



**News Digest of the Canadian Association of Geographers
No. 453, September 18, 2017**

Compiled by Dan Smith cag@geog.uvic.ca

U Winnipeg's Nora Casson investigates harmful algal blooms in water bodies across Canada: A new study contains news relevant to the health of Canada's freshwaters. Dr. Nora Casson, assistant professor in the Department of Geography at UWinnipeg, and a co-author on the study, points out that the two lakes in Manitoba included in the study, Killarney Lake and Lake Winnipeg, are among the very highest rates of phosphorus recycling. By critically reviewing data from 70 water bodies, the authors found that phosphorus release from sediments was a common phenomenon in Canadian freshwaters, but that rates of this process varied dramatically among water bodies. The highest rates were found in small prairie lakes in Manitoba, Saskatchewan, and Alberta, while the lowest rates were found in boreal shield lakes "This study has important implications for how we manage freshwaters in Manitoba," said Casson, "Our lakes are among the most vulnerable in the country, and these findings suggest that by failing to control nutrient pollution today, we are contributing to water quality problems and algal blooms for years to come." [Wire Service](#)

UVic Geography alumna, Jill Harvey discusses how to reduce the damage being done to BC's forests by fires: By Late August there had been over 1100 forest fires in BC during 2017. With 1 million hectares burned. Harvey, who graduated from UVic in 2017 with a PhD in geography, looks both to the past and the future. "The mechanisms driving global climate change and ecosystem response are numerous," she says. "Therefore, the research questions I ask target understanding changing disturbance regimes and tree growth-climate responses. Looking back into the past and into the future, my research examines both the causes and consequences of environmental change in temperate forests with a special interest in the outcomes for forest structure, ecosystem function and management implications." "I conducted an intensive survey of historical patterns of fire severity in the Cariboo Forest Region. Many of my plots were in forested areas next to grasslands. When I collected data ... these forests were incredibly dense with many young trees in the understory. I sampled hundreds of these young trees and when I got back to the lab and determined the age of these trees—almost all of them established in the late 1800s over a 20-year period. Prior to the late 1800s, frequent fire in these grassland-adjacent forests eliminated seedlings and kept forests open, encouraging the growth of native grass communities and promoting habitat for many animal species. Now, these dense forests have changed the composition of the herbaceous understory and eliminated habitat for multiple ungulate and bird species." [Focus on Victoria](#)

Simon Fraser U Geography alumna, Michelle Chen, improves local environment through sustainable business: Michelle Chen and business partner James Witshire are creating meaningful change in the local community through their sustainable business West Coast Woodpickers (WCWP). Chen, SFU Faculty of Environment alumna, and Wiltshire, SFU Geography graduate, divert wood waste from the landfill by upcycling it into beautiful, west-coast souvenirs for adventurers and tourists. "I was originally interested in entrepreneurship as a graphic and web designer, but I wanted to reduce waste and help people, too," shares Chen. She first learned of the wood waste problem during her four-month cohort with SFU's Change Lab in which she worked with students of various departments towards the City of Vancouver's Greenest City Action Plan. Through this experience she was able to identify a similar problem within the tourism sector. "When I was working in tourism, all of the tourists wanted to buy souvenirs to commemorate their experiences; but, the souvenirs weren't made locally and were poor quality products for the prices. We thought, 'what if we made local, sustainable gifts and souvenirs to help the local economy and share it with tourists?'" [SFU Sustainability](#)

U Victoria's Reuben Rose-Redwood on Manhattan's confusing avenue addresses: The process of numbering Manhattan addresses dates back to 1793, when the city instituted a system first used in Philadelphia three years earlier: odd numbers on one side, even numbers on the other, both ascending in the same direction. There was a critical flaw, unfortunately: each subsequent building on the same street received the next number, regardless of whether it was adjacent to the previous structure or separated by vacant land. When new buildings were constructed in between, the system fell apart. As most of Manhattan's streets became more standardized, there was much rejoicing among census takers, mail carriers and tax collectors, as well as the publishers of city directories, the precursor to phone books, said Reuben Rose-Redwood, an associate professor of geography at the University of Victoria who has studied this history. "City directories were more profitable with better information," Dr. Rose-Redwood said. "In city after city, these directory publishers would come in and basically lobby the City Council to adopt a numbering system." The avenues, however, would not be similarly tamed. [New York Times](#)

Memorial U's Keith Storey predicts plummeting population for rural Newfoundland and Labrador: According to a new study, the population of Newfoundland and Labrador will be much older and much smaller by 2036. Some towns may vanish altogether. "Smaller communities are, in the next 20 years, going to disappear," said Keith Storey, a geography professor at Memorial University who heads up the Harris Centre's Population Project. "We cannot save everything everywhere," he said. The report, the second of two studies from the centre forecasting a drastic population decline across rural parts of the province. Its projections combine the province's birth and death rates with its past patterns of in- and out-migration to get a look at who will be living here two decades on. The decline is the result of low birth rates, a rapidly aging population — Newfoundland and Labrador is aging faster than any other province in the country — and young people leaving rural areas to find work. Storey likens that migration to a "naturally occurring" process of resettlement. [CBCNews | Newfoundland and Labrador](#)

Lynn Moorman a recipient of a Mount Royal University's 2017 Distinguished Faculty Award helps lead first public voyage to Franklin Expedition Wreckage Site: [Lynn's](#) research focuses on Spatial literacy and how people think in a geographic sense, her outstanding teaching in the areas of GIS, Geospatial Innovation and Geomorphology, and her leadership active and many contributions to service within Mount Royal and beyond, were recognized in her selection as a recipient of [Mount Royal's Distinguished Faculty Award](#). Lynn was asked to be a resource expert on a two-week trip in September that will take passengers to the Western Arctic, and will lead hikes to interpret the Arctic landscape for them, including glaciers and the Greenland ice sheet. Details [here](#)

Brock U's Kevin Turner receives Canada Foundation for Innovation funding: Turner, Assistant Professor in the Department of Geography and Tourism Studies, researches how climate change impacts are transforming the landscape of a lake-rich area of the Yukon called Old Crow Flats. He is mapping how carbon moves through the complex lake and river system as permafrost thaws. With his JELF funding, Turner will obtain drones and GPS systems that he will use to create three-dimensional maps twice each season over several years. These maps will be used with sampled sediment, vegetation and water to document rates of landscape changes and associated influences on the carbon balance, as well as river and lake environments. "It is important for us to continue development of innovative and integrated approaches to monitor landscape changes and impacts across vast northern regions," Turner said. "Findings will improve predictions of how these important landscapes will respond to future climate change." The John R. Evans Leaders Fund is used by the CFI to help Canadian institutions attract and retain top researchers, by providing the infrastructure they need to remain or become leaders in their field. [Brock News](#)

U Waterloo's Peter A. Johnson and McGill U's Renee Sieber look at the hidden costs of open data: As more local governments open their data for public use, the emphasis is often on "free" -- using open source tools to freely share already-created government datasets, often with pro bono help from outside groups. But according to a new report, there are unforeseen costs when it comes pushing government datasets out of public-facing platforms -- especially when geospatial data is involved. Costs related to data collection, publishing, data sharing, maintenance and updates are increasingly driving governments to third-party providers to help with hosting, standardization and analytical tools for data inspection, the researchers found. GIS implementation also has associated costs to train staff, develop standards, create valuations for geospatial data, connect data to various user communities and get feedback on challenges. Due to these direct costs, some governments are more likely to avoid opening datasets that need complex assessment or anonymization techniques for GIS concerns. Johnson and Sieber identified four areas where the benefits of open geospatial data can generate unexpected costs. [GCN](#)

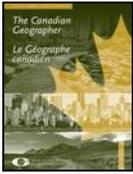
McMaster U's Gavin J. Andrews named a Fellow of the UK's Royal Society of Arts: Gavin J. Andrews, a professor in McMaster's Department of Health, Aging and Society, has been named a Fellow of the UK's Royal Society of Arts (Royal Society for the encouragement of Arts, Manufactures and Commerce). The Royal Society of Arts is made up of a global network of fellows -- 28,000 admitted since its inception in 1754 - who have a broad mission to enrich society through ideas and action and research. Andrews, the Graduate Chair of the Department of Health, Aging & Society, is a leading health geographer. His wide-ranging research explores the dynamics between space, place and aging, holistic medicine, health care work, phobias, sports and fitness, health histories and popular music. Most notably, his work has been influential in promoting an era of research in Health Geography that explores the physical and conscious unfolding of the environment. This opens up the possibility that energies and atmospheres are involved in health and well-being. [McMaster Daily News](#)



The Canadian Association of Geographers-Ontario Division annual meeting will be hosted by Queen's University on **October 20-21, 2017**. The theme of the conference is Geographical Perspectives: Approaching a Complex World.

Please see the [conference website](#) for more details

New in [The Canadian Geographer / Le Géographe canadien](#)



Ian G. Baird. 2017. [An anti-racism methodology: The Native Sons and Daughters and racism against Asians in Nanaimo, British Columbia, Canada](#). The Canadian Geographer / Le Géographe canadien. DOI: 10.1111/cag.12406

Over the past number of years there has been increased interest in racism and anti-racism amongst geographers. This paper focuses on one type of anti-racism methodology that relates to critically interrogating my own white colonial settler ancestors and particularly the institutions and structures of which they were a part, and using those understandings to resist the contemporary increase in white supremacy and anti-Asian racism. It also seeks to demonstrate the links between anti-racism and decolonization. Particularly, I examine the Native Sons and Daughters of British Columbia, Canada, in the Nanaimo city area, where my great-grandparents from northern England and Scotland settled as working-class miners at the beginning of the 20th century. I examine white working-class settler racism against Asians, especially as practiced against Chinese and Japanese immigrants. While I do not argue that this is the only or even the most important type of anti-racism methodology, this sort of research and associated production of knowledge can be useful in resisting present-day anti-Asian racism, even though I acknowledge that I am still embedded in colonial structures of racism and white privilege.

Luke Bergmann and David O'Sullivan. 2017. [Reimagining GIScience for relational spaces](#). The Canadian Geographer / Le Géographe canadien. DOI:10.1111/cag.12405

A mismatch between largely absolute Newtonian models of space in GIScience and the relational spaces of critical human geography has contributed to mutual disinterest between the fields. Critical GIS has offered an intellectual critique of GIScience without substantially altering how particular key geographical concepts are expressed in data structures. Although keystone ideas in GIScience such as Tobler's "First Law" and the modifiable areal unit problem speak to enduring concerns of human geography, they have drawn little interest from that field. Here, we suggest one way to reformulate the computational approach to the region for relational space, so that regions emerge not through proximity in an absolute space or similarities in intensive properties, but according to their similarities in relations. We show how this might operate theoretically and empirically, working through three illustrative examples. Our approach gestures toward reformulating key terms in GIScience like distance, proximity, networks, and spatial building blocks such as the polygon. Re-engaging the challenges of representing geographical concepts computationally can yield new kinds of GIS and GIScience resonant with theoretical ideas in human geography, and also lead to critical human geographic practices less antagonistic to computation.

Pascale M. Biron, Thomas Buffin-Bélanger and Simon Massé. 2017. [The need for river management and stream restoration practices to integrate hydrogeomorphology](#). The Canadian Geographer / Le Géographe canadien. DOI:10.1111/cag.12407

There is growing support amongst scientists worldwide about the need for a shift in river management approaches to include hydrogeomorphic processes. However, the degree to which these concepts are transferred to governmental agencies and practitioners varies widely. In Quebec, for example, many stream restoration projects are based on the (incorrect) assumption that river mobility and its inevitable

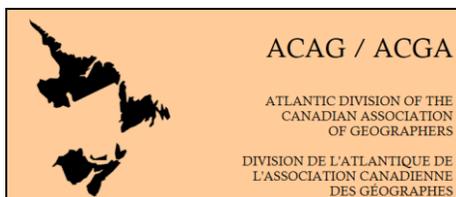
consequences (bank erosion of meanders, presence of woody debris in the channel) are problematic for salmonids. This paper presents examples drawn from current guidelines on stream restoration for fish habitat in Quebec to demonstrate the need to improve the knowledge exchange among scientists and decision makers about the positive impact of river mobility and large wood dynamics on biodiversity. Our observations reveal that existing guidelines for stream restoration in Quebec need to be revised to better integrate hydrogeomorphic concepts and to no longer assume that maintaining rivers in a static state is beneficial for fish. Adopting the “freedom space for rivers” approach would likely result in improved habitat as it combines natural processes related to mobility, flooding, and riparian wetland connectivity to determine the minimal space around rivers where development should not be allowed, thus allowing river processes to be restored.

Jen Jack Giesecking. 2017. [Operating anew: Queering GIS with good enough software](#). The Canadian Geographer / Le Géographe canadien. DOI:10.1111/cag.12397

In the last decade, conversations around queering of GIScience emerged. Drawing on literature from feminist and queer critical GIS, with special attention to the under-examined political economy of GIS, I suggest that the critical project of queering all of GIS, both GIScience and GISystems, requires not just recognition of the labour and lives of queers and research in geographies of sexualities. Based upon a queer feminist political economic critique and evidenced in my teaching critical GIS at two elite liberal arts colleges, I argue that the “status quo” between ESRI and geography as a field must be interrupted. Extending a critical GIS focus beyond data structures and data ethics, I argue that geographic researchers and instructors have a responsibility in queering our choice and production of software, algorithms, and code alike. I call this production and choice of democratic, accessible, and useful software by, for, and about the needs of its users, good enough software.

Pernille Goodbrand, Tamara Humphrey and Jyoti Gondek. 2017. [Relatives or rentals? Secondary suites through a multigenerational family lens](#). The Canadian Geographer / Le Géographe canadien. DOI:10.1111/cag.12399

Most discussions and debates surrounding secondary suites in Canada focus on the law and market factors as they relate to a rental unit, often at the expense of social behaviours that drive the need for such housing options. An analysis of 294 publicly available applications for land use amendments to the City of Calgary through the Calgary Planning Commission show that one in four applicants are proposing suites for family reasons. The reasons include: 1) fostering generational independence, 2) ease of providing care for family members, 3) sharing household tasks and expenses, and 4) facilitating the immigration of family members and accommodating visiting family. This paper presents a different perspective on secondary suites, one that is relatively understudied as a result of limited definitions of terminology to describe experiences and the use of home spaces. A broader understanding of family is recommended to encourage decisions on secondary suite applications that appreciate social behaviour equally with planning regulations.



[ACAG / ACGA 28th Annual Meeting](#). October 27-29, 2017. Department of Geography and Environmental Studies, Saint Mary's University, Halifax, NS. Further details TBA

Hot Papers by Canadian Geographers

Kimberly Badal, Fidel Rampers, Wayne A. Warner, Adetunji T. Toriola, Hamish Mohammed, Harold-Alexis Scheffel, Rehanna Ali, Murrie Moosoodeen, Siva Konduru, Adaila Russel and Rajini Haraksingh. 2017. [A situational analysis of breast cancer early detection services in Trinidad and Tobago](#). Cancer Causes & Control.

André-Marcel Baril, John T. Buszkiewicz, Pascale M. Biron, Quinton E. Phelps and James W.A. Grant. 2017. [Lake Sturgeon \(*Acipenser fulvescens*\) spawning habitat: A quantitative review](#). Canadian Journal of Fisheries and Aquatic Sciences. doi.org/10.1139/cjfas-2017-0100

Drew Bush, Renée Sieber, Gale Seiler, and Mark Chandler. 2017. [University-level Teaching of Anthropogenic Global Climate Change \(AGCC\) via Student Inquiry](#). Studies in Science Education. DOI:10.1080/03057267.2017.1319632

Derek Congram, Michael Kenyhercz and Arthur Gill Green. 2017. [Grave mapping in support of the search for missing persons in conflict contexts](#). Forensic Science International 278: 260-268. [[open access until 24 Sept](#)]

Alena M. Ebeling-Schuld and Chris T. Darimont. 2017. [Online hunting forums identify achievement as prominent among multiple satisfactions](#). Wildlife Society Bulletin. DOI:10.1002/wsb.796

Elena A. Favaro, Christopher H. Hugenholtz and Thomas E. Barchyn. 2017. [Evolution and diagnostic utility of aeolian rat-tails: A new type of abrasion feature on Earth and Mars](#). Aeolian Research 28:91–98.

Jessica L. Fitterer, Trisalyn A. Nelson and Timothy Stockwell. 2017. [The positive effects of increased foot patrols on the incidence of liquor infractions and assaults in the Granville Street Entertainment Area of Vancouver British Columbia Canada](#). Applied Geography 87:97-105.

Leon Hoffman, Valorie A. Crooks and Jeremy Snyder. 2017. [Pills in paradise: Exploring international lifestyle and retirement migrants' perceptions of the pharmaceutical sector on Cozumel Island, Mexico](#). Health & Place 47:139–146.

Carolynne Hultquist, Elena Sava, Guido Cervone and Nigel Waters. 2018. Damage assessment of the urban environment during disasters using volunteered geographic information. In: [Big Data for Regional Science](#). Laurie A. Schintler and Zhenhua Chen (Editors). New York: Routledge. 214-228.

Daniel H. Jarvis, Mark P. Wachowiak, Dan F. Walters and John M. Kovacs. 2017. [Adoption of web-based spatial tools by agricultural producers: Conversations with seven Northeastern Ontario farmers using the Geovisage decision support system](#). Agriculture 7:69. DOI:10.3390/agriculture7080069

Peter Johnson, Renee Sieber, Teresa Scassa, Monica Stephens, and Pamel Robinson. 2017. [The cost\(s\) of geospatial open data](#). Transactions in GIScience 21:434–445.

Vincent Lecours, Rodolphe Devillers, Evan N. Edinger and Craig J. Brown. 2017. [Influence of artefacts in marine digital terrain models on habitat maps and species distribution models: a multiscale assessment](#). Remote Sensing in Ecology and Conservation. DOI:10.1002/rse2.49

Emilie Novaczek, Rodolphe Devillers, Evan Edinger and Luiz Melloc. 2017. [High-resolution seafloor mapping to describe coastal denning habitat of a Canadian species at risk: Atlantic wolffish \(*Anarhichas lupus*\)](#). Canadian Journal of Fisheries and Aquatic Sciences, doi.org/10.1139/cjfas-2016-0414

Neil Nunn. 2017. [Emotional and relational approaches to masculine knowledge](#). Social & Cultural Geography 18:354–370.

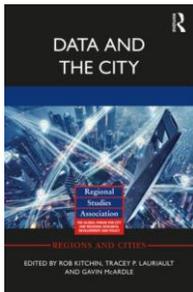
Camilo Ordóñez-Barona. 2017. [How different ethno-cultural groups value urban forests and its implications for managing urban nature in a multicultural landscape: A systematic review of the literature](#). Urban Forestry & Urban Greening 26:65-77.

Cameron Proctor, Bing Lu and Yuhong He. 2017. [Determining the absorption coefficients of decay pigments in decomposing monocots](#). Remote Sensing of Environment 199:137-153.

Weeberb J. Requia, Matthew D. Adams, Altaf Arain and Mark Ferguson. 2017. [Particulate matter intake fractions for vehicular emissions at elementary schools in Hamilton, Canada: an assessment of outdoor and indoor exposure](#). Air Quality, Atmosphere & Health.

New Book

Rob Kitchin, Tracey P. Lauriault and Gavin McArdle (Editors). 2018. [Data and the City](#). Routledge 230 pages.



There is a long history of governments, businesses, science and citizens producing and utilizing data in order to monitor, regulate, profit from and make sense of the urban world. Recently, we have entered the age of big data, and now many aspects of everyday urban life are being captured as data and city management is mediated through data-driven technologies. *Data and the City* is the first edited collection to provide an interdisciplinary analysis of how this new era of urban big data is reshaping how we come to know and govern cities, and the implications of such a transformation. This book looks at the creation of real-time cities and data-driven urbanism and considers the relationships at play. By taking a philosophical, political, practical and technical approach to urban data, the authors analyse the ways in which data is produced and framed within socio-technical systems. They then examine the constellation of existing and emerging urban data technologies. The volume concludes by considering the social and political ramifications of data-driven urbanism, questioning whom it serves and for what ends. This book, the companion volume to 2016's *Code and the City*, offers the first critical reflection on the relationship between data, data practices and the city, and how we come to know and understand cities through data. It will be crucial reading for those who wish to understand and conceptualize urban big data, data-driven urbanism and the development of smart cities.

Recent Theses and Dissertations

Josh Labove. 2017. [Lines that matter: reading the Charter at the Canada-US border](#). PhD dissertation. Department of Geography, Simon Fraser University, Burnaby, British Columbia. Supervisor: Nick Blomley.

Ian Lockhead. 2017. [Generating 3D data, simulations, and geovisual interfaces for 21st century risk assessment and communication in multilevel space](#). MSc thesis. Department of Geography, Simon Fraser University, Burnaby, British Columbia. Supervisor: Nicholas Hedley.

Xinru Li. 2017. [Exploring the reversibility of marine climate change impacts under CO2 removal from the atmosphere](#). MSc thesis. Department of Geography, Simon Fraser University, Burnaby, British Columbia. Supervisor: Kirsten Zickfeld.

Alana Marie Rader. 2017. [Foredune morphodynamics and seasonal sediment budget patterns: Humboldt Bay National Wildlife Refuge, Northern California, USA](#). MSc thesis. Department of Geography, University of Victoria, Victoria, British Columbia. Supervisor: Ian Walker.

Other “Geographical” News

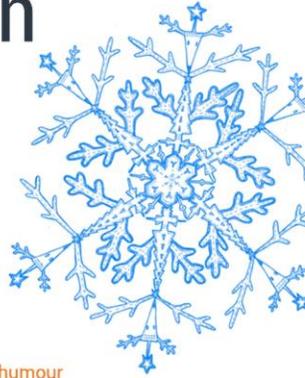
Universities prepare for new equity guidelines for Canada Research Chairs: Under the new measures, universities with five or more chairholders are expected by October 27 to have posted to their websites a statement of commitment to equity and inclusion, a plan on how equity concerns will be handled and reported within the institution, and other details aimed at improving awareness and public accountability. By December, they will have to submit an action plan to the secretariat outlining how they will counter the low numbers of chairholders from the four designated groups at their institutions. [University Affairs](#)

Tackling the world's problems with an arts degree: Conventional wisdom is that an arts degree is a one-way ticket to life behind a barista bar. The facts tell us otherwise. While graduates from science, technology, engineering and math (STEM fields) have higher starting salaries, those with arts and humanities degrees catch up over time. According to Statistics Canada, Canadians with a degree in geography earn an average of \$72,000 per year, about the same as those with degrees in the biomedical sciences. In other countries the picture is similarly rosy: in the United Kingdom, 55 per cent of professional leaders are liberal arts graduates. [Ottawa Citizen](#)

The hottest temperature ever measured on Earth was in Labrador. It was 2370 C: A team of geologists has determined the highest temperature ever recorded on the surface of Earth, and it happened in what is now Canada — specifically, in Labrador’s Mistastin crater. When the famed crater was formed by a meteorite strike roughly 36 million years ago, temperatures there briefly reached higher than 2370 degrees Celsius. At roughly half the temperature of the surface of the sun, it is the most intense heat scientists have recorded ever occurring on earth’s outer surface. “This new temperature determination is the highest recorded from any crustal rock,” reads the paper, which was authored by a team from Australia’s Curtin University and included contributors from the University of Western Ontario. Normally, it’s almost impossible to figure out the temperature at the time of a fleeting event that occurred millions of years ago. But in this case scientists had a key indicator: complex geological analysis of samples from the crater found zircon that had been transformed into cubic zirconia, a transition that can only occur at temperatures hotter than 2370 degrees. Although the Mistastin crater has eroded somewhat, it is estimated to have initially been 28 kilometres wide, roughly large enough to swallow all of Toronto. [National Post](#)

Some Not So “Geographical” News

Winter in Canada



Session will cover:

- Safety when outdoors in extreme weather
- Clothing to wear
- Keeping healthy in winter
- And some Canadian winter humour



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