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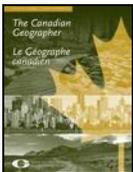
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McGill U's Bernhard Lehner collaborates to produce database to help climate-change experts track world's lakes: When it comes to lake water, some McGill University geographers are in deep. They spent the past three years calculating the most precise estimates yet for the amount of water contained in the world's 1.42 million lakes. Most lakes have been mapped but "one thing that was completely missing was the volume of lake water," said senior author Bernhard Lehner, an associate professor in McGill's geography department. "We see the surface areas today better than ever before with satellites and remote sensing imagery, but we can't see how deep these lakes are." After mapping lakes around the world that cover more than 10 hectares, the researchers came up with a hard-to-fathom figure: the world's lakes hold 180,000 cubic kilometres of water. That's enough to cover the earth's land mass with 1.3 metres of water. The authors of the [study](#) – Lehner, and students Mathis Loïc Messager, Günther Grill, Irena Nedeva and Oliver Schmitt — started by creating a map of the world's lakes that took two years. The next step, which took another year, involved using information about elevations around lakes to estimate lake depths. The researchers went a step further by quantifying the relationship between elevation around lakes and lake depths. "It's the difference between saying that in the mountains, lakes are deeper; and saying that at a slope of 2.5 degrees, for example, you get this depth," Lehner said. They fine-tuned their estimates by comparing findings with actual measurements taken of 12,000 lakes, he added. The end result is [HydroLAKES](#) — a database of lakes described as the most complete to date — that other scientists can download and use for free. [Montreal Gazette](#) | [CBCNews-Technology & Science](#) | [McGill Channels](#) | [ScienceDaily](#)

Memorial U PhD student John-Michael Davis collaborates to examine West Bank e-waste economy: Bidoo Cave in the hills west of Hebron opens with towering arches that lead through subterranean chambers carved perhaps thousands of years ago. Cut into the walls of one cavern are hundreds of small, rectangular niches where ancient residents once raised pigeons for meat, eggs and ritual sacrifice. The cave could be an archaeological treasure, but soot coats the walls and the floor is littered with rubbish, including burnt tyres and wiring. Bidoo is used by local children to burn 'e-waste' — mostly leftover foams and plastics from computers and televisions. Electronics are dismantled in nearby villages as part of a massive recycling industry outside Hebron in the Palestinian territories. The scale of this industry is enormous: roughly half of all the e-waste generated in Israel finds its way to a cluster of four villages in the area. About 80% of households there — including both adults and children — are involved either directly or indirectly in processing e-waste to extract copper and other valuable metals. Yaakov Garb, an environmental scientist at Ben-Gurion University, John-Michael Davis of

Memorial University of Newfoundland, analysed the local e-waste economy from top to bottom by conducting hundreds of interviews and doing randomized surveys. Davis even moved to Beit Awwa for more than a year to immerse himself in the community. Their study² is the first to chart the entire e-waste recycling economy anywhere, says Garb. They found that the items in the trucks came from a variety of sources in Israel: technology companies or government ministries upgrading computers or routers and disposing of the old equipment; repair labs that discard or sell old televisions or other hard-to-fix items; and households getting rid of old appliances. Some of it ends up in Beit Awwa, says Davis, where there is a big market for discarded furniture and appliances. Although many items are refurbished and resold, large quantities of electronic waste are dismantled and burnt. [Nature News Feature](#)

New in The Canadian Geographer / Le Géographe canadien



Kenneth J. Gregory. 2016. [Putting physical environments in their place: The next chapter?](#) The Canadian Geographer / Le Géographe canadien. DOI:10.1111/cag.12333

Guillaume Haemmerli, Danièle Bélanger, Charles Fleury and Luu Bich Ngoc. 2016. [Perturbations environnementales et migrations au Vietnam](#). The Canadian Geographer / Le Géographe canadien. DOI:10.1111/cag.12330

Hot Papers by Canadian Geographers

Kaitlyn M. Gaynor, Kathryn J. Fiorella, Gillian H. Gregory, David J. Kurz, Katherine L. Seto, Lauren S. Withey and Justin S. Brashares. 2016. [War and wildlife: linking armed conflict to conservation](#). Frontiers in Ecology and the Environment. DOI:10.1002/fee.1433

Peter Holland and Sherry Olson. 2016. [Ledgers and landscapes: Indicators of rural landscape change in southern New Zealand, 1878–1919](#). New Zealand Geographer. DOI:10.1111/nzg.12145

Germana Manca, Nigel W. Waters and Gustavo Sandi. 2016. [Using cloud computing to develop an integrated virtual system for online GIScience programs](#). Knowledge Management & E-Learning, 8:514–527.

Amélie Rivet, Serge Payette, Dominique Berteaux and François Girard. 2016. [Pines and porcupines: a tree-ring analysis of browsing and dynamics of an overmature pine forest](#). Canadian Journal of Forest Research. DOI:10.1139/cjfr-2016-0214

Michael J. Widener. 2016. [Comparing measures of accessibility to urban supermarkets for transit and auto users](#). The Professional Geographer. doi.org/10.1080/00330124.2016.1237293



U Northern British Columbia's Zoë Meletis teamed up to create Change, an exhibit that marries art and science. Sometimes the best ideas don't come from the academic literature or out of the mouth of a lecturer in a classroom, but rather from everyday people who want to make a difference. [UNBC Newsroom](#) | [CKPG TV](#)

Other "Geographical" News

Top Cause of Death – Geography: "Finally, some worthwhile data. In our current culture —especially in the medical sphere, acquiring data for data's sake has become its own illness whose insidious contagion serves further to fracture and fragment our health care delivery. Though I don't routinely find good news in the topic of death, being the skeptical optimist that I am enables me to see the potential in a new study ...detailing the mortality rates for major causes of death from 1980-2014." [American Council on Science and Health](#)

Researchers estimate 10,000 metric tons of plastic enter Great Lakes every year: A new study that inventories and tracks high concentrations of plastic in the Great Lakes could help inform cleanup efforts and target pollution prevention. Researchers found that nearly 10,000 metric tons -- or 22 million pounds -- of plastic debris enter the Great Lakes every year from the United States and Canada. [ScienceDaily](#)

Arctic lakes thawing earlier each year: Arctic lakes, covered with ice during the winter months, are melting earlier each spring, research has found. The team, who monitored 13,300 lakes using satellite imagery, have shown that on average ice is breaking up one day earlier per year, based on a 14-year period between 2000 and 2013. [ScienceDaily](#)

Some Not So "Geographical" News



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