News Digest of the Canadian Association of Geographers
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U Calgary's Brian Moorman discovers ancient virus in frozen, 700-year-old caribou dung: The discovery that a plant virus could be resurrected, after spending 700 years cryogenically preserved in frozen caribou feces, was a revelation both exciting and troubling for University of Calgary geography professor Brian Moorman. On one hand, it was a groundbreaking find. Scientific knowledge of ancient viruses is limited because of their poor preservation in ancient specimens. Therefore, the discovery of viral genomes found in the 700-year-old caribou feces — extracted from layers of ice in the Selwyn Mountains of the Northwest Territories — was invaluable. It showed that cryogenically preserved materials can act as repositories of viral nucleic acids, allowing scientists to regenerate ancient viruses for study. But the discovery has darker implications too, because as global warming continues to melt away the world's ice, there's no telling what sort of unknown viruses could be released into the environment.The project in the Selwyn Mountains began as an archaeological expedition with the goal of finding artifacts preserved in subarctic ice. Moorman was brought in as part of a team of 16 researchers because of his expertise in permafrost and glaciology. Using ground-penetrating radar, Moorman imaged the interior structure of the ice patches, determining how they developed and how they were preserved. Coring through the ice patches, he was also able to determine the age of each layer. Calgary UToday

Memorial U's Keith Storey on Fly-in/Fly-out work arrangements: The use of Fly-in/Fly-out (FIFO) work arrangements has evolved considerably since it was first introduced to the Canadian mining sector in the 1970s. Originally designed to provide labour to remote locations, the recent mining boom has seen companies using the system to meet labour and accomodation needs within existing minetowns. The presence of a transient workforce can be both costly to host communities (through additional use of infrastructure and services which the community typically has to pay for) and socially disruptive. Keith Storey, who shared his findings at a mining forum in Labrador City this week, said the numbers from Statistics Canada show that workers would rather commute than relocate for work. Storey pointed to data regarding those that are working in Alberta. "Over that five-year period they found that only one in four of those inter-provincal workers actually moved to live to relocate in Alberta — and that those who did, most of them left within a year," Storey said. Storey said that western Labrador has done the best job of preventing workers who fly in and out from taking over in mining. "What's unique about here is that the steelworkers in Labrador West have, to this point, managed to resist fly in, fly out for production work. How long that might continue, remains to be seen." He said the local steelworkers union has been able to resist that type of job commute during production. CBC News | Newfoundland & Labrador

U Toronto's Zack Taylor on Toronto mayorilty outcome: Although voter turnout was up across the city, with initial reports of almost 61 per cent casting ballots, it was highest in the wealthy inner core that supported mayor-elect John Tory and lowest in the struggling suburban wards that favoured Doug Ford. The results mirror the United Way's 2004 Poverty by Postal Code study and University of Toronto urban studies professor David Hulchanski's "Three Cities" study of how Toronto's middle-class neighbourhoods are shrinking, said U of T human geography professor Zack Taylor. "They show a city that has a wealthy heart and a U-shape of relative deprivation that swings downtown and back up to the edges. The downtown part of that U voted for Olivia Chow, and the outer parts of that U voted for Rob Ford," said Taylor, who has been tracking how the city's economic divisions play out politically over several elections. "I think our politics are somewhat driven by these socio-economic divides," he said. "The question is, how do we create a new narrative that isn't a city-suburb narrative?" It will be up to Tory to provide a "bridging narrative, to pull it all together." Toronto Star

U Alberta's Martin Sharp named to Royal Society: Martin Sharp, a professor in the Department of Earth and Atmospheric Sciences at the University of Alberta, is a leading international voice documenting polar environmental change in a warming world. Sharp's prescient and innovative research focuses on the links between glaciers, the atmosphere and oceans. His benchmark contributions to our understanding of high-latitude ice masses include quantifying their meltwater contribution to global sea level rise, an issue with enormous societal implications. Sharp says he came to the U of A in 1993 because it afforded him the opportunity to work on the glaciers of the Canadian Arctic Islands. He says outside the ice sheets of Greenland and Antarctica, this is the world's most heavily glaciated region, yet they had been markedly under-researched. "Changes in these glaciers over the past decade have made a major contribution to the current rate of global sea level rise, and we have been able to document and explain this," he said. "My studies have been possible because being at the U of A enabled me to access the NSERC funding and logistic support from Canada's Polar Continental Shelf Project, without which none of the work I have done over the past 20 years would have been feasible." The Royal Society of Canada was founded in 1882 and is Canada's oldest and most prestigious scholarly institute. U Alberta News

UBC's Professor Emeritus John Ross Mackay (1915-2014): Professor Emeritus John Ross Mackay, OC, FRSC, passed away on October 28, 2014. Ross first came to the Department of Geology and Geography at UBC in 1949, and continued to teach following his retirement from the Department of Geography in 1980. Remembered with fondness and respect by his colleagues, Ross was widely recognized as the world's leading authority on permafrost. Ross was President of the Canadian Association of Geographers (1953-54) and the Association of American Geographers (1969-70), and was Secretary-General of the International Permafrost Association for a decade after 1983. He was elected a Fellow of the Royal Society of Canada, appointed an Officer of the Order of Canada in 1981, and received the Massey, Miller, and Logan medals. UBC Geography

U Waterloo's Paul Parker helps REEP celebrate 15 years of helping make homes more sustainable: The REEP House for Sustainable Living began as a two-year project created in 1999 in the basement of the Environmental Studies (now Environment) building at the University of Waterloo. Their initial goal was to match academic research with practical action in the community. Today, the environmental non-profit has assessed the energy efficiency of over 14,000 homes in Waterloo Region. That is approximately 10 per cent of the Region's eligible housing stock (single/semi/row house and some multi-unit residential apartment buildings). Customers who have followed their energy-saving recommendations are collectively reducing over 21,000 tonnes of CO2 emissions per year through home energy retrofits. REEP offers a number of other services in addition to the home energy evaluation. Among the community members who help to make REEP possible is Paul Parker of the Department of Geography and Environmental Management. U Waterloo GEM

U Toronto's Andre Sorensen on the rise of megacities: Toronto's population is estimated to reach nearly seven million by 2030, making it the 65th largest city in the world, and the fifth largest in North America, behind Mexico City, New York, Los Angeles and Chicago. By 2050, the United Nations 2014 World Urbanization Prospects report projects that 66 per cent of the globe will be living in cities. Today, just over half of us live in cities; in 1950, only 30 per cent of the world's population was urban. "Everywhere, it's the big cities that are most attractive to everybody," says Andre Sorensen, chair of the University of Toronto's human geography department. "It's the big main cities that are the attractors for population, because that's where the opportunities are." "Urbanization generally is a very positive thing," Sorensen agrees. "It results in higher living standards, higher incomes, more opportunities, more educational opportunities — so overall, it's a very positive thing for the people who migrate. And it also is more environmentally sustainable. People tend to use less energy in big cities than they do in small towns and rural places." Toronto Star

U Toronto's Alan Walks publishes book on the driving forces of urban inequality: Urban geography professor Alan Walks published his book "The Urban Political Economy and Ecology of Automobility: Driving Cities, Driving Inequality, Driving Politics" that connects automobile dependency to rising indebtedness, political inequalities and sustainable issues in urban cities. The book contains contributions by Ron Buliung, Kristian Larsen, Emily Reid-Musson, Paul Hess, Rebecca Osolen, Matti Siemiatycki, Helen Hao Wen Huang and Mirej Vasic. UTM News

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GeogNews Bites

U Saskatchewan's Ryan Walker offers new course on undergraduate course entitled Planning with Indigenous Communities

U Guelph's Evan Fraser's graphic novel about food security | Introduction to the project: YouTube | Theatrical trailer: YouTube

UBC Geograpy's graduate student mentorship program pairs up second year Master's students with professionals in their specified area of interest. UBC Geography

Queen's U's Jeff Masuda and his wife Jennie have a new baby daughter - Marion Rae Masuda

Bedtime in America: Which cities stay up the latest? Which cities get the most sleep?

Hot Papers by Canadian Geographers

Justin R. Adams, Heather McNairn, Aaron A. Berg and Catherine Champagne. 2014. Evaluation of near-surface soil moisture data from an AAFC monitoring network in Manitoba, Canada: implications for L-band satellite validation. Journal of Hydrology. DOI: 10.1016/j.jhydrol.2014.10.024

Madhav G. Badami and Navin Ramankutty. 2014. Urban agriculture and food security: A critique based on an assessment of urban land constraints. Global Food Security. DOI: 10.1016/j.gfs.2014.10.003

Charmaine Bonifacio, Thomas E. Barchyn, Chris H. Hugenholtz and Stefan Kienzle. 2014. CCDST: A free Canadian climate data scraping tool. Computers & Geosciences. DOI:10.1016/j.cageo.2014.10.010

Epule Terence Epule and Christopher Robin Bryant. 2015. Drivers of arable production stagnation and policies to combat stagnation based on a systematic analysis of drivers and agents of arable production in Cameroon. Land Use Policy 42:664–672.

Matthew Farish. 2014. Battling shadows. Dialogues in Human Geography 4:324-326.

James D. Ford, Lea Berrang-Ford, Anna Bunce, Courtney McKay, Maya Irwin and Tristan Pearce. 2014. The status of climate change adaptation in Africa and Asia. Regional Environmental Change. DOI: 10.1007/s10113-014-0648-2

Jutta Gutberlet. 2014. More inclusive and cleaner cities with waste management co-production: Insights from on participatory epistemologies and methodologies. Habitat International. DOI:10.1016/j.habitatint.2014.10.004

Eric Higgs, Donald A Falk, Anita Guerrini, Marcus Hall, Jim Harris, Richard J Hobbs, Stephen T Jackson, Jeanine M Rhemtulla and William Throop. 2014. The changing role of history in restoration ecology. Frontiers in Ecology and the Environment 12:499–506.

William C. Mahaney, James M. Dohm, Stephane Schwartz, Nathaniel Findling, Kris M. Hart, Susan Conway, Christopher C.R. Allen, Hideaki Miyamoto and Alberto G. Fairén. 2014. Mineralogy, chemistry and biological contingents of an early-middle Miocene antarctic paleosol and its relevance as a Martian analogue. Planetary and Space Science. DOI: 10.1016/j.pss.2014.10.008

Daniel McParland, Brett Eaton and Jordan Rosenfeld. 2014. At-a-station hydraulic geometry simulator. River Research and Applications. DOI: 10.1002/rra.2851

Kate Parizeau, Mike von Massow and Ralph Martin. 2014. Household-level dynamics of food waste production and related beliefs, attitudes, and behaviours in Guelph, Ontario. Waste Management. DOI:10.1016/j.wasman.2014.09.019

Simon Springer. 2014. Why a radical geography must be anarchist. Dialogues in Human Geography 4:249-270.

Simon Springer. 2014. For anarcho-geography! Or, bare-knuckle boxing as the world burns. Dialogues in Human Geography 4:297-310.

Daqing Yang, Xiaogang Shi and Philip Marsh. 2014. Variability and extreme of Mackenzie River daily discharge during 1973–2011. Quaternary International. DOI: 10.1016/j.quaint.2014.09.023

Julian S. Yates. Historicizing 'ethnodevelopment': Kamayoq and political-economic integration across governance regimes in the Peruvian Andes. Journal of Historical Geography 46:53-65.

Julian S. Yates and Karen Bakker, K. 2014. Debating the 'post-neoliberal turn' in Latin America. Progress in Human Geography 38:62-91.

Other "Geographical" News

StatsCan releases data on literacy, numeracy levels of Canadian university graduates: In 2012, more than a quarter of university graduates in Canada aged 25 to 65 had a literacy score at the second level or below (out of five levels) in a survey on adult competencies. Lower levels of literacy indicate that individuals may be less likely to be able to integrate information across multiple sources, and may be only able to undertake tasks of limited complexity. Statistics Canada

This is all that's left of Toronto after the apocalypse: If an apocalypse befell Toronto, all that would remain of the city would be an urban wasteland with a collapsed CN Tower and a Gardiner Expressway in ruins. That's according to the designers of "Fallen Toronto," a calendar that is being offered to people. HuffPost Living

Canadian miners pondering tougher tailings plans after Mount Polley dam collapse: The Mining Association of Canada says it is examining if changes are needed to its safety and environmental mine management program because of the collapse of Imperial Metals' Mount Polley tailings dam. The tailings dam failure on Aug. 4 released millions of cubic metres of water and tailings containing potentially toxic metals into a Quesnel Lake watershed. Vancouver Sun

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Some not so "Geographical" News

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GeogNews Archives: http://www.geog.uvic.ca/dept/cag/geognews/geognews.html

@CanGeographers Weekly: https://paper.li/CanGeographers/1394987315
