



University  
of Manitoba

Clayton H. Riddell Faculty of  
Environment, Earth, and Resources

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## NEWSLETTER

### *What's in this issue?*

<i>Message from the Acting Dean</i>	<i>Pg. 2</i>
<i>Fall Graduates</i>	<i>Pg. 3</i>
<i>Department Updates</i>	<i>Pg. 4-5</i>
<i>Dean's Office Updates</i>	<i>Pg. 6-7</i>
<i>New Faculty</i>	<i>Pg. 8</i>
<i>Awards</i>	<i>Pg. 9</i>
<i>Project Updates</i>	<i>Pg. 10-13</i>
<i>Environmental Conservation Lab</i>	<i>Pg. 14</i>
<i>Storm Chasing Field Course 20th Anniversary</i>	<i>Back</i>

*Cover image credit: Dr. Luke Copland*





## NEWSLETTER

# *Message from the Acting Dean*

Hello CHRFEER!

I wanted to briefly introduce myself as I take on the Acting Dean role for the Faculty as well as thank everyone for their assistance as I assume these duties. My journey here began in 2004 when I arrived in Winnipeg as an assistant professor in the relatively new Department of Environment and Geography. My core area of research and teaching is in ecotoxicology, water quality, and ecological risk assessment. Over the years I've served as the graduate program chair, associate head, and eventually the head of Environment and Geography. Now, as Acting Dean as of July 1st 2025, I am tasked with leading all of us as we work to address new challenges and changes that have emerged on the academic landscape. I am confident that the faculty, staff, and students of the CHRFEER will be able to come together as we reimagine our place and roles in Manitoba, across the country, and around the world.

*-Mark Hanson*





FALL 2025

*Background image provided by freepik.com*

## Fall Graduates



**David Rourke**

I have felt very fortunate to have been directed to NRI and Dr. Iain Davidson-Hunt to embark on and complete my PhD. The topic was In Search Of Net Positive Carbon Grain Farming in the Northern Great Plains, Innovation in Policy and Practice. It is timely and I hope this work can help the limited support which goes into mitigating global warming be used more effectively. The thesis involved qualitative in-depth interviews with innovative farmers, all in their own way moving towards Net Positive farming.

**Safina Naznin**

I am thrilled to be graduating this October with a Master of Natural Resources Management (MNRM) from the Clayton H. Riddell Faculty of Environment, Earth, and Resources. Returning to academic life after a long professional break was both exciting and challenging, especially as I adjusted to a new country, demanding coursework, and Manitoba's extreme weather. The supportive environment at the Natural Resources Institute (NRI) made this journey incredibly rewarding.



**Hannah Janzen**

I'm graduating with a Bachelor of Environmental Studies (Honours) and a minor in Geography, focusing on conservation and biodiversity. In my studies I loved bringing what I learned in class into real world experiences. From courses like Parks and Protected Areas and Field Readiness, to volunteering with Wetlanders, and my first co-op placement with Parks Canada on the Riding Mountain Field Unit Resource Conservation team, each experience helped me build valuable skills.



**Sean Lavergne**

Hats off to Sean Lavergne! Graduating with a BA in Geography (General), a minor in Economics, and With Distinction—an inspiring journey of dedication and excellence. Sean's ranked as Sergeant (Sgt) and he belongs to the Royal Canadian Engineers.





## NEWSLETTER

# Department Updates

### Environment & Geography

The Department of Environment and Geography is undergoing a curriculum renewal that will align student interests, industry and community opportunities and faculty expertise. In the past year we've been able to consult with students and faculty as a foundation for this renewal which will be finalized in 2026. This work builds upon the new and exciting courses faculty members have introduced in recent years, including ENVR 2020 – Introduction to Sustainability; ENVR 3140 – Aquatic Ecosystem Services; ENVR 4800 - Climate and Society; GEOG 2870 Introduction to Economic Geography; and GEOG 4670 – The Global Cryosphere. We are looking forward to continuing this process to help students develop the expertise they are looking for.

### Centre for Earth Observation Science

This fall, we are looking forward to many research initiatives through the Centre for Earth Observation Science. In September, researchers aboard the CCGS Amundsen will reach the “oldest ice area” in the Queen Elizabeth Islands in the High Arctic, for the first time. We celebrate the first anniversary for the opening of the Churchill Marine Observatory amidst renewed interest in the commercial use of the port and are excited to see the GENICE II project preparing to use the facility for oil spill experiments. CEOS will be examining the longest Canadian ice core (613m) from the Mueller Ice Cap. Community-based research projects will continue across the Arctic, including projects in James Bay for the Eeyou Coastal Habitat Project, community consultation visits in Rankin Inlet for the ArcticSat project, and work with Gjoa Haven as several examples.

This picture has PhD student, Mahdi Zabihi Mayvan and Dr. Dustin Isleifson on the CCGS Amundsen, at mobilization in Quebec City in June 2025





FALL 2025

*Looking to promote or share some news of your own?*



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## **Natural Resources Institute**

Welcome to the 2025-2026 academic year for both new and continuing students. We had an enjoyable time getting to know new students at the orientation held at Fort Whyte Centre and renewed contact with all students and staff at our recent pizza lunch meet and greet. We wish all a successful year in their programs and research endeavors. Two faculty members continue to settle in to their teaching and research. Dr. Nahid Masoudi has taken on the role of Associate Head at the NRI and will offer a course during the winter semester for graduate students on the economic dimensions of natural resources and environmental management. Nahid's research will be in the area of environmental and natural resources economics for students looking to pursue a graduate degree in those areas. We also welcome Dr. Christina Prokopenko who offers a course on the ecological dimensions of natural resources and environmental management, a course students working in those areas may want to consider. Christina's research focus broadly on wildlife management and students with those interests should make contact to explore research opportunities. We also celebrate the recognition of Dr. Fikret Berkes, Distinguished Professor Emeritus, who received a lifetime achievement award from the International Association for the Study of the Commons. Finally, we are excited to offer the Belize field course in the winter semester over the winter reading week, which will focus on Sustainability Transitions from Below. The NRI will be holding a field seminar that includes undergraduate and graduate students from E&G and NRI. We look forward to sharing student experiences from the field seminar in early April, stayed tuned!

## **Earth Sciences**

The Department of Earth Sciences at the University of Manitoba celebrated several achievements this fall, including hosting Dr. Vincent Ialenti as the 2024 Jack Gallagher Visiting Scientist, where he presented a well-attended lecture titled "From the Bedrock to the Body Politic: Building Geocultural Foundations for Spent Nuclear Fuel Progress". Dr. Kirstin Brink received the 2025-2026 Strategic Initiatives Support Fund Award to enhance engagement at the Ed Leith Cretaceous Menagerie, which also welcomed Daniel Gowryluk as the new Museum Coordinator leading educational programs and exhibit updates. The department also organized a successful Science Teachers' Association of Manitoba (STAM) workshop featuring hands-on geology and paleontology sessions. In addition, Drs. Kirstin Brink, Michael Schindler, and Ricardo Silva were awarded John R. Evans Leaders Fund grants for their innovative research projects.





## NEWSLETTER

# Updates

## *Dean's Office Updates*

### **Andrew Frederiksen**

The Faculty wants to extend its deepest thanks to Professor Andrew Frederiksen for stepping in as Acting Dean and effectively leading us during his time in the role. Andrew was able to help keep us level and bring us together at a crucial time in our history. Prior to being our Acting Dean, he was skillfully helping to oversee our undergraduate programs as our Associate Dean Academic since 2019. We wish Andrew all the best as he steps back into the world of seismology and now only has to deal with earthquakes!



*Image provided by Andrew Frederiksen*

*Thank you, Andrew!*





FALL 2025

*Flower images provided by freepik.com*

*The Riddell Faculty expresses gratitude to our many dedicated faculty and staff members throughout the years!*



*Image provided by Jason Jorgenson*

### **Jason Jorgenson**

The Dean's Office wants to wish Jason Jorgenson all the best as he moves into his new role as the Academic Planning & Programs Specialist in the Office of the Provost and Vice-President (Academic) here on campus. Jason was the Faculty's Student Affairs Coordinator and had been a part of our student advising team for over 20 years. During that time he was an invaluable member of the office and contributed immensely to the success of our undergraduate programs. He will be sorely missed!

*Thank you, Jason!*







## NEWSLETTER

*Background image provided by freepik.com*

# Faculty

## New Faculty



**Brock Edwards**  
Instructor  
Environment & Geography

I recently became Instructor I in the Department of Environment and Geography after teaching here for several years as a sessional instructor. I teach the foundational first- and second-year environmental science courses (ENVR 1000 and 2000) as well as a technical communication class in our department (ENVR 2350). Before my current role, I completed my B.Sc. and M.Sc. at the University of Toronto and my Ph.D. here at UM in environmental chemistry, exploring volcanism and the mercury (Hg) cycle in Iceland and elsewhere. I'm extremely excited to get to teach full-time (not on the side) and continue to make a positive impact on the UM community—and to continue making convincing arguments for students to switch over to our faculty!

I am a Canada Research Chair in Energy Transitions and Social Justice in the North and assistant professor in the Department of Environment & Geography. My research explores the social justice implications of Canada's emerging energy transition for northern Indigenous communities, focusing on new pressures for critical mineral extraction, nuclear waste disposal, and electricity generation. I am interested in the political dynamics surrounding land use conflicts and the ways in which energy transitions and intensifying and expanding these disputes.



**Warren Bernauer**  
Assistant Professor  
Environment & Geography



FALL 2025



**Christina Prokopenko**  
Assistant Professor  
NRI

I am a wildlife behavioural ecologist who studies animal movement and foraging behaviour - most of my research asks why do animals move where they do and eat what they do?

Originally from Ottawa, Ontario, I have always been an animal lover with a curiosity about the natural world. Studying wildlife ecology has taken me across Canada. I received my BSc from the University of Guelph, MSc from the University of Alberta, PhD from Memorial University of Newfoundland and Labrador, and postdoc at the University of British Columbia Okanagan.

Out of all of these, my favourite place to live, explore, and study is Manitoba. While tracking wolves in Riding Mountain National Park for my PhD - wading through swamps in the August haze, or braving the biting February air, I formed an irrevocable connection to Manitoba's nature. I am thrilled to be back in Manitoba to study wildlife as an Assistant Professor at the University of Manitoba.

## Awards

The Riddell Faculty is proud to celebrate our award recipients from the 2025-2026 academic year. Check out the full list of awardees by scanning the QR code below, and find out more about the awards our faculty offers.



*Image provided by freepik.com*



<https://news.umanitoba.ca/awards-recipients-2025-2026/>



**Scan me!**



<https://umanitoba.ca/environment-earth-resources/student-experience/funding-and-awards>







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*Background image provided by Ricardo Silva.*

## Project Updates

### **M-JET: Middle Jurassic Earth System and Timescale**

On June 2–6, 2025, Dr Silva led the International Continental Scientific Drilling Program Science Workshop of the M-JET project (<https://www.icdp-online.org/projects/by-continent/europe/m-jet-portugal/>), which was held at the University of Coimbra Campus in Figueira da Foz (Portugal).

More than 40 scientists of all career stages met to discuss research, knowledge and open questions regarding the Middle Jurassic Earth System and Timescale, as well as the need to drill to advance the understanding of this period in Earth history and the societal relevance of the deposited sediments. The workshop featured discussions, presentations, and a one-day field excursion to explore the Cabo Mondego coastal outcrops close to Figueira da Foz, Portugal

### **Field work in McBeth Point with The Manitoba Museum and Kinonjeoshtegon First Nation**

In May, Curator of Paleontology and Geology Dr. Joe Moysiuk and Museum Advisor on Indigenous Relations and Reconciliation Tabitha Harper joined up with Prof. Ricardo Silva to host a show-and-tell booth at the Treaty Day Health Fair in Kinonjeoshtegon First Nation. Several intriguing fossil specimens from the collections were available for attendees to see and touch, including trilobites, cephalopods, dinosaur bones, and a rare fossil seaweed.

This engagement is one component of an ongoing community-led paleontology project. Later this summer, with support and participation from the community, the team collected specimens from the nearby shores of Lake Winnipeg at McBeth Point to better understand why the fossils here are so remarkably well-preserved. You can see some fossils from this region for yourself in the Ancient Seas exhibit at the Manitoba Museum of Natural History.



*Image provided by Ricardo Silva.*



FALL 2025

*Image provided by Ricardo Silva.*

## **GEOL 4270 "The Birth, Death and Exhumation of an Atlantic Sedimentary Basin". 2025 Portugal Field Course**

The Field Course GEOL 4270 (Fall 2025) offered a unique learning experience to 10 students of the Department of Earth Sciences of the Clayton H. Riddell Faculty of Environment, Earth, and Resources. Students delved into the birth (rifting), death (closure), and exhumation (tectonics) of an Atlantic Sedimentary Basin. The course included a 9-day field trip to central Portugal, which took place between August 27th and September 4th, where the focus was on the sedimentary record of the Lusitanian Basin.

Field activities concentrated on world-class outcrops visited by thousands of students each year, recording important geological events such as the opening of the Atlantic Ocean more than 200 million years ago and the Toarcian Oceanic Anoxic Event (T-OAE). These outcrops serve as international standards for the geological timescale, specifically the Global Boundary Stratotype Section and Points for the Toarcian and Bajocian stages. The comparison of the Lusitanian Basin's sedimentary and tectonic record with that of eastern Canada's oil and gas-bearing offshore basins was of great interest, as the two areas were only a few hundred kilometres apart across the Atlantic Ocean, in the precursor Atlantic rift.

Students learned essential skills required for field-based mapping of sedimentary rocks, including field sketches, collecting measured sections, physical correlation, and incorporating basin structure. The field course included several mapping projects where students mapped designated areas using satellite imagery and ground-based observations. Additional coursework was completed after the field portion, and each student will deliver a short presentation during the Earth Sciences Seminar Series.



## *Faculty Feature*

Congratulations to Dr. Frank Hawthorne, Distinguished Professor Emeritus. He has been awarded the 300th Anniversary Gold Medal from the Russian Academy of Sciences. He was also elected Honorary Fellow with the Mineralogical Society of Great Britain and Ireland, and appointed Penny Coddington Lecturer with the American Crystallographic Association.





## NEWSLETTER

*Background image provided by Dr. Luke Copland*

### Canadian Senators and MP visiting the Churchill Marine Observatory

A delegation of 13 Senators, led by Senators Marilou McPhedran and Flordeliz (Gigi) Osler, visited the Churchill Marine Observatory (CMO) on Sept. 8, 2025. Also joined the delegation was Member of Parliament Ginette Lavack (St. Boniface - St. Vital).

Dr. Feiyue Wang hosted the visit and had an in-depth discussion with the delegation. The topics included the future of marine shipping through Hudson Bay, the opportunities and challenges with the Port of Churchill re-development, and how CMO research can help with a responsible and sustainable re-development.



*Image provided by Feiyue Wang*

Other members of the delegation included Senators Salma Ataullahjan, Rob Black, Bernadette Clement, Donna Dasko, Percy Downe, Pat Duncan, Tony Ince, John McNair, Tracy Muggli, Rebecca Patterson, and Scott Tannas.

### International Symposium on Technology Advancement for Ice Remote Sensing (STAIRS)

We are proud to share the success of STAIRS, the International Symposium on Technology Advancement for Ice Remote Sensing. STAIRS was held in Copenhagen, Denmark last week (September 1st – 3rd) and organized by two CEOS members: our Director Dr. Dustin Isleifson and Dr. Dorte Dahl-Jensen, whose Canada Excellence Research Chair program funded the symposium.

Remote sensing is a key tool that researchers use to monitor and understand changes occurring in the Arctic such as glacier melt and declining sea ice. Technological advancements including new sensors, devices, and electromagnetic modeling techniques allow for innovative applications of remote sensing to study complex Arctic environments where permafrost and different types of lake, sea, and glacier ice meet.

STAIRS hosted over thirty participants representing more than five countries including Canada, Denmark, USA, Norway, UK, and Germany, with some participants from multiple locations. Attendees presented their work with an emphasis on radar technology and its applications for Arctic science via development, implementation, and data analysis.

Innovations in the field of remote sensing help us to gain more information on the Arctic, improve our ability to predict changes in its environment and weather, and communicate our findings to the public, industry, and governments.



*Image captured by Levent Sevgi*



FALL 2025

## Glacier Influence on Fjord Systems South of Qikiqtarjuaq, Nunavut

Glaciers shape the physical characteristics of nearby ocean ecosystems through the release of meltwater, icebergs, and sediments, especially where they flow directly into the ocean. As climate change drives glacier retreat across the Arctic, many are shifting from ocean-terminating to land-terminating systems. Understanding how this transition alters both physical and biological processes in adjacent fiords and the surrounding ocean is a key focus of our work as a part of the DFO Coastal Environmental Baseline Project (CEBP).

Our team, led by Dr. Karen Alley with Drs. Jens Ehn (University of Manitoba), Luke Copland and graduate students Pénélope Gervais and Domynik Huot (University of Ottawa), is investigating these changes. Our team was assisted by Billy and Daisy Arnaquq, Tyson Kautuq (Nunavut Experience Outfitting), Joannie Ferland and Celine Jaccard. Using conductivity-temperature-depth (CTD) casts taken in Coronation and Maktak fiords, we compare glacial inputs from a tidewater glacier (Coronation Glacier) with those from a glacier that has retreated onto land (the glacier in Maktak Fiord). In addition, multispectral and RGB imagery from a WingtraOne surveying drone allows us to extend these measurements by estimating the spatial extent of sediment delivery to the fiords and mapping the terminus of Coronation Glacier through time, helping us better quantify ice loss.

In a separate but connected CEBP project led by Dr. Ehn, two ocean moorings and a time-lapse camera were deployed through the sea ice in April and successfully recovered during the field work in August. This data provides a continuous time-series record of the changing fiord conditions as it transitions from winter to summer.

We are also recording high-precision Global Navigation Satellite System (GNSS) data with the help of Cryologger stations (<https://cryologger.org>), which measure the velocity of Coronation Glacier and provide estimates of ice transport rates to lower elevations and the ocean. Two stations were deployed along the glacier centerline in August 2024, and a third station was added in August 2025 at the glacier terminus, giving us valuable new insights into the patterns of its retreat onto land.

Author: Pénélope Gervais and Dr. Jens Ehn



*Images provided by Dr. Luke Copland*





## NEWSLETTER

# Environmental Conservation Lab (ECL)



At the ECL, we work in close partnership with Indigenous communities across Canada to examine the impacts of and local responses to resource extraction including hydro, mining, waste, and climate change.

## Kayask Kiskethitamowinah

### *Legacy Mines, Indigenous Wellbeing & a Just Green Transition*

Kayask Kiskethitamowinah, Cree for "learning from our past," is an indigenous-led project that investigates the impacts of mining critical minerals on community life and wellbeing. This project focuses on mining sites located in Manitoba and northwestern Ontario. Through the partnership-based project, we will collaborate with our partners to study and evaluate the impact of mining sites (formally closed, long-term care, active, and abundant sites) in mining-affected First Nation and Métis communities. The identified communities are full partners in this work and control the research processes from beginning to end.

The project documents past and present mining impacts, explores community priorities for future mining, and supports communities in redefining their relationships with the mining sector through archival research, interviews, environmental assessments, and co-designed case studies. We believe the key to reducing the social impacts of new mining operations is to learn from the past and to avoid repeating the same mistakes.

The study begins by exploring historical records and gathering insights from Elders, Knowledge Keepers, and community leaders to assess the impacts of mining. It then monitors environmental changes—such as water, sediment, plants, and wildlife—and their effects on community wellbeing. Finally, communities will help co-create case studies on proposed mines to ensure their priorities are reflected in decision-making and to identify and address any gaps in information.

To learn more about the ECL or to connect with ECL staff and/or researchers visit <https://www.environmentalconservationlab.com>

Hosna Banihabib | ECL Researcher ✉ [banihabh@myumanitoba.ca](mailto:banihabh@myumanitoba.ca)



(Credit: Photo by a friend-used with permission, 2024) Hosna Banihabib in Vancouver

In Treaty 3, submitted mining proposals often leave affected First Nations with inadequate time and resources to respond. To help address this challenge, UM graduate student Hosna Banihabib collaborates closely with Grand Council Treaty 3 and in particular Walter Mainville to co-create digital tools that make complex mining information more accessible and actionable.

Through her GIS-based monitoring platform, communities gain access to interactive maps and real-time alerts about exploration permits, mining claims, and environmental proposals. These tools allow leadership and Knowledge Keepers to track ongoing activities, prioritize culturally significant areas, and respond effectively within strict timelines. The platform bridges technical data with community needs, ensuring that information is delivered in clear and usable formats.

*"This work is rooted in respect and reciprocity, by combining technology with Indigenous knowledge, we support decision-making that honours both the people and the land."*  
~ Hosna Banihabib | ECL Researcher

Parinaz Joneidi Shariat Zadeh | Research Technician



(Credit: Rachit Bajpai/IG: @Rachitsphotos, 2025)

Parinaz completed her graduate studies in Natural Resources Management at the University of Manitoba, where she explored the intersections of community, nature, art, and social sciences. Her research interests focus on the links between environmental governance, community resilience, and the role of cultural expression in shaping human-environment relationships.

As an Iranian immigrant, she frames her arrival on Treaty One Territory as a form of re-rooting, which has guided her efforts to establish reciprocal relationships with both ecological systems and local communities. In her studies, she employs participatory and community-based approaches, integrating Story Maps and digital storytelling to make research findings accessible and inclusive. She is particularly interested in how narratives and visual media can document lived experiences and illustrate the social impacts of development.

✉ [Parinaz.Zadeh@umanitoba.ca](mailto:Parinaz.Zadeh@umanitoba.ca)



FALL 2025

## Kis Kin Ha Ma Ki Win: Learning Through the Land

### *The Impacts of Land-Based Education* - Ashley Wolfe

In 2022, I attended my first Land-Based camp at Little Limestone and realized I was stepping into my dream job. Despite being told growing up that outdoor education wasn't "real work," my role as a Land-Based Educator with the Environmental Conservation Lab has shown me otherwise.

Over the past three years, I've worked with schools and communities across Manitoba, helping bring Indigenous perspectives into science education. Through the KisKinHaMaKiWin initiative, we partnered with school divisions and organizations to make STEM more accessible for Indigenous youth. Our "Water is Life" project connected students to land, water, and Treaty teachings through hands-on learning and reflection. [Learn more](#)



(Credit: Yiseul Kang, 2025) Ashley Wolfe Visits TCN to Train and Work with Land-Based Educators



(Credit: Yiseul Kang, 2025) Aiden Hindmarch Setting Up Water Ranger Test Kits at Swan Lake First Nation

## Brokenhead Land-Based Camp

The Brokenhead Land-Based Camp was successfully held with the leadership of Taylor Galvin and Hannah Woodhouse, with support from Aiden Hindmarch and George Carter McKay, summer students at the ECL. Cassie Stoess, ECL research assistant, and Minket Lepcha, a storyteller and ECL researcher, also helped guide activities and support youth throughout the camp. Over three days, Brokenhead youth learned survival skills, cultural teachings, and traditional practices such as smoking meat and fish, beading, a sweat lodge, bird watching, storytelling, and ceremony with Elders. The camp created a space for youth to strengthen their connection to land, culture, and community while building confidence and pride in Indigenous Knowledge.

### *Meet AJ Spence, ECL's New Land-Based Educator*

AJ Spence is a Two-Spirit individual from Nisichawayasihk Cree Nation with paternal ties to Fox Lake Cree Nation, both located in Treaty 5. They currently reside in a rural town on Treaty 1. They recently graduated from the University of Manitoba with a Bachelor of Arts in Indigenous Studies and a minor in Psychology. Throughout their undergrad, they served two consecutive terms as an executive councillor for the UM Indigenous Students' Association (UMISA). They are now the Land-Based Coordinator for the Environmental Conservation Laboratory at the UofM where they will continue to grow their knowledge and love for the land, air, and water while sharing it with others, especially youth.



(Credit: Jory Thomas, 2025) AJ Spence at Migizi Agami

One of AJ's overall life goals is to promote the importance of centering Indigenous youth voices, especially those who are Two-Spirit, queer, and trans so that these underrepresented, valuable perspectives are the ones shaping changes in their communities, Turtle Island, and across the world.

✉ [Aj.Spence@umanitoba.ca](mailto:Aj.Spence@umanitoba.ca)



(Credit: Cassie Stoess, 2025) Hide Scrapping



(Credit: Cassie Stoess, 2025) Hide Scrapping



(Credit: Cassie Stoess, 2025) Bird Watching



(Credit: Cassie Stoess, 2025) Smoking Meat

*"One of the survival instructors reminded us that the most important tool in the bush isn't a knife or an axe — it's your brain. He showed us how to stay calm, keep our body temperature steady, and use problem-solving skills to survive."*

~ Aiden Hindmarch and George Carter McKay



*We are inspired by the interwoven systems that  
combine to form conditions that support life on Earth.*

*- Clayton H. Riddell Faculty of Environment,  
Earth, and Resources "Brand Story" (Est. 2003)*

FALL 2025

## Storm Chasing Field Course Celebrates 20th Anniversary

"Severe Thunderstorms – Storm Chasing and Field Techniques" is an occasionally offered summer course that focuses on extreme weather research, granting students a chance to experience the life of a storm chaser. The course is offered by Dr. John Hanesiak, a professor from the Department of Environment and Geography.

The course focuses on the science behind severe weather, including storm analysis, diagnosis, prognosis, and nowcasting (short-term forecasting). Students begin by examining surface and upper-air data to understand the conditions that can lead to storm development. From there, they apply forecasting tools such as computer models and radar systems to predict potential storm activity.

"In the classroom, students learn the main atmospheric ingredients that lead to tornadic storms, the tools and methods used to predict them as well as nowcasting techniques to increase their chances of seeing tornadic storms," says Dr. Hanesiak. "Exercises in class mimic the analysis necessary to make predictions and to selecting the best target areas for storm chasing opportunities. The 8-9 day field trip puts students' newly found skills to the test. This includes working in small groups/teams for morning weather analysis followed by student weather briefings that explain where and why they selected their main tornadic storm target area(s) for the day. Instructors provide feedback and their own analysis for comparison. The rest of the day is spent driving to the initial target area then using nowcasting techniques to refine the threat area(s), with the hope of witnessing storms and possible tornadoes."



**Read the full story here!**

*Images provided by John Hanesiak*



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