7. Average daily temperature (°C) and dissolved oxygen (mg/L) at the bottom of a pool in the Nechako River (6.5 to 8.5 m deep) and the surface temperature (°C) (within 2 m of the surface). Data were collected in 2024 near river kilometer 110 of the Nechako River, an area that is known to be an important habitat of white sturgeon.

OUTREACH

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

PRESENTATIONS

- Déry, S. J. Climate change in the Nechako Watershed. Winston's Breakfast Group, Prince George, BC, 23 January 2025.
- Déry, S. J. Climate change in the Nechako Valley and Watershed. Annual General Meeting of the Nechako Valley Regional Cattlemen's Association, Vanderhoof, BC, 15 February 2025.
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- Khorsandi, M. and Déry, S. J., 2025: A novel method for frequency analysis of high water temperatures using temperature duration curves in a partially regulated watershed, Science of the Total Environment, 968, 178863. https://doi.org/10.1016/j.scitotenv.2025.178863.

MEDIA INTERACTIONS

- 2025/02/15: Vivre à Prince George, Culture et confiture, Radio-Canada (Vancouver, BC)
- 2025/02/10: Current low snowpacks in BC and dry weather, CKPG News, CKPG (Prince George, BC)
- 2025/01/22: Extreme hydrometeorological events in BC and rising insurance costs, CKPG News, CKPG (Prince George, BC)
- 2025/01/16: New Rio Tinto research chair in climate change and water security, Phare Ouest, Radio-Canada (Vancouver, BC)
- 2025/01/15: New Rio Tinto research chair on climate change and water security, CKPG News, CKPG (Prince George, BC). https://ckpgtoday.ca/2025/01/15/rio-tinto-supports-unbc-research/
- 2025/01/15: UNBC appoints two Research Chairs in partnership with Rio Tinto, My PG Now https://www.myprincegeorgenow.com/216367/featured/unbc-appoints-two-research-chairs-enhancing-rio-tinto-partnership/
- 2025/01/13: Current warm spell in northern BC and upcoming weather forecast, CKPG News, CKPG (Prince George, BC)

VIDEOGRAPHY

- The impact of the NSERC - Rio Tinto Industrial Research Chair. https://www.youtube.com/watch?v=2D__otHvfeg

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