



**News Digest of the Canadian Association of Geographers  
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**Carleton U's Gita Ljubicic leading collaborative mapping project in running for Google Impact Challenge:** Everyone has heard about how the Inuit have so many words for snow and ice, says Joel Heath, executive director of the Arctic Eider Society and a research associate at Carleton University. That part of the Inuktitut language – terminology around land use activities– is the most vulnerable to being lost. With increasing expense for equipment and more dangerous and less predictable ice conditions, not as many Inuit are spending time on the land, and less of the nuanced language for ice conditions is being passed on to the next generation. The linguistic loss means a distinct way of knowing polar regions that helps better understand environmental change is also at risk. Siku, for instance, is the Inuktitut word for sea ice that forms the heart of the landscape for Inuit and wildlife in winter. Heath, an associate with a participatory mapping evaluation project led by Gita Ljubicic in Carleton's Department of Geography and Environmental Studies, has been working with Inuit and Cree communities in the eastern Hudson Bay region of Nunavut and Quebec's Nunavik region to record that knowledge via SIKU: the Inuit Knowledge Wiki and Social Mapping Platform. This collaborative mapping platform has been designed to help illuminate large-scale cumulative impacts of environmental change and development projects. It's a community-driven initiative that's caught the eye of the map experts at Google, who selected SIKU as one of 10 Canadian finalists for the Google Impact Challenge. The Silicon Valley tech behemoth is funding 10 non-profit innovators that use technology to solve the world's biggest social challenges [*Vote for the Arctic Eider Society's SIKU platform [here](#) until March 28, 2017*]. For Heath and the Arctic Eider Society he founded after undertaking his PhD research in Sanikiluaq, Nunavut, either amount would be a boon, allowing him to spend less time filling out grant applications and more time developing tools to connect Sanikiluaq with its neighbouring communities of Inukjuak, Umiujaq, Kuujjuaraapik and Chisasibi in Quebec. The North is huge. Hudson Bay alone is 819,900 square kilometres, larger than Alberta. Each community has deep knowledge of their own territory, but the region's size makes comprehensive assessment of environmental change impossible without collaboration. "The communities each have their own areas they can access by Ski-Doo," Heath says, "and they get a piece of the puzzle, and by putting each of the pieces together, we can get the big picture. We created the prototype for SIKU to connect our work in the five communities. It's not just doing the same work in different places. It's helping connect them collaboratively." Already, the prototype for the platform is providing near-real time results of indicators of environmental change. On the ice, observations are recorded about wildlife, contaminants, ice conditions and Inuit knowledge. Once back in Wi-Fi range, this information is linked to current satellite data via an upload to a shared platform. Information is then instantly available to other platform users, providing both valuable safety information and an up-to-date record of changing environmental conditions. [Carleton Newsroom](#)

**U Saskatchewan's John Pomeroy launches 3D mapping initiative of an Alberta mountain that could help predict the next flood or drought:** An abandoned chairlift marks what once was a developed ski run that is now a destination for scientists who hope this site will lead to better forecasting of floods, drought and other weather patterns. At 2,100 metres' elevation, Fortress Ridge in Kananaskis, Alta., boasts deep snow and an expansive view of the surrounding mountains. "This is a good place for us to really understand how the snow is moving around and how fast it is melting on different slopes," says John Pomeroy, the director of the Centre for Hydrology at the University of Saskatchewan. He says the research is crucial because the water from these mountains supplies cities and irrigates farmland — and is also the source of summer flooding like the 2013 melt that led to massive floods in southern Alberta that forced 100,000 people from their homes and caused an estimated \$6 billion in damage. Scientific equipment, fixed into the ground, records a swath of measurements including snow depth and the intensity of the sun. But during this trip, Pomeroy and three of his colleagues have lugged up other gear aboard snowmobiles, including a mostly Styrofoam drone designed to take aerial photographs. The team has already taken hundreds of images of this mountain and stitched them together to create a digital model that shows every snowdrift and gully. Pomeroy calls the resulting 3D image "revolutionary" because it helps simulate what can happen with the snow under different weather scenarios, and this type of scientific modelling is a key part of a new multimillion-dollar water research project. [CBCNews | Edmonton](#)

**U Calgary's Geoffrey Hay's award-winning research project gives rise to MyHEAT Inc.:** A University of Calgary geography professor has spun his award-winning research project — which maps the waste heat emissions of homes and commercial buildings — into a growing startup business based in Calgary. MyHEAT Inc., which publicly launched its energy efficiency platform online in 2015, has mapped heat loss in more than 600,000 homes across Alberta, with plans underway to expand its coverage into several Ontario municipalities this year. The working model for the business is based on technology developed by the research team of Geoffrey Hay, an associate professor of geography, who co-founded MyHEAT along with Jeff Taylor, the company's president and CEO. Using a state-of-the-art airborne thermal infrared camera to capture high-resolution images that map the heat loss of buildings, MyHEAT seeks to help people reduce the cost of heating their homes while also lowering greenhouse gas emissions. With a team that includes a number of graduate and PhD students from geography and geomatic engineering, MyHEAT has mapped residences and commercial buildings in the seven largest Alberta cities. The company is now focusing on mapping an additional nine cities in this province as well as seven municipalities in Ontario. By the end of 2017, MyHEAT will web-enable heat loss maps for nearly 1.3 million single detached houses in 19 cities and four towns across Canada. That coverage reaches three out of every five Albertans and one in every seven Canadians. The detail provided by the infrared images is so precise that it can pinpoint specific areas where homes are leaking heat. Doors, windows and poorly insulated attics are typical trouble spots. "You can lose 20 per cent of your home's energy through your attic hatch," says Hay. "Consider if you nicked your jugular while shaving. It may only be a small cut but you really need to stop the bleeding. Well, homes bleed heat and that heat loss is costing money, reducing comfort and wasting valuable resources." [Calgary UToday](#)

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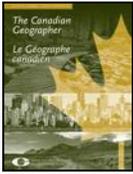
### **CAG2017 Schedule Released!**

[CAG2017](#) will feature an opening panel "*A Just and Sustainable Toronto?*" on the afternoon of Monday, May 29. The panel, chaired by Linda Peake, will feature Deb Cowen, Miriam Diamond, Roger Keil, Deborah McGregor, and Rinaldo Walcott.

The organizing committee has finalized the schedule and it is now available for viewing. Click [HERE](#)

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



Silvia L. Vilches, Maria J. Pighini, Mary Stewart and Hillel Goelman. 2017. [Documenting the urbanistic policy bias in rural early childhood services: Toward a functional definition of rurality](#). The Canadian Geographer / Le Géographe canadien. DOI:10.1111/cag.12359

*Abstract:* One of the promises of the Canada Health Act is portability—the principle of equitable access to health services wherever you live. Services for young children in northern and rural communities are structured with a one-size-fits-all funding model that inadvertently disadvantages lower population density areas. We use a socio-cultural approach to explore the barriers to access to rural early childhood services. With data from two research projects that each covered diverse rural contexts, we focused on service providers' and parents' experiences in accessing early intervention and early development programs and services for children with typical development, and those with developmental delay and/or diagnosed disabilities. The results affirm the value of rural and small town life and provide information for developing a more effective rural service delivery model for families with children with typical and atypical development. We demonstrate the way providers and parents make rural services work through “relational functionality.” Parents and service providers rely on key community agents to help organize and innovate collaborative solutions to address lack of access to information, intermodal travel demands, and administrative divides. In short, we confirm an urbanistic policy bias in the per capita funding model.



**Simon Fraser U's Michelle Chen** presented her work on GIS-based network analysis of municipal waste management at the [FENV Environment Research Talks 2017](#) symposium. The work demonstrated how GIS can be used to optimize municipal waste management by integrating street networks into the GIS-based analysis for Surrey, BC, Canada. Michelle is a graduating Bachelor of Environment student in the Global Environmental Systems major and the research work was completed as part of a directed studies course with Dr. Shiv Balram of Geography. [SFU Geography](#)

**U Victoria undergraduate student Levi Hildebrand's** video about master's student Alessia Kockel's work that also featured Dr. Phil Dearden won first place in the five-minute video category in the inaugural Research Reels video showcase at UVic's Ideafest. [Watch the video on YouTube](#).

**U Victoria's PhD candidate Jordan Eamer's** video, "On the Edge of Ice," won first place and a People's Choice awards in the one-minute category at Research Reels in Uvic's Ideafest. [Watch the video on YouTube](#).

[Landscape Research](#) has just published a special issue on the [Landscape histories of urbanisation](#) containing numerous papers of likely interest to Canadian Geographers.

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## Hot Papers by Canadian Geographers

- Kilian Nasung Atuoye and Isaac Luginaah. 2017. [Food as a social determinant of mental health among household heads in the Upper West Region of Ghana](#). *Social Science & Medicine*. doi.org/10.1016/j.socscimed.2017.03.016
- R.R. Bastakoti and C. Davidsen. 2017. [Optimism, hopes and fears: local perceptions of REDD+ in Nepalese community forests](#). *International Forestry Review* 19:1-16.
- Madelaine C. Cahuas and Charles Z. Levkoe. 2017. [Towards a critical service learning in geography education: exploring challenges and possibilities through testimonio](#). *Journal of Geography in Higher Education*. doi.org/10.1080/03098265.2017.1293626
- Sutapa Chattopadhyay. 2017. [Caliban and the Witch and wider bodily geographies](#). *Gender, Place & Culture*. doi.org/10.1080/0966369X.2017.1298570
- Michael Church. 2017. [Geomorphic thresholds](#). In: *The International Encyclopedia of Geography*. Editor-in-Chief: Douglas Richardson. Wiley. DOI:10.1002/9781118786352.wbieg0116
- Taly Dawn Drezner. 2017. [Testing the validity of age-size reconstructions in cohort species, using \*Carnegiea gigantea\*](#). *Journal of the Arizona-Nevada Academy of Science* 47:23-27.
- Scott Jasechko, Leonard I. Wassenaar and Bernhard Mayer. 2017. [Isotopic evidence for widespread cold-season-biased groundwater recharge and young streamflow across central Canada](#). *Hydrological Processes*. DOI:10.1002/hyp.11175
- Bohdan Kochtubajda, Curtis Mooney and Ronald Stewart. 2017. [Characteristics, atmospheric drivers and occurrence patterns of freezing precipitation and ice pellets over the Prairie Provinces and Arctic Territories of Canada: 1964–2005](#). *Atmospheric Research*. doi.org/10.1016/j.atmosres.2017.03.005
- Pascale Roy-Leveillee and Christopher R. Burn. 2017. [Near-shore talik development beneath shallow water in expanding thermokarst lakes, Old Crow Flats, Yukon](#). *Journal of Geophysical Research: Earth Surface*. DOI: 10.1002/2016JF004022
- Yuenan Li, Kai Liu, Yang Liu and Yuanhui Zhu. 2017. [The dynamic of dike-pond system in the Pearl River delta during 1964–2012](#). In: *Global Changes and Natural Disaster Management: Geo-information Technologies*. Edited by: Pirasteh S. and Li J. Springer, Cham. 47-59.
- W.F. Rannie. 2016. [Landscapes of the Assiniboine River Watershed](#). In: *Landscapes and Landforms of Western Canada*. Edited by: Olav Slaymaker. Springer. 131-142.
- Derek A. Smith, Alicia Ibáñez and Francisco Herrera. 2017. [The importance of context: Assessing the benefits and limitations of participatory mapping for empowering Indigenous communities in the Comarca Ngäbe-Buglé, Panama](#). *Cartographica* 52. DOI:10.3138/cart.52.1.3574
- Corey Wells, Scott Ketcheson and Jonathan Price. 2017. [Hydrology of a wetland-dominated headwater basin in the Boreal Plain, Alberta, Canada](#). *Journal of Hydrology* 547:168–183.
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Cherie J. Westbrook, David J. Cooper and Christopher B. Anderson. 2017. [Alteration of hydrogeomorphic processes by invasive beavers in southern South America](#). Science of The Total Environment 574:183–190.

Bing Zuo, Dogan Gusoy and Geoffrey Wall. 2017. [Residents' support for red tourism in China: The moderating effect of central government](#). Annals of Tourism Research 64:51–63.

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### Other “Geographical” News

**Antarctica. Everyone wants it, but no one owns it:** For over 70 years seven different countries have claimed sovereignty over parts of Antarctica. But are these claims legitimate? This issue is now going to be considered by a group of philosophers. [ScienceDaily](#)

**Unforeseen impacts of the fair trade movement:** Fair trade certified coffee is the kind of phrase that sounds good, merging first world affluence with third world resource. For the average consumer, it implies fairness in labor and wealth, the idea that small producers profit directly from what they produce. The reality is far more complex. Research shows that that in the shade grown coffee plots of Mexico and the communities of indigenous Maya who work in them, that this seemingly altruistic concept often has unforeseen impacts, and complex political origins. In the southernmost Mexican state of Chiapas, for example, where fertile soils grow an estimated 60 percent of Mexico's total coffee output, the coffee business benefits the Mayan community, but in some ways, also has them trapped. "Fair trade has assisted families, but it's also served as a security blanket with little mobility". "Coffee producers are marching in place." [ScienceDaily](#)

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### Some Not So “Geographical” News :



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