

THE CURRENT



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Newsletter of the Society of Canadian Limnologists

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Right: Superior Sunrise. Sunrise over the Apostle Islands after a long evening of sampling water, benthos and zooplankton on Lake Superior on board the RV Blue Heron. Photo credit: Michael Rennie



Message from the president

Jérôme Marty, President



Already, the last issue of the SCL newsletter for 2017. Once again, thank you to our communication officer, Mike Rennie, for producing this great document.

Since last spring, positive signals were received from the federal government on its intention to use and better recognize the role of science to inform policy and decision-making. This month, the search for a Chief Scientist, who will report to the Prime Minister, has

been publicly launched. There are positive signs for the funding of national programs supporting science in Canada and a noticeable effort has been made to consult with academia and scientific societies. As member of the Partnership Group for Science and Engineering (PAGSE), the SCL indirectly continues to contribute to consultations with the Minister of Science on science priorities in Canada.

Despite the restoration of a positive environment for scientists in Canada, freshwater often remains a second priority for several departments. The national science investment from the Department of Fisheries and Oceans provides little support to the Central and Arctic regions, which oversees many freshwater programs, and few positions in support of Great Lakes science. Last November, a significant investment was announced for programs aiming at increasing marine safety and addressing the risk of oil spills in Canadian waters: unfortunately, few resources will be invested to address the increasing need to better understand the fate, behaviour and impacts of oil when spilled in freshwater. If we are to say that decision-making is based on science, it is my opinion that we should let scientists do their work to investigate the foundational information prior to approving major development such as pipelines projects.

The next SCL/CCFFR conference (Jan 5th to 8th) is now just around the corner and should be well attended given the location and the high number of limnologists in the Montreal area. A very high number of applications were received from students seeking travel support and, this year for the first time,

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from young professionals. During the conference, the SCL will celebrate the 2017 Frank Rigler prize, the top prize awarded by our society for their significant contributions to Limnology. This year the award goes to our past President Jules Blais as well as two recipients of the Peters award for the best published student paper in the past year (Daniel Gregoire from U-Ottawa and Jamie Summers from Queen's University). We are looking forward to hearing these plenaries!

Importantly, I would like to draw the attention of SCL members attending the conference that we will be hosting the

David Schindler receives Rachel Carlson Award

Mike Rennie

Dave Schindler was honored with the Rachel Carlson Award by the Society for Environmental Toxicology And Chemistry in Orlando, Florida at their 7th World Congress on November 8, 2016. The Rachel Carlson Award is bestowed only once every four years at a SETAC World Congress, and recognizes a scientist for “their meticulous research and increasing awareness among the public for potential threats to the natural world”. It is fitting that Dave receive this award given the public face he has given for so many issues in limnology such as nutrient management and the environmental effects of industrial contamination, as well as being a vocal advocate for the inclusion of rigorous scientific advice in environmental policy. It seems only days go by before Dave is quoted in the media commenting on the latest limnological issue; not surprising given his impressive track record for groundbreaking, policy-relevant research throughout his career. Dave provided a thought-provoking lecture at SETAC, forcing the audience to challenge the concept of the environmental footprint of the world and to consider both conventional and unconventional means of achieving sustainability.

Dave's award was also celebrated by a special session recognizing the amazing work that David has done throughout his career and the influence and impact it has left on the current generation of scientists. The session was organized by a number of David's past students: Karen Kidd, a Tier 1 CRC and Professor at the University of New Brunswick; Jules Blais, Professor at the University of Ottawa and this year's Rigler Award winner; and Heidi Swanson, an Assistant Professor at the University of Waterloo. Most of the presentations are archived on the web by SETAC, and can be found by [following this link](#) and searching on the author's name (links to each talk are also provided below).

The first presenter of the day was [Diane Orihel](#) (Dave's last PhD student), who's talk “Dave Schindler's Legacy: Ecosystem-scale ecotoxicology” who effectively summarized Dave's approach to science as “big dreams, big science, and big impact”. She highlighted the whole-ecosystem experimental approach that was pioneered by David at the Experimental Lakes Area, and the importance that this approach plays in guiding the science needed for environmental policy.

SCL business meeting on Saturday afternoon at 4PM. During the meeting, we will provide an update on SCL business and hold elections for treasurer, a position with a 3 year mandate on the SCL board.

I wish you all happy holidays, with your family and friends and I look forward to seeing you at the conference in the New Year. Bonne année 2017 à tous !

Cheers,

Jérôme Marty 



David Schindler (right) receiving the Rachel Carlson Award from Karen Kidd at the SETAC World Congress, November 8, 2016.

Next up was [Michael Paterson](#), Chief Scientist at the IISD-ELA, with a talk entitled “Whole-lake manipulations at the Experimental Lakes Area do not support the need for nitrogen control to reduce eutrophication in lakes” The title is pretty self-explanatory, but Mike went through a series of nutrient manipulation additions and removals at ELA to make his point crystal clear.

[John Gunn](#), Tier I CRC and Professor at Laurentian University summarized the results from the ELA experiments on acidification, and placed the recovery of that lake within the context of recovery from acidification being observed in lakes in the Sudbury-Killarney area.

Derek Muir discussed the importance of Dave Schindler's initial work in the Athabasca Oil Sands to help guide ongoing and future monitoring in the regions to understand the importance of atmospheric deposition of polyaromatic compounds in that region. His talk was not recorded.

[Jules Blais](#) started his talk pointing out that David Schindler is one of the “most effective science communicators in the business” who is as comfortable talking to first nations and ranchers as he is talking to Prime

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Ministers. His talk also focused on Dave’s work on the Athabasca Oil Sands and it’s role in addressing impacts on lakes across spatial and temporal scales , with a focus on the use of lake sediments as archives.

In her talk “Integration of Indigenous knowledge and western science in studies of northern ecotoxicology”, [Heidi Swanson](#) focused on Dave’s skill at communicating and engaging local communities in research, especially First Nations, and provided a number of current examples of work by her and her colleagues that emulate forming those connections with local communities.

[Michael Rennie](#) discussed Dave Schindler’s foundational work on examining climate effects on

limnological processes and biota using the ELA dataset in the 1990’s, and discussed current research using the ELA data to test some of the hypotheses outlined by Dave’s early work as they relate to fishes. Climate variability was a demonstrable factor in fish growth and life history traits in a number of fish species and populations at the ELA.

[Helen Baulch](#) closed the session honouring Dave, also discussing some of Dave’s work on climate



The speakers and guests of the David Schindler symposium at SETAC 2016 in Orlando, Florida. Left to right: Derek Muir, Michael Paterson, Helen Baulch, John Gunn, Heidi Swanson, Dave Schindler, Michael Rennie, Jules Blais, Linda Kimpe, Diane Orihel and Karen Kidd.

change by examining winter biogeochemistry. She also recounted Dave’s history as a mentor, and recounted a great story about how Dave (and apparently, his neighbor) had in rescuing her MSc thesis research from a thunderstorm. 🌩️

SIL Congress, Turino Italy

Jérôme Marty
President, SCL

During the first week of August the 33rd SIL congress was held in Torino, Italy. Under the theme of “Science for sustainable freshwater use”, close to 800 participants contributed to 48 sessions. Perhaps one of the most important attractions for participants to attend the SIL congress is the geographically diverse range of freshwater research topics. Learning about the water quality and quantity issues for some of the most highly populated areas of the world gives us, as Canadians, not only an appreciation of the luxury we have access to, but also raises awareness about the need to continue informing the public on water degradation and emerging issues in our own backyard. Canada swings above it’s weight when it comes to limnology and contributes significantly to freshwater research, as evidenced at the SIL congress with 43 Canadian participants (the 4th highest participation of all countries after Italy, Germany and USA). The SCL sponsored one student to attend the SIL congress: Jennifer Barrow, from McGill University shared her findings on the response of phytoplankton to macrophytes and



Workshop on predictive limnology (and Italian delicacies) hosted in Corconio

nutrients (see her article on her experience at SIL on page 6).

One session, organized by A. Cattaneo, Y. Prairie and J. Downing’ entitled “Predictive Limnology revisited: Rob Peters’ legacy after 20 years” was aimed at examining how predictive limnology and empirical relationships have evolved to address questions posed by global water and environmental crises. This well attended session at SIL was followed by an informal workshop in Corconio, a place where Rob Peters spent time mixing research with the peace and beauty of Lago d’Orta. Resulting from the workshop, a [Wikipedia page on Rob Peters is now](#)

[online](#) and another contribution on predictive limnology is in preparation.

The SIL congress was also an opportunity for the SIL board to meet and share updates on the society. The journal of the society, Inland Waters is seeing an increasing submission rate and has now an impact factor of 1.77. SIL is also working on how to better include students and young professionals, and for the first time this year, 2 student representatives were elected to join the SIL Board. The congress is scheduled to occur every second year for the next 3 meetings, starting in China (2018), followed by South Korea (2020) and Germany (2022) where SIL will celebrate its 100th birthday. 🌍

Research Highlight The Écolac NSERC CREATE program

Pierre Olivier-Benoit

Université du Québec à Trois-Rivières

NSERC's CREATE training program in lake and fluvial ecology (ÉcoLac) was initiated in 2014 to meet a growing demand for highly qualified young professionals that are capable of facing future challenges in aquatic environments. The program, funded by the Natural Sciences and Engineering Research Council (NSERC), as part of the Collaborative REsearch And Training Experience program (CREATE), will allow for more than 110 candidates over a six year period to receive training that will complement their scientific education. ÉcoLac builds on a solid expertise provided by the Group for Interuniversity Research in Limnology and aquatic environment (known by its french acronym "GRIL") and its partners, the Canadian Rivers Institute (CRI; University of New Brunswick) and the Cooperative Freshwater Ecology Unit (CFEU; Laurentian University). A total of eight academic institutions are collaborating to the program: Université du Québec à Trois-Rivières, McGill University, Concordia University, Université de Montréal, Université du Québec à Montréal, Université du Québec à Chicoutimi, Laurentian University and University of New Brunswick.

Canada has hundreds of thousands of lakes, streams and one of the world's largest rivers, and these ecosystems are facing increasing pressures, particularly through resource exploitation, the intensification of agriculture and climate change. The presence of these stressors has brought about a sustained demand for highly qualified personnel in aquatic ecology, mainly from environmental consultants, government departments, universities, and nonprofit organizations. The ÉcoLac program represents a unique opportunity to meet this demand by providing the next generation of scientists with a comprehensive understanding of aquatic ecology, in addition to multidisciplinary skills. Following



graduation, these researchers will be able to make a smooth transition from trainees to productive employees in companies and organizations looking for such qualifications.

To achieve this, the ÉcoLac program offers students and postdoctoral fellows the same level of financial assistance offered by the major granting agencies: up to \$17,000 per year for M.Sc., \$21,000 per year for Ph.D., and \$40,000 per year for PDF. In addition to these fellowships, ÉcoLac trainees receives support for complementary activities which form an integral part of this program. About 10 outstanding B.Sc. students are also invited each year to participate in some of our activities.

Program activities:

formations: written and oral communication, ethical conduct and project management (M.Sc. and Ph.D.);
courses: boreal lake ecology (Station de Biologie des Laurentides, U. Montréal) or fluvial ecology (UQTR), which includes a 2-day mission on the research vessel Lampsilis (M.Sc. and Ph.D.);
thematic workshops on state-of-the-art techniques in aquatic ecology, statistical analysis, and database management (B.Sc., M.Sc., Ph.D. and PDF);
seminars oriented on the workplace with invited professionals who work in different areas of aquatic ecology (B.Sc., M.Sc., Ph.D. and PDF);
financial support for an internship in

professional environments or a national/international internship to acquire complementary research experience (M.Sc. and Ph.D.).

For more information, please visit our website www.ecolac.ca or contact the program coordinators: [Marie-Andrée Fallu](#) and [Pierre-Olivier Benoit](#). ☺

FAST FACTS:

WHO? The Ecolac NSERC CREATE Training program.
WHERE? Université du Québec à Trois-Rivières, McGill University, Concordia University, Université de Montréal, Université du Québec à Montréal, Université du Québec à Chicoutimi, Laurentian University and University of New Brunswick.
WHAT? A fully-funded training program in aquatic ecology.
WHY? To help train the next generation of aquatic ecologists.

WEB: www.ecolac.ca

Do YOU have a story to share in the next issue of The Current? Have an idea for a blog? Send ideas, photos or contributions to: comms@socanlimnol.ca.



Left: 2017 Rigler Award recipient Jules Blais, Professor, University of Ottawa.

Middle: Daniel Grégoire, 2017 Peters Award recipient, University of Ottawa.

Right: 2017 Peters Award recipient, Jamie Summers, Queen's University.

2017 Award Winners

Helen Baulch

The 2017 Frank Rigler Award will be presented to **Dr. Jules Blais**. This award is SCL's highest honour, and recognizes Dr. Blais' outstanding research and its impact on people and policymakers.

Jules is a limnologist whose work focuses on environmental and human health consequences of pollutants. His research is notable for its novelty, and its importance -- with some of his most influential work having demonstrated the role of biovectors in transport of contaminants, the role of climate change in mobilizing legacy stores of pollutants, assessing the impacts of contaminants on traditional foods and human health, and understanding how industry – past and present – impacts contaminant cycling and ecology. Dr. Blais has now published 140 papers. He has received the Raymond L. Lindeman Award (ASLO), Stevenson award (CCFFR), and has been named Environmental Scientist of the Year, and fellow of the Royal Canadian Geographical society. In 2014, Jules was co-awarded the NSERC Brockhouse Prize for interdisciplinary research, and this commitment to interdisciplinary research is exemplified in his role as founding editor in chief of Facets. Blais has been a key contributor to the Society

of Canadian Limnologists, as past vice president, and more recently, present of the society from 2012-2015. Jules' research, outreach, mentorship, and service to the limnology community are outstanding. We look forward to his plenary lecture in Montreal.

This year, the honour of the Rob Peters Award for best student paper in Limnology published in the last year will go to two students. **Daniel Grégoire's** 2016 paper "A Physiological Role for Mercury (Hg) During Phototrophic Growth", published in Nature Geoscience demonstrated that despite assumptions that mercury is too toxic to have any physiological use, mercury can actually be used by phototrophs as an electron acceptor. This process can help to alleviate redox stress and may limit toxicity by limiting mercury available for methylation. **Jamie Summers'** 2016 article in PLoS ONE demonstrated that climatic change, rather than industrial activity, is the driver of increased lake primary production in lakes of the Athabasca Oil Sands Region. This work entitled "Emissions of bioavailable nutrients, is the dominant driver of lake primary production shifts across the Athabasca Oil Sands Region" combined limnology, paleolimnology, and snow-sampling in an effort that helped overcome inadequacies in historic monitoring and understand regional change. Daniel, a PhD student at


University of Ottawa, and Jamie, a PhD student at Queens will be joining us in Montreal to present their work. Congrats Daniel and Jamie!

Upcoming SCL Meetings

The annual SCL/CCFFR meeting will take place January 5-8, 2017 at the Hyatt Regency hotel in Montreal. A number of new initiatives this year, including a travel award for early-career scientists and a photo contest are things to look forward to, as well as plenary talks from our award winners. The full program is now up and can be [downloaded from the website](#).

Conference t-shirts can be pre-ordered until Dec. 22nd on the eventbrite page ([follow this link](#)), log-in using your credentials that you used to register, click "register" and then scroll down to the t-shirt option, and place your order. You can only get a t-shirt if you pre-order, so go and do it now!

Also, don't forget to attend the SCL business meeting, Saturday from 4-5pm in Salon B. We have some important business to attend to, including the election of a new Treasurer.

Make sure to follow along for all the developments on the meeting as they arise [on our website](#), which also has links to the [conference website](#). 

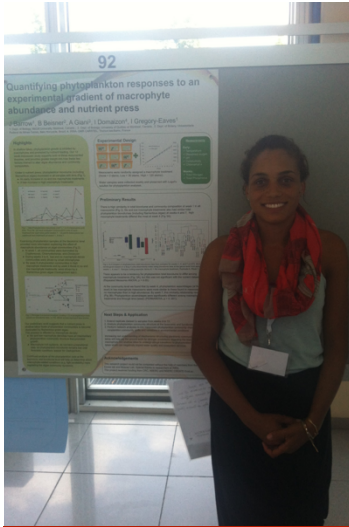


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It's your Turin, Jennifer!

SIL Travel Award winner tells of her experience in Turin, Italy

Jennifer Barrow



Jennifer Barrow at SIL in Italy. Check out her talk at the SCL meeting in Montreal Friday at 2:45.

I am honoured and thankful to have received the SCL Travel award to attend the SIL Conference in Turin, Italy this summer. The conference was an excellent opportunity for me to not only learn about current research, but also meet and engage with the scientists doing the research, making great friends and connections for future collaborations. After listening to the opening lectures and seeing former colleagues, my nervous feelings around participating in my first international conference shifted to feelings of excitement. During the week, I attended a fascinating array of talks relevant to my

and freshwater management. After attending the SIL Conference, I am inspired to ask and answer more limnology questions, and feel more engaged with my Master's research, as I have a better understanding of how it fits within the current pressing questions faced globally about our freshwater ecosystems.

At the SIL conference, I presented my poster highlighting preliminary data from my master's research. Presenting in the poster session helped me develop the very important skill of being able to explain research in a concise and captivating way. My research uses an experimental mesocosm approach to study how phytoplankton communities respond to nutrient loading and how the community changes are influenced by macrophyte abundance. During the poster session, I discussed my results from with other graduate students and established researchers and received excellent feedback and directions for my project. It was also very useful to discuss the challenges associated with interpreting and applying mesocosm data. My participation in the poster session was very beneficial to my graduate studies as it gave me the opportunity to meet researchers from around the world, exposed me to new ways of thinking and approaching my research, compelled me to think critically about methods, and gave me a new confidence in myself as a researcher in limnology.

Master's work and broadening my knowledge on topics such as shallow lakes projects, phytoplankton and cyanobacteria research,

Student Spotlight:

Phil Anderson, MSc student with Dr. Doug Chivers, University of Saskatchewan

Dan Gregoire and Nicolas Fortin St-Gelais
In a sentence or two, please describe your current research project:

Currently, I am looking at how selenium exposure affects the predator-prey interactions of freshwater fish. Currently, I am focusing on how dietary selenium affects the anti-predator responses of Fathead Minnows..

When and why did you become interested in limnology?

As a kid growing up, I always loved going out to the lake, camping, canoeing and fishing. In my second year of undergrad, I was fortunate enough to work as a summer field assistant in an aquatic ecology lab. This allowed me to combine my interest in biology and my love of the outdoors into an extremely fulfilling career.

Why did you decide to study in Canada?

Since Canada has such a vast amount of freshwater, I believe that we have an incredible opportunity to study bodies of water in both pristine and disturbed states. The sheer diversity of freshwater ecosystems has allowed me to work on lakes with a wide range of biotic and abiotic characteristics. I have been extremely happy with the quality of instruction and mentorship I have received from professors and research scientists across Canada.

What is one of your fondest memories performing research in limnology?

One of my fondest memories would be gill netting for Lake Trout on their spawning shoals when I was working at the IISD-ELA. On a handful of really clear nights, we had an incredible show of northern lights shimmering across the huge domed sky of Northwestern Ontario. It was really surreal to be working on such exciting research in such a beautiful setting.



Phil Anderson in the field at the ELA. Check out his talk at the SCL meeting in Montreal Sunday at 9:15.

Do YOU want to be in the next student spotlight? Let us know!
comms@socanlimnol.ca



What you can find on the limnoseminar page on our website- go check out our archives today!

<http://socanlimnol.ca/outreach/limnoseminar/>

Limnoseminar Putting Limnology online

By Alex Poulain

The SCL is hosting a series of monthly online live broadcasts to share research in the field of Limnology. The format is open and freely accessible to all, with all seminars archived on YouTube and linked to on the SCL web page. Content is welcome in both french and english. The series is organized and hosted by Alexandre Poulain (@RedoxRoxDetox, @Limnoseminar).

We are encouraging all scientists to share their latest research in the field of aquatic sciences; students, early career or more senior scientists, all levels of academia are welcome. It is a great opportunity to showcase your research.

You missed a live broadcast? All our seminars are archived on youtube and available through our website.

Our most recent seminars: “20 years of fish community dynamics in large reservoirs: a multi-scale approach” by Dr. Katrine Turgeon (McGill) and “Changing our View: Urban Surface Waters as Dynamic and Functional Ecosystems in Urbanizing Landscapes” by Dr. Andrea Kirkwood (UOIT) are available on our webpage: <http://socanlimnol.ca/outreach/limnoseminar/>

Upcoming seminars:

Jennifer Barrow (McGill): Quantifying phytoplankton responses to an experimental gradient of macrophyte abundance and nutrient press

Catherine Girard (U. Montréal): Bioaccessibility of MeHg from fish: the role of the Inuit diet and micro biome

Rebecca North and Helen Baulch (Global Institute for Water Security and U. Saskatchewan): Winter Limnology

Linda Campbell (Saint Mary’s University) : historical gold mining and contamination issues.

Gwyneth MacMillan (U. Montreal): Hotspots of Methylmercury in Thaw Ponds : Link between Methylmercury and Nutrient Loading in the Rapidly Changing North

Do not miss the limnoseminars of our 2017 Peters award winners: **Jaime Summers** (Queens U.) and **Daniel Gregoire** (U. Ottawa). later on this winter.

Please contact us via twitter, message us at @LimnoSeminar or contact us by email at comms@socanlimnol.ca or apoulain@uottawa.ca if you are interested in participating!

Member Recognition

Alexandre Poulain and **Irene Gregory-Eaves** were inducted as members of the College of New Scholars, Artists and Scientists to the Royal Society of Canada.

John Smol was awarded an honorary LLD from Mt. Allison University and an honorary DSc from Ryerson University, and was named UCLA Canadian Scholar n Residence at UCLA.

Upcoming meetings

(meeting websites hyperlinked where available)

SCL meetings

2017

- [2017 with CCFRR](#) (Montreal, Jan. 5-8) #CCFFR2017

SIL meetings

2018

- [34th congress](#) in Nanjing, China

Other meetings

2017

- [Association for the Sciences of Limnology and Oceanography](#), Feb 26-March 3, Honolulu, Hawaii
- [Ontario Chapter of the American Fisheries Society](#), 2-4 March, Geneva Park, ON
- [Canadian Society for Ecology and Evolution](#), 7-11 May, Victoria BC
- [Canadian Society for Zoology](#), 15-19 May, Winnipeg, MB
- [International Association for Great Lakes Research](#) 15-19 May, Detroit, MI #IAGLR2017
- [Animal Behaviour Society Conference](#), 12-16 June, Toronto, ON
- [American Society for Ichthyologists and Herpetologists](#), 12-16 July, Austin TX
- [Ecological Society of America](#), 6-11 August, Portland, OR
- [American Fisheries Society](#), 20-24 August, Tampa Bay, FL
- [North American Lake Management Society](#), 6-9 November, Denver, CO
- [SETAC North America](#), 12-16 November, Minneapolis, MN

- [American Geophysical Union](#), Dec 11-15, New Orleans #AGU17

Recent Citings

Do you have recent publications from the last 6 to 12 months that you'd like highlighted in the next issue? Send it to comms@socanlimnol.ca.

Cheng W, Sun L, Kimpe LE, Mallory ML, Smol JP, Gallant LR, Li J, Blais JM. 2016. **Sterols and stanols preserved in pond sediments track seabird biovectors in a High Arctic environment.** *Environmental Science & Technology* 50: 9351-9360. DOI: [10.1021/acs.est.6b02767](https://doi.org/10.1021/acs.est.6b02767)

Cott, P.A., Szkokan-Emilson, E.J., Savage, P-L., Hanna, B.W., Bronte C.R., Evans, M.S. (2016) **Large lakes of northern Canada: emerging research in a globally-important fresh water resource.** *Journal of Great Lakes Research* 42, 163-165.

Eickmeyer DC, Kimpe LE, Kokelj SV, Pisaric MFJ, Smol JP, Sanei H, Thienpont JR, Blais JM. 2016. **Interactions of polychlorinated biphenyls and organochlorine pesticides with sedimentary organic matter of retrogressive thaw slump-affected lakes of the Mackenzie River Delta uplands, NT, Canada.** *Journal of Geophysical Research – Biogeosciences* 121: 411-421, doi: [10.1002/2015JG003069](https://doi.org/10.1002/2015JG003069).

Geisler, M.E., Rennie, M.D., Gillis, D.M. and Higgins, S.N. 2016. **A predictive**

model for water clarity following dreissenid invasion. *Biological Invasions* 18(7): 1989–2006. DOI [10.1007/s10530-016-1146-x](https://doi.org/10.1007/s10530-016-1146-x)

Hargan, K.E., Nelligan, C., Jeziorski, A., Rutland, K.M., Paterson, A.M., Keller, W., Smol, J.P. 2016. **Tracking the long-term responses of diatoms and cladocerans to climate warming and human influences across lakes of the Ring of Fire in the Far North of Ontario, Canada.** *Journal of Paleolimnology* 56:153-172. doi: [10.1007/s10933-016-9901-7](https://doi.org/10.1007/s10933-016-9901-7)

Thienpont JR, Korosi JB, Williams T, Hargan K, Eickmeyer D, Kimpe LE, Palmer M, Smol JP, Blais JM. 2016. **Multi-trophic level response to extreme metal contamination from gold mining in a subarctic lake.** *Proceedings of the Royal Society B*. [283: 20161125](https://doi.org/10.1098/rspb.2016.1125).

Szkokan-Emilson, E.J., Kielstra, B.W., Arnott, S.E., Watmough, S.A., Gunn, J.M., Tanentzap, A.J. 2016. **Dry conditions disrupt terrestrial-aquatic linkages in northern catchments.** *Global Change Biology*, [10.1111/gcb.13361](https://doi.org/10.1111/gcb.13361).

FIN

Dispatches from the Field:

Scenes from the 2016 IISD-ELA field course. Left: Getting insane with a Seine net on Lake 240.

Right: The appropriate face to wear when telling your instructor that you lost the Schindler-Patalas trap at centre buoy on Lake 239. Also, great excuse for some lessons in knot-tying. Credit: E. Lehmberg





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