

CRRC HIGHLIGHTS

CRRC AGM & Welcome Social

In September 2026, we welcomed CRRC members to our hybrid Annual General Meeting (AGM) and Welcome Social. During the AGM, CRRC Director Dr. Homa Kheyrollah Pour highlighted CRRC's accomplishments over the past year and introduced the Centre's five-year strategic plan and ten-year vision. The presentation sparked an engaging discussion with attendees, led by CRRC Executive Committee members Dr. Philip Marsh, Dr. Derek Gray, and Dr. Joseph Culp. The conversation focused on CRRC's proposed direction and how the Centre can continue to better support its faculty, students, researchers, and partners.

Following the AGM, several graduate students from Laurier shared their research experiences and offered valuable advice and tips for incoming graduate students.

The AGM and Welcome Social wrapped up with a chilli lunch, giving attendees an opportunity to continue conversations, connect with colleagues, and exchange ideas about the future direction of CRRC.



Amber Buston-White, a PhD candidate in Geography, discussed her experiences navigating graduate student funding.

SEPTEMBER 2026

Five-Year Plan and Ten-Year Vision

STRATEGIC PLAN FRAMEWORK



Sabrina St. Hilaire and Natalie Nykamp, PhD students in Biology, shared their experience conducting research at the Canadian High Arctic Research Station (CHARS) in the North.



Alexander Fogal, an MSc student in Geography, shared insights into his research and highlighted funding opportunities available to master's students.

Water Science Week at the Délı̨́nę Sadó Camp

In July 2026, Charity Parr-Vasquez, Homa Kheyrollah Pour, Brendan Walker, and Gena Braun helped lead a water and land camp for the children of Délı̨́nę. Hosted by the incredibly kind, generous and skilled Bruce and Verna Kenny and with the honour of being joined by Elder Bernadette, the camp brought together northern and southern youth to explore water science through art, games, and hands-on activities. On the land, participants engaged in fishing, berry picking, boating, and lots of laughing. They also learned about animal harvesting and the deep connections between people, place, and water.



Children participating in the Water Science and Land Camp in Délı̨́nę, Northwest Territories.

Dr. Gifty Attiah Awarded Polar Knowledge Canada 2026 Fellowship!



Pictured here is Dr. Gifty Attiah conducting field work in the Canadian North.

Polar Knowledge Canada (POLAR) has awarded Dr. Gifty Attiah a postdoctoral fellowship for her work titled “Scalable field-calibrated sensing framework to quantify climate warming impacts on water quality in small Northern lakes.” Dr. Attiah is currently doing a postdoctorate in the Remote Sensing of Environmental Change (ReSEC) Lab at Laurier. A POLAR fellowship aims to support eligible individuals who wish to continue to develop their northern expertise and advance their research under one of POLAR’s Science & Technology Goals. Congratulations, Dr. Attiah!

Read more here:



POLAR
POLAIRE

CRRC Picnic: Bringing Our Community Together for a Memorable Summer Afternoon

In June 2026, we hosted our CRRC Picnic, bringing together students, faculty, and staff from Laurier and University of Waterloo campuses to connect, enjoy great food, and spend time together. The CRRC Picnic gathering was hosted as a way to strengthen connections across our community. This is especially important during the summer months, when many CRRC members are away from campus working in the field. The CRRC picnic was originally scheduled to happen in Waterloo Park; however, due to the weather, the picnic was moved indoors to the Arts Building. Over 21 attendees connected and socialized with one another and took part in a fun game of Arctic-themed pictionary!



During the CRRC Picnic, attendees split into two teams and took part in a friendly game of Arctic-themed pictionary. Pictured here is Alex Fogal, an MSc student part of the Trail Valley Creek Research Group, drawing a clue for his Arctic-related word.

By bringing our community together in a more relaxed and informal setting, the gathering provided a chance to strengthen existing connections as well as meet new students, faculty, and staff.

Dr. Maria Strack is the Recipient of the Mid-Career Scientist Award!

Congratulations to Dr. Maria Strack, CRRC member and professor of Geography & Environmental Management at the University of Waterloo, for being the recipient of the Mid-Career Scientist Award. This award was presented to Dr. Strack at the Canadian Geophysical Union (CGU) Annual General Meeting for her contributions to the advancement of peatland carbon cycling. The CGU presents this award annually to an individual for their outstanding research contributions in any research area of the Union, including biogeosciences and hydrology.



Pictured here is Dr. Maria Strack (second from the right) receiving the award from the Canadian Geophysical Union president, Claire Oswald, at the Annual General Meeting.

Read the full article here: 

Lunch and Learn: Introducing the New CRRC Lecture Series

In July 2026, we held our first Lunch and Learn featuring Dr. Murtaza Taj, a visiting researcher from Lahore University Management Science (LUMS) in Pakistan. This talk was held in a hybrid format, and was attended by over 33 students, faculty, and staff. The event opened with introductions by Dr. Homa Kheyrollah Pour and Dr. Jason Neelis, followed by Dr. Taj's engaging presentation titled "*Watching the Glacier's Edge: An AI Early Warning System for Human-Snow Leopard Conflict in the Karakoram.*" The CRRC provided a pizza lunch and allocated time at the end of the talk for attendees to ask questions and connect with the speaker.



Dr. Murtaza Taj, visiting researcher from Lahore University Management Science (LUMS) in Pakistan, delivering his talk about how an AI-powered early warning system can be used to reduce conflict between humans and snow leopards.

Given the excellent turnout for this Lunch and Learn, the CRRC will continue this lecture series. Our next speaker will be announced soon - stay tuned!

Alicia Pouw Awarded Wiesnet Medal at the Joint Eastern-Western Snow Conference!

Alicia Pouw is a PhD Candidate and part of the Remote Sensing of Environmental Change (ReSEC) Lab at Laurier. She was the recipient of the Wiesnet Medal, which is awarded annually to a student presenting the best paper at the Joint Eastern-Western Snow Conference. Alicia's talk was titled "*Mapping Snow-Ice Fraction on Subarctic Lakes Using Predictive Modelling.*" Congratulations, Alicia!



Alicia Pouw (on the left) receiving the Wiesnet Medal at the Joint Eastern-Western Snow Conference.

Read more here:



NSTP 2027/28 Applications are Open – CRRC Internal Deadline is October 30

The **Northern Scientific Training Program (NSTP)** 2027-28 competition is now open for students planning to conduct northern fieldwork between April 1, 2027 and March 31, 2028.

Please note that our internal deadline is **October 30, 2026**.

Application Information

- Review the **NSTP Information Manual (2027-28)** for application requirements and eligibility.
- Please watch our **recorded training video** for guidance on completing the online application.
- We will hold a **virtual Q&A session** on **October 20**, from 12:00 to 1:00 p.m., to answer questions about the application process.

Eligibility and Funding

Applicants must be student researchers and Canadian citizens or permanent residents. Postdoctoral fellows and Research Assistants are not eligible. Please consult the NSTP manual for complete eligibility requirements.

NSTP support is available for:

- Undergraduate thesis students: 1 year
- Master's thesis students: up to 2 years
- PhD students: up to 3 years

Master's and PhD students must reapply each year.



The maximum request is \$6,000 per student. Based on our institutional allocation, awards have typically been approximately \$2,000-\$3,000 per student.

ADDITIONAL NSTP AWARDS

Four awards, each valued at **\$2,500**, are available. Each institution may nominate one student per award. Students cannot receive the same award more than once.

Available Awards:

- *Malcolm Ramsay Memorial Award* (Life Sciences)
- *George Hobson Memorial Award* (Physical Sciences)
- *Robert McGhee Award* (Human Sciences)
- *Éric Dewailly Memorial Award* (Health Sciences)

Come to our virtual Q&A Session on October 20 to ask your questions about the application process!!!

Introducing Three New CRRC Fellows



Dr. Mike Palmer

Dr. Palmer is an aquatic scientist whose research focuses on the biogeochemical cycling of contaminants in subarctic lakes, permafrost-influenced hydrology, and the long-term impacts of industrial activity on northern watersheds. He brings a rare combination of rigorous academic research and deep practical experience gained over many years working as an environmental scientist within territorial and federal government in the Northwest Territories.



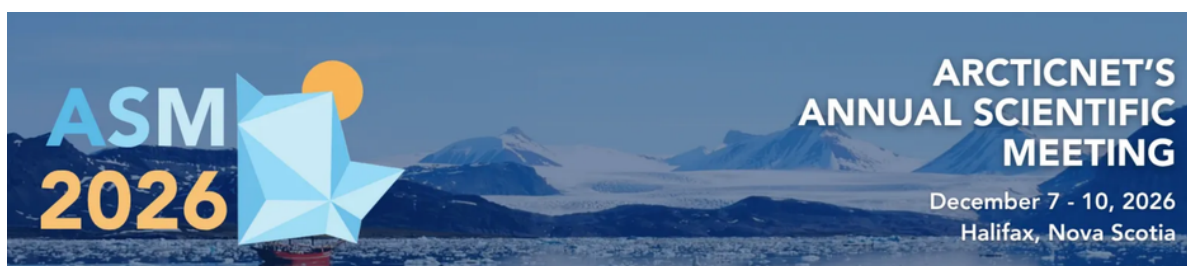
Dr. Kevin Turner

Dr. Turner is a cold regions researcher with an expertise on the hydrology and biogeochemistry of northern lake-rich landscapes. He has a long-term research program in the Old Crow Flats, Yukon that integrates water isotope tracers, remote sensing, drone surveys, paleolimnology, and permafrost monitoring.



Dr. Peter Griffith

Dr. Griffith is an ecologist and carbon cycle scientist with exceptional expertise in Arctic and boreal field science, remote sensing, and the biogeochemistry of northern ecosystems. He has decades of leadership experience on NASA's largest northern field programs, including ABoVE and the Carbon Monitoring System.



CRRC to Sponsor ArcticNet's Annual Scientific Meeting 2026

We are excited to announce that the CRRC will be a sponsor of **ArcticNet Annual Scientific Meeting (ASM) 2026**, which will be held in Halifax from December 7 to 10th. This will allow the CRRC to highlight our research, strengthen collaborations, and raise our collective profile in Arctic and subarctic science.

Join us at the CRRC booth at ArcticNet!

At the CRRC booth, we will be:

- displaying posters
- distributing outreach materials
- highlighting research projects
- advertising graduate opportunities



Please email coldregions_info@wlu.ca with the information you would like advertised at the CRRC booth by November 27, 2026.

Highlighted CRRC-Related Sessions

WBE90 – Fostering Healthy Communities: Climate Change, Sustainable Foods, and Food Security Action

ECS101 – Permafrost Thaw in a Warming World: Hydrology, Ecosystem Change, and Downstream Impacts

INF25 – Resiliency of Ice Roads and Winter Roads in Northern Canada

Use our NEW LOGO in your presentations:  Cold Regions Research Centre

Calling all Graduate Students!

Are you a CRRC undergraduate, master's, or doctoral student? Would you like to be featured in our CRRC Student Research Spotlight Series? This spotlight series is a great opportunity to share your research and graduate experience with CRRC members. It's a fantastic way to introduce yourself and connect with the CRRC community.

Please fill out this [Google Form](#) to be featured on our social media platforms.

William Bender Awarded a Weston Family Award in Northern Research!



William Bender

Wilfrid Laurier University | Master's

William currently lives in Southern Ontario, but developed a love for the North after visiting family in Pangnirtung, Nunavut. During his undergraduate studies, he spent a summer working with the Northwest Territories Geological Survey (NTGS) in Yellowknife, mapping thermokarst landforms throughout the territory. He is now working towards his MSc in geography at Wilfrid Laurier University in partnership with the NTGS, conducting research in the Dehcho Region of the Northwest Territories to better understand how climate change is affecting the riverbank slope stability of the Mackenzie River, the longest and largest river in Canada.

“Communities along the Mackenzie River have recently grown concerned after observing increased rates of landsliding along the riverbanks which can negatively affect the region's infrastructure and ecosystems, in addition to its residents' health, well-being, and livelihoods.”

Communities along the Mackenzie River have recently grown concerned about the rising rates of landsliding along the riverbanks, which negatively affects regional infrastructure and ecosystems, as well as residents' health, well-being, and livelihoods. Working alongside the Łı́ı́dlı́ Kúé First Nation Land Guardians, Will's fieldwork has identified permafrost thaw as a potential main driver of slope failure. By combining this fieldwork with remote sensing, his research investigates the relationship between climate change and thaw-driven landsliding along the Mackenzie River.

Read it here:



Follow Cold Regions Research Centre on Social Media!

Please follow us on social media to stay connected with all things CRRC! Be the first to hear about the latest news, updates, and announcements.

@ColdRegionsResearchCentre

LinkedIn



CRRC Student Research Spotlights

The Canadian government is considering replacing fossil fuel-powered generators in the Arctic with Small Modular nuclear Reactors (SMRs) for towns, mine sites and military bases. Vast regions in the Arctic are underlain by permafrost, ground that is below 0°C for at least two consecutive years. It is known that radioactive particles that can also be emitted by SMRs are stored differently in permafrost-affected soils compared to non-permafrost-affected soils. Tobias aims to understand those differences better and find microtopographic geomorphic features at the Laurier Trail Valley Creek Research Station in the western Canadian Arctic. His research will help close knowledge gaps by understanding their influence on permafrost thaw.



TOBIAS LEANDER LEONHARD

MSc student; Laurier's Geography program
Supervisor: Dr. Philip Marsh
leon9650@mylaurier.ca

Northwestern Canada is warming rapidly, causing the frozen ground beneath peatlands, called permafrost, to thaw and collapse into wetlands, while drought and wildfires are also becoming more frequent and destructive. Regan aims to understand how these changes are reshaping the water systems of subarctic peatlands. By studying how water moves through different landform types and tracking how decades of thaw, drought, and fire have altered flow at the Scotty Creek Research Basin, Regan aims to understand how these stressors interact and whether today's more thawed southern sites can tell us what northern sites will look like in the future.



REGAN MURRAY

PhD student; Laurier's Geography program
Supervisor: Dr. William Quinton
murr3100@mylaurier.ca

Sabrina is researching the impacts of metal contamination on aquatic ecosystems. A largely uncharacterized source of metal contamination is lead-based fishing gear, which releases lead and other metals into the environment. Sabrina's work shows that metals from recreational gear hinder aquatic animals' reproduction and growth. By combining environmental monitoring with toxicological and physiological approaches, Sabrina aims to characterize the ecological risks of these contaminants and assess lead concentrations in heavily fished areas to evaluate potential risks to human consumers, as lead is a known neurotoxin. This research will help inform environmental guidelines to protect aquatic ecosystems and support evidence-based decisions regarding restrictions on lead gear, including the potential impacts on Indigenous communities in the Canadian North that rely on subsistence fishing.



SABRINA ST-HILAIRE

PhD student; sthi5330@mylaurier.ca
Laurier, Biological and Chemical Sciences Program
Supervisor: Dr. Erin Leonard

Check out her recent publication:



Save the Date for the 2027 Annual CRRC Student Conference!



Celebrating 40 Years of CRRC at the Annual CRRC Student Conference

SAVE THE DATE!

January 21-22, 2027

📍 Waterloo, ON



coldregions.wlu.ca

More details to come, including the venue, abstract and registration submission details, and the conference schedule. Stay tuned!

Some recent (April 2026 to now) publications from our CRRC members: check them out!

**If we missed your publication, please let us know so we can include it in the next CRRC Highlights*

- Bayatvarkeshi M, Ketcheson S, Dickie M, Serrouya R, Quinton W, Strack M. Seismic line disturbances affect spatial and temporal patterns of snow accumulation in boreal forests. <https://doi.org/10.1016/j.jhydrol.2026.135125>
- Blay-Palmer A, Anderson MD, Aunio AL, Ballamingie P, Carey R, Gudu S, Mullinix K, Pulasinghage C, Spring A, Szanto D, Valette E, Wilkes J, Miltenburg E. Building capacities in regional food systems: mapping towards transformation. <https://doi.org/10.1007/s10460-025-10840-y>
- Ensom T, Kokelj SV, Marsh P, Van der Sluijs J, Connon RF. The influence of highway-stream crossings on stream temperature, aufeis, and terrain dynamics in continuous permafrost. <https://doi.org/10.1139/as-2025-0065>
- Goetz J. runoutSIM v1.0: an R package for regionally simulating landslide runout and connectivity using random walks. <https://doi.org/10.5194/gmd-19-5709-2026>
- Hettinga EK, Rezanezhad F, Shahvaran AR, Amir M, Reshadi M, Strack M, Arndt KA, Strachan IB, Skeeter J, Wu J, Morison MQ, Alcock H, Sonnentag O, Knox SH, Howard R, Van Cappellen P. Evaluating modeling approaches for estimating net ecosystem exchange in Canadian peatlands. <https://doi.org/10.1038/s41598-026-67275-6>
- Hilgendag IR, Power M, Aqdam MM, Lewis CW, Martin Z, Ehrman AD, Swanson HK. Marine migration influences mercury accumulation in anadromous Arctic char (*Salvelinus alpinus*). <https://doi.org/10.1111/jfb.70575>
- Kangro RJ, Strack M. Evaluating soil and plant controls on the contribution of ebullition to methane emission in a calcareous fen. <https://doi.org/10.1007/s11104-026-09084-4>
- Lyons C, Day NJ, Johnstone JF, Mack MC, Turetsky M, Walker X, Baltzer JL. Permafrost supports post-fire recovery of black spruce dominance in subarctic boreal forests. <https://doi.org/10.1088/2752-664X/aea99d>
- Madelon R, Endsley KA, Kimball JS, De Lannoy GJM, Sonnentag O, Alcock H, Mavrovic A, Williamson SN, Maire V, Mialon A, Roy A. Exploring alternative SMAP Level-4 carbon model formulations for the North American Arctic-subarctic growing season. <https://doi.org/10.5194/bg-23-6359-2026>
- Montgomery-Stinson T, Cuerrier A, Pilgrim L, Saunders MK, Andersen G, Way RG, Trant AJ. "It's because we're out there and experiencing": Inuit knowledge, climate change, and cultural keystone places in Nunatsiavut. <https://doi.org/10.1139/cjb-2025-0111>
- Newman AJ, Cheng Y, Blaskey D, Herman-Mercer NM, Craig AP, Koch J, Toohey R, Mutter E, Carey MP, Gooseff MN, Swanson H, Thomas P, Brooks C, Musselman KN. Long-term regional hydroclimate modeling for communities and decision-makers across Alaska and Northwestern Canada. <https://doi.org/10.1175/BAMS-D-24-0131.1>
- Pouw AF, MacLean A, Kheyrollah Pour H. Characterizing snow depth and ice surface elevation on subarctic lakes using a multi-sensor approach. <https://doi.org/10.1139/as-2026-0010>

Contact us at

✉ coldregions@wlu.ca

🌐 <https://www.coldregions.wlu.ca>

 Cold Regions
Research Centre