



2018 Newsletter

Looking Back, Moving Forward:
The Continued Role of Geography in Learning and Discovery



image of Edmonton from WDCAG 2018 conference March 9-10, 2018

WDCAG 2018 Newsletter

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WDCAG PRESIDENT'S MESSAGE (submitted by Leith Deacon, University of Alberta)

I have really enjoyed serving as President this past year. The annual WDCAG Meeting and Conference, co-hosted by King's University and the University of Alberta was a highlight. The 60th WDCAG Annual Meeting was held in Edmonton March 9-10; see full report below.

I am excited to announce that the 61st WDCAG Annual Meeting and Conference will be hosted by the University of Victoria, in Victoria, BC March 8-9, 2019. Thanks to Dan Smith, Cam Owens and colleagues for volunteering to host and organize the meeting.

The 60th WDCAG Annual Meeting at the University of Alberta, Edmonton, AB

The 60th WDCAG Annual Meeting (WDCAG-2018) was held on March 9-10 at the University of Alberta, Edmonton, AB, co-hosted with King's University. The theme of the conference was *Looking Back, Moving Forward: The Continued Role of Geography in Learning and Discovery*. The conference had an attendance of over 250, of which 200 were comprised of undergraduate and graduate students. The meeting started on Friday with field trips and a keynote address by Dr. John England: *Physical and Human Geography are Inseparable: Unexpected Lessons from a Half-Century of Arctic Research*, followed by an ice-breaker. On Saturday, a diverse conference program was interwoven with the WDCAG-Executive and AGM meetings, lunch, and banquet. The evening concluded with a dance. Thanks to all at the University of Alberta and King's University who made this event successful. In particular I would like to thank my co-organizers **Harry Spaling** and **Joanne Moyer** for all of their help, and all student volunteers and fieldtrip organizers.

Student participants from BC, AB, SK, MB, and ON contributed over 100 oral presentations and 40 poster presentations. Student presentations were judged by faculty, and the winners were announced during the banquet. I would like to thank head judge **Theresa Garvin** for her help in organizing the evaluations.

WDCAG2017 Oral presentation awards

Undergraduate: **Travis Gingerich** (UFV): Optical dating of the postglacial marine regression, Savary Island, British Columbia

Masters: **Rebecca DeLorey** (UNBC): "There's no meaningful communication when it's just on paper": Problematizing Aboriginal consultation on Nadleh Whut'en First Nation Territory

PhD: **Darcy Reynard** (UofA): Beg buttons: Public participatory GIS and open data in community engagement

WDCAG2017 poster presentations awards

Undergraduate: **Kendra Hutchison** and **Kailyn Wiebe** (KU): Saving the swamp? An evaluation of the Alberta wetland policy

Masters: **Darcen Esau**, **Eva-Lean Lang**, **Chea Elton** (UBC-O): The landscape identity of the North Okanagan: Using physical geography, climate, and history to create a distinctive wine region

Ineke Dijks Award for best graduate student presentation: **Bryan J. Mood** (PhD, UVic): A dendrohydrological analysis of the Greater Vancouver Regional District's water supply.

WDCAG-2018 AGM

The WDCAG-2018 AGM was held during the Annual Meeting and had an attendance of 30. A new executive was elected, with President: **Leith Deacon** (UofA), Vice-President: **Claire Hay** (UFV), Secretary-Treasurer: **Hester Jiskoot** (UofL), Members-at-Large: **Sinead Early** (UNBC), **David Jordan** (TWU), **Gilles Viaud** (TRU), **Steven Marsh** (UFV), Student Representatives: **Holly Clayholt** (UofL), **Kyla Rushton** (UofL), **Brandon Turner** (TRU), **Travis Gingerich** (UFV), *Western Geography* Human Editor: **Tom Waldichuk** (TRU), *Western Geography* Physical/GIS Editor: **Craig Coburn** (UofL), Archivist: **Ben Moffat** (Medicine Hat College & Athabasca University), Awards Officer: **David Jordan** (TWU), BC Education Chair: **Pam Shaw** (VIU), Tom Waldichuk (TRU), *Newsletter* Editor: **Daniel Brendle-Moczuk** (UVic), Webmaster: **Dan Smith** (UVic). Welcome to all newly elected and thanks for stepping up to serve the Division. I sincerely thank all of those who served over the past year.

The following meritorious award was presented at the AGM:

The J. Alistair McVey Award for Teaching Excellence to **Glen Thielmann**, DP Todd Secondary School, Prince George. (see photo of Glen on pg 52)

The WDCAG remains in good financial shape and the continuing CAG support grant for student travel to our meetings is much appreciated. Other matters that came up during the 2018 AGM include better promotion of our awards, encouragement to submit to the *WDCAG Newsletter*, and a discussion about the WDCAG Statement for Values and Ethics which will be brought forward at the 2019 AGM in Victoria.

2018 IGU Regional Conference and CAG Annual Meeting, Quebec City, QC

I had the pleasure of representing the WDCAG at the CAG Annual Meeting in Quebec City (August 6-10). The meeting was held in concert with the 2018 IGU Regional Conference. There were over 1200 oral presentations and 100 poster presentations.

The 2019 CAG Annual Meeting and Conference will be hosted by the University of Winnipeg in Winnipeg, MB, May 29 – 31, 2019. The theme of the conference is Geographies of Resistance.

For updates on our division, our constitution, and our annual newsletter, check our website: www.geog.uvic.ca/dept/wcag/, or twitter account: @WDGeog

WDCAG Newsletter Editor's greeting

Hello! Hope you enjoy this 2018 issue. 14 institutional contacts responded with news this year, the highest number in recent years. Thanks to all contributors! Next August 2019 I will ask for submissions with a deadline of the middle of October 2019 so that there will be a long window to submit happenings and news.

daniel Brendle-Moczuk, MLIS, Geospatial & Social Sciences Data Librarian, UVic

Interview with Eva Kwoll, Assistant Professor, UVic



Eva is new addition to the UVic Geography Department as of 2017. She recently completed a DFG (German Research Foundation) Postdoctoral Fellowship at Simon Fraser University on flow and sediment dynamics in bedrock canyons. She completed her PhD in 2013 at the Center for Marine Environmental Sciences (MARUM) at the University of Bremen in the field of Coastal Dynamics.

More on Eva's current roles and research at:

<https://www.uvic.ca/socialsciences/geography/people/faculty/kwolleva.php>

1. Tell us about your childhood that may have influenced you to become a (geomorphologist) geographer.

I grew up in a rural area of Germany and spent much of my childhood outside with my dog and friends. I have always been an observer and that took the form of collecting things, mostly rocks, but sometimes plants or wood. My family always vacationed at the North Sea Coast in fall. The North Sea can be quite windy and rough around this time of year but also has extensive mud flats, which does not make it a dream beach vacation, but I loved it. I'd like to think that this influenced my interest in the coast.

2. What ultimately made you study geography at university?

My path to Geography was not straightforward. In high school, I was set to become a physicist and later on enrolled in a BSc. Physics program with the hope to specialize in astrophysics in Heidelberg. It didn't take long for me to realize that I could not get fascinated by the first year Experimental and Theoretical Physics lectures and that the path to my specialty in 3rd year would be long. I left the University after the first semester and went to Iceland for 6-months to plant trees in a reforestation project and reconsider my career choice.

There in Iceland, I rediscovered my interest for the processes that shape different landscapes - after all, Iceland is sitting on the mid-Atlantic ridge and home to volcanoes and glaciers - and found a Geoscience program at the University of Bremen with a major in Geophysics that struck my interest. I ended up completing my BSc in Geoscience majoring in Marine Geophysics and Geology. I enrolled in a joint MSc program with the University of Waikato and Bremen, where I specialized in Coastal Processes.

My PhD thesis grew from my MSc thesis and examined coastal sediment transport in European estuaries and tidal inlets. So I did not join Geography until I came to Canada in 2015 as a German Research Foundation Fellow to conduct a Postdoc at SFU. Since then, I have expanded my research interests in the sediment and flow cascade and into bedrock canyons.

Interview with Eva Kwoil (con't)

3. How did you choose or end up as a geomorphologist?

I think it was a combination of my interests and skills to start with and opportunities that arose as I was pursuing my education. For example, I didn't really get fascinated with coastal sedimentary processes until I was asked to join a graduate course in the last year of my undergraduate degree on Coastal Sediment Dynamics. They basically needed more students for this field trip to take place, so I joined my first field school on a research vessel and got to operate acoustical Doppler current profilers and other technology, that I still use today.

Similarly, my PhD thesis arose while I was helping out on a research vessel during my MSc and we observed distinct clouds of sediment on the water surface in one of the estuaries. I became fascinated by them and my supervisor eventually suggested to focus my PhD around them.

One thing I did know early on was that I wanted to become a researcher, ideally at a University. So I never questioned very much whether I should do a PhD or not, I just knew that was part of the plan. Similarly, I knew that if I wanted to land an academic job, I had to be mobile, gain experience in other countries, and be open to the possibility to live abroad. This is the reason I came to SFU in the first place and it eventually helped me get the Geomorphology position at UVic.

4. Tell us about some of your highlights in your career so far in regards to:

4.a. students/teaching

I am really enjoying the establishment of my working group at the moment. We meet regularly and discuss everything, including a logo for the lab, meeting structures, seating arrangements, upcoming visits. I am sure it is a great experience for the students to be part of these initial steps and to actually have an opportunity to give input, but I also thrive on the enthusiasm they project.

4.b. research

Field work is often fulfilling, but can also be strenuous and pressured, yet there are many instances that I remember when things went well, all instruments recorded good data, and the weather agreed. I would also list highlights as moments of recognition of my work: acceptance of articles, invitations to write a book chapter or give a key note speech and, most recently, my hire at UVic.

5. Any advice, lessons learned, so far in your career for undergraduates, graduates and faculty?

Be systematic: have a plan and know the steps that need to be done, be realistic about it.
Be flexible: allow adjustments to your plan and take opportunities as they present themselves.

Danke / Thank you Eva!

Selected Publications:

Geertsema, M., Blais-Stevens, A., **Kwoil, E.**, Menounos, B., Venditti, J. G., Grenier, A., & Wiebe, K. (2018). Sensitive clay landslide detection and characterization in and around Lakelse Lake, British Columbia, Canada. *Sedimentary Geology* 364, 217-227.

Kwoil, E., Becker, M., & Winter, C. (2014). With or against the tide: The influence of bed form asymmetry on the formation of macroturbulence and suspended sediment patterns. *Water Resources Research* 50(10), 7800-7815.

Badesab, F., Dobeneck, T., Bryan, K. R., Müller, H., Briggs, R. M., Frederichs, T., & **Kwoil, E.** (2012). Formation of magnetite-enriched zones in and offshore of a mesotidal estuarine lagoon: An environmental magnetic study of Tauranga Harbour and Bay of Plenty, New Zealand. *Geochemistry, Geophysics, Geosystems* 13(6).

WDCAG INSTITUTIONS NEWS & REPORTS

Augustana Campus of the University of Alberta (submitted by Glen Hvenegaard)

The Augustana campus offers a minor in geography and interdisciplinary majors in Environmental Science (BSc) and Environmental Studies (2 BA streams: general and outdoor education).

Glynnis Hood taught *Statistical Methods for the Natural Sciences* and *Introduction to Geographic Information Systems* this Winter Term. Her MSc student, **Melissa Dergousoff** is working on her thesis *Trace metal concentrations in the tissue of beavers (*Castor canadensis*) from Alberta's boreal forests*. Melissa is co-supervised with Dr. William Shotyk from the Department of Renewable Resources (UofA).

In March 2018, **Glynnis Hood** along with her colleague Dr. **Varghese Manaloor**, and their former co-supervised directed studies student **Brendan Dzioba** (BA Augustana 2014), published *Mitigating infrastructure loss from beaver flooding: A cost-benefit analysis in *Human Dimensions of Wildlife* 23(2): 146–159.*

This June, **Varghese Manaloor** also published an article with colleague Dr. **Dee Patriquin** (adjunct Augustana Environmental Science) and their former co-supervised directed studies student **Tye Dubrule** (first author, BSc.2016) *A question of inclusion: BC Hydro's Site C Dam Indigenous consultation process. *Journal of Environmental Assessment, Policy and Management*. doi/abs/10.1142/S1464333218500059.* Manaloor's conference presentations range from Sweden to New Orleans, as well as more local ones in Alberta and Ontario. She continues to conduct research on wetland biodiversity, wildlife ecology, landscape connectivity, and methods to reduce human-beaver conflicts through adaptive management. During her current sabbatical, she is working on her new book entitled, *The Ecology of Semi-aquatic mammals* for The Johns Hopkins University Press.

Adjunct professor and sessional instructor, Dr. **Dee Patriquin** taught our introductory course and Statistical Methods for the Natural Sciences course (Fall 2017). As mentioned above, she co-authored a paper with Glynnis Hood and Tye Dubrule regarding indigenous inclusion during the Site C dam projects in British Columbia.



Geomorphology field trip to examine fluvial landforms of the Battle River in central Alberta

Augustana Campus of the University of Alberta (con't)

Glen Hvenegaard taught geomorphology, environmental science, parks, and capstone courses last year. His students completed community service-learning assignments on many projects, including a waste sort, sustainability fair, climate change advocacy, sustainable cooking, Halloween costume repurposing, and green spaces for student residences. The SCORE! program was nominated for an award through the Association for the Advancement of Sustainability in Higher Education.

On the research front, **Glen** presented papers at parks, tourism, interpretation, and sustainability conferences in Edmonton, Canmore, Kananaskis, and Texas. He also published papers in *Higher Education* (direct studies courses), *Journal of Rural Studies* (sustainability plans), *Journal of Experiential Education* (reflection on wilderness educational expeditions), and *Environmental Communications* (last chance tourism at glaciers). Glen and colleagues are investigating interpretation outcomes in Alberta's provincial parks, use of science in park decision-making, purple martin dispersal, and the history of Frank Farley.

Glen is also the manager of the Augustana Miquelon Lake Research Station at Miquelon Lake Provincial Park. The station hosts students, researchers, and communities for teaching, research, and local partnerships. Glynnis Hood will take over as manager, starting in 2019-20. Check the website for more information: <http://www.augustana.ualberta.ca/research/centres/amlr/>.

Glynnis and **Glen** co-taught a Field Studies course over 13 days in September at the Station. Students developed and conducted research projects on many topics, such as ant mounds, park interpretation, beaver foraging of aspen, garter snakes, and shorebirds.

Dr. **Greg King** is a new assistant professor in the Geography and Environmental Science program and started in January 2018. Greg taught the first ever soils course at Augustana (*Soil Science and Soil Resources*) in the winter semester and was busy preparing for teaching upcoming courses on sustainability, biogeography and climatology. Greg presented at his first WDCAG conference in Edmonton. Over the summer, Greg was in the field for five weeks of canoe-based fieldwork investigating vegetation change in the Bathurst caribou herd in the Northwest Territories and looks forward to sharing results with the WDCAG community over the coming years.

For more information, contact Dr. Glen Hvenegaard at glen.hvenegaard@ualberta.ca, Dr. Glynnis Hood ghood@ualberta.ca, or Dr. Greg King gking@ualberta.ca. Check our program websites at <https://www.ualberta.ca/augustana/programs/degree/geography> and <https://www.ualberta.ca/augustana/programs/degree/environmental>

Capilano University (submitted by Jeanne Mikita)

Correctional Institution-University Education Initiative:

Since 2015 Capilano University instructors from the Geography department have been teaching non-credit classes at the Fraser Valley Institute (FVI) for federally sentenced women. Classes have ranged from pop-up Prison ChatLive classes covering current events to a six-week long course on poverty, inequality and social exclusion involving outside university students from both UBC and Capilano University; textbooks were donated by Fernwood Publishing. Subsequent courses will include a book-reading course with books donated by Random House Publishing.

Capilano University is working with UBC to form a partnership with FVI to implement for-credit university courses involving a mix of outside university students and inside prisoner students. Our goal is to team teach our first credit course in September 2019 with students from both universities.

Faculty News

Geography faculty member **Kirsten McIlveen** is completing her PhD at UBC; her dissertation is tentatively titled: *Prison paradox and post-secondary education: Challenges to developing innovative curriculum in women's prisons.*

Camosun College (submitted by Emrys Prussin)

Faculty News

Chris Ayles has taken on the position of President with the Camosun College Faculty Association and subsequently stepped back from his teaching role. **Francis Yee** has retired but will be returning to teach in a post-retirement position. Two term instructors are filling in for them, **Chloe Fox** and **Emrys Prussin**. **Chloe** is teaching two sections of Geography 102 – *Human Geography* and **Emrys** is teaching two sections of Geography 219 – *Field Surveying*.

Department News

Emrys is also working on a Camosun funded project in collaboration with Nick Claxton and the Tsawout and WSÁNEĆ communities to create a video game to enable users to learn the SENĆOŦEN language.

Douglas College (submitted by Sarah Paynter)

New Courses in the Department of Geography and the Environmental

- GEOG 2290 *Selected Topics in Geography*
- GEOG 2311 *Urban Environmental Sustainability*

New Geography Field School to Iceland in Summer **2019**, with faculty members **Kathy Runnalls**, **Susan Smythe**, and **Mike McPhee**. The field school is open to post-secondary students enrolled at other institutions and will offer:

- *Earth Environments: Land and Water* (GEOG 1120 lab science)
- *The Regional Geography of the North Atlantic* (GEOG 1190)
- *Urban Environmental Sustainability* (GEOG 2311)

Please contact Karen Ng, Douglas College International, at ngk@douglascollege.ca for more information.

We also continue to co-host a free and public Urban Challenges Forum with our partners SFU Urban Studies and the City of New Westminster. Our next event *Balancing Act: Revitalization without Gentrification* takes place at Douglas College in New Westminster on October 17 (room 2201, 6:30-8:00pm) and hosts John Stark (Senior Social Planner, City of New Westminster) and Tiffany Muller Myrdahl (Senior Lecturer, Department of Gender, Sexuality and Women's Studies and the Urban Studies Program, SFU), and is moderated by **Mike McPhee** (Faculty, Department of Geography and the Environment, Douglas College).

Future events will take place on November 21, January 23, and February 13.

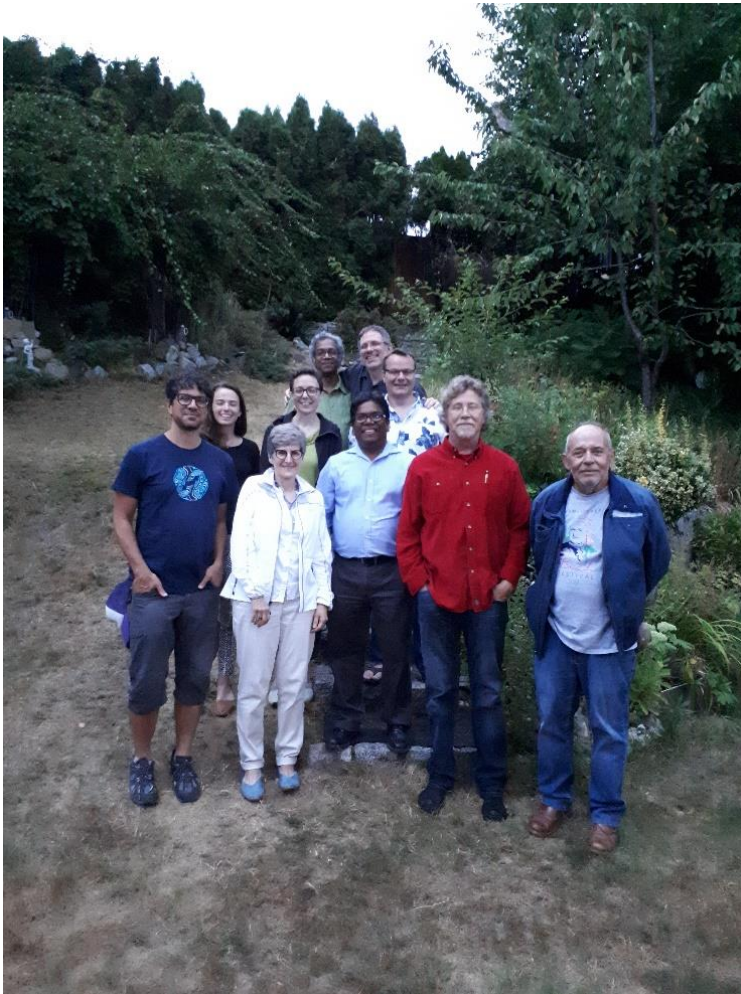
Please contact Sarah Paynter, Chair of Geography and the Environment, at paynters@douglascollege.ca for more information.

Kwantlen Polytechnic University (submitted by John Martin)

Faculty News

There have been many changes in Geography and the Environment at KPU this year. Two long-serving members of our department recently retired: **Jan Thompson** and **Bill Burgess**. Jan Thompson taught physical geography courses and served as chair of the department for the last three years and deftly guided us through some tumultuous times. Bill Burgess taught human geography courses and served the department on various committees. Both are now enjoying the island life: Jan on Vancouver Island and Bill on Savory Island. We will miss them both greatly, though rumour has it that Bill may pop back in to teach some sessional courses! In addition, **Mungandi Nasitwitwi** took an educational leave this year to complete his GIS studies at the University of Melbourne in Australia.

As a result of all the changes, the department has also added some new faces this year. **Leonora King** (PhD, UBC) was hired on a permanent basis to teach physical geography courses. While **Geoff Reith** (MSc, Queen's), **Alan Shapiro** (MSc, Columbia) and **Kathy Fitzpatrick** (MA, SFU) have been hired on a temporary basis. We welcome them to the KPU Geography family!



KPU Geography and the Environment faculty past and present

front: David Sadoway, Leah Skretkowicz (R), Dola Pradhan, Bill Burgess (R), Alan Sawchuk (R).

middle: Leonora King, Jan Thompson (R), John Rose

back Parthiphan Krishnan, John Martin

Dola Pradhan takes over as the new chair of the department. Thank you Dola for volunteering!

Kwantlen Polytechnic University (con't)

Department news and events

Kwantlen once again hosted the Kwantlen Science Challenge (KSC) in November 2017. This is an all-day event in which 30 lower mainland BC high-school teams compete in scientific activities in fields such as Geography, Chemistry, Biology and Design. The Geography event for this year had teams determining the density of rocks and answering questions about their susceptibility to earthquakes.

Publications:

Returning from an educational leave this year, **John Rose** has been busy reporting the findings of his research into housing in Vancouver. A recent article in the *Globe and Mail* highlights some of his results:

<https://www.theglobeandmail.com/real-estate/vancouver/academic-takes-on-vancouvers-housing-supply-myth/article37015584/>

Joe Koch was one of the co-authors of a publication in the prestigious journal *Science*

Menounos, B., Goehring, B.M., Osborn, G., Margold, M., Ward, B., Bond, J., Clarke, G.K.C., Clague, J.J., Lakeman, T., **Koch, J.** and Caffee, M.W., 2017. Cordilleran Ice Sheet mass loss preceded climate reversals near the Pleistocene Termination. *Science* 358(6364), 781-784. <http://science.sciencemag.org/content/358/6364/781>

For more information & news please see our website: <http://www.kpu.ca/arts/geography>

Langara College (submitted by Colin Mills)

Department News

European Field Studies 2018: From April to June, in their second offering of a European Field Studies program, **Katrina Erdos** (Geography department) and Joanne Horwood (English department) travelled with 17 students to Italy and London. The Geography department offered two three-credit courses: *Field Techniques*, with a focus on human geographic field techniques, and *Special Topics I: Exploring Landscapes, Culture and Tourism*. The English department also offered a three-credit Special Topics course, *Travel Writing and Blogs*. This transdisciplinary program provided a deep and experiential study of the diverse landscapes and cultures of northern and southern Europe, as well as the geography of tourism.



Geography 2275 - *Applied Human Geography*

In January 2018 Langara ran *Applied Human Geography* for the second time. Through the innovation hub CityStudio, the students partnered with a City Manager with the City of Vancouver to address the problem of public urination in the downtown.

Applied Human Geography was structured to simulate a working environment and was entirely project based. To effectively manage their project the student began by forming themselves into LeGS (Langara's engaging Geographical Solutions) a network of geographers committed to urban social sustainability. LeGS met twice weekly to research, experiment, write, calculate, interview, discuss, design, construct, and observe. They considered economics, sociology, politics, health and sanitation, gender, biology, chemistry and of course, geography. They worked as individuals, collaborated as a network and formed working groups according to the needs of the project.

Initially the situation had been portrayed as a consequence of drunk night-clubbers and the homeless, but as the students quickly learned, when in public, any of us can be caught urgently needing to go when there is nowhere to go. Urinating is a human imperative and going in public is an undignified and risky last option resulting in an unhygienic and unpleasant streetscape. In understanding this LeGS reframed the problem as public places with nowhere to pee, not people peeing in public places. This fundamental geographical observation has had influence on how the city frames the problem and approaches solutions.

LeGS created and submitted a consultant's report to the City of Vancouver which proposes a system which integrates attended public washrooms, a means of gaining access to private washrooms and an alternative for when and where there are no washrooms at all. The "Open Washroom Program" lays-out a pathway to convenient relief for everyone and promotes communication amongst all the relevant stakeholders.

LeGS's efforts were recognized by CityStudio where the Open Washroom Project took 3rd Place in "Hubbub 10", a showcase of projects from colleges and universities around the Lower Mainland. Way to Go! (so to speak)

Recently the student network has been invited back to work with the city and a downtown business association to address the urination problem in a particular set of city blocks.

Mount Royal University (submitted by Dr. Barbara McNicol)

The Geography Program at Mount Royal University is part of the Department of Earth and Environmental Sciences (EES) in the Faculty of Science and Technology. Our courses are taught as part of the Bachelor of Science Degree or contribute to a Geography Minor or fulfill General Education requirements. The Bachelor of General Science Major and the Geography Program have designed a pillar of concentration of geography courses that students can take as their emphasis for the degree.

Professor **Lynn Moorman** won two awards recently:

- Influencer of the Year for the Canadian Geospatial Industry (TECTERRA) and;
- President's Award for Outstanding Service to the Canadian Association of Geographers. This last award was to acknowledge work as the Co-Chair of the International Geography Olympiad, held in Québec City this summer 2018. The global event brought top geography students aged 16-19 from 43 countries to Canada to compete for top honors in the field of geography. **Lynn** was also the field exam convener, developing the exercises and assessments for the two days of field work exams in the competition.

Lynn Moorman also was an organizer and presenter for the International Geographical Union's Commission on Geographical Education in Québec City in August, leading up the IGU/CAG conference.

Barbara McNicol presented in August 2018 at the Association of International Scientific Experts in Tourism, Treviso, Italy targeting final results of a study about environmental supply in Banff and Jasper National Parks. Barbara is the Chair of the Parks and Protected Areas Research Group and Assistant Director for the Faculty of Science and Technology at the Institute for Environmental Sustainability at MRU.

Publications:

Moorman, L.A., & Crichton, S. (2018). Learner requirements and geospatial literacy challenges for making meaning with Google Earth. *International Journal of Geospatial and Environmental Research*, 5(3), 1-22.

Moorman, L. and Garbutt, K. (2018) Perspectives on global understanding in geography education in Canada. In Demirci, A., Miguel González, R. & Bednarz, S. (eds) *Geography Education for Global Understanding. International Perspectives on Geographical Education* (pp.233-243) New York: Springer.

McNicol, B., & Rettie, K. (2018). Tourism operators' perspectives of environmental supply of guided tours in national parks. *Journal of Outdoor Recreation and Tourism* 21, 19-29.

Okanagan College (submitted by Todd Redding)

The OC Department of Geography, Earth and Environmental Science is hosting the **2019 National Association of Geoscience Teachers – PNW Section Annual Conference and Field Tour** in Penticton. The meeting is June 25-27, 2019 and will feature 1 day of conference presentations and discussions followed by 2 days of field trips in the south Okanagan.

Come join us for a fun and informative event that is sure to feature liquid highlights of the Okanagan Terroir! For information contact Todd Redding (tredding@okanagan.bc.ca) and watch for updates at <http://www.nagtpnw.org>

Publications:

Day, T. (2017). The contribution of physical geographers to sustainability research. *Sustainability* 9(10), 1-18.

Simon Fraser University (SFU) (submitted by Tracy Brennand)

Undergraduate Program

The undergraduate program, with over 550 majors, minors and certificates, continues to change in ways that will suit the needs of our current and future students. Our program offerings will soon include a BA in Human Geography, a BEnv in Global Environmental Systems, a BSc in Geographic Information Science, and a BSc in Physical Geography. Our BA (Environmental Specialty) will no longer be available because its area of focus is now encompassed by the BEnv. We have created Educational Goals for each of these programs, which will make their various benefits clear to students. Overall, our program is vibrant, exciting, and welcoming to a wide range of students who hope to engage the world in a variety of important ways.

Student News: Undergraduate Kudos

Jerik Brown is in his final year of undergraduate studies, completing a BA Geography Major with a History Minor. He won the Warren Gill Memorial Award that recognizes leadership and service within the community by a Human Geography student.

Nicola Kroetsch, who graduated in October 2018 with a BA Geography Major and Biological Sciences Minor, won the 2018 Canadian Association of Geographers Undergraduate Award. Each year, The Canadian Association of Geographers presents awards to the most outstanding students graduating in Geography honours/majors programmes at universities across Canada. Winners receive a complimentary membership in the CAG for the following year and, in addition, their names are announced at the Annual General Meeting and published here and in the CAG Newsletter. She is pursuing a Master's degree in Resource Management at SFU.

Henry Kosch, who graduated in June 2018 with a BA Double Major in Geography (Honours) and Economics, won the Peter Schaub Memorial Book Prize Award. This prize was established to honour the memory of Peter Schaub, a former Dean's medal award winner and outstanding geography student who was an active participant in the Geography Student Union (GSU). We award this prize annually to a Geography major student from the graduating class who has made a significant contribution to the Department through the GSU.

Rebecca Gunderson graduated in June 2018 with a BA Geography Major and Spatial Information Systems Certificate. She won the Kim Fofonove Memorial Book Prize Award. This prize was established by members of the Department and by friends of former geography student **Kim Fofonove**. Each year this prize is awarded to an outstanding geography major or honours student from the graduating class. **Rebecca** is pursuing a Master's degree in Urban Studies at SFU.

Graduates:

The Geography Department at Simon Fraser University (SFU) is a research intensive, mentorship based program with emphasis on original research and dissemination of results. Geography students finished their degrees in record numbers over the past academic year. We had six PhD completions and nine Masters degree defenses. We are proud of all of the students listed on the next page. As you can tell, their areas of expertise and interest varied widely.

SFU (con't)

Completed Dissertations/Theses September 2017 – August 2018

Naraghi, Nazanin (PhD), October 2017, "Impossible places: The aesthetic unconscious and post-migrant Iranian subjectivity in Los Angeles" (Paul Kingsbury)

Whealdon Haught, Daniel (PhD), October 2017, "Acoustically derived suspended sediment concentrations and flux in the Fraser River, Canada" (Jeremy Venditti)

McMillan, Andrew (MSc), November 2017, "Regional classification using gradients of marine species assemblages: A data-driven approach to modelling marine ecosystems" (Nadine Schuurman)

Martin, Michael (PhD), December 2017, "A qualitative GIS for Social Media and Big Data" (Nadine Schuurman)

Shashank, Aateka (MSc), December 2017, "Walkability and connectivity: Unpacking measures of the built environment" (Nadine Schuurman)

Swanlund, David (MA), December 2017, "Geosurveillance, Biometrics, and Resistance" (Nadine Schuurman)

Salas, Rebeca (MA), January 2018, "Spatial narratives of property loss: Social memory and the dispossession of Japanese Canadian-owned property in British Columbia" (Nicholas Blomley)

Hoffman, Leon (PhD), February 2018, "The international health landscape of Cozumel Island, Mexico" (Valorie Crooks)

Kelly, B-Jae (MSc), March 2018, "The modern coarse-grained fan deltas of south-western British Columbia, Canada: A geomorphologic study" (Jeremy Venditti)

Cao, Zhi Hao (Eric) (MSc), April 2018, "Scour pool incision in bedrock canyons" (Jeremy Venditti)

Bradley, Ryan (PhD), July 2018, "Controls on Dune Dimensions in Rivers" (Jeremy Venditti)

Thompson, Samantha (MA), August 2018, "'It's yours': Tenant experiences of home and care in women's non-profit housing" (Eugene McCann)

Frei, Kurt (MSc), August 2018, "Bark beetles and wildfire: Influence of overlapping disturbances on wood and light in a sub-boreal headwater system" (Lance Lesack)

Huxter, Emily (MSc), August 2018, "Streamflow characteristics of intermittent streams in the Okanagan, British Columbia, Canada" (Lance Lesack)

Geography Graduate Scholarships and Awards September 2017 – August 2018

Our graduate students were recognized by several awards over the past academic year.

TriCouncil Canada Graduate Scholarships-Masters (CGSM):

- SSHRC: **Zach Cameron**
- NSERC: **Travis Gingerich**
- NSERC: **Max Hurson**
- NSERC: Doctoral **Ian Lochhead**

- SFU KEY (Big Data) Graduate Scholarship: **Claude-Michel Nzotungicimpaye**

Thompson Rivers University (TRU) (submitted by Tom Waldichuk)

Greetings from Thompson Rivers University, Department of Geography & Environmental Studies.

Faculty Updates:

Darryl Carlyle-Moses taught GEOG 2050 - *Introduction to Hydrology* in the fall while chairing the department. Speaking of teaching, Darryl, along with **Crystal Huscroft**, led a third year physical geography field course in the last week of August to the Rockies and then continued hydrological exercises with the students after the Labour Day weekend at Jamieson Cr. near Kamloops.

Darryl was also on a 6 month sabbatical in the winter 2018 term and kept busy with his research activities. First, he and his colleagues began a literature review of stemflow (hydrology) research. Second, he signed a book contract with Springer press to co-edit a volume within their Ecological Studies series titled *Forest-Water Interactions* in which he will be coauthoring a chapter on the role of trees for storm water management purposes in urban areas. Third, he co-wrote an article on stemflow that was accepted in the journal *Advances in Water Resources*. Fourth, he also worked with his colleagues, including Dr. David Hill, on a technical paper which is currently under review with the *Journal of Hydrology* - this technical piece was born out of the same research that was presented as a co-authored poster presented at the WDCAG 2018 conference in Edmonton.

Darryl also travelled to the University of Delaware in March and April to collaborate with a close colleague – Dr. Delphis Levia. The two of them along with other ecohydrologists are meeting in a castle town – Ettersburg, Germany -- in early October (Darryl told me, Tom, that this has nothing to do with Oktoberfest). They'll be discussing how ecohydrology can be applied to help mitigate the global water crisis, writing up their findings and publishing the results in *Nature* or *Nature – Sustainability*. Darryl didn't mention whether the castle where they'll be staying has wifi or whether the final draft will have to be written on mediaeval paper.

David Hill taught our core methods course on *Geographical Analysis* (2700) in the fall 2017 term. This past winter he also taught *Introductory GIS* (2750) and a third year course on remote sensing.

One of his graduate students, **Jackson Baron**, gave a talk co-authored with David at the WDCAG 2018 conference at the U. of Alberta. His other grad student **Jamie Shippit** and his undergrad student **Brandon Turner** both presented posters with David at the conference.

Publications

Baron, J., **Hill, D.J.**, and Elmgli, H. (2018). Combining image processing and machine learning to identify invasive plants in high resolution images. *International Journal of Remote Sensing*. DOI: 10.1080/01431161.2017.1420940

Bailey, J.M., Reudink, M., LaZerte, S., Paetkau, M., Johnson, C., **Hill, D.**, and Otter, K. (2018). Using radio frequency identification (RFID) to investigate the gap-crossing decisions of black-capped chickadees (*Poecile atricapillus*). *The Auk: Ornithological Advances* 135(3):449-460. DOI: 10.1642/AUK-17-162.1

Presentations

- Shippit, J. and Hill, D.J. (2018). Reflecting on protein. Annual Meeting of the Western Division of the Canadian Association of Geographers, Edmonton, AB.
- Baron, J. and Hill, D.J. (2018). Automated detection of yellow flag iris using learning algorithms and UAVs. Annual Meeting of the Western Division of the Canadian Association of Geographers, Edmonton, AB.
- Hill, D.J., Whitworth, G. and Church, J. (2018). Consumer-grade UAVs for natural resource management. American Association of Geographers Annual Meeting, April 10-14, New Orleans, LA USA

Grants

\$608,200 – (Principal Investigator) Precision management of rangeland systems for a sustainable future – CFI, BC Knowledge Development Fund

\$608,200 – (Co-Investigator) Evaluating the potential for increased forage productivity in mid-rotation forested rangeland sites through an integrated forage, cattle and timber management approach – Beef Cattle Research Council (BCRC)

Thompson Rivers University (TRU)

Crystal Huscroft in the spring of 2017 created detailed risk management forms that she kindly passed on to her colleagues as a template a year later in 2018. Crystal finished her first successful physical geography field school in the Rockies in September 2017 and completed another one this year, starting in the last week of August, with the help of **Darryl Carlyle-Moses**, who led the hydrology part of the course close to Kamloops. Ten students participated.

Crystal also taught *Physical Geography 1000* in the fall 2017 term and winter 2018 term, and she taught third year *Geomorphology (3080)* in the winter 2018 term.



4th year physical geography field school 2018 (photo: Brandon Turner & Crystal Huscroft)

Terry Macdonald taught Geography 1010 (*People, Places and Landscapes: Introducing Human Geography*) in the summer 2017 term. In fall 2017 he taught both Geography 2230 (*Regional Geography of BC and Yukon*) and a land-use course in the Tourism Management program. In summer 2018 he again taught Geography 1010 and this fall is currently teaching the same land use course in the Tourism Management program.

Michael Mehta taught our third year *Environment and Natural Resources (3100)*, and a third year special topics course on *Renewable Energy* (he also taught courses for Sociology) in the fall 2017 term.

Michael was on a six month sabbatical in the first half of 2018, during which time he focused on two distinct projects dealing with various aspects of air pollution. The first project dealt with the experiences of wood smoke activists and involved an online survey. One interesting correlation was that those activists who believed that their health was affected were also likely to assert a lower quality of life, express a feeling of helplessness, believe that their mental health is affected, and estimate that exposure will shorten their lifespan. The results are being written up with a journal article to be submitted this fall to *Social Movement Studies*.

His second project compared air quality monitoring approaches from the summer of 2017. Over the past two years Michael has been setting up more than 30 low-cost PurpleAir air quality monitors in Kamloops and 9 monitors on Gabriola Island. He compared data from a sample of 10 monitors in Kamloops to two provincial air quality stations focusing on PM_{2.5} emissions during the months of July and August 2017, and he is also comparing smoke levels from the summer of 2017 with the summer of 2018. His results suggest that that PurpleAir monitors can be used to help better understand air pollution from forest fires, and their use provides better real-time data, higher spatial resolution, and a backup for provincial air quality stations.

Thompson Rivers University (TRU)

Michael Mehta (con't)

In the summer Michael worked on replacing the solar panels that are installed on the ground over pre-existing compass points in front of the Arts and Education building --- the Solar Compass. These panels were installed in the fall of 2017 and were subjected to rain, snow, ice, campus vehicles and thousands of pedestrians. Michael and his team are testing the durability of these panels.

Kim Naqvi taught first year *Human Geography* (1010), *World Regional* (1110), *Regional Geography of Canada* (2220), and *Cultural Geography* (3200) in the fall 2017 term. In the winter 2018 term, she also taught *Geographic Thought* (2400), *Geographies of the Americas* (3900), and Directed Studies. In 2017, she presented her research related to the Geographies of the Americas at the WDCAG conference, the CAG in Toronto, and in 2018 further research was presented at the WDCAG in Edmonton, the AAG in New Orleans, and the CAG/IGU in Quebec City. In the spring her travels took her to Cypress where she travelled through both the northern and southern sections. She has been working with some of the "Place Group" people across campus, and together they published a STLHE "Green Guide."

Publication

Baldwin, L., Flood, N., **Naqvi, K.**, Ratsoy, G., & Templeman, E. (2017). *Place-based education: An Inter- and multidisciplinary approach*. Society for Teaching and Learning in Higher Education Green Guide 15.

Presentations

- *Teaching the geography of the America's using Carmen Aguirre's Memoir, Something Fierce*. Annual meeting of the American Association of Geographers, New Orleans, LA, April 2018.
- *Regional geography from within: Comparing a political memoir to geographies of tourist guides and textbooks*. Western Division of the Canadian Association of Geographers, annual meeting, Edmonton, AB, March 9-10, 2018.

Gilles Viaud taught *Introductory Human Geography* (1010) and *Introductory Urban Geography* (3500) in the Fall 2017 term, and in the winter 2018 term he also taught *Social and Behavioural Geography* (3570) and *Advanced Urban Geography* (4500). He adopted a problem-based approach to teaching his social and behavioural course and had his advanced urban geography students give presentations at the TRU undergraduate conference in March. 2018.

Along with **Tom Waldichuk**, Gilles also successfully taught his first field course in the Quebec City area this summer. He spent the spring organizing assignments – research essays that students wrote before leaving for Quebec in early August. These essays formed part of a text that he created for the field course, along with other maps and itineraries. The course started at Laval University on the morning of August 3rd, and covered the urban and rural areas of the capital region over a three day period. Some of the highlights were guided tours of the Saint-Roch and Vieux-Québec neighbourhoods; old Wendake (Huron village); the Trait-Carré to talk about urban change, neighbourhood revitalization, and culture; and a drive along the Côte-de-Beaupré (route de-la-Nouvelle-France) with stops to visit Sainte-Anne-de Beaupré Cathedral and the small city of Baie-St-Paul (in the Charlevoix region) to study the seigneurial system, rural-urban fringe and small cities related issues.

(see **photos** next page)

Thompson Rivers University (TRU)

Gilles Viaud (con't)



Can you see something familiar from Kamloops in the log graffiti at Montmorency Falls?
Geog3700 Quebec summer field course (Tom Waldichuk photo)



Participants in the summer 2018 Quebec City field course, including a directed studies student in Sociology, outside the Quebec City conference centre where the CAG/IGU conference was held (Helen Markano photo).

Thompson Rivers University (TRU)

Gilles Viaud (con't)

Gilles also attended and presented a poster at this year's CAG/IGU conference in Quebec City.

Presentations

Les petites villes et l'agenda urbain Canadien. Poster presented at the joint International Geographic Union and Canadian Association of Geographers conference, Université Laval, Quebec City, August 9, 2018.

Tom Waldichuk taught a fourth year course— *Attitudes toward the environment* (4230) in fall 2017. He started to recruit student volunteers to help out at the international Geo Olympics, which were held in Quebec City this summer before the CAG/IGU conference. In addition, he recruited students for the third year field course that Gilles Viaud and he eventually led to Quebec.

In the winter 2018 term **Tom** taught *Introductory Environmental Geography* (1100) and a third year course on the *Rural-Urban Fringe* (3550). Tom also took on Chair duties from **Darryl Carlyle-Moses** – thank you Darryl for all your hard work while leading our department for six years!

This past spring Tom also went back to Japan to scope out locations for the 2019 field trip and to conduct some interviews on land-use and community change in Ushiku City.

Presentations

Tom's more recent conference touring included attending the Japan Studies Association meeting at the U. of Toronto in October 2017, where he presented his paper on suburban green space. In the winter of 2018, at the TRU Teaching Practices Colloquium and at the WDCAG in Edmonton he presented on his Japan field course. At the WDCAG, in particular, he presented a poster on the tourist walking routes of Tokyo with the students who went on his 2017 Japan field school. He also participated in a panel on field-based teaching organized by Dr. **Tom Johnston** at the U. of Lethbridge.

Publication

Waldichuk, T. (2018). Green space and suburban planning in Japan, pp.56-66. In Merran Eby & David A. Welch, Eds., *Future uncertain: Economic, environmental, social, and political challenges facing Japan*. Proceedings of the Annual Conference of the Japan Studies Association of Canada, October 12-17, Munk School of Global Affairs, University of Toronto. http://buna.yorku.ca/jsac/jsac2017/jsac2017_proceedings.pdf

TRU Geography Students News

WDCAG 2018

Graduate Student oral presentation

Baron, Jackson and Hill, David J. *Automated detection of yellow flag iris using learning algorithms and UAVs*.

Graduate Student poster presentation

Shippit, Jamie, Hill, David J., Fraser, Lauchlan, & Church, John. *Reflecting on protein*.

Undergraduate oral presentations

Yu, Richmond Ho Shing. *Wind, Water, and Harmony: Examining how feng shui influences feelings of comfort at Thompson Rivers University*.

WDCAG 2018 Undergraduate poster presentations

- **Japp, Kaitlin**. *Libby Dam and its effects on the Kootenay region*.
- **Schut, Selena**. *Mitigation of bird and bat fatalities due to onshore wind turbines*.
- **Turner, Brandon, Rahma, Musfiq**, Hill, David, and Carlyle-Moses, Darryl. *Internet of trees: Secure and affordable internet of things for environmental monitoring*.

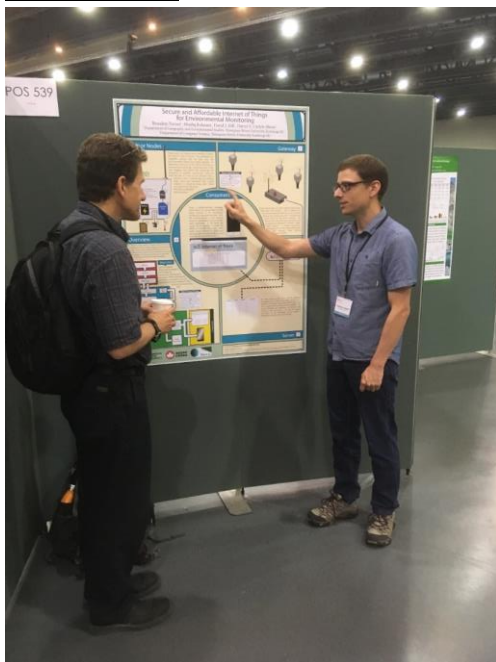
Thompson Rivers University (TRU) (con't)

Student News (con't)

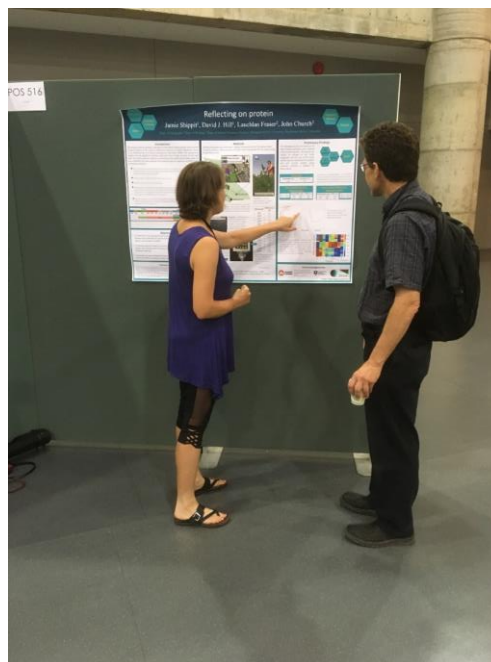


Richmond Yu, CAG/IGU 2018 presentation *Wind, Water, and Harmony: Examining how feng shui influences feelings of comfort at Thompson Rivers University*. (Tom Waldichuk photo)

CAG/IGU 2018 Student Poster Presentations



Turner, Brandon, Rahma, Musfiq, Hill, David, and Carlyle-Moses, Darryl. *Secure and affordable internet of things for environmental monitoring*.



Shippit, Jamie, David Hill, Lauchlan Fraser, & John Church. *Reflecting on protein: assessing forage nutrition through spectral signatures* (photos by Tom Waldichuk)

Thompson Rivers University (TRU) (con't)

Student News (con't)

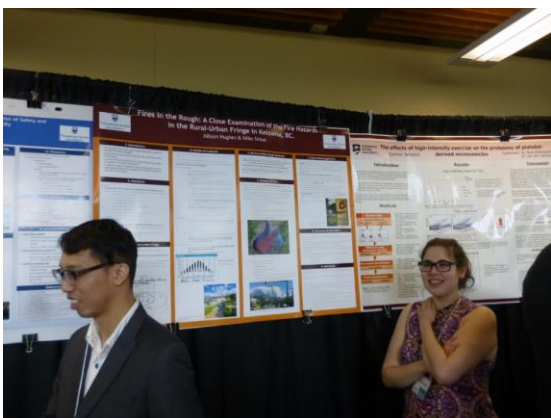
2018 TRU Undergraduate Conference

Geography 4500 Winter 2018 Student Oral Presentations

- **Biggs, Samantha.** *The move back to the city and the ripple effect: gentrification, and social housing.*
- **Bymoan, Nathan.** *On the shoulders of giants: a qualitative analysis of the history of urban transportation geography.*
- **Carriere, Kristopher.** *City environment - crime prevention in outdoor urban spaces.*
- **Helgason, Ty.** *Simple models of a complex reality: the academic achievements and evolution of Chauncy Harris.*
- **Hughes, Allison.** *Chauncy Harris: the man who helped shape urban geography.*
- **Simak, Michael.** *The contribution of Marxist thought in urban geography.*
- **Sprickerhoff, Conlan.** *The future of our cities: the direction for sustainable growth.*
- **Tasker, Joseph.** *Food deserts in the city.*
- **Turner, Brandon.** *Capitalist city without class: Marxism in urban geography.*
- **Windhorst, Rachel Kohanna.** *Effective policies to ensure healthy urban sprawl.*

Geography 3550 Rural-Urban Fringe and Geography 3990 Energy poster presentations

- **Bymoan, Nathan, & Warner, Nicholas.** *Maximizing mobility: transportation efficiency and infrastructure development in the urban boundary rural area of Vancouver, Canada.*
- **Comazetto, Payton & Hryhchuk, Kelsey.** *The diversity within Kamloops' SD73: the demographics and experience of children attending schools within the rural-urban fringe.*
- **Ford, Nicole, & Nteogwuija, Inwon.** *A case study of Burn's Bog: Issues with land reserves and urbanization.*
- **Hauser, Paige, and Valachy, Gabby.** *City vs Country, which is better for your mental health: An analysis of the stigma surrounding mental illness in Canada's rural urban fringe.*
- **Hughes, Allison, and Simak, Mike.** *Fires in the rough: A close examination of fire hazards in the rural-urban fringe in Kelowna, BC.*
- **Rusnell, Breena.** *Geothermal energy: Analyzing the potential in Canada.*
- **Schut, Selena, Leis, Kyle, & McKenzie, Conner.** *The effects of climate change on rural-urban fringes across the globe.*
- **Sellitti, A., & Stone, R.** *Reducing disaster vulnerability in the rural-urban fringe.*
- **Spolia, Narain and Dinsdale, Brie.** *Analysing the three pillars of sustainable development in the rural-urban fringe in Canada.*
- **Yu, Richmond Ho Shing.** *The way the wind blows and water flows: Examining the perception of safety and comfort using Feng Shui at Thompson Rivers University.*



TRU Undergraduate Conference (photos by T.Waldichuk)

Thompson Rivers University (TRU) (con't)

Student News (con't)

Thompson Rivers University Geography Society (TRUGS) was involved in several activities this past year, such as a weekend trip to Wells Gray Park in November, hiking trips, and adopt-a-road. Students also spent much time raising funds to attend the WDCAG at U. of Alberta, such as multiple bake sales, a bottle drive, grant applications, and a fund-raising dinner at Nandi's Flavours of India. This conference is important to the club because not only do the students love getting to participate in the learning, but they also get to support their fellow students who present. In particular, I want to thank **Claire Irvine** for her hard work as President of TRUGS and for getting our full bus to Edmonton on a very snowy day in March! The trip back to Kamloops was a beautiful sunny day and we all celebrated by playing in the snow in front of Mt. Robson. I, Tom, am looking forward to travelling to Victoria with the students for the 61th WDCAG next March!



TRUGS visit Wells Gray Park (Helmcken Falls), and Mount Robson, November 2017 (T.Waldichuk photos)

Geography Thank You's:

Tom would like to thank **Brandon Turner** for being a student rep – for a second year -- representing BC, on the executive of the WDCAG.

Tom is grateful for **Jamie Shippit** helping the students this summer fill out their travel funding application.

Thank you again **Darryl** for all your hard work as Chair!



Winners of the PowerPoint Improve at the TRU Undergrad Conference: Brandon Turner & Tom Waldichuk (T.Waldichuk photo)

University of the Fraser Valley (UFV) (submitted by Claire Hay)

Student Success

UFV Geography and the Environment (GATE) is always happy to celebrate its student award winners and this year is no exception. All of our award winners have graduated from UFV and have started graduate programs at universities across the country.

The Canadian Association of Geographers annual award was presented to **Travis Gingerich**. Travis completed a BSc honours in Physical Geography with a thesis entitled "Optical dating of the postglacial marine transgression, Savary Island, British Columbia". In addition to receiving the CAG award, Travis was the recipient of the Department's Undergraduate Research Excellence Award for his honours work completed under the supervision of **Olav Lian**. In addition, Travis received the Dean's Medal for Science at our June Convocation.



Travis has recently started an MSc at Simon Fraser University.

The American Association of Geographers annual award winner was **Sarah Speight**. Sarah graduated with a BA honours in Geography. Her thesis was "Examining trans healthcare access in BC and Yukon". **Lenore Newman** supervised Sarah. Sarah is currently enrolled in a PhD program at University of Ottawa.

The Doug Nicol Memorial Award is dedicated to one of the founding members of our department who passed away in 2003. This award celebrates a student who succeeds academically but also contributes to the department and student activities. This year's winner was **Madelaine Bourdages**. Madelaine completed a BA honours in Geography with a thesis titled "Presence of Microplastics in the Fraser River" completed under the supervision of **Steven Marsh**. As part of her honours research, Madelaine completed a practicum at the Woods Hole Oceanographic Institution under the supervision of Bernhard Peucker-Ehrenbrink. Madelaine was also responsible for relaunching our student association and contributed many volunteer hours for the department. Madelaine has started her MSc at Carleton University.



Miranda Monosky completed a BA honours in Geography and was the Undergraduate Indigenous Research Excellence Award winner for her thesis entitled "Waste Management and Environmental Control: Exploring the Changing Landscapes of Bailey Road and the Bailey Sanitary Landfill in Chilliwack, British Columbia". **Terah Sportel** supervised Miranda's research project. Miranda has moved from coast to coast and has started an MA at Memorial University. She is the recipient of a SSHRC CGS-M graduate scholarship.

UFV (con't)

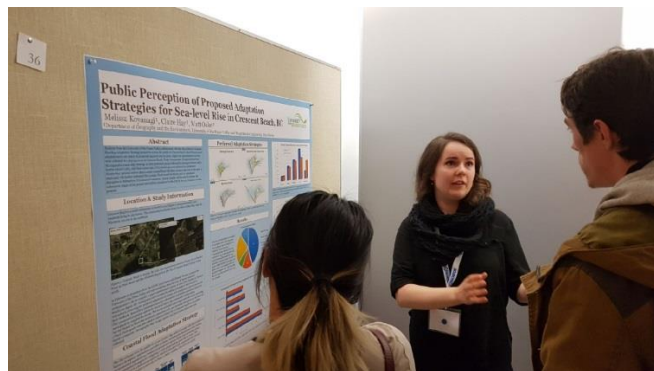
WDCAG Conference participation



UFV on their way to Edmonton

UFV GATE was well represented at the most recent WDCAG annual meeting in Edmonton with 6 students and 2 faculty making the trek across the mountains. Our students presented 3 posters (**Madelaine Bourdages**, **Travis Gingerich** and **Melissa Koyanagi**) and 2 oral presentations (Madelaine Bourdages and Travis Gingerich). All were well received with Travis bringing home the best undergraduate presentation award. Most important, UFV brought home the Scavenger Hunt trophy.

Travis Gingerich presented his honours research *Optical dating of the postglacial marine transgression, Savary Island, BC* for which he won the WDCAG2017 Best Undergraduate Oral Presentation award.



Melissa Koyanagi's poster on *Public perception of proposed adaptation strategies for sea-level rise in Crescent Beach, BC*.

Madelaine Bourdages's presentation at WDCAG2017.



UFV GATE was well represented at the biannual conference of the Canadian Quaternary Association (CANQUA) in Ottawa in August, which this time also involved our American counterparts, AMQUA. **Olav Lian** and members his research group, **Travis Gingerich**, **Libby Biln**, and Research Associate **Christina Neudorf** (now at the Desert Research Institute, Nevada) authored or co-authored 4 oral presentations and 1 poster.

UFV (con't)

Adventures in Geography to Interior BC

In early spring 2018 **Olav Lian** and **Garry Fehr** took several students on one of our Adventures in Geography study tours which combined aspects of the physical and human environments in southern BC, including stops in spectacular Wells Grey Provincial Park.

Over the five-day trip students learnt through illustrative

examples how the current physical landscape of the province evolved from that which existed immediately following glaciation, and how people have used and adapted to that landscape through changing economies and livelihoods.



UFV students and **Garry Fehr** at the Secwepemc (Shuswap) Museum and Heritage Park Building in Kamloops

Spotlight on Learning

UFV students completing four Geography courses in Winter 2018 actively participated in the pilot CityStudio collaboration between the Abbotsford and UFV while demonstrating the possibilities of community engagement and action research. Courses involved were GEOG 252 *Quantitative Methods*, GEOG 253 *Introduction to GIS*, GEOG 257 *Science Communications* and GEOG 300N *Forensic GIS* all under the supervision on **Mariano Mapili**.

The students' CityStudio project on reducing litter in parks was in line with the Abbotsford's cornerstone strategy of *Complete Community*. Guided by the principles that value community's connection with the environment and facilitation of action to mitigate social issues that impact Abbotsford communities, the students were able not only to deliver UFV's commitment to Abbotsford a research paper and promotional/education collateral for the public, but also demonstrated the currency and usefulness of their research project. Students participating in this project won first place in the first Abbotsford HUBBUB CityStudio project and were awarded the 2018 UFV Community Service award.



UFV (con't)

GEOG 304 *Coasts and Climate Change* under the supervision of **Claire Hay** partnered with the City of Surrey's Coastal Flooding Adaptation Strategy team to investigate perceptions and preferences for sea level adaptation in Crescent Beach. As part of this collaboration, students in GEOG 304 with help from students in GEOG 308 *Climate Change and Variability* surveyed residents and visitors on sea level adaptation strategies during a pop-up event in February 2018 in the community. In addition to this survey, students produced short information videos on each of these options for the City of Surrey. Videos at:

<https://video.ufv.ca/category/Academics%3EGeography/48979>



Faculty News

Claire Hay replaced **Steven Marsh** as Department Head this past summer. We are also happy to introduce **Leah Sperling** as our new permanent department assistant.

Olav Lian was awarded a significant NSERC Research Tools and Instrument Grant to upgrade the principal instruments in the Department's Luminescence Dating Laboratory.

Steven Marsh continues to investigate water quality and climate of the Fraser River and tributaries adjacent to the Abbotsford region. With student researchers, Steve is sampling Stoney Creek, Wilband Creek and Clayburn Creek for various water quality indicators as well as sampling for microplastics in the Fraser River at Fort Langley.

Lenore Newman is the Director of the new Food and Agriculture Institute that aims to develop food security by studying sustainable agricultural land use practices. Agri-tech innovation, farmland utilization, the future of food, new and emerging crops, global food security, agri-tourism, and value-added activities in the supply chain from farm to table form focus areas of the FAI.

John Belec has completed a research project on the topic of postwar suburbanization in Canadian and American cities. The work included collaborators from the School of Geography and Earth Sciences at McMaster University, Richard Harris and Geoff Rose. An article 'The Federal Impact on Early Postwar Suburbanization' based on their research findings was published in *Housing Policy Debate*.

UFV was awarded further funding from Universities Canada for Queen Elizabeth scholarships for internships related to urban policy and food systems in Kenya, Tanzania, and India. This project is managed by **Cherie Enns** and for further details on internship and international events please see <https://ufveastafricainternships.com>

In addition, Cherie Enns offered two successful urban and regional planning studio courses working with community partners related to the development and launch of the Rail District Food Market in Abbotsford and revitalization of a rural agricultural community. The Rail District course met in the Field House brewery this spring. Finally, **Cherie Enns** was awarded the Teaching Excellence award for UFV for 2018.

Social Media

To stay in touch with happenings in GATE, visit our website at www.ufv.ca/geography, follow us on Twitter @UFVGeography or on Facebook by searching UFV-Geography and the Environment.

University of Lethbridge (submitted by Laura Chasmer)

Faculty News

Rene Barendregt (Professor) research is focused on paleo-environments and climate change, in particular the glacial/interglacial sedimentary records in the western Hemisphere which provide an archive of climate change as well as proxies of permafrost, snow, ice, and paleoecological conditions. The latter inform important global feedback mechanisms that influence climate. Paleomagnetism, magnetostratigraphy, and rock magnetic properties serve as useful geophysical tools in correlation and dating of deposits, and provide a measure of sediment provenance and weathering histories.

Field Geology course (Geog. 3792) delivered to a class of 22 students in the summer of 2017 (for credit in Fall 2017). The course took students through the front range of the Rocky Mountains from Crowsnest Pass to Glacier Park and included sites along the foothills. It provided an overview of the Geology of the Rocky Mountains in Alberta-Montana, the sedimentary foreland fold and thrust belt and western edge of the Western Sedimentary Basin, including bedrock and surficial geology, tectonics, sedimentary basins, and economic resources, with a secondary focus on the late Cenozoic landform and climate history of the region (i.e. tectonics, volcanism, uplift, erosion, pediments, glacial/interglacial cycles, and paleosols).

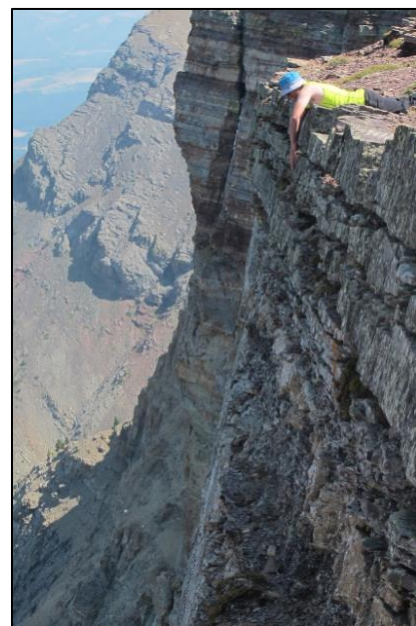


Knee deep in nettles and thimbleberries on the way to Mokowan Butte



Heading up to Etherington First Nations Chert Quarries, Livingston

Hands through abandoned mine winchhouse roof, Livingstone Range, Montana



Peeking over the edge of Table Mountain

University of Lethbridge (con't)

Rene Barendregt (con't)

Ph.D. Graduates:

Nick Roberts (2017) (co-supervised) at SFU (Earth Sciences) "Magnetostatigraphy of the La Paz area Glacial Deposits and Interbedded Tuffs, Bolivia".

Corinne Griffing (2018) (co-supervised) at SFU (Earth Sciences) "Late Cenozoic Glaciations and Environments in Southernmost Patagonia".

Presentations:

- Public Professor Talk (Sept. 23, 2017--University of Lethbridge): "Global Climate Archives in Mud and Rock: The magnetic recorder is always on [somewhere]!"
- Field Trip Leader: Explorers Club. June 14-17, 2017. Alberta Cypress Hills region.
- Geography Club Field Trip Leader (University of Lethbridge): Dinosaur Provincial Park (Oct. 21, 2017).

Selected Publications:

Somelar, P., Vahur, S., Hamilton, T.S., Mahaney, W.C., **Barendregt, R.W.**, & Costa, P. (2018). Sand coatings in paleosols: Evidence of weathering across the Plio-Pleistocene boundary to modern times on Mt. Kenya. *Geomorphology* 123: 223-245. <https://doi.org/10.1016/j.geomorph.2018.05.017>

Roberts, N.J., **Barendregt, R.W.**, & Clague, J.J. (2018). Lithostratigraphic and magnetostatigraphic data from late Cenozoic glacial and proglacial sequences underlying the Altiplano at La Paz, Bolivia. *Data in Brief* 123: 223-140. <https://doi.org/10.1016/j.dib.2018.05.038>.

Adams, N.F., Candy, I., Shreve, D.C. & **Barendregt, R.W.** (2018). Deposition and provenance of the Early Pleistocene siliceous member in Westbury Cave, Somerset, England. *Proceedings of the Geologists Association* 130: 38-49.

Roberts, N.J., **Barendregt, R.W.** & Clague, J.J. (2018). Pliocene and Pleistocene chronostratigraphy of continental sediments underlying the Altiplano at La Paz, Bolivia. *Quaternary Science Reviews* 189: 105-126. <https://doi.org/10.1016/j.quascirev.2018.03.008>.

Holmes, P., Rose, J., Lee, J.R., **Barendregt, R.W.**, Candy, I., Riding, J.B., & Lewis, M. (2018). The Middle Pleistocene terraces of the central Waveney valley, Earsham, south Norfolk, UK. *Proceedings of the Geologists' Association* 129(1), 70-88. <https://doi.org/10.1016/j.pgeola.2017.10.005>

Roberts, N.J., **Barendregt, R.W.**, & Clague, J.J. (2017). Multiple tropical Andean glaciations during a period of late Pliocene warmth. *Scientific Reports* 7, 41878. <https://doi.org/10.1038/srep41878>

Beilinson, E., Gasparini, G.M., Tomassini, R.L., Zárate, M.A., Deschamps, C.M., **Barendregt, R.W.** & Rabassa, J. (2017). The Quequén Salado river basin: Geology and biochronostratigraphy of the Mio-Pliocene boundary in the southern Pampean plain, Argentina. *Journal of South American Earth Sciences* 76, 362-374.

University of Lethbridge (con't)

Philip Bonnaventure (Assistant Professor): lab examines the spatial distribution of permafrost systems in high-latitude mountains and their evaluation in a warming climate.

Courses taught:

- *Introduction to Physical Geography* (Geog1000): Fundamental processes and interrelationships between the atmosphere, lithosphere, biosphere, and hydrosphere using a systems science approach. Topics include landforms and landscapes, geodesy, Earth surface materials, soils, biogeography, weather and climate, hydrology, water resources, and glacial processes.
- *Introduction to Environmental Science* (ENVS 2000)
- *Biogeography* (Geog 2090): Geographic and spatial relationships of individuals, species, ecosystems, and biomes. Topics include biodiversity, dispersal, evolution and environmental change.
- *Micro-climatology* (Geog 3300): Climatology of the planetary boundary layer. An examination of the dynamic exchanges of radiation, energy, water, and carbon at the Earth-atmosphere interface. Topics include: surface radiation balance; latent and sensible heat flux; air pollution in the boundary layer; carbon dynamics in agricultural and natural ecosystems; and implications of atmospheric change on land-atmosphere interactions and tropospheric climate.

Graduate students

Madeleine Garibaldi, 2018. "A high arctic microclimate hotspot assessment, Cape Bounty, Nunavut."

Presentations:

Garibaldi, M. & Bonnaventure, P. (2018). Improved sensitivity analysis of permafrost models to projected changes in continentality, Yukon Canada. 5th European Conference on Permafrost. Chamonix, France.

Publications:

Smith, S.L. & **Bonnaventure, P.P.** (2017). Quantifying surface temperature inversions and the impact to the ground thermal regime at a High Arctic site. *Arctic Antarctic and Alpine Research* 49: 173-185.

University of Lethbridge (con't)

Jim Byrne (Professor): examines climate change impacts modelling on water, watersheds, land covers; modeling GHGs from agriculture and ecosystems; and developing climate change solutions; communicating climate change.

Courses taught:

- *Weather and Climate* (Geog2300): Introduction to the atmosphere. Global circulation and the role of energy exchange. Structure and behaviour of world and regional weather systems. Synoptic meteorology. Bioclimatology. Climate variation and cycles.
- *Natural Hazards and Global Environmental Change* (Geog3070): The relationships of natural extremes, global environmental change and human systems. A key emphasis is identification of natural and human-induced global environmental change.
- *Integrated Watershed Management* (Geog4415): Management of watersheds considering natural supply and demands; and natural and human-induced change. Modelling watershed processes using GIS and basic programming is a key objective of the course. Holistic management considers upstream and downstream interactions, and the interactive role of hydrology, hydraulics, ice processes, temperature, sediment, biota and land cover.
- *Climate Change: Science, Impacts, Solutions* (Geog4030/Envs4000). The role of humanity in warming the global climate is well defined. The research community has documented many of the early impacts of climate change. The research literature has extensive assessments of future impacts on human health, infrastructure, social and political changes, and the risks of military conflict. Topics include an introduction to the science, politics, health and well-being challenges of climate change; likely changes to personal and community lifestyles; and consumption of energy and other resources.

Graduate students

Mirmasoudi, S., 2014-18. *Integrated watershed management*; PhD Candidate.

Mansouri Kouhestani, F. 2014-18. *Mitigation and adaptation of climate change enhanced urban flooding*, PhD Candidate.

Rieger, C., 2015-17. *Multidisciplinary assessment of hazards preparation and post event response*, MSc.

Presentations:

- *Our Energy Transition*. Keynote to Canadian Water Resources Association Fiftieth Anniversary National Conference, Banquet Speaker, June 6, 2017. (Invited)
- Climate Solutions: Policy, Planning, Science and Engineering in Uncertain Political and Economic Times. American Geophysical Union Fall meeting, New Orleans, LA., Dec 11-15, 2017 (Chair) Oral session.
https://www.youtube.com/watch?v=bFTG_ZgqJMM

Publications:

Mirmasoudi, S., **Byrne, J.**, Kroebel, R., **Johnson, D.**, & MacDonald, R. (2018). A novel time-effective model for daily distributed solar radiation estimates across variable terrain. *International Journal of Energy and Environmental Engineering* 1-16.

Pogue, S.J., Kröbel, R., Janzen, H.H., Beauchemin, K.A., Legesse, G., de Souza, D.M., **Byre, J.** et al. (2018). Beef production and ecosystem services in Canada's prairie provinces: A review. *Agricultural Systems* 166, 152-172.

Rieger, C. & **Byrne, J.** (2017). A review of the capacity for OpenStreetMap software in humanitarian disaster response: A case study investigating the humanitarian OpenStreetMap team response to the 2015 Nepalese earthquake. *Meeting of the Minds Graduate Student Journal* 1: DOI 10.5281/zenodo.399298.

University of Lethbridge (con't)

Laura Chasmer (Assistant Professor) researches impacts of climate change and related hazards on northern ecosystem change using hydro-meteorological, ecological and remote sensing methods.

Courses taught

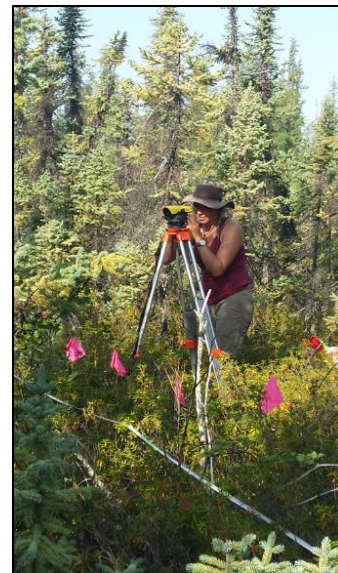
- *Weather and Climate* (Geog 2300): Introduction to the atmosphere, global circulation and the role of energy exchange. The structure and behaviour of regional weather systems are also examined as well as synoptic meteorology, bioclimatology, climate variations and cycles.
- *Environment and Resources Management* (Geog 3075): Theory and methods of environmental assessment with a focus on adaptive resources management.
- *Wetlands* (Envs 3000): New course that examines the characterisation and classification of wetland ecosystems with a focus on wetlands of Canada. Wetland hydrology, biogeochemistry, and ecology as well as policy and reclamation strategies.



Measuring regeneration in Fort McMurray burned forest



Finding ice lenses and peatland soil sampling



Validating airborne lidar ground elevation using a level



Mensuration transect from permafrost plateau into a bog at Scotty Creek, NWT

Graduate Students

Linda Flade, PhD student; *Peatland ecosystem change due to climate change, permafrost thaw and wildfire* (2017-2021)

Kailyn Nelson, MSc student; *Estimating spatial variability of peatland wildfire carbon emissions in Alberta's Boreal Plains* (2018-2020)

Thais Abib, MSc *Emerging Leaders of the Americas Program (ELAP)* internship student from University of São Paulo.

University of Lethbridge (con't)

Laura Chasmer (con't)

Selected Presentations:

- **L. Chasmer & C. Hopkinson.** Can Floods and Forest Fires be more Accurately Predicted using 3D Technology? Southern Alberta Council on Public Affairs, April 12, 2018 (invited)
- Abib, T.H., **L. Chasmer, C. Hopkinson, C. Mahoney,** L. C. Rodriguez, 2018. Seismic line impacts on proximal boreal forest and wetland environments. *Canadian Symposium on Remote Sensing.* Saskatoon, June 19-21.
- **Chasmer, L., E. Jones,** D. Cobbaert, **C. Hopkinson, C. Mahoney,** J. Montgomery, **M. Okhrimenko,** R. Petrone, 2018. Mapping wetland changes associated with disturbance in the Oil Sands Region using remote sensing. *Canadian Symposium on Remote Sensing.* Saskatoon, June 19-21.
- **Chasmer, L., C. Mahoney,** A. Paluck, R. Connon, W. Quinton, **C. Hopkinson,** 2018. Spatial drivers of permafrost thaw using an integrated machine learning approach and in situ methods. *Canadian Symposium on Remote Sensing.* Saskatoon, June 19-21.
- **Chasmer, L., L. Flade, C. Hopkinson,** R. Petrone, K. Devito, 2018. Spatial variability of peatland depth of peat burn following wildfire in relation to latent energy fluxes using lidar and thermal IR imagery. *International Association of Hydrological Sciences Conference – Remote Sensing and Hydrology Symposium.* Cordoba Spain. May 8-10.
- **Chasmer, L., L. Flade, R. Virk, J. Montgomery, C. Hopkinson,** D. Thompson, R. Petrone, K. Devito, 2017. Quantifying spatial variability of wetland depth of peat burn in relation to antecedent characteristics using field data, multi-temporal and multi-spectral lidar. *American Geophysical Union Conference.* December 10-14. New Orleans.
- Devito, K.J., K. J. Hokanson, **L. Chasmer,** N. Kettridge, M.C. Luchenbach, C.A. Mendoza, P. Moore, D.L. Peters, U. Silins, 2017. Threshold responses in runoff from sub-humid heterogeneous low relief regions. *American Geophysical Union Conference.* December 10-14. New Orleans.
- Little-Devito, M., K. J. Devito, M.C. Luchenbach, **L. Chasmer,** C.A. Mendoza, 2017. Learnings from opportunistic wetlands: The role of substrate and landscape position on reconstructed landforms in sub-humid climate. *American Geophysical Union Conference.* December 10-14. New Orleans.

Selected publications:

Xi, Z., **Hopkinson, C., & Chasmer, L.** (2018). Filtering stems and branches from terrestrial laser scanning point clouds using deep 3-D fully convolutional networks. *Remote Sensing* 10(8), 1215.

Gibson, C.M., **Chasmer, L.E.,** Thompson, D.K., Quinton, W.L., Flannigan, M.D., & Olefeldt, D. (2018). Wildfire as a major driver of recent permafrost thaw in boreal peatlands. *Nature Communications*, 9(1), 3041.
DOI: 10.1038/s41467-018-05457-1.

Chasmer, L., Baker, T., Carey, S.K., Straker, J., Strilesky, S., & Petrone, R. (2018). Monitoring ecosystem reclamation recovery using optical remote sensing: Comparison with field measurements and eddy covariance. *Science of the Total Environment* 642, 436-446.

Chasmer, L.E., Devito, K.J., **Hopkinson, C.D.,** & Petrone, R.M. (2018). Remote sensing of ecosystem trajectories as a proxy-indicator for watershed water balance. *Ecohydrology* <https://doi.org/10.1002/eco.1987>

Warren, R.K., Pappas, C., Helbig, M., **Chasmer, L.E.** et al. (2018). Minor contribution of overstorey transpiration to landscape evapotranspiration in boreal permafrost peatlands. *Ecohydrology*, 11(5), <https://doi.org/10.1002/eco.1975>

Chasmer, L.E., Hopkinson, C.D., Petrone, R.M., & Sitar, M. (2017). Using multitemporal and multispectral airborne lidar to assess depth of peat loss and correspondence with a new active normalized burn ratio for wildfires. *Geophysical Research Letters*, 44(23), <https://doi.org/10.1002/2017GL075488>

University of Lethbridge (con't)

Craig Coburn (Associate Professor) is new Chair of the Department of Geography. He was on study leave in the past year and instructed no courses. He did, however, get a few things done. He also did some fieldwork where the Sun always shines, and is reasonably sure that his diffuse white beard didn't cause any measurement issues.



...with new remote sensing reflectance validation technology

Publications:

Coburn, C.A., Smith, A.M., Logie, G.S., & Kennedy, P. (2018). Radiometric and spectral comparison of inexpensive camera systems used for remote sensing. *International Journal of Remote Sensing* 39(15-16), 4869-4890. (Special issue on Unmanned Aerial Systems for Environmental Applications) <https://doi.org/10.1080/01431161.2018.1466085>

Logie, S.J. & **Coburn, C.A.** (2018). An investigation of the spectral and radiometric characteristics of low-cost digital cameras for use in UAV remote sensing. *International Journal of Remote Sensing* 39(15-16), 4891-4909. <https://doi.org/10.1080/01431161.2018.1488297>

Coburn, C.A. & Gerace, A. (2018). Special section guest editorial: Improved intercalibration of earth observation data. *Journal of Applied Remote Sensing – Special issue on improved intercalibration of earth observation data* 12(1), <https://doi.org/10.1117/1.JRS.12.012001>

Coburn, C.A. and Logie, G.S. (2018). Temporal dynamics of sand dune bidirectional reflectance characteristics for absolute radiometric calibration of optical remote sensing data. *Journal of Applied Remote Sensing* 12(1), <https://doi.org/10.1117/1.JRS.12.012006>

McCorkel, J., Bachmann, C.M., **Coburn, C.A.**, et al. (2018). An overview of the 2015 Algodones Sand Dunes field campaign to support sensor inter-calibration. *Journal of Applied Remote Sensing* 12(1), <https://doi.org/10.1117/1.JRS.12.012003>

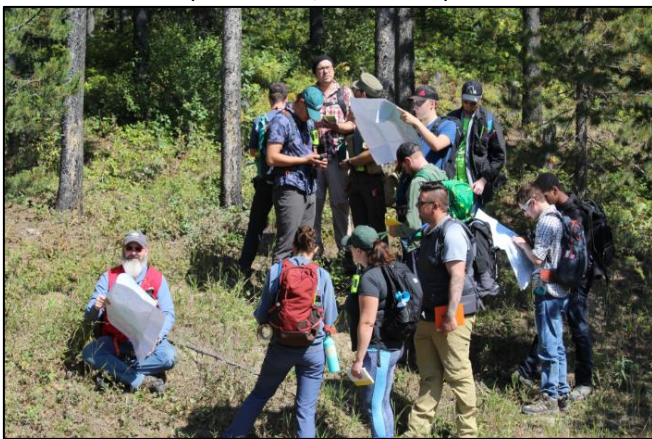
University of Lethbridge (con't)

Jolene Debert (PhD, Instructor) research has its roots in a commercial community excavation project in 2008. Our excavation revealed the first early Neolithic timber structure in Wales, adjacent work found a second. Working with Gwynedd Archaeological Trust she completed a full microwear analysis of the stone tools found. Early Neolithic timber structures are a bit of an enigma as they were not simply houses, or storehouses but also pivotal in the social and ideological changes that took place with the arrival of the Neolithic (4000BC) and all the material culture that that includes. With very few of them having been found it is important to extract as much information as possible from these short live unique buildings.

Courses taught:

- *Geomorphology* (Geog 2030): The scientific study of landforms comprising a spectrum of approaches from both historical and functional conceptual bases. Basic concepts covered in landform description and analysis are uniformity, evolution, complexity, and systems.
- *Geographical data and analysis* (Geog 2700): Introduction to quantitative methods and statistical problem solving in geography. Unique features of geographical data. Introductory methods for analysis and description of areal and point data. Central tendency, dispersion and shape of distributions. Classification methods. Use of Normal, Binomial, and Poisson distributions in geographical analysis. Bivariate correlation and regression analysis. Computer applications in statistical problem solving.
- *Introduction to geographical information systems* (Geog 2735): An introductory course in the geographical information sciences with an emphasis on concepts in geographical information systems (GIS) and remote sensing. Data structures and fundamental GIS functions. Introduction to remote sensing of the Earth's surface, aerial photography, photogrammetry, and visual image interpretation.

Marcus Dostie (Instructor, Ph.D. abd)



Field methods in Geog 3780 with Drs. Craig Coburn and Tom Johnson

Field Courses:

Field Research in Geography (Geog 3780): Described under Tom Johnston's profile.

Presentations:

Dostie MJ, Barrett L, Bonnell T, Henzi P and Kienzle SW 2018: Dynamics of South African vervet monkey habitat under extreme climate conditions. *Society for Conservation GIS conference*, Monterey, CA, June 15-18.

University of Lethbridge (con't)

Maura Hanrahan (Associate Professor) current research focuses on the historical geography of the Arctic and on the political geographies of the Inuit and the Newfoundland Mi'Kmaq,

Courses taught:

- *Intro to Native American Studies* (1000): Native culture and heritage from traditional through contemporary times. A general survey of disciplinary areas such as art, politics, language and history.
- *The Inuit of the Arctic & subarctic* (LibEd 3850): History and culture of the Inuit; emphasizes the post-European contact period and the political and related issues facing contemporary Inuit.
- *Mi'kmaq* (NAS 3850): Focuses on the philosophy, land-use, culture, history, and governance of the Mi'Kmaq of what is now Quebec, the Maritimes, and Newfoundland and Labrador; cover pre-European times to the present.



Water collection methodologies to improve water security in northern Labrador.



Graduate students:

Tsai Allen, October 2017 (MA) Responding to stakeholder concerns regarding hydraulic fracturing in Western Newfoundland. Memorial University of Newfoundland. (Dr. Hanrahan is adjunct at MUN)

Presentations:

- *Re-imagining Canada's Indigenous Landscape: Erasing the Ktaqmuk Mi'Kmaq*. Association for Canadian Studies in Ireland, Waterford, Ireland.
- *Constructing a legend: Captain Robert Abram Bartlett in the Arctic*. Sea Literature. Culture and History Section, Popular Culture Association, Indianapolis, Indiana, US.
- Inuit and Explorers in Arctic expedition narratives. Western Division-Canadian Association of Geographers, Edmonton, AB.
- *Mi'Kmaq and meat in the modern era: Crafting right relationships with all our relations*. Earth Day, University of Lethbridge.
- *Water governance in Canada in rural and Indigenous communities*. Brown Bag Series, Prentice Institute, University of Lethbridge.

Publications:

Hanrahan, M. (2018) *Unchained man: The Arctic life of Captain Robert Abram Bartlett*. St. John's, NL: Boulder Publications.

Hanrahan, M. (2018) Good and bad Indians: Romanticizing the Beothuk and denigrating the Mi'kmaq. In *Traces of ochre: Changing perspectives on the Beothuk*. F.Polack (Ed.) Toronto: University of Toronto Press.

University of Lethbridge (con't)

Chris Hopkinson (Professor) is the Campus Alberta Innovates Program (CAIP) Research Chair in Terrestrial Ecosystems Remote Sensing. Research is focused on integration of in situ, high-resolution remote sensing, spatial and temporal data sources to better understand such processes as glacial and periglacial dynamics in alpine environments to novel carbon balance assessment routines in forest environments.

Courses taught:

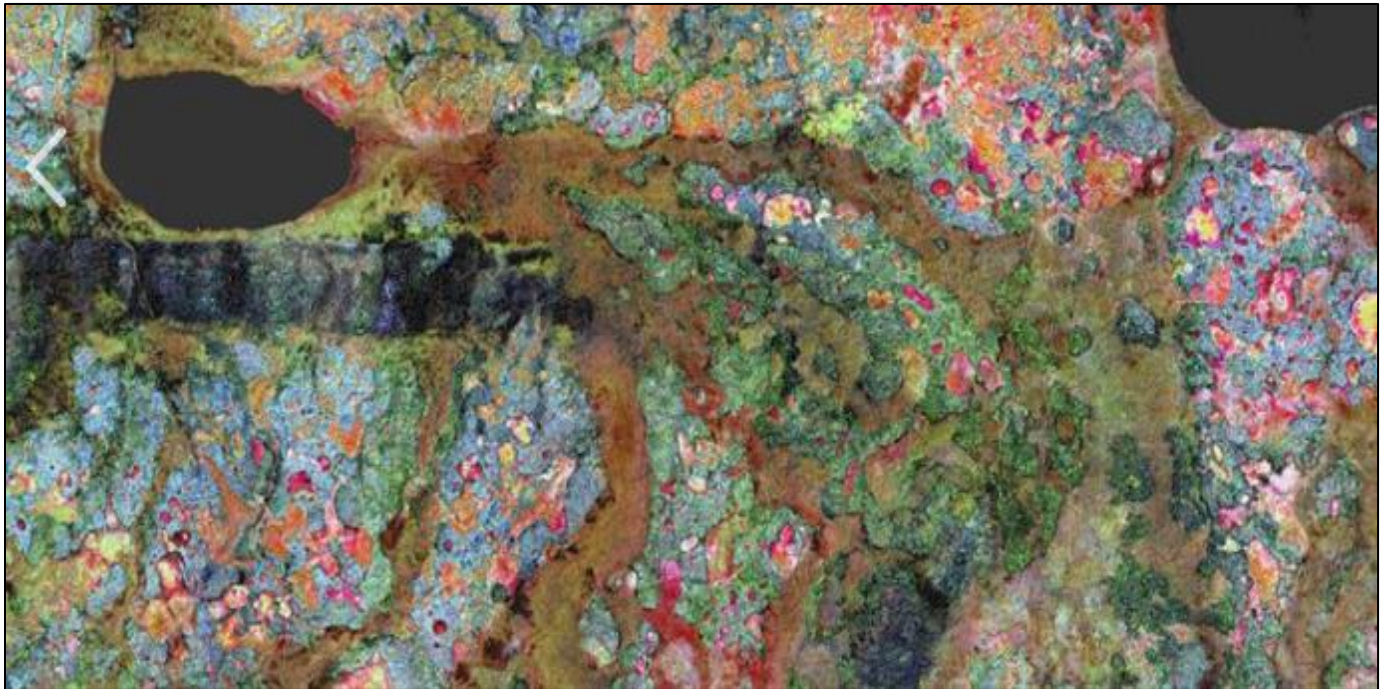
- *Hydrology I* (Geog3400): Components of the hydrological cycle, processes of water movement and storage, introduction to drainage basin form and process.
- *Advanced Hydrology II* (Geog 4400): Interactions of the atmosphere, surface and subsurface water systems. Hydrological modelling using geographical information systems.



Hydrometeorology equipment at West Castle



Down day following lidar and field surveys at Yellowknife



Multi-spectral lidar intensity false colour composite (3D spectral reflectance) area of Scotty Creek watershed, NWT

University of Lethbridge (con't)

Chris Hopkinson (con't)

Graduate students:

Linda Flade, PhD, 2017- *Remote sensing for wetland monitoring and reclamation in boreal environments*.

(Co-advisor Laura Chasmer)

Dennis Quick, MSc, 2017- Determining cirque contribution to late summer stream flows in the West Castle watershed. (Co-advisor Jim Byrne)

Celeste Barnes, PhD, 2016- Rocky Mountain snowpack and runoff event model optimization and visualization.

(Co-advisor Jim Byrne)

Kelsey Cartwright, MSc, 2016 - 2018 *Spatio-temporal variations in snow depth & driving mechanisms in a temperate mesoscale mountainous watershed*.

Maxim Okhrimenko, MSc, 2016 – 2018 *Applications of multi-spectral lidar: River channel bathymetry and canopy vegetation indices*.

Selected Invited Presentations:

- Okhrimenko, M., Coburn, C., Hopkinson, C. *Investigating multispectral lidar radiometry: An overview of the experimental framework*. International Geoscience and Remote Sensing, Valencia, Spain; July 22-27.
- Hopkinson, C. & Chasmer, L. *Can floods and forest fires be more accurately predicted using 3D technology?* Public lecture to Southern Alberta Council on Public Affairs. Televised by Shaw Media. April 12, 2018.
- Abib, T.H., Chasmer, L., Hopkinson, C., Mahoney, L.C. *Seismic line impacts on proximal boreal forest and wetland environments*. Silvacom Inc, February 23, 2018.
- *Lidar sensor owners/operators: The good, bad and ugly*. International Lidar Mapping Forum, Denver, USA; February 5-7, 2018.
- *Using/producing images as data: Using lidar to study ecosystem dynamics*. University of Lethbridge 'Take Two' Public Speaker Series, Lethbridge February 1, 2018.

Selected Publications:

Mahoney, C., Hall, R.J., **Hopkinson, C.** et al. (2018). A forest attribute mapping framework: A pilot study in a northern boreal forest, Northwest Territories, Canada. *Remote Sensing* 10(9), 1338-1338.

Xi, Z., **Hopkinson, C.**, & **Chasmer, L.** (2018). Filtering stems and branches from terrestrial laser scanning point clouds using deep 3-D fully convolutional networks. *Remote Sensing* 10(8), 1215.

Montgomery, J.S., **Hopkinson, C.**, Brisco, B., Patterson, S. & Rood, S.B. (2018). Wetland hydroperiod classification in the western prairies using multitemporal synthetic aperture radar. *Hydrological Processes* 32(10), 1476-1490.

Tai, X., Mackay, D.S., Sperry, J.S., Brooks, P., Anderegg, W.R.L., Flanagan, L.B., Hopkinson, C. et al. (2018).

Distributed plant hydraulic and hydrological modeling to understand the susceptibility of riparian woodland trees to drought-induced mortality. *Water Resources Research*. 54(7): 4901-4915. <https://doi.org/10.1029/2018WR022801>

Chasmer, L.E., Devito, K.J., **Hopkinson, C.D.**, & Petrone, R.M. (2018). Remote sensing of ecosystem trajectories as a proxy-indicator for watershed water balance. *Ecohydrology* <https://doi.org/10.1002/eco.1987>

Chasmer, L.E., **Hopkinson, C.D.**, Petrone, R.M., & Sitar, M. (2017). Using multitemporal and multispectral airborne lidar to assess depth of peat loss and correspondence with a new active normalized burn ratio for wildfires. *Geophysical Research Letters* 44(23): 11851-11859. <https://doi.org/10.1002/2017GL075488>

Budei, B.C., St-Onge, B., **Hopkinson, C.** & Audet, F. A. (2018). Identifying the genus or species of individual trees using a three-wavelength airborne lidar system. *Remote Sensing of Environment* 204, 632-647.

University of Lethbridge (con't)

Dan Johnson (Professor) studies the biogeography and ecology of insect-plant-pathogen interactions, invasive species, biometeorology, bioclimatology, and ecological agriculture.

Courses taught:

- *Geographical Data Analysis* (GEOG2700): Introduction to quantitative methods and statistical problem solving in geography. Introductory methods for analysis and description of areal and point data. Computer applications in statistical problem solving.
- *Biogeography* (GEOG2090 + Lab): Geographic and spatial relationships of individuals, species, ecosystems, and biomes.
- *Insect Biogeography and Ecology* (GEOG4030): Ecological relationships and biogeographic study of insects and their allies.
- *Current Events in Environmental Science* (ENVS4000): This course looks into current events in environmental science. These can include sustainability concepts, drought (causes, history, impacts management, futures); threatened and endangered species, climate policy, law, agreements, opportunities, and denial; climate sensitivity, change and damage control; invasive species; oceans, pollution, fisheries, global change, ecosystems; etc.
- *Insect sampling and taxonomy*. Field course in Grimshaw and Grande Prairie, Alberta, funded by Alberta Agriculture and Forestry.

Graduate Students:

Qing Xia, 2018. Analysis of historical and current distribution of Potato Psyllid (*Bactericera cockerelli*) and the induced plant disease Psyllid Yellows, in relation to standard climate indices. MSc

Stephnie Watson, 2018. Analysis of operational data from the Lethbridge Transit System with respect to the environment, population, and spatial context. MSc

Martha Lucia Astorquiza Enriquez, in progress. Environmental impact and management of food packaging at the University Of Lethbridge with respect to sustainability and student's choices.

Publications:

Horton, D.R., Miliczky, E., Lewis, T.M., Cooper, W.R., Waters, T.D., Wohleb, C.H., Johnson, D. et al. (2018). New North American records for the old world Psyllid *Heterotrioza chenopodii* (Reuter) (Hemiptera: Psylloidea: Trioziidae) with biological observations. *Proceedings of the Entomological Society of Washington* 120(1), 134-152.

Mirmasoudi, S., **Byrne, J.**, Kroebel, R., **Johnson, D.**, & MacDonald, R. (2018). A novel time-effective model for daily distributed solar radiation estimates across variable terrain. *International Journal of Energy and Environmental Engineering* 1-16.

University of Lethbridge (con't)

Hester Jiskoot (Associate Professor) research wants to increase process understanding of the controls on ice flow and mass balance of Arctic and Alpine glaciers through the quantification of often ignored edge effects, such as fog, tributary-trunk interactions and valley shape. Hester was also Secretary-Treasurer and Past-President WDCAG and is currently Associate Chief Editor of the *Journal of Glaciology*.

Courses taught:

- *Field Techniques in the Earth Sciences* (GEOG3710): Mapping, recording and analysis of physical and cultural features in the southern Alberta landscape. Field research methodologies.
- *Glaciology & Glacial Geomorphology* (GEOG3060): Perennial snow and ice and the effects of glaciers in the development of landforms. Weekly labs (photo on left).



Hiking with the University of Lethbridge Geography Club
Okotoks (Big Rock) Erratic

Graduate students:

Gaëlle Gilson, PhD, *Macrophysical properties and a climatology of Arctic coastal fog in East Greenland* (2014-18)

Jade Cooley, PhD, *The effects of fog, calving, and geothermal heat flux on the mass balance of Jan Mayen glaciers* (2017-present).

NSERC-USRA student:

Tyrell Nielsen: *Deriving macrophysical properties of Arctic fog over glacierized coasts from satellite imagery* (2017)

Selected Presentations:

- *Automating glacier confluence angle extraction using the Randolph Glacier Inventory and centrelines*. RemoteEx 2018 UAV/SfM workshop, Westcastle/Castle Mountain Resort, AB, 1 June 2018.
- *Arctic coastal fog over glaciers from ground, upper-air and remote sensing observations*. Spring Speaker Series. UMaine Climate Change Institute. 22 Feb 2018 & SFU, Vancouver. 5 Apr 2018. -invited.
- Jakober, L. & Jiskoot, H. *Automating confluence angle calculation in dendritic systems using GIS glacier geometry*. WDCAG-2018, U. of Alberta, Edmonton, 9-10 March 2018.
- *A Dutch whale of a tale in 1710: A record of polar survival, ice and weather in the Greenland Sea*. Invited Speaker Series, Climate Change Institute/History Dept. UMaine, Orono, Maine, 21 Feb 2018.
- *Flow and structure in a dendritic glacier with bedrock steps*. Northwest Glaciologists Meeting 2017, UBC, Vancouver, 13 Oct 2017.

University of Lethbridge (con't)

Hester Jiskoot (con't)

Publications:

Gilson, G.F., **Jiskoot, H.**, Cassano, J.J., Gultepe, I., & James, T.D.. (2018). The thermodynamic structure of Arctic coastal fog occurring during the melt season over east Greenland. *Boundary-Layer Meteorology* 168(3), 443-467. <https://doi.org/10.1007/s10546-018-0357-3>

Gilson, G.F., **Jiskoot, H.**, Cassano, J.J. & Nielsen, T.R. (2018). Radiosonde-derived temperature inversions and their association with fog over 37 melt seasons in East Greenland. *Journal of Geophysical Research-Atmospheres*. <https://doi.org/10.1029/2018JD028886>

Van Wychen, W., Copland, L., **Jiskoot, H.**, Gray, L., Sharp, M., & Burgess, D. (2018). Surface velocities of glaciers in western Canada from speckle-tracking of ALOS PALSAR and RADARSAT-2 data. *Canadian Journal of Remote Sensing* 44 (1), 57-66. <https://doi.org/10.1080/07038992.2018.1433529>

Jiskoot, H., Fox, T.A. & Van Wychen, W. (2017). Flow and structure in a dendritic glacier with bedrock steps. *Journal of Glaciology* 63(241), 912-928. <https://doi.org/10.1017/jog.2017.58>

Workshops:

Using UAVs and structure from motion (SfM) in cryospheric research. RemoteEx-2018. Westcastle Field Station/Castle Mountain Resort, AB. 27 May – 2 Jun 2018; <https://www.uleth.ca/unews/article/geography-researchers-bring-remotex-2018-workshop-u-l#.W38BebgnZ6l>

University of Lethbridge (con't)

Tom Johnston (Associate Professor)

Courses taught:

Field Research in Geography (Geog 3780): Designed to introduce students to the research process in a field setting and is very well received by students who have taken the course. Students complete two common exercises and then working in groups of three – it is bear country we are working in – students design and undertake a self-directed field-based research project. Regarding the two common exercises, one is structured along the lines of a scientific paper, while the other is written up in the form of a consulting report. This introduces students to two different styles of writing.

Along with stewarding students through the process of problem identification, research design, execution and the write up, the underlying aim of the course is to break down perceived and artificial barriers between human and physical geography. Students are also encouraged (and expected) to let the question drive the methodology and techniques used, rather than tailor questions to particular methods and techniques. Finally, in the past students have used approaches running the gamut from quantitative approaches to qualitative and mixed-method approaches.



Geog 3780 at the University of Lethbridge West Castle Field.

Publications:

Benoit, A., Johnston, T., MacLachlan, I., & Ramsey, D. (2018). Identifying ranching landscape values in the Calgary, Alberta region: Implications for land-use planning. *The Canadian Geographer* 62(2), 212-224.

<https://doi.org/10.1111/cag.12464>

University of Lethbridge (con't)

Stefan Kienzle (Professor; Dept. Chair 2017-2018) researches hydrological modelling, and is interested in mapping climate change and impacts, and wildlife reserve GIS implementation.



Dr. Kienzle received the Water’s Next Award, Academic category, at the Canadian Water Summit, July 2018
Congratulations Stefan!

Courses taught:

- *Introduction to GIS* (GEOG 3740): Geographical data analysis, modelling, and functions; Spatial database management systems; variety of computer applications.
- *Advanced GIS* (GEOG 4740): Examines advanced and applied topics in geographical information science with a focus on spatial analysis, data visualization, geographical problem solving, and new directions.



Field work in South Africa.

Graduate Students:

Trevor Deering (MSc): *Mapping and spatial modelling of soils in the Castle River watershed*

Marcus Dostie (PhD): *Spatiotemporal landscapes: How environmental factors influence primate behaviour*

University of Lethbridge (con't)

Stefan Kienzle (con't)

Selected Presentations:

- *Implementing GIS towards improved wildlife reserve management in South Africa*. Society for Conservation GIS conference, Monterey, CA, June 15-18, 2018
- Dostie, MJ, Barrett L, Bonnell T, Henzi P and Kienzle SW. *Dynamics of South African vervet monkey habitat under extreme climate conditions*. Society for Conservation GIS conference, Monterey, CA, June 15-18, 2018.
- An example of GIS story-telling: Mapping climate change in Alberta, Canada. *Society for Conservation GIS conference (Thundertalks)*, Monterey, CA, June 15-18, 2018.
- Kienzle SW and Clark C. *Creation of an interactive website for mapping changes of 43 climate indices for Alberta, Canada, for the period 1950 to 2010*. Universities Council on Water Resources Conference, Pittsburgh, PA, June 26-28, 2018.
- *Mapping changes of 43 climate indices at high spatial resolution for Alberta, Canada, for the period 1950 to 2010*. At Climate Data Homogenization and Analysis of Climate Variability, Trends and Extremes, Poster Presentation, European Geosciences Union General Assembly, 7–12 April 2018, Vienna, Austria.
- *The Last Lecture*. Public lecture series organized by the Student Union of the University of Lethbridge. April 10, 2018 (Invited).
- *Creation and management of wildlife reserves in South Africa*. Earth Day Symposium. University of Lethbridge, April 10, 2018 (Invited).
- *An inconvenient sequel: Truth to power*, by Al Gore. Lethbridge International Film Festival. Film moderator and public panel discussion, Lethbridge, March 09, 2018. (Invited)
- *Alberta Water under conditions of climate change. What should we do?* Public lecture and panel discussion at Pat Carlson speaker series: Climate change and the future of energy. Medicine Hat, Jan. 25, 2018. (Invited)
- *Alberta Water under conditions of climate change. What should we do? Public Lecture and Panel Discussion at Pat Carlson Speaker Series: Climate change and the future of energy*. Lethbridge, Jan. 24, 2018. (Invited)
- *Using Alberta's climate records to evaluate impacts of climate change on biodiversity*. Ecosystem Services and Biodiversity Science Symposium, Lethbridge, Alberta, Nov. 14, 2017 (Invited).

Publications:

Kienzle, S.W. (2018). Has it become warmer in Alberta? Mapping temperature changes for the period 1950–2010 across Alberta, Canada. *The Canadian Geographer* 62(2), 144-162.

Matthew Letts (Professor, **Associate Dean**) is a plant ecologist and microclimatologist in the Department of Geography, whose research centres upon plant ecophysiological and photosynthetic acclimation to environmental stress.

His current focus is on senior administrative duties as *Associate Dean in the Faculty of Arts and Science*, and as Academic Program Director for the Destination Project during the construction of the Science and Academic Building. (<http://www.destinationproject.ca>)

Matt is delighted to have the opportunity to introduce incoming students to the wonders of geography, by teaching *Introduction to Physical Geography* (GEOG 1000) again this year.

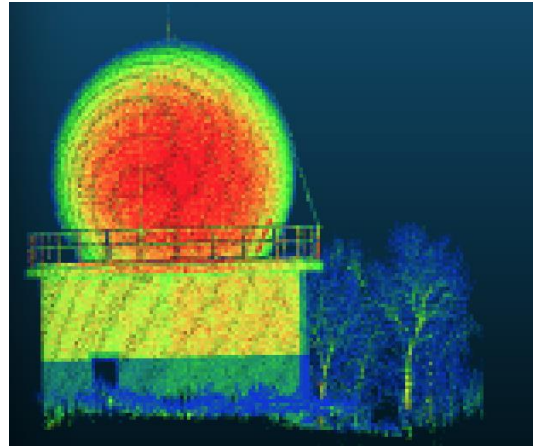
University of Lethbridge (con't)

Derek Peddle (Professor) is Professor of Geography and Director of the Alberta Terrestrial Imaging Centre (ATIC) at the University of Lethbridge. His remote sensing and geospatial research involves software development and applications in environmental change in forestry, agriculture, mountain/northern terrain analysis, watersheds and oceans, with field experience spanning from the high Arctic to the tropical south Pacific.

He is Past-President of the Canadian Remote Sensing Society (CRSS-SCT), an Associate Editor of the *Canadian Journal of Remote Sensing* (CJRS-JCT), and has been General Conference Chair of the Canadian Symposium on Remote Sensing.

Field Courses:

Remote Sensing Field Techniques (Geography 4710/5710): Building on previous offerings in the Rocky Mountains, coulees, riparian, agricultural and grassland environments, this course develops major field concepts involving measurement and observation in support of satellite, airborne and UAV remote sensing, including validation. A host of laboratory, field and low-altitude sensors and equipment are deployed (e.g. spectroradiometers, goniometers, UAV, terrestrial LiDAR, LAI devices, sun photometers, etc) involving land, aquatic, and atmospheric applications in agricultural, wetland and urban parkland settings with external government and private sector partners.



Ground satellite image receiving station & terrestrial laser scan of same at U of Lethbridge

Graduate students:

Adam Stanford, 2018. Msc. *Spectrodirectional investigation of a geometric-optical canopy reflectance model by laboratory simulation*. (Co-supervised with **Craig Coburn**)

Presentations:

- **Stanford, A., Coburn, C.A., & Peddle, D.R.** *Geometric optical canopy reflectance model validation from laboratory goniometer BRDF measurements over forest object targets*. 39th Canadian Symposium on Remote Sensing, 19-21 June 2018, Saskatoon, SK.
- *Excellence in Canadian earth observation science for Arctic and northern monitoring and applications*. Invited Presentation at EUMETSAT, April 2018, Germany
- [Also co-organised/chaired 4 Special Sessions on Arctic Earth Observation at EUMETSAT Satellite Conference, September 2018, Estonia]

Publications:

Mahdianpari, M., Salehi, B., Mohammadimanesh, F., Larsen, G., & **Peddle, D.R.** (2018). Mapping land-based oil spills using high spatial resolution unmanned aerial vehicle imagery and electromagnetic induction survey data. *Journal of Applied Remote Sensing*, 12(3), 036015.

Upcoming Lead Guest Editor:

Special issue on Arctic and northern monitoring and applications - *Canadian Journal of Remote Sensing / Journal canadien de télédétection* 2018-2019.

University of Lethbridge (con't)

Ivan Townshend (Professor) is an urban and social geographer with interests in social structure, community, disasters, health, and well-being in both urban and rural contexts.

Graduates students:

Trina Burgess (2017). *Residential location of millennials: a Calgary case study*. MA, Geography.

Rafaela Marasco (2018). *The divided city: Income inequality and housing disadvantage in Calgary*. MA, Urban and Regional Studies.

Presentations:

- Townshend, I. & Marasco, R. (2018). *The geography of housing disadvantage in Calgary: Postulated and empirical domains of influence*. IGU Urban Commission, Montreal, August 2018.
- *Concepts, perceptions and realities of neighbourhood income inequality and social inclusion*. Panel discussion. Federation of Calgary Communities, Southview Community Association, April 17, 2018.
- *The three cities of Calgary: Community differences within regions of income growth, stability, and decline*. Keynote Presentation, Federation of Calgary Communities, Calgary, October 2017.
- *The changing social ecology of Calgary within a 'Three Cities' context*. IGU Urban Commission, Salvador, Brazil, August 2017.

Publications

Kulig, J. C., **Townshend, I.**, Kosteniuk, J., Karunanayake, C., Labrecque, M.E., & MacLeod, M.L.P. (2018). Perceptions of sense of community and community engagement among rural nurses: Results of a national survey. *International Journal of Nursing Studies* 88, 60-70.

Townshend, I., Miller, B., Evans, L. (2018). *Socio-spatial polarization in an age of income inequality: An exploration of neighbourhood change in Calgary's "Three Cities"*. Neighbourhood Change Research Partnership Research paper 241. University of Toronto.

Kulig, J.C., **Townshend, I.**, Botey, A.P., & Shepard, B. (2018). "Hope is in our hands": Impacts of the Slave Lake wildfires in Alberta, Canada on children. In J. Szente (Ed.) *Assisting Young Children Caught in Disasters* (pp. 143-156). New York: Springer.

University of Lethbridge (con't)

Julie Young (Assistant Professor) is Canada Research Chair (Tier 2) in Critical Border Studies. In addition to her PhD she holds Graduate Diploma in Refugee and Migration Studies from York University.

Her research program aims to better understand North America's borders in the context of broader global processes as well as what local practices tell us about where, how, and for whom borders work. Her research interests are broadly in the areas of political geography, critical border studies, refugee and migration policies and practices, and North and Central America.

Julie's work has been published in *ACME: An International E-Journal for Critical Geographies, Environment & Planning D: Society and Space, Journal of International Migration and Integration*, and *Refuge: Canada's Journal on Refugees*.

Courses taught:

Political Geography: Borders and Displacements (GEOG 3850 B)

Graduate students:

Wael Nasser, 2018. *Irregular migration and asylum in Canada: A study of irregular migration from Nigeria to Canada*. B.A.

Presentations:

- Good Gingrich, L., & **Young, J.E.E.** *The NAFTA border's dispossessions: Social exclusion within, across, and in-between the Mexico-Guatemala borderlands*. International Association for the Study of Forced Migration Conference, Thessaloniki, Greece, 25 July, 2018.
- Wu, G., & **Young, J.E.E.** (2018) Workshop on *Migration justice in Canada-US border communities* at Allied Media Conference (AMC), Detroit, MI, 16 June, 2018.
- Good Gingrich, L., & **Young, J.E.E.** *The NAFTA border's dispossessions: Social exclusion within, across, and in-between the Mexico-Guatemala borderlands* at Association of American Geographers (AAG) Annual Meeting, New Orleans, LA, 11 April, 2018.
- *Contested border crossings: Locating refugee deterrence around the Canada-US border*. Annual Meeting of the Western Division of the Canadian Association of Geographers (WDCAG), Edmonton, AB, 10 March, 2018.
- *Border as archive: Contesting the Canada-US border*. Bordering Practices in Migration and Refugee Protection Workshop, Balsillie School of International Affairs, Waterloo, ON, 9 November, 2018.

Publications

Young, J.E.E. (2018). Seeing like a border city: Refugee politics at the borders of city and nation-state. *Environment and Planning C: Politics and Space*. <https://doi.org/10.1177/2399654418790765>

Young, J.E.E. (2018). The Mexico-Canada border: Extraterritorial border control and the production of "economic refugees." *International Journal of Migration and Border Studies* 4(1-2): 35-50.

Young, J.E.E, Good Gingrich, L., Wiebe, A., & Harder, M. (2017). Tactical borderwork: Central American migrant women negotiating the southern border of Mexico. In L. Good Gingrich & S. Köngeter (Eds.), *Transnational social policy: Social support in a world on the move* (pp. 200-221). New York: Routledge.

Upcoming Conference:

The Line Crossed Us: New Directions in Critical Border Studies

From June 14-15, **2019**, University of Lethbridge will host a conference that aims to highlight the work of emerging scholars and community-based researchers in border studies. The conference brings indigenous and migration politics into conversation while also historicizing contemporary border issues and "crises."

<https://www.lethbridgeborderstudies.com/the-2019-conference>

University of Lethbridge (con't)

Wei Xu (Professor) is a geographer interested in how humans interact with nature and how we organize ourselves in place and space.

Graduate students

Linglin Xu, M.A. 2017. *Integrated Assessment of Sustainable Agricultural Food Production System in Shaanxi, China*.

Qianhui Bai, M.A. 2018. Wearing four hats: the role of local government in the making of planned innovation parks in China.

Wang, Chaowen, M.Sc. 2018. *Geographies of online social interaction: A big data analytics approach to social media platform Sina Weibo*.

Presentations

- *Informality and urban space: An epistemological interrogation*. Urban China Research Network Conference, Wuhan University, Wuhan, June 23-25, 2018.
- Pan, Z., **Xu, Wei** & Wang, G. *Will migrant urban income suppress or promote rural production: Modeling the effects of migrant urban income in rural China*. Urban China Research Network Conference, Wuhan University, Wuhan, June 23-25, 2018.
- Xu, Wei & Bai, Q. *Wearing four timely hats: the role of local governments in the making of planned innovation parks in China*. The 7th Cross-Strait Economic Geography Conference. Taipei University, Taipei, May 31-June, 2018.
- *Informality and informal urban space: An epistemological interrogation*. AAG Annual Meeting, New Orleans, April 9-14, 2018.
- Yu, Li and **Wei Xu**. *Housing the urban poor: A tale of two cities*. AAG Annual Meeting, New Orleans, April 9-14, 2018.
- *Theorizing social-spatial (in)justice in Shanghai's urban redevelopment, Making cities work for inclusive development in China*. The Education University of Hong Kong, Hong Kong, Dec. 5-6, 2017.

Publications

Wei Xu, Zehan Pan and Guixin Wang. (2018). Market transition, labor market dynamics and reconfiguration of earning determinants structure in China. *Cities* 79: 113-123 <https://doi.org/10.1016/j.cities.2018.02.029>

Wu, Qianbo & **Wei Xu** (2018) The theoretical logic of the transformation of the traditional town to the special small-town in the context of urban society. *Economic Geography* 38(2):82-89 (in Chinese).

Jiang, Haining, **Wei Xu** & Wenzhong Zhang (2018) Transportation accessibility and location choice of Japanese-funded electronic information manufacturing firms in Shanghai. *Sustainability* 10(2): 390-422.

Li, Jihong, Rongxu Qiu, Kaiming Li, & **Wei Xu** (2018) Informal land development on the urban fringe. *Sustainability* 10 (1) 128 -145; doi:10.3390/su10010128

Qiu, Rongxu, **Wei Xu**, John Zhang & Karl Staenz (2018). Modelling and simulating industrial land use evolution in Shanghai, China. *Journal of Geographical Systems* 23(1): 57-83.

Pan Zehan, **Xu Wei**, Yulu Huang & Wang Guixin (2018). The effects of labour migration on rural household production in inland China: Do landform conditions matter? *Population, Space and Place* 24 (2), e2086 DOI: 10.1002/psp.2086.

Liu, Y., Shen, J., **Xu, W.**, & Wang, G. (2017). From school to university to work: migration of highly educated youths in China. *The Annals of Regional Science* 59(3), 651-676.

University of Northern BC (UNBC) (submitted by Gail Fondahl)

Updates: new faculty, new PhD & new Post-Docs

UNBC is delighted to welcome Dr. **Joseph Shea** to the program – as an Environmental Geomatics specialist. Joe held a post-doctoral fellowship at UNBC in 2010-2012, after receiving his PhD in Physical Geography from UBC. Since then he worked as Senior Glacier Hydrologist at the International Center for Integrated Mountain Development in Kathmandu, Nepal (2012-2016), and then as Research Scientist (2016-2017) at the Coldwater Lab in Canmore, Alberta (which is part of the Centre for Hydrology at the University of Saskatchewan).



Dr. **Sinead Earley**, instructor at UNBC for the past three years, successfully defended her PhD thesis this spring, *Forests, beetles, and climates in British Columbia's Central Interior: historical geographies of paradigm change in forest science and management, 1945 – present*, at the Department of Geography and Planning, Queen's University. Sinead covered off for a whole slew of courses, while various colleagues took sabbaticals, and she took a very active role in mentoring UNBC's Geography Club while here. She will be missed by students and colleagues alike!

UNBC also welcomed several post-doctoral fellows this year:



Dr. **May Farrales** (Supervisors Drs. **Sarah de Leeuw & Margot Parkes**) has joined UNBC's Health Arts Research Centre and the ECHO Network, to examine arts-based and narrative inquiry approaches to understanding ways of addressing the impacts of resource extractive industries on rural and remote communities.

Connected with both Geography and Health Sciences, Dr. **Dawn Hoogeveen** (Drs. **Henry Harder & Margot Parkes**), focuses on the cumulative impacts of resource extraction, including an analysis of the epistemological underpinnings of resource extraction research on health and how health can be better integrated into Environmental Assessment Policy.



Dr. **Michael Lait** (supervised by Dr. **Greg Halseth & Marleen Morris**) is working with UNBC's Community Development Institute, from its Fort St. John office, on a community indicators program as well as an age-friendly assessment and action plan for BC's largest oil and gas community.

Dr. **Kriti Mukherjee** (with Dr. **Brian Menounos**) is focusing her research on glaciology, as part of a project to secure future water for the mountain west, focusing on the cryospheric changes.



UNBC (con't)



Dr. **Marieka Sax** (with Dr. **Catherine Nolin**) is with the Cumulative Impacts Research Consortium, studying how women and men of different backgrounds experience the benefits and burdens of resource development in British Columbia.



A Banting Postdoctoral Fellow with UNBC's Health Arts Research Centre, Dr. **Vanessa Sloan Morgan** (with Dr. **Margot Parkes**) is exploring youth-led decision-making at the intersections of environment, health, and communities in northern BC.

We are excited to have this group of highly accomplished and dynamic young scholars at UNBC!

Field Schools and New Branding

This past year Geography offered two field courses. **Catherine Nolin** once again offered (for the 8th time) her popular UNBC Geography + Rights Action Field School to Guatemala (undergraduate & graduate level), taking 10 students south in May to examine issues of human rights and (in)justice.



UNBC (con't)

Brian Menounos and **Joe Shea** led a Geography field school in the Death Valley area of California, also in May. It focused on the geological and geomorphological formations of the region. Temperatures hit 46°C in the valley, while in the nearby mountains the group 'enjoyed' snow.



Geography has rebranded and relaunched its two introductory courses this year: *Planet Earth* (GEOG 101, formerly *Introduction to Human Geography*) and *Earth from Above* (GEOG 100, formerly *Natural Hazards*). Fall enrollments suggest that the students like the new titles!

Completed Graduate Students (2018)

The following students graduated this year:

Cherise Chrispen, MA Natural Resource and Environmental Studies (Geography), *Conservation and Consumption: Conflicted Bedfellows in Sea Turtle Conservation* (**Zoë Meletis**)

R.G. Christopher Turner, PhD Natural Resource and Environmental Studies, *A Geography of Reconciliation: An Effective, Just and Lawful Strategy for Managing First Nation Overlap Disputes in British Columbia* (**Gail Fondahl** & Michael Murphy)

Kirk Walker, MA Interdisciplinary Studies (Geography + Anthropology), *Landscape and Collective Memory in Post-Conflict Ayacucho, Peru: Narratives and Photography of Survivors* (**Catherine Nolin**)

UNBC (con't)

WDCAG 2018 Annual Conference attendee Rebecca DeLorey (MA NRES Planning) brought home the award for top Masters presentation. Several faculty members, graduate students, and undergraduate students gave presentations, and a great time was had by all.

Glen Thielmann received the J. Alistair McVey Award for Teaching Excellence for his work at D.P. Todd Secondary School, Prince George.



UNBC Geographers on the way to WDCAG 2018

Awards and Acclamations

Dr. Brian Menounos received the Distinguished Scholar Award from UNBC's Natural Resources and Environment Studies Institute (NRESi). This award is bestowed on an NRESi member who has demonstrated a profound influence on inter-disciplinary and/or applied research or service relating to natural resources and/or environment in British Columbia.

UNBC (con't)



Dr. Chris Turner was awarded the Governor General's Gold Medal at UNBC's 2018 Commencement, in recognition of outstanding academic achievement at the graduate level.

Exchange student **Lisa Schroeder** won the undergraduate paper award from the Canadian Women and Geography study group at this year's Canadian Association of Geographers conference in Quebec City. Lisa, a Geography student at the Rheinische Friedrich-Wilhelms-Universität Bonn, spent two semesters at UNBC. Her paper, titled "Unconventional Movements: Feminist Activist Use of Creative Spatialities to Increase Access to Safe Abortions," began as a class project with Dr. **Zoë Meletis**.

UNBC Geography alumnus **Warren Grafton** was recognized by Prince George Chamber of Commerce, as one of Prince George's [#Top40Under40](#) for his professional accomplishments and his volunteer work in the community.

2018 Publications (so far!)

Blake, W., Boeckx, P., Stock, B., Smith, H., Bodé, S., Upadhyay, H., Gaspar, L., Goddard, R., Lennard, A.T., Lizaga, I., Lobb, D.A., Owens, P., **Petticrew, E.** et al. (2018) A deconvolutional Bayesian mixing model approach for river basin sediment source apportionment. *Scientific Reports* 8:13073. DOI:10.1038/s41598-018-30905-9

Farrales, M. (2018) Colonial, settler colonial tactics, and Filipino-Canadian heteronormativities at play on the basketball court. In Diaz, R., Largo, M. & F. Pino (Eds) *Diasporic Intimacies, Queer Filipinos/as and Canadian Imaginaries*. Series of the Critical Ethnic Studies Association. Northwestern University Press, pp. 183-189.

Geertsema, M., Blais-Stevens, A., Kwoli, E., **Menounos, B.** et al. (2018) Sensitive clay landslide detection and characterization in and around Lakelse Lake, British Columbia, Canada, *Sedimentary Geology*, 364: 217-227.

Hanlon, N. (2018) Environments of health and care: The contributions of political economy. In V. Crooks, G. Andrews, and J. Pearce (eds.) *Handbook of Health Geography*. New York: Routledge, pp. 88-93.

Hanlon, N. (2018) Older persons, place, and health care accessibility. In M. Skinner, G. Andrews and M. Cutchin (eds.) *Geographical Gerontology: Perspectives, Concepts, Approaches*. New York: Routledge, pp. 229-240.

Halseth, G., Pitkänen, K., Adamiak, C., & Vepsäläinen, M. (2018) Rights to the rural: Comparison of political and property/land rights of second homes owners in Canada, Finland and Poland. In M. Hall and D. Müller (eds.), *Routledge International Handbook on Second Homes*. New York: Routledge, pp. 52-63.

Halseth, G. and Ryser, L. (2018) *Towards a Political Economy of Resource Dependent Regions*. New York: Routledge.

Hoogeveen, D. (2018) Sovereign intentions: Gold mining law and mineral staking in British Columbia. *BC Studies* 198, 81-101.

UNBC (con't)

Koiter, A., Owens, P., Petticrew, E., Lobb, D. (2018). Assessment of particle size and organic matter correction factors in sediment source fingerprinting investigations: the example of two contrasting watersheds in Canada. *Geoderma*, 325: 195-207.

Lait, M. (2018). The paradox of nature and elite second homes: examining the eco-social impacts of Meech Lake cottagers in Gatineau Park, Québec. *Annals of Leisure Research*, 21(3): 302-323.

Mukherjee, K., Bhattacharya, A., Pieczonka, T., Ghosh, S. & Bolch, T. (2018). Glacier mass budget and climate reanalysis data indicate a climate shift around 2000 in Lahaul-Spiti, western Himalaya. *Climatic Change* 148 (1-2): 219-233.

Nolin, C. (2018) Memory-truth-justice: The crisis of the living in the search for Guatemala's dead and disappeared. Chapter 2 in *Human and Environmental Justice in Guatemala*, Eds. S. Henighan and C. Johnson. Toronto, ON: University of Toronto Press.

Philip, D., Kraaijenbrin, A., **Shea, J.**, Litt, M., Steiner, J., Treichler, D., Koch, I. & Immerzeel, W. (2018). Mapping surface temperatures on a debris-covered glacier with an unmanned aerial vehicle. *Frontiers in Earth Science | Cryospheric Sciences*. doi.org/10.3389/feart.2018.00064

Pickering, S. & **C. Nolin** (2017). Transnational connections: Could Canada's private sponsorship program provide a model for successful refugee resettlement? in *Anthropology News Maintaining Refuge Series*. doi: 10.1111/AN.488

Ryser, L, **Halseth, G.** & Markey, S. (2018). Restructuring of rural governance in a rapidly growing resource town: The case of Kitimat, BC, Canada. *EchoGéo* 43.

Stigter, E., Litt, M., Steiner, J., Bonekamp P., **Shea, J.**, Bierkens, M. & Immerzeel, W. (2018). The importance of snow sublimation on a Himalayan glacier. *Frontiers in Earth Science* 6:108. doi: 10.3389/feart.2018.00108

Tielidze, L. G. & **Wheate, R. D.** (2018). The greater Caucasus glacier inventory (Russia, Georgia and Azerbaijan), *The Cryosphere* 12: 81-94. <https://doi.org/10.5194/tc-12-81-2018>

Wayand, N., Marsh, C., **Shea, J.** & Pomeroy, J. (2018). Globally scalable alpine snow metrics. *Remote Sensing of Environment* 213:61-72.

Grants Received

Ellen Petticrew, with a group of colleagues (P. Owens, S. Dery and M. Parkes) received a \$500,000 grant (2018-2022) from the Nechako Environmental Enhancement Fund to pursue integrated watershed research.

Marieka Sax, in collaboration with Dr. Daniel Tubb at the University of New Brunswick and the support of a group of colleagues (**C. Nolin, G. Halseth**, M. Gislason, T. Beckley, S. O'Donnell) received a \$55,000 Insight Development Grant (2018-2020) from SSHRC for their research project "Buzz, Boom, and Bust: A comparative case study of the gendered impacts of the speculative phase of resource development in New Brunswick and British Columbia."

UNBC (con't)

Other News

Zoë Meletis once again played a key role in helping to organize this year's *Inspiring Women Among Us* series of events in November 2017. <https://www.unbc.ca/inspiring-women>. Zoë presented on research conducted during IWAU with two UNBC undergraduate students (Laura Pyke and Ashley Riceman) at the Feminist Geography Conference that preceded the CAG and IGU: *Feminist Geographies 2018: in/during Troubled Times: Dialogues, Interventions and Praxis*.



Catherine Nolin traveled to Bangladesh with the Guatemala Forensic Anthropology Foundation in May, to provide forensic expertise on the Rohingya refugee situation.

Gail Fondahl carried out fieldwork in eastern Siberia (Zabaykalsiy Kray) in early March, on her SSRHC project, "Indigenous Territorial Rights in the Russian Federation: A Quarter Century Onward). With colleagues from Russia and Lithuania, she visited indigenous Evenki villages where she had worked in 1994, to interview people on recent developments in land issues. The group also presented their research project at the Zabaykal Regional Museum in the city of Chita.



University of Victoria (UVic) (submitted by Kinga Menu)

Faculty News:

Crystal Tremblay: The project 'Mapping Waste Governance' created participatory videos (PV) which are part of a series filmed in Obunga, Kenya as a partnership development which seeks to identify, examine and document grassroots social innovations and challenges in waste governance in different geographic regions. In April 2018, members of the Kisumu Waste Network (KIWAN) and the Obunga Residents Association participated in a 5-day PV workshop to explore and document challenges and social innovations in waste governance in their community. This project is part of an international action research initiative to map waste governance and social innovations through multiple case studies on waste picker initiatives in Buenos Aires (Argentina), Dar es Salaam (Tanzania), Kisumu (Kenya), Managua (Nicaragua), São Paulo (Brazil), Vancouver & Montreal (Canada). Mapping Waste Governance seeks to map successful waste management initiatives, arrangements and policies in some cities in the global South and global North. For more information please visit: <https://www.cbri.uvic.ca/mapping-waste>

- Kambuta: <https://youtu.be/WTAoMVQkVX8>
- Obunga waste innovation: <https://www.youtube.com/watch?v=FTD871B2k5s>
- USAFI BORA: <https://www.youtube.com/watch?v=uqwsPZbvW4U>

Publications:

The University of Victoria Geography department recently launched 'Mapping our Common Ground' a resource and practical guide for community mapping. It is available at:

<http://mapping.uvic.ca/sites/mapping.uvic.ca/files/Mapping%20Our%20Common%20Ground%202018%20low%20res.pdf>

Tremblay, C., Spilker, R., Nagel, R., Robinson, J. & Brown, L. (2018). Assessing the outcomes of Community-University engagement networks in a Canadian context. *Engaged Scholar Journal*, 3(2): 1-21.

Webinars:

A recent webinar series focused on Community Based Research and positive social change:

<http://communityresearchcanada.ca/webinars/>

Tremblay, C., Goemans, M. & Kim, I. (2018). Evaluating impact in community-campus engagement: Towards a community-first approach <https://carleton.ca/communityfirst/cu-events/webinar-evaluating-impact-in-community-campus-engagement-towards-a-community-first-approach/>

Tremblay, C. Exploring why community-based research is an important mechanism for societal change – Part 2: The international perspective. <http://communityresearchcanada.ca/wp-content/uploads/2018/08/Why-CBR-is-an-important-mechanism-for-societal-change-International-Perspective-slides.pdf>

Sophia Carodenuto has been working in collaboration with the Government of Vanuatu to design and implement workable solutions to the challenge of climate change. Vanuatu is a small island developing country in the South Pacific whose population is spread over 65 inhabited islands where the majority of people's income are based on smallholder agriculture. In the face of increasing tropical storms and sea level rise, integrating tree planting and sustainable forest management into the landscape has the potential to significantly increase the resilience of communities in Vanuatu.



UVic (con't)

Dr. Carodenuto has been collaborating with Vanuatu's Department of Forestry and local NGOs to develop a nation-wide tree planting and agroforestry program.

Four Maasai from Tanzania will be visiting the Department of Geography at UVic in late October as part of a Connections grant headed by **Phil Dearden** and including Departmental members **Crystal Tremblay**, and **Sophia Cardenuto**. The visit builds on previous connections working with the Kesho Trust, a Tanzanian NGO working on grass-roots community engagement that was founded by Departmental Adjunct, **Bruce Downie**, who is currently based in Tanzania. The Maasai are interested to gain exposure to approaches to improved land planning and management and will undertake extended field visits to both Clayoquot Sound and the Yukon to meet with, and learn from, First Nation initiatives in these areas.



(Photo: Phil Dearden)

Cam Owens

This May Victoria students were offered a unique learning opportunity through a course called *Food and the City* co-lead by entrepreneur Chris Hildreth (of Topsoil Innovative Urban Agriculture) and **Cam Owens**. This course was aimed at students concerned with urban sustainability, social justice, and good food, who were also wanting to learn how to make a living in a way that aligned with their values. While many courses focus on the socio-ecological issues we face, this course was directed at taking action. In an intensive two-week period, students explored the ecological, economic, and social rationale for local, organic agriculture and learned about the business of growing food in the city in a hands-on way. Check out this entertaining video overview produced by student Levi Hildebrand:



<https://www.youtube.com/watch?v=5aQ3Jk3vY3M&t=9s>

UVic (con't)



Food in the City



UVic (con't)

CindyAnn Rose-Redwood (Assistant Teaching Professor) and **Reuben Rose-Redwood** (Associate Research Professor) are currently working on an upcoming edited book entitled *International Encounters: Higher Education and the International Student Experience*. This edited volume examines the diversity of international student experiences in the top four destination countries in the English-speaking world (United States, United Kingdom, Australia, and Canada) and explores the challenges and opportunities of “international encounters” on college and university campuses.

Graduate and Alumni student news:

Lisa Wood (PhD 2012) accepted an Assistant professor position at UNBC in Prince George

Bethany Coulthard (PhD 2016) accepted an Assistant professor position at University of Nevada in Las Vegas

UVic Libraries hired their 2nd UVic Geography graduate student to conduct introductory geospatial workshops for anyone on campus. **Alex Goudine**, with a combined undergraduate degree from UVic in Geomatics & Computer Science is this year's graduate student (in his Masters Program supervised by **Chris Bone**).

Department Publications (selected)

Alfaro, R.I., vanAkker, L., Berg, J., Van Hezewijk, B., Zhang, Q.-B., Hebda, R., **Smith, D.J.** & Axelson, J.N. (2018). Change in the periodicity of a cyclical forest defoliator: an indicator of ecosystem alteration in Western Canada. *Forest Ecology and Management* 430:117-125.

Batavia, C., Nelson, M.P., **Darimont, C.T.**, Paquet, P.C., Ripple, W.J., & Wallach, A.D. (2018). The elephant (head) in the room: A critical look at trophy hunting. *Conservation Letters*, e12565.

Ching, J., Mills, G., Bechtel, B., See, L., **Feddema, J.** et al. (2018). World Urban Database and Access Portal Tools (WUDAPT), an urban weather, climate and environmental modeling infrastructure for the Anthropocene. *Bulletin of the American Meteorological Society* <https://doi.org/10.1175/BAMS-D-16-0236.1>

Cominelli, S., Devillers, R., Yurk, H., MacGillivray, A., McWhinnie, L., & **Canessa, R.** (2018). Noise exposure from commercial shipping for the southern resident killer whale population. *Marine Pollution Bulletin* 136, 177-200.

Hainstock, T., **Cloutier, D.**, & Penning, M. (2017). From home to 'home': Mapping the caregiver journey in the transition from home care into residential care. *Journal of Aging Studies* 43, 32-39.

Rose-Redwood, R., Kitchin, R., Rickards, L., Rossi, U., Datta, A., & Crampton, J. (2018). The possibilities and limits to dialogue. *Dialogues in Human Geography* 8(2), 109-123.

Springer, S. (2018). Property is the mother of famine: On dispossession, wages, and the threat of hunger. *Political Geography* 62, 201-203.

Zhu, X., Skidmore, A.K., Darvishzadeh, R., **Niemann, K.O.**, Liu, J., Shi, Y. and Wang, T., 2018. Foliar and woody materials discriminated using terrestrial LiDAR in a mixed natural forest. *International Journal of Applied Earth Observation and Geoinformation* 64, 43-50.

Ziegler, J.A., Silberg, J.N., Araujo, G., Labaja, J., Ponzio, A., Rollins, R. and **Dearden, P.**, 2018. A guilty pleasure: Tourist perspectives on the ethics of feeding whale sharks in Oslob, Philippines. *Tourism Management* 68, 264-274.

Other recent UVic Geography news at: <http://www.uvic.ca/socialsciences/geography/home/news/index.php>