

THE CURRENT

Society
of Canadian
Limnologists



Société
canadienne de
Limnologie

Issue 13 July 1, 2018

Newsletter of the Society of Canadian Limnologists

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Right: The curtain dividing Long Lake into two separate basins for the DOC manipulation experiment. See our Research Highlight on Page 3 for more details. Photo credit: Chris Solomon



SCL Update

Jérôme Marty, President



We are pleased to update the SCL membership on the latest news on freshwater science in Canada. The year started with a successful SCL meeting with CCFFR in Edmonton, at which our Canadian invasive species champion, Tony Ricciardi received the Rigler Award for his outstanding work on Aquatic Invasive Species science. As well, Matthew Guzzo from the University of Manitoba was awarded the Peters award for best student paper of the year. It should be noted that the papers submitted for the Peters award this year were outstanding, not only in Canada but also within the global freshwater community: Matt also won the SIL Student Competition award for 2018, and Clay Prater (Trent University), a fellow Canadian won third place in the SIL competition. This clearly demonstrates that the research conducted by our students in Canada has meaningful impacts, and we encourage both

students and their supervisors to continue submitting contributions for our awards.

At the last SCL meeting, we welcomed new members to the SCL Executive: Jérôme Comte (INRS), Kerry Finlay (U Regina) as Vice-Presidents and Cécilia Barouillet (Queens U) and Kristen Coleman (York U) as Students representatives. We would like to thank Alain Patoine and Helen Baulch (past VPs) as well as Nicolas St. Gelais and Daniel Grégoire (Students Reps) for their outstanding service to the society.

The first part of 2018 has also been filled with important news related to the funding of science in Canada: the federal budget released in March included a significant increase in resources for the Tri-Council grant programs. This included a 25% increase in NSERC Discovery grants. The injection of new funding will target students (60% of Discovery grant funding goes to students) and is also aimed at addressing the declining trend in the number of assistant professors in Canadian universities (16% drop over the last few years). It was encouraging to hear that NSERC plans on reviewing their peer-review process, allowing for non-linear career paths to be valued and also putting less emphasis on the number of

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publications and more on the impacts or contributions of the research to Canadian society.

Finally, we have now completed the incorporation process of the SCL: we finally have official incorporation status! We are currently working on the by-laws of the SCL, to be submitted to all members before our next meeting (in London, Ontario, early January) so that we may vote on them. Please let us know if you would like to help with the review of the society's by-laws. The official address of the SCL will continue

to be at the University of Ottawa (thank you to the University of Ottawa Biology Department).

I wish you all a safe summer on our lakes and rivers and we hope you will enjoy reading this latest issue, created by our dedicated Communication Officer (thank you Mike).

Sincerely,

Jerome Marty, SCL President 

Introducing your new SCL executive



President
Jerome Marty, Project Director/
Directeur de projet, Council of
 Canadian Academies/Conseil des
 académies canadiennes



Vice President, Francophone
Jérôme Comte, Professeur régulier/
Assistant Professor, Institut national
 de la recherche scientifique
 Centre - Eau Terre Environnement



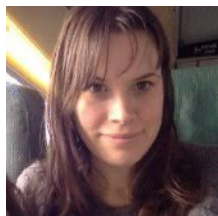
Vice President, Anglophone
Kerri Finlay, Assistant professor,
Department of Biology,
 University of Regina



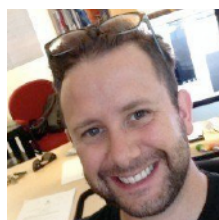
Student Representative
Cécilia Barouillet,
 Biology Department, PEARL Lab,
 Queen's University



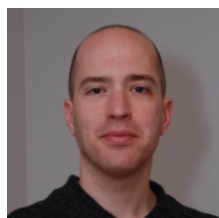
Communications Officer
Michael Rennie, Associate Professor
of Biology, Lakehead University



Student Representative
Kristen Coleman,
 Department of Geography, York
 University

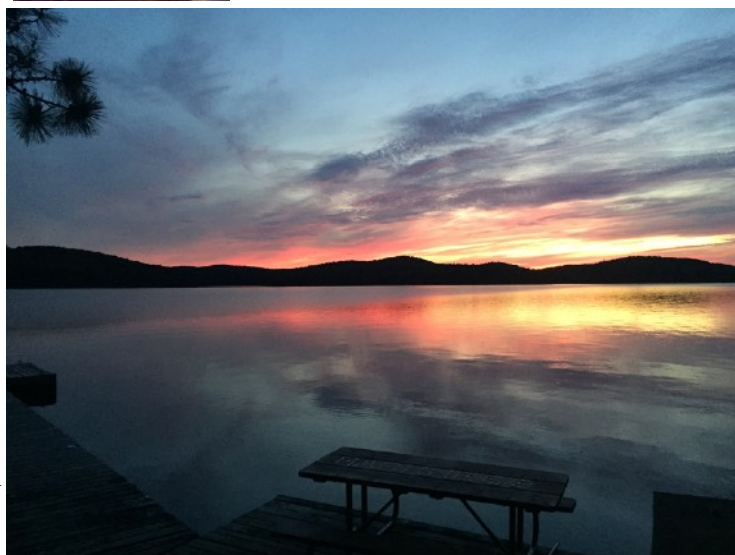


Communications Officer
Alexandre Poulain, Associate
Professor, Departments of Biology
and Environmental Science,
 University of Ottawa



Secretary-Treasurer
Joshua Thienpont, Department of
Biology,
 University of Ottawa

**Special thanks to our
 outgoing executive members!**
 Alain Patoine (Vice President Francophone),
 Helen Baulch (Vice President Anglophone), Daniel
 Grégorie (Anglophone student representative),
 Nicholas St. Gelais (Francophone student
 representative)



Sunset over Lake Opeongo from the Harkness
 Laboratory for Fisheries Research, June 2018. Follow
 Harkness on twitter @OpeongoTweets. Photo credit:
 Michael Rennie

Research Highlight

Why we turned a lake brown, and what we learned

Chris Solomon, associate scientist
Cary Institute of Ecosystem Studies, Millbrook, NY

Do inputs of terrestrially derived dissolved organic carbon (DOC) to lakes act as a resource subsidy that increases food web productivity, or as a kind of anti-subsidy that decreases productivity? Our group has used a whole-lake experiment, comparative studies, and models to explore this question over the past 8 years. We have repeatedly seen our experiments contradict our predictions, and so have learned a lot and had a lot of fun as we have tried to reconcile unexpected results with existing concepts.

Interest in the food web implications of terrestrial DOC inputs emerged from observations that DOC inputs vary in space in time, have strong effects on physical and chemical gradients, and are incorporated in substantial quantities into the biomass of a variety of lake heterotrophs. Early comparative studies showed that DOC worked mainly as an anti-subsidy, limiting food web productivity in high-DOC lakes.

To experimentally test this result, our group initiated in 2011 a whole-lake DOC manipulation experiment in Long Lake, at the University of Notre Dame Environmental Research Center (UNDERC). We divided the lake with a curtain into two similar basins, monitored food web productivity in both basins for two years, and then in 2013 increased the DOC concentration in the treatment basin from ~8 to ~11 mg L⁻¹ and continued to measure productivity in both basins for several more years.

The results of this experiment contradicted almost all of the predictions that we had made, despite the careful reading, thinking, and modeling that went into generating those predictions. While benthic primary production decreased as predicted in the treatment basin, pelagic primary production increased, and the biomass of both benthic and pelagic primary consumers increased as well (Zwart et al. 2016, Kelly et al. 2016, Craig et al. in prep.). The increase in the availability of pelagic invertebrate prey seems to be altering population cycles of largemouth bass in the treatment basin,



Secchi disks held at equal depths on the two sides of the curtain in Long Lake demonstrate the darker water on the treatment side, which led to changes in food web productivity. Image credit: Chris Solomon

although to date this has not led to changes in somatic growth or population productivity (Koizumi et al. 2018).

Being wrong on such a grand scale was a wonderful experience that we enthusiastically recommend to anyone; it sent us back to our whiteboard for some serious head scratching. In the end we concluded that two physical effects of the higher DOC in the treatment basin – less light at a given depth, and shallower thermal stratification – had almost perfectly counteracted each other, such that the average light climate experienced by phytoplankton circulating in the epilimnion of the treatment basin was essentially unchanged by the manipulation. Taken together with the slight increase in phosphorus availability from the higher DOC load, this meant that conditions for phytoplankton productivity had actually improved as a result of the DOC increase; the productivity of the rest of the food web seemed to follow along.

What does this mean for our general understanding of DOC effects on food web productivity? A modeling analysis that generalizes our insights from the Long Lake experiment makes some interesting predictions (Kelly et al. 2018). Among other things, this model predicts thresholds in lake productivity as a function of DOC concentration, with the critical DOC concentration

dependent on lake size and DOC chromophoricity. Several empirical studies have similarly suggested that such thresholds exist (Seekell et al. 2015, Solomon et al. 2015).

Our next step is a second phase of the Long Lake manipulation, beginning this summer, in which we try to generate a collapse in food web productivity by pushing the DOC concentration past the threshold predicted by the Kelly model. We're looking forward to seeing what we're wrong about this time.

Literature cited
Kelly et al. 2016. *Global Change Biology* 22:2766-2775. doi:10.1111/gcb.13260.
Kelly et al. 2018. *Ecosystems*. doi:10.1007/s10021-018-0226-4.
Koizumi et al. 2018. *CJFAS* doi:10.1139/cjfas-2017-0283.
Seekell et al. 2015. *L&O* 60:1276-1285. doi:10.1002/lno.10096.
Solomon et al. 2015. *Ecosystems* 18:376-389. doi:10.1007/s10021-015-9848-y.
Zwart et al. 2016. *L&O* 61:723-734. doi:10.1002/lno.10248.

FAST FACTS:

Who: A group led by Stuart Jones (Univ. of Notre Dame), Brian Weidel (U.S. Geological Survey), and Chris Solomon (Cary Institute of Ecosystem Studies).

Where: Long Lake and other lakes at and near the University of Notre Dame Environmental Research Center (UNDERC), in the Upper Peninsula of Michigan.

What: Whole-lake experiment to test the effects of dissolved organic carbon (DOC) on lake food web productivity.

Why: Test theory about ecological subsidies and DOC effects on lakes, and understand the implications of spatial and temporal variability in DOC and nutrient loads for lake productivity.

We Tinca there's a problem with Tench

Sunci Avlijaš, Ricciardi Lab, McGill University

Resistance to the spread of four Asian carps into the Great Lakes has been fueled by dedicated research funding, monitoring and rapid response plans, and a prominent public education campaign. However, a smaller Eurasian cousin of the carps has been swimming under our radar: the Tench (*Tinca tinca*).

Tench arrived in Canada in 1986, when an enterprising Quebec farmer brought 30 six-centimetre fish in a picnic cooler on a commercial flight from Germany. As his aquaculture business failed to take off, the ponds housing the Tench were drained and many of the fish dispersed through agricultural runoff into the Richelieu River, a tributary of the St. Lawrence. Early assessments concluded that this incipient population was limited to a small area and dismissed the species as low risk. Meanwhile, it colonized the length of Richelieu River upstream to Lake Champlain and downstream to the St. Lawrence River. Over the past several years, Tench have been found in increasing frequency in the St. Lawrence River and have expanded along the fluvial corridor. As of the summer of 2016, Tench crossed the Ontario-Quebec border within Lake St. Francis. If no management plan is put into place, it is simply a matter of time before it reaches Lake Ontario. Risk assessments for the Great Lakes show that the system offers plenty of suitable habitat for the species, especially the calm vegetated habitat required for its reproduction.



A large catch of tench in a gillnet. Photo Credit: Sunci Avlijaš.

Since we failed to study the Tench population in the St. Lawrence-Richelieu basin over the past few decades, we have little information on what impacts it will have on the Great Lakes. However, studies of Tench introduced elsewhere indicate it may compete with native fish for food, carry parasites which can infect native cyprinids, and trigger cascading effects on aquatic plants and water clarity. Although the Tench does not grow as quickly as carps, it can reach lengths up to 70 cm and maturity in 3-5 years. Tench can spawn multiple times per season, laying hundreds of thousands of eggs per kilogram of fish each time. Perhaps its most impressive characteristic is its tolerance of low oxygen conditions, which may confer an advantage over native fishes

in degraded areas.

Management plans for monitoring and rapid response to Tench spread must be developed and implemented. They should include efforts to slow or halt natural spread, particularly through lock systems that can act as barriers. Tench resistance to anoxia allows them to survive out of water for days provided they remain moist, and this may facilitate its transport between water bodies. For example, Tench captured as by-catch and shipped to Toronto markets from commercial fisheries in the St. Lawrence and Richelieu Rivers could survive the trip. Reports of its capture by anglers are increasing in the St. Lawrence River and some may even



A Tench, held for scale. That's a biiiig minnow. Photo credit: Sunci Avlijaš.

have a fascination for the species that tempts them to release it in new areas; scrolling through online message boards for the local angling community we find posters lamenting the absence of Tench from their favourite fishing spots. A public education program for Tench is sorely needed to prevent its spread by anglers or farmers, and is the first step in resisting their establishment in the Great Lakes. Though concrete studies about impacts in the Great Lakes are still forthcoming, we cannot allow incomplete information to paralyze management planning and action. The only effective time to prevent an impending invasion is early, and for the Great Lakes that time is now. 🌱

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

Society update

Josh Thienpont

SCL continues to maintain a strong membership, with 121 current members. This is just slightly below the number last year (131), and closely aligns with the 5-year average. Student members continue to constitute a strong proportion of the SCL membership, though the proportion has decreased slightly from previous years. If you have not already, please renew your membership, either online via PayPal, or by mailing in a paper form, available online. Also, for PIs, please encourage your students to join SCL as members. The student membership rates are very reasonable, and the society has many benefits for early career researchers.

Member attendance at the 2018 CCFR-SCL meeting in Edmonton was lower, in keeping with the trend of below average attendance at non-central meetings. We expect attendance will be high at the 2019 London meeting this January.

If you have not already, please renew your membership, either online via PayPal, or through mailing in a paper form. You can access all renewal options [on our website](#). 🌐

Conference round-up: Edmonton, 2018

Mike Rennie

There were 241 attendees at the January meeting in Edmonton, with 31% of participants identified as students. SCL member attendance at the 2018 meeting is on par with previous western and eastern meetings which tend to be lower than those held in Central Canada. Anthony Ricciardi was awarded the 2018 Frank Rigler Award for his significant achievements in the field of limnology, who gave an excellent talk highlighting the work of his research group addressing invasive species issues, particularly within the Great Lakes basin.

The Rob Peters Award this year went to Matthew Guzzo from the University of Manitoba, for his



Left: Frank Rigler award recipient Anthony Ricciardi, McGill University (left). Award presented by Michael Rennie, SCL Communications officer (right). Photo credit: John Lark.

exceptional paper describing changes in Lake Trout behaviour, growth and energy acquisition to changing thermal conditions. Links to both papers are [on our website](#). Congratulations to all our winners! 🌐

Save the date: Jan 3-6, 2018 in London!

Mike Rennie

Our next meeting with CCFR will take place January 3-6, 2019 in London, Ontario.

The Canadian Conference for Fisheries Research (CCFR) is Canada's largest and best known gathering of fisheries scientists. The conference has been held annually since 1948 and since 1979 has been co-hosted by the Canadian Society of Limnologists. The objectives of CCFR are: 1) to provide a forum for cutting edge fisheries research among academia, government, and industry; 2) to encourage the knowledge transfer of developments in fisheries, aquatic science

and aquaculture; 3) to encourage professional development and networking among Canadian fisheries professionals; and, 4) to provide training opportunities and networking for undergraduate and graduate students, including financial support for conference travel through the annual Clemens-Rigler Travel Award.

This year, the conference theme is "Resilience, Adaptation and Mitigation Strategies for Conserving Canada's Aquatic Resources". A final list of sessions will be announced at the end of July, 2018. 🌐

Nominations for awards now open!

Frank Rigler Award submission deadline August 25th

Kerri Finlay and Jérôme Comte

The Frank Rigler Award is the highest honour given by the Society of Canadian Limnologists. It was first presented in 1984 to recognize and honor major achievements in the field of limnology by Canadians or those working in Canada. Emphasis in selection is given to established aquatic scientists with a proven record of contribution to the field of aquatic sciences, whose work is widely recognized for its influence and importance. The winner of this award must give an overview on their research during the plenary session of the annual meeting of SCL/CCFR, January 3-6, 2019 in London (ON) and will receive complimentary registration at the meeting and a one-year membership with the Society.

A nomination for the Frank Rigler Award shall consist of:

1. A cover letter, not to exceed two



Above: 2018 Peters Award recipient Matthew Guzzo (Left), University of Manitoba, being congratulated by Michael Rennie, SCL Communications officer (Right). Photo credit: Josh Thienpont.

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pages in length (single-spaced, 12-pt Times New Roman font, 1-inch margins), describing clearly how the nominee has made a lasting contribution to the field of limnology, either as a Canadian citizen abroad or to the field of limnology in Canada. Contributions that should be highlighted in the nomination can include (but are not limited to) evidence of work that has a scope that is both broad and of high-impact; evidence of work that has directly influenced aquatic science policy, and major public outreach initiatives involving the candidate that increase awareness regarding the importance of freshwater resources to Canadians. The cover letter must also confirm the nominee's commitment to attend the upcoming society meeting and, if selected, present the Rigler lecture.

2. A CV covering the applicant's full scientific career that highlights employment history, publication record, funding held, contributions to training of students, invited lectures and contributions to public outreach, honours and prizes, and journal editorships and reviewing.

Nominations should be sent to jerome.comte@ete.inrs.ca by August 31st. Details about the award can be found here: <http://socanlimnol.ca/awards/frank-h-rigler/#instructions>

Rob Peters Award deadline August 25th

The Rob Peters award is given by SCL each year to recognize the best aquatic sciences paper published in the preceding year by a Canadian student or a student working in Canada. Students need not be SCL members to be nominated. The award is valued at \$500 and a free 1-year membership in the society. The awardee will present his/her paper at the upcoming SCL meeting in London, ON, January 3-6, 2019 during a plenary session.

Please consider nominating your published students for a Rob Peters Award! The nomination consists of a submission of the paper, typically from the student's supervisor. Nominations may be accompanied by a one-page cover letter outlining the quality, importance and impact of the paper.

Nomination packages should be sent to kerri.finlay@uregina.ca by August 31st. Details about the award can be found here: <http://socanlimnol.ca/awards/robert-peters-award/#instructions>

IISD Experimental Lakes Area is turning 50!

Sumeep Bath, Communications Officer, IISD-ELA

Worked at IISD Experimental Lakes Area in the last fifty years? We want to hear from you.

Despite not looking a day over 25, IISD-ELA has been conducting groundbreaking research on what is affecting fresh water for the last 50 years. 2018 is therefore a year of celebration, reflection, outreach, and planning for the next 50 years.

As part of our #ELA50 celebrations, we want to reconnect with old friends. Throughout the last fifty years of operation, the site has welcomed thousands of students, researchers, scientists, staff and much more.

During our fiftieth year, we want to hear from as many of you as possible. What are your memories of IISD-ELA?



IISD Experimental Lakes Area

What are you doing now? How did IISD-ELA help you on your way? Did you slay the competition on variety night? We are planning to boost our communication with our alumni, including engagement on social media, profiling on our website—all of which culminates in an alumni get-together in Winnipeg in July.

To register as an alumnus, and to hear all the latest alumni news first, visit bit.ly/ELAalumni. Then encourage all the IISD-ELA alumni you know to do the same.



Scenes from the early days of the Experimental Lakes Area; Left, volleyball in jeans (because it's the 70s I guess); Middle, The early Variety Night stage, featuring the Klaverkamp family; Right, breaking and fixing ATVs, a favourite pastime at ELA to this day. Photo credit: IISD-ELA

Student spotlight: our new student representatives

Kristen Coleman and Cécilia Barouillet



Kristen Coleman,
PhD Candidate,
York University
Supervisor: Dr.
Jennifer Korosi

In a few sentences, describe your research project:

I only began my PhD program recently but I have been working closely with my supervisor over the past few

months to develop a research proposal. I will be examining how permafrost degradation is impacting aquatic ecosystems at the southern extent of permafrost, where permafrost is particularly sensitive to warming temperatures and has experienced an acceleration in thawing in the past few decades. I am particularly interested in “lake browning”, a phenomenon caused by an increase in dissolved organic carbon, and how catchment characteristics (extent of recent permafrost collapse, landscape features) drive variability in response of lakes to permafrost thaw.

What makes you passionate about aquatic science?

I enjoy working on and near water bodies and couldn't imagine a more fitting research field. Canada is lucky to have an abundance of freshwater; however increased anthropogenic disturbance is threatening water security and I want to be active in protecting this resource for future generations.

Any advice to share to future Ph. D. and M.Sc. students?

Find a supervisor who will allow you some freedom in your research direction. This will be important for allowing you to explore your creativity and will help you maintain your passion for your research! Of course, it is also important to be passionate about research.

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

What is your goal to archive during your mandate at SCL?

We would like to organize more activities/workshops in order to foster networking opportunities for the students during the conference and throughout the year. We would like to create opportunities for students to connect with other researchers. We believe this would help encourage collaboration, and also create opportunities for established researchers to advise students about making the leap from student to professional. We would also like to coordinate more activities related to aquatic sciences with other national and international associations. 🌐



Cécilia Barouillet,
PhD Candidate,
York University
Supervisors: Dr.
Brian Cumming
and Dr. Daniel
Selbie, Queen's
University

In a few sentences, describe your research project:

J'étudie l'influence de perturbations climatique et humaines (i.e. aménagement hydro-électriques ; exploitation agricole et forestière du bassin versant) sur les frayères¹ à saumon rouge (*Onchorynchus nerka*) en Colombie-Britannique (Canada). La méthode que j'utilise consiste à reconstruire l'histoire limnologique des frayères en utilisant leurs archives sédimentaires, ainsi permettant de connaître l'état naturel des frayères avant les modifications humaines de leur bassin versant. L'étude paléolimnologique associée avec l'analyse de données limnologiques me permet de mieux comprendre l'influence relative des différents facteur environnementaux naturels et humains sur la production primaire et secondaire des frayères, en vue d'une amélioration de la gestion de ces écosystèmes, et de la production de saumon rouge.

¹Frayères : lacs dans lesquels les jeunes saumons rouges naissent and vie pour les premières années de leur vie.

What makes you passionate about aquatic science?

J'adore les sciences car j'apprends constamment ! J'ai choisi les sciences aquatiques car j'aime travailler sur l'eau, pour collecter des données limnologiques et des carottes de sédiments. Mais c'est aussi parce que je suis passionnée par la paléolimnologie, je trouve fascinant que l'on puisse reconstruire l'histoire des lacs, les sédiments c'est un peu comme la machine à remonter le temps de Retour vers le Futur.

Any advice to share to future Ph. D. and M.Sc. students?

Prends ton temps pour choisir un labo et superviseur qui te correspond, et sois passionné(e) ! C'est la clé de la réussite !

Community Based Water Monitoring Programs in Canada

Kerri Finlay, University of Saskatchewan



Lake Winnipeg Community-Based Monitoring Network (LWCBMN) volunteer Bill McQuaker at his sampling site on the Assiniboine River near Virden, MB. Community-based monitoring programs, like the LWCBMN, collect valuable data in collaboration with local citizen-science volunteers.


For more information [click here](#).

Photo credit: Paul Mutch (courtesy of the Lake Winnipeg Foundation)

Citizen scientist groups have been used across Canada for a variety of projects and purposes in the past several decades, and in aquatic environments have been used to monitor water quality issues such as eutrophication, invasive species, and the impacts of climate change. There are many examples of successful volunteer-based programs in Canada; the [Lake Partner Program \(LPP\)](#) in Ontario began in 1996 and has more than 600 citizen-scientists collecting samples on lakes across the province. Another newly-established CS program in Canada is the [Water Rangers](#), established in 2016 in Ontario, which now has expanded across Canada and internationally. Outside of Ontario, the [Lake Winnipeg Community-Based Monitoring Network \(LWCBMN\)](#) has been collecting water samples across southern Manitoba using scientifically vetted protocols since 2016. Data collected by citizen scientists in programs such as these have been published in peer-reviewed journals, used in water quality reports, and used to inform management decisions. Despite these successes, initiating and maintaining active CS programs requires considerable energy and financial support that is difficult to sustain over long periods of time.

Are you involved in a Citizen Science (CS) program for water monitoring? Are you thinking of starting one in your area? If so, you might be interested in a recent comprehensive survey of existing Community-based water monitoring programs has been completed through an initiative led by The Gordon Foundation, Living Lakes Canada, and WWF-Canada

which is now [available online here](#). The goal of the survey was to evaluate CS programs for monitoring water resources across the country and determine the major issues and concerns related to the maintenance and expansion of these programs. The main respondents were from NGOs and Governmental organizations, and the top 5 areas of concern for maintaining these programs were identified as: sustainable funding, data management, communication and reporting, coordination among different jurisdictions, and standardization of protocols. The conclusion was that a national discussion is needed to identify common goals and seek sustainable funding options.

If a Citizen Science program is a part of your research or outreach activities, keep your eyes and ears open for future initiatives coming out of this survey. Living Lakes Canada, WWF-Canada, and the Gordon Foundation will be organizing regional and national-level discussions regarding the future of Community Based Water Monitoring Programs in Canada. 

Member Recognition

Dr. Michael Rennie, Lakehead University was awarded tenure in 2018 and received an Ontario Early Researcher Award from the Government of Ontario.

Claire Nelligan from the PEARL lab at Queen's University and her co-authors were awarded the Jim Labounty Award for best paper at the NALMS meeting in November 2017 (Colorado).

Dr. Karen Kidd received the Recipharm International Environmental Award, recognizing her significant research on environmental contaminants.

Dr. John Smol was awarded the Society of Graduate & Professional Students (SGPS) Staff/Faculty Excellence Award at Queen's University.

Congratulations to all our members on their achievements! 

Upcoming meetings

SCL meetings

- [2019 with CCFR](#), London, ON, January 3-6

SIL meetings

- [34th SIL Congress](#), August 19-24 2018, Nanjing, China

Other meetings

2018

- [International Congress for the Biology of Fishes](#), July 15-19, Calgary, AB
- [2018 Meeting for the Canadian Society for Ecology and Evolution](#), July 22-26, Guelph, ON



Valissneria bed in 31 Mile Lake in Quebec. Photo credit: Jérôme Marty

- [Animal Behaviour Society Conference](#), 2-6 August, Milwaukee, WI
 - [2018 Annual meeting of the Ecological Society of America](#), 5-10 Aug, New Orleans, LA
 - [148th annual meeting of the American Fisheries Society](#), 19-23 August 2018, Atlantic City, NJ
 - [ELLS-IAGLR 2018](#), September 23-28, 2018, Evian, France
 - [State of Lake Superior conference](#), October 8-12, Houghton MI
 - [38th meeting of the North American Lake Management Society](#), Oct. 30-Nov 2, 2018, Cincinnati, OH
 - [2018 Annual meeting of the Geological Society of America](#), 4-8 Nov, Indianapolis, IN
 - [39th SETAC North America meeting](#), Sacramento, CA 4-8 November 2018
 - [2018 AGU Fall meeting](#), 10-14 December 2018, Washington DC
- 2019**
- [Canadian Society of Zoologists](#), 2019, TBA
 - [International Association for Great Lakes Research](#), June 10-14 2019, Brockport NY

- [Canadian Geophysical Union Meeting \(joint meeting\)](#), July 8-18 2019, Montreal, QC
- [Association for the Society of Limnology and Oceanography, Aquatic Sciences meeting](#), Feb. 24-Mar 1, 2019, San Juan, Puerto Rico
- [Joint meeting of Herpetologists and Ichthyologists](#), July 24-28 2019, Snowbird, Utah 🌐

Recent Citings

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

Avlijaš, S., Ricciardi, A. and Mandrak, N.E. **Eurasian tench (*Tinca tinca*): the next Great Lakes invader**. 2018. Canadian Journal of Fisheries and Aquatic Sciences 75: 169-179. <https://doi.org/10.1139/cjfas-2017-0171>

Kennedy, P.J., Bartley, T.J., Gillis, D.M., McCann, K.S. and Rennie, M.D. **Offshore prey densities facilitate similar life history and behavioral patterns in two distinct aquatic apex predators, Northern Pike**

and Lake Trout. Transactions of the American Fisheries Society. In press. <https://doi.org/10.1002/tafs.10090>

Kielstra, B. W., Arnott, S. E. and Gunn, J. M. 2017. **Subcatchment deltas and upland features influence multiscale aquatic ecosystem recovery in damaged landscapes**. Ecological Applications 27: 2249–2261. [doi:10.1002/eap.1609](https://doi.org/10.1002/eap.1609)

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