

UNBC

GEOGRAPHY, EARTH & ENVIRONMENTAL SCIENCES

NOVEMBER 2021

-Focus on Faculty-

Dr. Siraj ul Islam

Assistant Professor, Environmental Science



Research Field:

I am a hydroclimatologist, with research interests spanning a broad spectrum of environmental science, including climate dynamics and prediction, snow hydrology, data analysis, and numerical modeling.

Areas of Expertise:

Climate Change, Variability and Forecasting, Climate Change Impact Assessments, Hydrology, Numerical Modeling and Programming, and Data Analysis

What interested you in your area of specialization?

During my undergrad and Master's, I was fascinated by the subject of physics, especially computational physics. I used to write codes for simulating physical systems based on physics theory and numerical calculations. Later on, I started applying my computational skills in the earth and atmospheric sciences.

What is your favourite sport?

I usually enjoy watching soccer and cricket. Cricket is a sport particularly famous in the South Asian countries.

What is your favourite food?

I like Indian-style food with spices and basmati rice.

Favourite binge watch or movie?

There is a long list. I enjoy watching SciFi movies or web series.

-Welcome from the Acting Chair of GEES-

To students who are reading this, we hope you've enjoyed being back on our beautiful campus, despite concerns and some restrictions. I know our faculty members are thrilled to be interacting with students in person once again, while trying to remain flexible in this transitional period. I laud the concern and innovations they've shown. I wish you all good luck in finishing out this term. To colleagues, it's nice to see you in person, if behind masks, and less frequently – hope your term is going well (if way too quickly!).



Last April the Geography and Environmental Sciences programs at UNBC merged to create the Department of Geography, Earth and Environmental Sciences (GEES). The idea of joining forces had been under consideration for a while; with the reconfiguration of UNBC's academic organizational structure into five Faculties (from two Colleges), it was the right time to make this move. Having cooperated on many fronts for years, we think this new alliance will encourage even more opportunities for collaboration in both teaching and research.

In this newsletter we feature two of our newest GEES faculty members – Siraj ul Islam from Environmental Science, who joined last year as a tenure-track faculty member, after having been at UNBC for a few years prior, and Shiva Mohan, who has joined Geography for two years, to fill in for various sabbaticals and other teaching needs. We also offer notes from two of our post-doctoral fellows (both SSRHC Banting Post-doctoral Fellows), and from one undergraduate student on her work experience. And Dr. Stephen Déry gives a brief account of his fall field campaign, Tahtsa Ranges Atmospheric River Experiment (TRARE) (p.4).

Geography hosted the Canadian Association Geographers annual meeting in June. President Neil Hanlon provides a short report on what turned out to be a highly successful conference (p.5).

In a move to envision how our department might work toward reconciliation and addressing some of the TRC's recommendations for doing so, we invited guests to our October departmental meeting – read about that on p. 2.

Our faculty have had a productive year – we've included a list of our 2021 publications on pp. 6. Get your magnifying glass out – collectively we've had a productive year, but didn't want to take up too many pages. We feature one publication, that of GEES Chair, Catherine Nolin (p. 4), which is receiving much attention, after a rather gnarly path toward publication.

There is still room in many of our ENSC and GEOG courses for the winter term – so back to student readers – you'll find a list on p. 8, and we invite you to ask any questions you might have about these courses, if you'd like more information.

Warm wishes,
Gail Fondahl – Acting Chair, GEES

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-Darian Stahl-
Banting Post-Doctoral Fellow (2021-2023)

I am a new Banting Postdoctoral Fellow at UNBC. I am an interdisciplinary printmaker and health humanities researcher, and my project at UNBC focuses on how patients, caretakers, and healthcare workers can communicate their experiences with health and illness through the generative forms of artists' books. I ask, what novel knowledge surrounding the lived experiences of healthcare can we gain through the combination of text, image, the senses, gesture, and the temporal aspects of reading another's handmade book? This project builds upon my SSHRC Vanier-sponsored PhD dissertation, "Book as Body: The Meaning-Making of Artists' Books in the Health Humanities," which was completed at Concordia University, as well as my MFA in Printmaking at the University of Alberta.

So far at UNBC, I am working closely with my supervisor, Dr. Sarah de Leeuw, and my colleagues at the Health Arts Research Centre (HARC) to design and implement artist's book workshops that explore my research questions. The first round of workshops will take place at the Two Rivers Gallery in Prince George from November 10- December 8. More information about these workshops and my other research-creation projects can be [found here](#).



Photo Credit: Concordia University-Lisa Graves 3

-Focus on Faculty-

Dr. Shiva Mohan
Assistant Professor, Geography



Research Field:
Geography, Geopolitics, Migration,
Migration and Development

Areas of Expertise:
My work is launched through a political geography analytical lens, with particular focus on migration and islands.

What interested you in your area of specialization?
I would have to say that both my personal and professional experiences guided me to my present scholarly interests. I have been trained as a geographer for all of my university schooling years, but shifted between analytical lenses, from urban, social, cultural geographies, and now political geography—all focusing on migration issues. As an immigrant and islander myself, my own experiences have prompted questions that seek to interrogate issues related to diasporas, immigrants and the governance of mobilities, across scales.

What is your favourite sport?
My favourite sport is football, or soccer as it is known here in North America. I don't actively play (anymore), but as a fan, it does not fail to deliver as the number one spectator sport in the world. There is a certain level of excitement where 90 minutes of pacing on the field keeps you on the edge of your seat. Also, it's always a good excuse to have a "lime". "Lime" (noun) or "liming" (verb), is a Trinidadian word, which means to socialize.

What is your favourite food?
Without a second-thought, my favourite food is "fry aloo and sada roti" or fried potatoes and a simple roti. It takes minimal preparation, but is absolutely delicious—chopped up potatoes sautéed with onions, garlic and hot peppers to the point where the potatoes are at the delicate state of a "tender crisp", soft enough that some bits could be "mashed". Being an Indo-Caribbean person, my culture, including this food, reflects my East-Indian heritage. This is a meal that my grandmother would usually make for me. It invokes so many warm childhood memories.

Favourite binge watch or movie?
Recently (as in this year), a friend of mine, led me into the comedic world that is "Schitt's Creek". I was sold after the first episode! Created by a Canadian with so many Canadian references, and with big comedic names carrying some hilarious and creative storylines—I was captivated. Aside from Moira's (Catherine O'Hara) quirky disposition and Alexis' (Ann Murphy) antics, I found the queer romance storyline to be quite compelling. Dan Levy's creative genius presented a gay relationship in such a normalized way, without having the audience anticipate a traumatic or disappointing end for the couple—as is so common in mainstream tv shows and movies. Needless to say, I have binged all of the seasons and I often re-watch episodes.



**Truth and
Reconciliation**
Commission of Canada

'Geographies of Reconciliation'

Unsettling Geography: Exploring Truth and Reconciliation in Geography
Departments at Canadian Universities

Isaac White
&
Heather Castleden

Pursuing Reconciliation at the Departmental Level

The Truth and Reconciliation Commission's Calls to Action offer several recommendations for moving forward with reconciliation in Education. Geographer Heather Castleden (University of Victoria) and her graduate student, Isaac White (Queen's University), interviewed Geography Departments across Canada to discover what is being done to begin to implement some of these recommendations, to move forward with the process of reconciliation. Dr. Castleden and Mr. White presented their findings to GEES at its October departmental meeting. We thank Brandon Prince, Manager of Indigenous Initiatives at UNBC, for attending the meeting. The presentation provided a springboard for discussions about how GEES as a department can take concrete actions toward reconciliation.

-Nadezhda (Nadia) Mamontova-
Banting Post-Doctoral Fellow (2020-2022)

In October 2020, I started my Banting postdoctoral project, entitled “Vernacular Geography and Indigenous Participatory Mapping in Soviet Russia: Examining the Legacy of Glafira Vasilevich’s Cartographic Project”, under the supervision of Prof. Gail Fondahl. My research examines the cartographic project of the 20th century Soviet researcher on the Indigenous Evenki people, Glafira Vasilevich, as an early example of participatory mapping that involved Indigenous people in Soviet academia.

Not being able to travel to Canada due to COVID-related restrictions, I spent my first year in the archives of Moscow and St. Petersburg searching for materials which could shed light on the history of Soviet cartography and Vasilevich’s project in particular. My archival research turned out to be a success. I learned that the interest in and the use of Indigenous cartographic skills was much broader than might be assumed. Based on the data from geology archives, I have written a paper, “‘What is a correct map?’: Soviet geotopower, Indigenous people and the role of geological maps in the administrative policy in Siberia (1920s – 1930s),” which discusses the exploitation of Indigenous cartographic and geological knowledge in early Soviet geological field research and mapping (to be published by Max-Planck Institute for Social Anthropology Working Papers). Good news also came from the archives in St. Petersburg: they have found more uncatalogued Evenki maps collected by Vasilevich.

In mid-September, I headed to Irkutsk, where the headquarter of the East Siberian branch of the Russian Geographical Society was once located, for more archival research. From there I travelled to the Kalar and Tynda Districts of the Transbaikal and Amur Regions respectively (in southeastern Siberia), where Vasilevich conducted her fieldwork in the 1930s. Through interviews I attempted to explore how Evenki evaluate the historic maps collected from their ancestors, and in what ways these maps may remain relevant and useful to them today. Together with my Evenki research participants I have translated and discussed place names from the archival maps, mapped around 120 new names using a GIS-based program, and documented Evenki narratives associated with particular sites. The collected toponymic data will be available online via a special community-engaged platform, which is being designed within my current postdoctoral project. Discussions with my research participants helped me to understand how to make this platform more user-friendly and accessible for community members.

Doing research in Covid-times has been challenging. The regular online meetings with my supervisor Gail Fondahl helped me to push my research forward, and I largely benefited from the long-term archival work (fortunately, all the archives remained open, although with some restrictions related to safety measures). I do hope to arrive in Prince George as soon as possible and meet my colleagues in person.



Valentia Neustroeva (right) showing Nadia an old Evenki shaman drum, the most valuable item in the collection of the local culture museum, in Ust-Urkima, Amur Region, 2021
Photo Credit: V. Neustroeva

Jessica Froese

Geography BA Major

Double minor in Environmental Sustainability Studies & Women’s Studies

I had the pleasure of participating in some amazing research this summer as an assistant to Dr. Marieka Sax. The focus of her research is on the “buzz” phase of resource extraction, specifically LNG development in Kitimat, analyzing the question, “can natural resource development generate community impacts even before it begins?” (Not to give away too much, but the answer is yes). My assistant role was quite broad, which I really appreciated, and included extensive learning through observation alongside working with transcripts, grounded and emotional coding, involvement in stakeholder meetings, and even some analysis work. I am pleased to say that Dr. Sax extended my contract into the fall so I can continue to work on a project that has become very close to my heart. She has even offered me a co-author position for an article she plans to write on this research.

I sought out summer research experience because I didn’t want the learning to end with the last day of classes! I also wanted to ensure that I enjoyed the act of researching as much as the idea of it. The word count is not nearly long enough for me to list everything that I have learned through this experience, but I can share some highlights. In addition to learning the tangible skills of concise writing, useful editing processes, coding, and utilizing software, I also learned the importance of community-led research and how to foster relationships. On a personal level, I learned that I do in fact love research, and Dr. Sax has inspired me to pursue grad school and community-based work of my own (one day). I am extremely grateful for this opportunity, and especially for Dr. Sax who has embraced my excitement and taught me more than I can explain. My advice for any other undergrads wishing to pursue research involvement is simply to ask for it! Build relationships with your professors, actively engage with them, and you never know what might come your way.



Testimonio: An Exercise in Academic Freedom

Dr. Catherine Nolin's co-edited book (with Grahame Russell, Director of Rights Action & adjunct faculty member in GEOG), *Testimonio: Canadian Mining in the Aftermath of Genocides in Guatemala*, was published last month, after a rather tortured path (CAUT interview for background). The book, based on over two decades of research in and with Guatemalan communities harmed by Canadian mining companies, has already received much attention and acclaim. [Exploration Place Museum](#) + Science Centre's Adult Speaker Series hosted Catherine on 18 October, she was interviewed for [CBC's Daybreak North](#) on that same day, and the book was officially launched on 25 October ([Book Launch Event](#)). While researching this topic, Catherine has also introduced many students from UNBC & universities across Canada to the complex issues through Geography field courses; many have acknowledged this experience as life-changing. Watch for the [next field school](#) in May 2023.

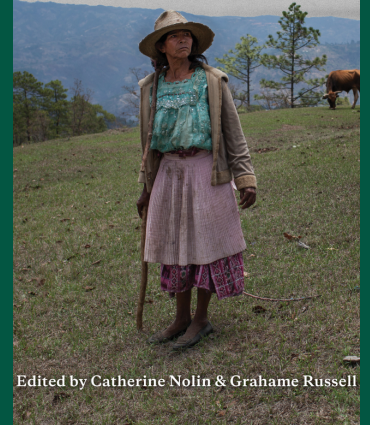
Congratulations to Catherine and Grahame!!

Nolin, C. and G. Russell, eds. (2021, October) *Testimonio: Canadian Mining in the Aftermath of Genocides in Guatemala*. Toronto, ON: [Between the Lines Press](#), 320 pp.

*Available at UNBC Bookstore and Books & Company

TESTIMONIO

Canadian Mining in the Aftermath
of Genocides in Guatemala



Edited by Catherine Nolin & Grahame Russell



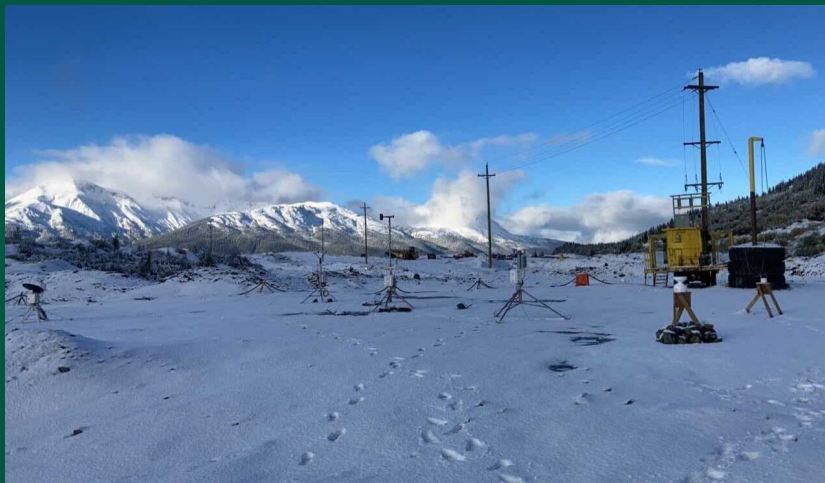
BETWEEN THE LINES
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Tahtsa Ranges Atmospheric River Experiment: A First of Its Kind

Dr. Stephen Déry, Industrial Research Chair in Climate Change and Water Security

My team and I recently completed an intensive field campaign studying storms in the Nechako Watershed. The Tahtsa Ranges Atmospheric River Experiment (TRARE) assembled researchers from UNBC and L'Université du Québec à Montréal (UQAM) to monitor storms using state-of-the-art meteorological equipment at key sites in the Tahtsa Ranges of the upper Nechako Watershed.

Atmospheric Rivers (also known as "Pineapple Express" storms) transport abundant amounts of water vapour through narrow-shaped, low altitude corridors, moving from the tropics or sub-tropics to mid-latitude regions. When these "rivers in the sky" make landfall on the west coast of North America, they cause copious amounts of precipitation and snowfall. While atmospheric rivers (ARs) can replenish critical water resources, they may also lead to adverse conditions such as landslides, avalanches and flooding. This short-term, intensive field campaign ran from September to the end of October, with the goal of monitoring and quantifying precipitation and extreme weather events associated with ARs affecting the upper Nechako Watershed. Understanding the impacts that ARs have on the Nechako Watershed is becoming increasingly important, as the magnitude and intensity of these storms is projected to increase with global temperature rise. This experiment is the first of its kind in Canada, and the data obtained from this field campaign will provide unique, in-situ data for numerical modelling by graduate students at both UNBC and UQAM. To that end, this research will help inform our understanding of how climate change may affect the hydrology of the Nechako River Watershed in the future.

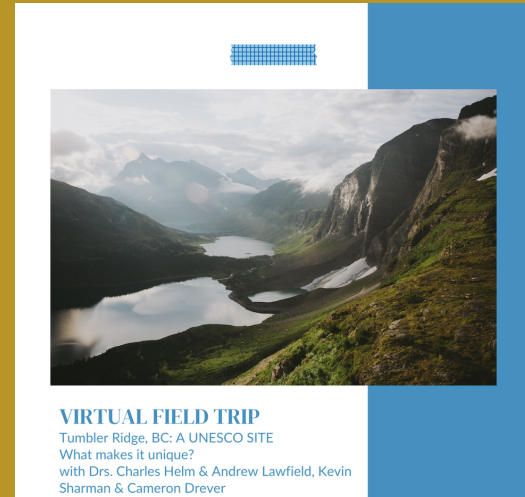


Experimental setup at Huckleberry Mine for TRARE
Photo Credit: Derek Gilbert

UNBC Hosts Canadian Association of Geographers Annual Meeting

Dr. Neil Hanlon (President, Canadian Association of Geographers)

UNBC Geography hosted the 2021 annual meeting of the Canadian Association of Geographers from June 7th to 11th. This was the first ever national conference delivered entirely in a virtual manner and, by all accounts, it was a great success. More than 400 participants joined us from across Canada and elsewhere. The conference opened with a virtual greeting and smudge led by Elder Darlene McIntosh of Lheidli T'enneh Nation, followed by greetings from various university administrators and officials. There were over 80 sessions, 200 presenters, four virtual field trips, and four invited lectures spread over the five days. A special note of thanks to Dr. Catherine Nolin, the department chair and lead conference organizer, and to students and faculty members in the Department of Geography, Earth and Environmental Sciences and numerous other departments at UNBC. Thanks, as well, to Kathryn Laferriere, the CAG Executive Director, who ensured that the conference registration system, website and streaming platform ran smoothly. After hosting the WDCAG conference in 2020 (and the 2016 meeting prior to that), we look forward to taking a bit of break from conference organizing, at least for a few years!



GEES 2021 Publications

Argent, N., Markey, S., **Halseth, G.**, **Murphy, L.**, Haslam-McKenzie, F. (2021) The socio-spatial politics of royalties and their distribution: A case study of the Surat Basin, Queensland. *EPA: Economy and Space*, 1-19. <https://doi.org/10.1177/0308518X211026656>

Azam, F., Kargel, J., **Shea, J.M.**, Nepal, S., Haritashya, U.K., Srivastava, S., Maussion, F., Qazi, N., Chevallier, P., Dimri, A.P., Kulkarni, A.V., Cogley, J.G., Bahuguna, I.M. (2021) Glacio-hydrology of the Himalaya-Karakoram. *Science*, <https://dx.doi.org/10.1126/science.abf3668>

Bekus, G., Freeman, S., Martin-Kahn, M., Lau, S., Flood, F., **Hanlon, N.**, Banner-Lukaris, D. (Online early). Comparisons of in-person and videoconferencing geriatric follow-up consultations. *Journal of Telemedicine and Telecare*. DOI: 10.1177/1357683X20965416.

Fondahl, G., Parlato, N., Filippova, V., Savvinova, A. (2021) The difference place makes: Regional legislative approaches to Territories of Traditional Nature Use in the Russian North. *Arctic Review on Law and Politics* 12 (2021): 108-133. <https://arcticreview.no/index.php/arctic/article/view/2790>

Fondahl, G., Filippova, V., Savvinova, A., Shadrin, V. (2021) Changing Indigenous territorial rights in the Russian North. In *Routledge Handbook of Indigenous Peoples in the Arctic*, T. Koivurova, E.G. Broderstad, D. Cambou, D. Dorrough, F. Stammer (eds.), pp. 127-142. Routledge.

Fuentes, M.P.B., **Meletis, Z.A.**, Wildermann, N. E., Ware, M. (2021) Conservation interventions to reduce vessel strikes on sea turtles: A case study in Florida. *Marine Policy* 128 (104471), 1-9. <https://doi.org/10.1016/j.marpol.2021.104471>

Gilbert, N.M., Massicotte, H.B., Elkin, C., **Rutherford, P.M.** (2021) Enhancing mine and energy crop soils to promote willow (*Salix miyabeana*) growth using ash and biosolids: a greenhouse study. *UNBC NRESi Research Extension Note Series No. 14*. <https://www2.unbc.ca/nres-institute/research-extension-notes>

Hanlon, N., **Nolin, C.** (2021) Setting a death trap: International political economy, COVID-19 response and the plight of Central American migrants). In *COVID-19 and Similar Futures: Geographical Perspectives, Issues and Agendas*, G. Andrews, J. Pearce, V. Crooks, J. Messina (eds), pp. 47-54. Cham: Springer. <https://www.springer.com/gp/book/9783030701789>

Hanlon, N., Poulin, L. (2021) Rural health and ageing: Making way for a critical gerontology of rural health. In *Rural Gerontology: Towards Critical Perspectives on Rural Ageing*, M Skinner, R Winterton, K Walsh (eds.), pp. 40-51. London and New York: Routledge.

- Islam, S.M.N., Jackson, P.L.**, Sweeney, C., McKain, K., Frankenberg, C., Aben, I., Parker, R.J., Boesch, H., Wunch, D. (2021) Methane growth rate estimation and its causes in western Canada using satellite observations. Accepted Journal of Geophysical Research - Atmospheres, October 13, 2021.
- Li, J., Wang, R., **Wheate, R.** (guest editors) (2021) Canadian Journal of Remote Sensing (Special Issue on Large-Scale Deep Learning for Sensor-Driven Mapping), Volume 47, #3.
- *Onwukwe, C., **Jackson, P.L.** (2021) Gridded bias correction of modeled PM_{2.5} for exposure assessment, and estimation of background concentrations over a pristine valley region of northwestern British Columbia, Journal of the Air and Waste Management Association, 71(2), 156-169. <https://doi.org/10.1080/10962247.2020.1844342>
- Mamontova, N. (2021). “The ice has gone”: Vernacular meteorology, fisheries and human–ice relationships on Sakhalin Island. Polar Record, 57, E24. doi:10.1017/S0032247421000127
- Naeth, M.A., **Rutherford, P.M.** Jobson, A.M.. (2021) Soil reclamation and remediation of disturbed lands. In Digging into Canadian Soils: An Introduction to Soil Science, M. Krzic, F. Walley, A. Diochon, M. Paré, R. Farrell (eds.), pp. 518-532. Canadian Society of Soil Science. <https://openpress.usask.ca/soilscience/>
- Nolin, C.**, Russell, G. eds. (2021) Testimonio: Canadian Mining in the Aftermath of Genocides in Guatemala. Toronto, ON: Between the Lines Press <https://btlbooks.com/book/testimonio>
- O'Rourke, S., **Fondahl, G.** (2021) Meaning-making among nomadic Eveny reindeer herders and settled Eveny in a Siberian village, International Journal of Existential Positive Psychology 10(1). <https://www.meaning.ca/ijepp-article/vol10-no1/meaning-making-among-nomadic-eveny-reindeer-herders-and-settled-eveny-in-a-siberian-village/>
- Parlato, N., **Fondahl, G.**, Filippova, V., Savvinova, A. (2021) The evolution of forming “Territories of Traditional Nature Use” in the Sakha Republic (Iakutia), Sibirica 20(1): 1-27.
- Pradhananga D., Pomeroy J.W., Aubry-Wake, C., Munro, D.S., **Shea, J.M.**, Demuth, M.N., Kirat, N.H., **Menounos, B.**, Mukherjee, K. (2021) Hydrometeorological, glaciological and geospatial research data from the Peyto Glacier Research Basin in the Canadian Rockies. Earth System Science Data, <https://doi.org/10.5194/essd-2020-219>
- Rehl, E., Reimer, K.B., **Rutherford, P.M.** (2021) Mobility of biomass ash constituents as influenced by pretreatment and soil – an artificial weathering study. Waste Management 121: 186-197.
- Ryser, L., Halseth, G.**, Markey, S. (2021) The ‘politics of method’ in volatile settings: Research with mobile workers in rural resource regions. Applied Mobilities <https://doi.org/10.1080/23800127.2021.1926055>
- Ryser, L., Halseth, G.**, Markey, S., Hanlon, N., Skinner, M. (2021) Rural community development in an era of population ageing. In Rural Gerontology: Towards Critical Perspectives on Rural Ageing, M.Skinner, R.Winterton, K.Walsh (eds.), pp. 152-163. Routledge: London.
- Ryser, L.**, Markey, S., **Halseth, G.**, (2021) Scaling up and scaling down supply chains in volatile resource-rased Economies. Local Economy <https://doi.org/10.1177/0269094221993439>
- Savvinova, A.N., Filippova, V.V., **Fondahl, G.**, Yegorova, K.S. (2021) Prostranstvennyy GIS-analiz protsessov realizatsii zakona o dal'nevostochnom gektare v rayonakh prozhivaniya korennykh malochislennykh narodov Severa v Respublike Sakha (Yakutia) [Spatial GIS Analysis of the implementation processes of the Far East Hectare Law in areas inhabited by Indigenous peoples of the North in the Sakha Republic (Yakutia)], Vestnik SVFU. Seriya ‘Nauka o Zemle’ 1(21): 41-51.
- Shea J.M.**, Kraaijenbrink, P.D.A., Immerzeel, W.W., Brun, F. (2021) Debris emergence elevations and glacier change. Frontiers in Earth Science (Cryospheric Science). In press. <https://www.frontiersin.org/articles/10.3389/feart.2021.709957>
- Shea, J.M.**, Whitfield, P.W., Fang, X., Pomeroy, J.W. (2021) The role of basin geometry in mountain snowpack responses to climate change (2021). Frontiers in Water <https://doi.org/10.3389/frwa.2021.604275>
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- Wood, T., Freeman, S., Banner, D., Martin-Kahn, M., **Hanlon, N.**, Flood, F., (2021) Factors associated with teletrauma utilization in rural areas: A review of the literature. Rural and Remote Health 21. DOI: 10.22605/RRH6354.

ENSC Winter 2022 Course Offerings

ENSC 201 - Weather and Climate
ENSC 250 - Intro to Enviro Data Analysis
ENSC 404/604 - Waste Management
ENSC 406/607 - Environmental Modelling
ENSC 408/608 - Storms
ENSC 435/635- Soil Biol Processes & Environment
ENSC 452/652- Reclamation & Remediation
ENSC 454/654 - Snow and Ice

Dr. Siraj ul Islam
Dr. Matthias Wolf
Dr. Michael Rutherford
Dr. Jianbing Li
Dr. Stephen Dery
Dr. Michael Rutherford
Dr. Philip Burton
Dr. Dery & Dr. Islam

GEOG Winter 2022 Course Offerings

GEOG 102 - Earth from Above
GEOG 203 - Canada: Plcs, Cult & Iden
GEOG 205 - Cartography & Geomatics
GEOG 206 - Social Geography
GEOG 211 - Natural Hazards
GEOG 222 - World Regions: Russia
GEOG 300 - Intermediate GIS
GEOG 301 - Cultural Geography
GEOG 306 - Critical Development Geog
GEOG 310 - Hydrology
GEOG 311 - Drainage Basin Geomorphology
GEOG 324 - Community-Based Research
GEOG 401/601 - Tenure, Conflict & Resc Geog
GEOG 424/624 - Northern Communities
GEOG 457/657 - Advanced Remote Sensing
GEOG 650 - Advanced Geospatial Analysis

Dr. Joesph Shea
Dr. Greg Halseth
Dr. Roger Wheate
Stephanie Powell-Hellyer
Dr. Faran Khawaja Ali
Dr. Gail Fondahl
Ping Bai
Dr. Shiva Mohan
Dr. Shiva Mohan
Dr. Faran Khawaja Ali
Dr. B. Menounos & Dr. P. Owens
Laura Murphy
Dr. Marieka Sax
Dr. Greg Halseth
Dr. Roger Wheate
Dr. Joseph Shea

Dr. Gail Fondahl
Acting Chair, Department of Geography, Earth and
Environmental Sciences
Phone: 250-960-5856
Email: gail.fondahl@unbc.ca
Office: 8-138

Layout & Design by Stephanie Powell-Hellyer
Instructor, Geography, Global Studies & Northern Studies