

THE CURRENT

Society
of Canadian
Limnologists



Société
canadienne de
Limnologie

Newsletter of the Society of Canadian
Limnologists

In this issue:

President's Message.....	2
Farewell SCL – a message from past SCL presidents.....	3
Society Updates.....	5
A First-Hand Account of Laurentian University's troubles.....	7
Members Update.....	11
Award Winners.....	12
SCL Conference and meetings.....	12
Student Spotlight.....	14
Recent Citings.....	15
& much more!	

Fluvial lake St. Pierre, St. Lawrence River, Québec
Photo Credit : François Guillemette



Facebook



Webpage



Twitter

ISSUE 19, February 2022

Message from the president

Björn Wissel, President



Dear Colleagues,

While I have experienced writer's block many times before, this time it is different. On one side I am melancholic, realizing that this is actually the last SCL newsletter that we publish. During 20 years as a member and 3 years as president, SCL has been a constant presence and positive influence for me. Similar sentiments were expressed by three of our former presidents' who volunteered to share their personal thoughts (see below) regarding the upcoming creation of a larger Canadian aquatic society (SCAS). On the other side, I am excited to see SCAS take off and provide a new home for aquatic scientists from Coast to Coast to Coast, and everything / everyone in-between (thoughts that were also shared by our former presidents). Representing more disciplines will facilitate new collaborations and encourage cross-disciplinary projects. Yet, like in any good home people will be able to maintain their identities as limnologists, fisheries scientists, wetland ecologist, oceanographers, ... In addition, our values such as mutual respect, fairness, kindness, support for students and ECR, and advancing EDI will live on and thrive at SCAS. So, actually, I am quite thrilled about the possibilities and opportunities of an organization that will represent ALL aquatic sciences in Canada. And my melancholy is probably just an indication that I am getting older and more reluctant to change. Finally, regarding my writer's block, I just followed the advice I give to my students to just start writing...


The upcoming CCFFR-SCL meeting in Vancouver (Feb. 24-26, 2022) will provide ample opportunities to gather information on SCAS, discuss new ideas and get involved in the new society. The scientific program is

sandwiched between the J.C. Stevenson and Frank H. Rigler plenaries (Thursday morning) and the SCAS Plenary Discussion on Friday afternoon. Given that we lost several of our beloved colleagues over the past year, there will also be a "in memoriam" at CCFFR-SCL 2022 to recognize their passing and contributions. At this point I also want to sincerely thank the conference chairs Scott Hinch and Jonathan Moore for their endless efforts in planning, organizing, and chairing an in-person meeting during these uncertain times.

Finally, SCL will host the 2022 business meeting on March 9th, 2022 at 12:30 PM (EST). Holding the meeting after the conference will give all of you the opportunity to get informed about the planned transition from SCL to SCAS. Also, the meeting will be virtual to give everyone the opportunity to attend, rather than just those who attend the conference. We will share the agenda the week before the business meeting, but we will provide updates on our membership, our budget, and last year's activities. And of course, we will have a motion to move from SCL to SCAS.

Risking to sound like a broken record, I hope that 2022 will bring back some normalcy for all of you. From "we are all in this together" to vaccines (yeah, finally!) to pandemic vs. endemic to protests, the last couple of years were often traumatic, scary, confusing, and divisive. I hope that we can all learn from our experiences, get together, and make this world a better place for us and the next generations. Maybe by next year, we can focus again on climate change, eutrophication, over-fishing and how to write the next team grant to find solutions to these problems!

I hope to meet many of you in Vancouver!

The End 



Farewell SCL – A message from past presidents

By Jules Blais, Yves Prairie and Peter Leavitt

For over 40 years, the Society of Canadian Limnologists (SCL) was a central feature of the limnology community in Canada. Its annual meetings in partnership with the Canadian Conference for Fisheries Research (CCFFR) was where many of us first met the aquatic research community in Canada, and where we made lasting connections that continue to this day. This year, SCL will join our colleagues in Canadian fisheries and ocean sciences to become the new Canadian Society of Aquatic Sciences (CSAS). The new society brings many opportunities for growth and we believe our community will benefit from the makeover. At the same time, we will miss some of the things that made SCL feel like part of our extended family: a small community of people with common interests who looked forward to reconnecting every year. As former SCL executive members who first joined SCL as students and became professional limnologists in Canada, we wanted to take this opportunity to speak to what SCL meant to us at the various stages of our careers.

First a bit of history. SCL first emerged in the late 1970s following brief stints in earlier societies, including SIL-Canada and the Canadian Society of Environmental Biologists. Our partnership with CCFFR brought us together every year at an annual conference where we presented the latest in aquatic and fisheries research. By 1984, SCL introduced the Frank Rigler Award, its first career award that soon became an annual tradition and included an invited lecture in the plenary session at the conference. From 2007, the Robert H. Peters Award would also recognize articles by students.

For many of us, SCL was the first scientific society we joined, the first scientific meeting we attended, and where we presented our research for the first time. At these meetings, we experienced our first taste of how scientists behaved as we also learned how to navigate in the sometimes choppy social and scientific waters. For some, it was

our first realization that there were people like us who thought science was cool and fun, and where we learned that science wasn't always 'perfect'. The meetings were where we took our first tentative steps to expressing our opinions. Watching others interact, we realized that questions were not only acceptable, but encouraged, and could be helpful as well as critical.

Although few of us realized it at the time, SCL was also the place where we would meet our future colleagues, collaborators, and mentors. It was a place where we could not just meet the familiar names, but we could also seek out souls who looked sympathetic to what we were going through. As time and careers progressed, we would strike up conversations, have dinners, attend social events, or compare notes with these people every few years. Some would become life-long friends, and some would also become collaborators. If we had any advice for our younger selves, it would be to cultivate these friendships more intently knowing how important they would be in the future, and to keep in mind that our friends won't be around forever.

As our careers progressed, SCL took on a different character – often one of community and service. As a late stage PhD or postdoc, we realized that if we wanted to stay in Canada, then SCL meetings were a place to showcase our work to prospective mentors or employers. Often a good conversation with someone led to our next career goal, a new position or a new project. SCL was also where we took early, tentative steps into a leadership role – perhaps as a student representative, a conference assistant, or, eventually on the executive. After a while we realized that science is a two way street, with good papers and presentations contributing to a society, but with the society contributing immeasurably to one's development. For many, that realization coincided with the desire to pay it forward – to reinvest in SCL and the future of limnology in Canada.



SCL Past presidents: Jules Blais, Yves Prairie and Peter Leavitt.

For those of us who advanced further in our limnology careers, our perception of SCL's role changed again. We realized that SCL was a comparatively small and close-knit society competing for members with much bigger sharks in the waters (ASLO, SIL, ESA, AGU, IAGLR, etc.). For many of us, those societies helped us realize the need for a Canadian society that represented limnology and aquatic sciences in our country. Attending those large society meetings gave a dual impression; first, we realized these societies are truly the big leagues, but also second, these are not societies that represent our country very well. Canada with its own issues, its own unique environment, its own lakes and rivers, its own research funding apparatus, its own environmental policies and regulatory framework, needs its own voice. After a few rounds of grant applications or larger collaborative ventures we realized that Canada is best served by Canadian Societies – organizations that understand the scientific ecosystem and culture and represent the researchers, students and educators in our system. For many of the older generations (oldster, thanks very much), this realization corresponded to participating in research programs with diverse people and aspirations, and we could comfort in knowing that SCL was there to help mentor the next generation of national leaders.

Now as we become the new Society of Canadian Aquatic Sciences (SCAS), SCL's former role will transform and expand. SCAS will connect limnologists with the fisheries and ocean sciences. Although limnology has traditionally been a smaller partner by comparison, it will always have an important

place in a country endowed with nearly 20% of the world's freshwater, including some of its most formidable great lakes. The original intention of our joint meetings was to link freshwater science to fisheries and oceans, but the conference

only lasted a few days a year. Canada, with the world's longest coastline, didn't have a society for ocean science until now. Having such a society will forge improved links with Fisheries and Oceans Canada and our partnership with the Canadian Journal of Fisheries and Aquatic Sciences will take on new meaning, our visions aligned better than ever. The new society will also be committed to inclusion, diversity, and promoting students. Most of the key benefits of SCL will continue in the future, but now with the improved security of a larger and more inclusive society. We will have more strength in numbers and reach a wider audience.

At the same time, we will retain some of our cherished traditions. We have assurances that the Rigler Award and Peters Award that began with SCL will continue to be awarded annually, and the Rigler Lecture will be included in the conference plenary session of our annual meetings. This assurance was important to many of us because we only have traditions if we protect them. Our mentors and friends were some of the recipients of these awards and we wanted to preserve their memory and maintain our connection to the past. A newsletter template is being designed as well, to continue SCL's outreach efforts that kept our society connected. As with SCL, the new society will represent different things to different people. But the change in our name will not alter the fundamental benefits of the society. We'll still meet annually, we'll still talk science as we always have, and we'll still retain our connections with the same people, but now with more room to grow. And as it was with SCL, our new society will represent our work

to regional, national and international scientists, the broader public, and the future.

This article is dedicated to all the SCL members we have lost over the years. Your memory will live on.



Society Updates



Society of Canadian Aquatic Sciences

By Kerri Finlay

We are thrilled to introduce you to the newly minted Society of Canadian Aquatic Sciences (SCAS)/ Société canadienne des sciences aquatiques (SCSA)! Our Vision: Be the leading scientific society for the excellence, integration, and dissemination of expert knowledge in fisheries, limnology, and aquatic sciences. Our Mission: The role of the SCAS/SCSA is to offer an impartial, diverse, and inclusive forum to share, integrate, and advance knowledge of fisheries, limnology, and aquatic sciences in Canada.

The new society is the result of many years of discussion between members of SCL and CCFFR. We have held our meetings jointly since January, 1979. Meeting registration and sessions were fully integrated in 2014, and informal discussions about a combined organization began in 2015. In 2019, formal motions were passed at CCFFR and SCL business meetings to strike a merger committee to develop a path forward. The name “Society of Canadian Aquatic Sciences (SCAS)” was selected through a survey of both CCFFR and SCL members, and was formally adopted at the 2021 joint meeting. The same survey garnered input on the mission, purposes and terms of reference. Subsequently, SCAS was incorporated and an inaugural board was formed to continue

advancing the society development. Most recently, a logo was commissioned and work to develop the SCAS website is under way. At the 2022 CCFFR/SCL conference, SCAS will have a kickoff meeting, and in 2023 in Montreal, SCAS will have its inaugural conference as a society.

What does this mean for you as an SCL member? We listened to input from our members in drafting the Vision, Mission, and Purposes statements which now explicitly address the values that we have identified as key to SCL: the need to keep Limnology prominent, focus on student and ECR support, and recognizing and celebrating diversity in many forms. We will also retain the Rigler and Peters awards, as well as this newsletter! Your SCL membership will automatically roll over to SCAS for the duration of the membership. Going forward, you can sign up for 1- or 2-year memberships in SCAS.

If you’re attending the SCL/CCFFR meeting in Vancouver, be sure to come to our information session on Saturday afternoon.


If you can’t make it, stay tuned – we will be sending out lots of information including details about our website, opportunities to get involved, and lots more!



2022 Membership Renewal Now Open!

By Joshua Thienpont

We continue to accept new SCL memberships and renewals for 2022. All existing memberships will automatically be moved to the new SCAS, so take this opportunity to be one of the first cohort of members in the new society!

Membership dues can be paid via credit card at the link below appropriate to your career stage. We continue to accept paper renewals, contact Josh at jthienpo@yorku.ca for details. If you are unsure if your membership requires renewal, contact Josh and he'll be happy to check the status for you. We will also be accepting in person renewals by credit card, or cheque at the upcoming CCFFR-SCL meeting in Vancouver. 

Join now!

- 2-Year Regular Membership - \$120
- 1-Year Regular Membership - \$70
- 2-Year Early Career Membership - \$70
- 2-Year Student Membership - \$35
- 1-Year Student Membership - \$20

Donation

We are also accepting donations for the [Peters Award Donation](#)


LimnoSeminar series

By Matt Bogart

We have revived our LimnoSeminar series with a new format, making it a bit unique compared to other science webinars. In a nutshell, each LimnoSeminar has a featured limnology topic. During the first half of the webinar, an invited early-career researcher (ECR) gives a presentation that includes a topic overview, followed by their own related research. In the second half of the LimnoSeminar, the ECR speaker joins a panel with 2 other limnologists that have expertise in the topic area. An SCL moderator facilitates the discussion by directing questions posed by the audience to the panel.

We have earmarked Tuesdays at **12:30-13:30 Eastern** as the ideal time to host these events. All registered participants will receive

an email with the Zoom webinar link before the scheduled LimnoSeminar event.

With the permission of each speaker, recorded LimnoSeminars will be posted to our [SCL Youtube Channel](#). 

Speakers and panelists for Winter 2022

Date	Topic	Speaker	Panelists
March (TBD)	Aquatic greenhouse gas emissions	Dr. Cynthia Soued	Dr. Lisamarie Windham-Myers Dr. Björn Wissel
April (TBD)	TBD	TBD	TBD

A First-Hand Account of Laurentian University's Troubles

By Charles Ramcharan and David Lesbarrères

On the 1st of February 2021, all members of Laurentian University received an email from the President, Dr. Robert Haché, that the university was financially insolvent and had sought creditor protection under the Companies' Creditors Arrangement Act (CCAA). Days later, LUFA (the Laurentian University Faculty Association), confirmed that indeed, layoffs of professors were coming. A second shockwave swept through the university when researchers were informed that their research money was gone. All of the money from SSHRC, CIHR, NSERC, CFI, CRC, ORF, FedNor, NOHFC, and other external granting agencies had been spent by the university for operations and salaries. Not only were careers to be destroyed by the layoffs but research futures would collapse because hard-earned research money had been misspent by the very people in charge of managing it.

How did we get to this terrible place? Since the mid 70s, provincial funding for Ontario universities has been a straight line downwards, regardless of which political party was in power. Since university expenditures have steadily risen, the budget shortfalls have been met partly by increasing tuition but mostly by attracting foreign students. At some Ontario universities, nearly 50% of operating revenue now arrives with students from India and China.

In Northern Ontario, the size of families in Laurentian's student catchment basin had been shrinking down to the national average of 1.9 children per household. Meanwhile, Laurentian's faculty complement

had one of the highest median ages in Canada, and progress-through-the-ranks had made many faculty members expensive, especially relative to the shrinking student numbers. Fewer students meant fewer provincial dollars, so beginning in 2010 Laurentian began an aggressive campaign to recruit students from Southern Ontario and abroad. With the university posting budget deficits of \$2-\$4M per year, Laurentian's bid to put a satellite campus in Barrie, Ontario, was a survival move. The plan was rejected by the province in 2016. The 2018 withdrawal of Saudi students by their king cost Laurentian over \$1.2M. In 2019, the newly elected Ontario government of Doug Ford simultaneously froze student tuition and decreased funding to universities by 10%. A further decline in student enrolment for the academic year 2020-2021 due to the pandemic, pushed Laurentian University over the edge.

Following the announcement of insolvency, no other information was provided by any source. For months as the pandemic raged we all worked in the deathly darkness to finish our winter term courses not knowing if we were to be fired, and if we weren't to be fired, if our research programs would be allowed to survive. As the term was ending, the shape of a monster emerged from the fog. It came by email. Lists of which units (programs, departments, and schools) were to be cut. Procedures for prioritization of, and seeking approval for, research spending. Cutbacks to administrative units and amalgamations of remaining units. Finally, on April 12th 2021 – a day now known in



Prof. Charles Ramcharan and David Lesbarrères, Laurentian University

Northern Ontario as Black Monday – selected staff and faculty were called into a series of 20-minute Zoom meetings sorted by academic unit. In each meeting, the President read a prepared message and fired everyone.

In total, 115 faculty and 25 staff were fired – without severance pay. How did Laurentian decide who to fire and who to keep? What congress of leaders would painfully deliberate to trim the university down to its strongest assets and preserve its best options for recovery? Nothing remotely like this even happened.

In the decisions about what university assets to retain, two different “filters” were applied one for units and another for faculty. Units were either kept or closed based on their “self-sufficiency” in terms of courses. The metric used was the ratio of the number of courses offered by a unit divided by the total number of courses needed for that unit’s programs. A completely self-sufficient program that taught all of their own courses would have a ratio of 1. Smaller units or those that were more interdisciplinary would have

lower scores because they would rely more on courses from other units. The cut-off ratio was set at 0.75. All units that scored at or above 0.75 were kept; the 70 units that scored below were deleted. My own unit, the School of The Environment, scored 0.74.

My deleted unit included a couple of Laurentian’s top researchers such as Nadia Mykytczuk, an early career award winner with 13 graduate students, millions of dollars in funding from academic and industry sources, and several featured appearances in public media (e.g., CBC’s Quirks and Quarks). Laurentian’s Research Office was progressing towards erecting a new, six-storey center for biomining built around Nadia’s research at the time that the university fired her. Laurentian’s component of SNO-Lab, the neutrino observatory buried in a mine shaft under 1,700 m of granite was closed. SNO-Lab’s pivotal roles in two Nobel prizes were useless in keeping the budget wolves at bay. Even though units like these were closed, why weren’t at least the research stars such as Nadia kept? Because there was a second filter

and this one came from LUFA, the faculty association.

In the end, LUFA hewed to the standard union catechism that all workers have the same ability, all do work of equal value, and the only thing that matters in terms of worth is seniority. This may make some sense if you're working in a factory but academia isn't quite the same workplace. No one sorted through and evaluated faculty CVs. With few exceptions Laurentian's older faculty kept their jobs. Many of the younger faculty were women, Indigenous peoples, minorities, and Francophones. With so many now gone, Laurentian is no longer in compliance with diversity requirements for some Federal grants.

LUFA also targeted vulnerable administrators who were fired by Laurentian. Across Canada, university faculty who take positions as VPs, deans, and vice-deans are seconded under contracts outside of their faculty collective bargaining unit. They are guaranteed re-entry to their units if terminated. Instead, and without consultation with other faculty members, LUFA unilaterally closed the door to these administrators when they were fired by Laurentian. These were some of Laurentian's best. Not only did they run units like the Faculty of Graduate Studies, the Faculty of Education, and the Center for Academic Excellence, but they also had CVs thick with publications, steady external funding, large labs, and they were doing research that was important for Canadians. LUFA's actions have made it very difficult for these colleagues ever to be rehired.

A controversial question is whether the CCAA process – ongoing as I write this – was even necessary. The collective agreement between Laurentian and LUFA has a

contingency clause for managed reduction in faculty number based on demonstrated financial need, but this process was never engaged. Instead, the President and Board of Governors opted for the CCAA. It's a most remarkable law. Under the CCAA, all claims from creditors are put on hold, but importantly for faculty and staff, all contracts including collective agreements are also suspended. The CCAA applicant has complete power to hire or fire anyone. There is, however, a very big downside.

Laurentian like all universities, has two types of debt, long-term and short-term. Long-term debt (about \$290M) was mostly mortgage loans on recently built residences, buildings, and renovations, as well as deferred capital contributions. This type of debt was not the problem as it was being serviced through income from dorms and other rents. The crisis was caused by short-term debt from loans used to cover university salaries and operations that had accumulated to \$20-\$25M.

The short-term debt of \$25-30M could possibly have been covered through a combination of managed faculty retirements, program cuts, and government bailouts on the scale of those provided to other universities in Canada. Instead, Laurentian rejected initial (low-ball) offers of help from the Ontario government, and pressed the CCAA panic button. Like a tower of Jenga blocks collapsing, all of Laurentian's debt, short- plus long-term, was now due – all \$320M. Thus, soon after the unit and program cuts, a third filter was deployed, this one intended to decide which real estate assets the university would keep and which would be sold.

Teams of contractors descended on campus in the summer taking detailed measurements of the floor areas and facilities

found in Laurentian's residences, classrooms, research centers, athletic center, the Northern Ontario School of Medicine, the Innovation Center, and the School of Architecture. Could they be sold and converted into apartments, condos, or offices? Laurentian sits in a beautiful, 410 ha forest set on granite hills and surrounded by five lakes. Over the last 20 years, takeover bids from developers had been defeated several times but now the campus may be available at a fire sale price. Our colleague Dr. John Gunn, a Tier 2 Canada Research Chair, runs the Vale Living with Lakes Center, and this LEEDS Platinum level certified green building turned out to be the most valuable on campus. Its geothermal system brings heating and cooling expenses to zero thus annual operating costs basically come down to cleaning. With its huge windows overlooking Ramsey Lake, it might make a lovely executive condo, once the labs of two other CRCs have been scrapped and the analytical equipment liquidated.

Who ultimately decides the fate of all campus assets, programs, faculty, research spending, etc.? A court-appointed accountant who works for the accounting firm, Ernst & Young. The CCAA ends (hopefully in February 2022) with a court approved agreement between Laurentian, its creditors, and its claimants, of which there are now 142 including several federal government agencies. No creditor or claimant will receive their full claim, and settlement amounts will depend on negotiation, additional Laurentian revenue (the province belatedly just promised \$32M), and the sale of campus assets.

The collapse of Laurentian, however partial, had a devastating effect on our students. Those who had the option to leave, did. But many students chose Laurentian because of our specific programs in areas such

as Environment, History, Actuarial Science, Midwifery, French Studies, Civil Engineering, and Political Science. All are gone along with French equivalents of the English programs. Particularly damaging was the massive loss of Indigenous programs and courses. Another reason that students chose Laurentian is low cost. It's a budget school and 60% of our students are first generation degree seekers, often from immigrant families. Many can barely afford the tuition fees; 20% of our students use the food banks.


Where was the national outcry when all of this was happening to an Ontario public institution and one of the largest employers in the City of Greater Sudbury? With two notable exceptions, as the flames from a burning university filled the sky, every political and civic leader skittered into hiding. There was no condemnation from Sudbury City Council, no calls for an investigation by either provincial MPPs or federal MPs, and no cries for provincial or federal aid. Only two leaders loudly spoke out and forcibly acted. MPP Jamie West (Sudbury NDP) railed in the media and in the Ontario legislature and began a local campaign to preserve and support the university. MPP France Gelinias (Nickel Belt NDP) coolly went further, and requested an investigation of the university's finances by the Auditor General of Ontario. This forensic investigation, now in progress, involves all documents, decisions, and financial data shared among the university administration for the past eight years, including communications among the Board of Governors, the university President, and the Ontario Ministry of Colleges and Universities.

For many who have lived through all of this, one of the most disorienting experiences was the loss of firmament. In the

end, the academic things we had learned to value had no value. Tenure, rank, graduate student training, grant funding, high impact factors, community engagement, and publications – all were highly sought medals that brought validation, but none of these saved even one of us. Many who published still perished. Neither did help come from safety nets such as the faculty union, tenured status, university senate, the courts, and government – all things that once seemed as solid as the walls in our offices. Is there a lesson here?

Over the last 20 years, tenured faculty jobs have been declining in favour of the more flexible employer options of sessional instructors and adjuncts. These low security positions offer little opportunity for setting up research programs. The loss of secure faculty positions and their associated functions are a very serious issue but the woes that brought my school to its knees were much worse, and Laurentian isn't alone. Strong cutbacks have arrived at the University of Manitoba, the

University of Alberta, and BC's Thompson Rivers University among others. In the last year, about a dozen universities in the United Kingdom fell into serious financial trouble. At least 60 other US colleges are suffering the same fate, most notably the 25 schools of the Colleges and Universities of New York. The CUNY system cut 2,800 jobs last year mostly involving professors, adjuncts, and staff. Among Western Hemisphere universities that rely on foreign students, this seems to be a disheartening trend. As with Laurentian, losses of enrolment due to Covid-19 is the headlined cause, but if any financial operation goes under because of just one or two bad years, is the real cause bad luck or a bad business model? After four centuries of playing leading roles in social development, economic progress, and the betterment of the human experience one thing that universities have never been expected to do is turn a profit.

That's where we are now. 

Members Update

Branavaan Sivarajah, from **John Smol's lab**, was awarded the 2021 Queen's University Sciences Outstanding Thesis for his thesis Sivarajah, B. (2020) Examining the long-term ecological consequences of gold mining operations, urbanization, and climatic changes on sub-Arctic lakes near Yellowknife (Northwest Territories, Canada) using diatoms as paleoenvironmental indicators. PhD Thesis, Queen's University. 331 pp.

Also from Smol's lab, Branaavan Sivarajah and his co-authors (including grad students Elizabeth Favot and Brigitte Simmatis) were awarded the 2021 Interdisciplinary Freshwater Harmful Algal Blooms (IFHAB) Best Student Paper Award (Sivarajah et al. 2021 Harmful Algae).

Finally, Brigitte Simmatis (Smol's lab) was interviewed for Women of Scientista. (2022 Feb 14) - <https://scientista.wixsite.com/queensu/podcast-1>



Award Winners

Robert Peters Award

By Kerry Finlay

We are pleased to announce that this year's Peters Award for Best Student Paper has been awarded to Joanna Gauthier. Her paper, "Evaluating the congruence between DNA-based and morphological taxonomic approaches in water and sediment trap samples: Analyses of 36-month time series from a temperate monomictic lake" with co-authors David Walsh, Daniel T. Selbie, Alyssa Bourgeois, Katherine Griffiths, Isabelle Domaizon, and Irene Gregory-Eaves was published in *Limnology and Oceanography* (doi: 10.1002/lno.11856).

Dr. Gauthier completed this work during her PhD research at McGill, and has greatly enhanced the field of environmental DNA analyses through extensive comparisons with traditional biodiversity analyses. Her work is of broad interest for aquatic scientists interested in diatom and crustacean biodiversity and community dynamics.

Congratulations Joanna!

Frank Rigler Award

By Jérôme Comte

The 2021 Rigler award has been awarded to Prof. Sherry Schiff (University of Waterloo, ON) for her outstanding contributions to aquatic sciences and her excellence in high qualified personnel training. The committee also recognizes her excellence in research and education and her contributions that go beyond academic research, but also serves to inform partners in the community. She is also a role model for women seeking to combine family obligations and careers.

Sherry Schiff's research focus on the cycling of key elements within lakes, streams, rivers, forests, and agricultural watersheds. Understanding these cycles is critical to properly addressing environmental concerns. Ultimately, her research aims to inform decision-makers about current and emerging environmental problems and the nature of potential solutions

Congratulation Sherry!

List of 2022 conferences

SCL/CCFFR annual meeting • Feb. 24-27

Ontario Chapter of the American Fisheries Society • Mar 25-26 • Virtual

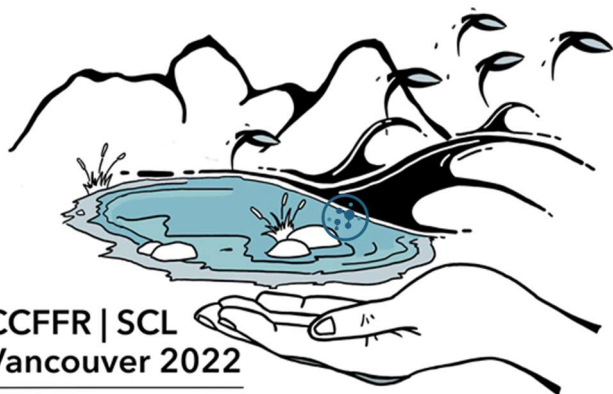
Canadian Geophysical Union • June 1-3 and 6-8 • Virtual

Canadian Society for Zoologists • May 9-13 • Moncton, NB

ASLO-Aquatic Science Meeting • May 14-20 • Grands Rapids, MI

American Society for Ichthyology and Herpetology • July 27-31 • Spokane, WA

ESA 2022 • Aug 14-19 • Montreal, QC



**CCFFR | SCL
Vancouver 2022**

Aquatic systems stewardship: crisis, change, and cooperation
L'intendance des milieux aquatiques: crises, changements, et coopération

The 2022 theme is "Aquatic Systems Stewardship: Crisis, Change, and Cooperation".

The conference is being held fully in-person, and we are developing strong health and safety measures as governed by the evolving situation. Only COVID fully vaccinated people are allowed into the venue as per provincial health authority rules. A mask mandate and reduced meeting room occupancy levels, as per provincial health authority rules, will ensure a safe meeting.

In this era of crisis and challenges to aquatic systems and their fisheries, there is a need and opportunity to come together to share new insights, solutions, and bright-spots.

Symposium sessions will tackle emerging scientific issues and their applications and challenges to management

and will include: Indigenous management systems: leadership, collaboration, and agency; Recreational fisheries: the human and biological dimensions; Climate extremes and change in aquatic systems; Salmon in a changing climate; Fish habitat: change, complexity, and management; Cumulative effects and watersheds; Food webs; Genomics and its application; Contaminants and water quality; Restoration of lakes and rivers; and, Tribute sessions to David Schindler and Kim Hyatt.

The conference will be held at the JW Marriott Parq hotel in downtown Vancouver. Situated on False Creek across from Granville Island, and next to historic Gastown and trendy Yaletown, it is in the epicenter of Vancouver's dynamic entertainment district. By coming a few days earlier than the conference or staying a couple days after, you can make a fantastic holiday as part of the conference experience.

Details on registering for the conference, submitting abstracts, and for booking accommodation can be found at the links on the home page.

Scott Hinch (UBC, Local Arrangements Chair)
Jonathan Moore (SFU, Program Chair)

SCL business meeting

March 9th, 2022 at 12:30 PM (EST). We will circulate the Zoom link to all members once it becomes available via email. Members will not have to registered for the conference to participate.

Student Spotlight

Interview by Kristen Coleman and Cécilia Barouillet

Reflecting on our 3-year mandate as student reps of SCL

Getting involved in our scientific societies is important, as it can be a great platform to grow your network, and also help guide the future of these societies and the role they play in the broader scientific community. Representing the student's voice for the SCL community has been a great and amazing experience. As the end of our terms is forthcoming, we thought that it would be a good time to reflect on our experience as student reps of SCL. Here we answer questions that have been asked by fellow students throughout our mandate.

How was it at first to be part of the executive of SCL?

Kristen: I wasn't entirely certain of what my role would be on the executive board. At first we learned a lot by just listening. When we had ideas or wanted to plan student events we were always supported.

Cecilia: I agree, while at the beginning it can be a little bit overwhelming to be part of an executive, we were warmly welcomed and well integrated. Our voice as students has always been respected and listened to. We were provided opportunities to take the lead and participate in guiding a hopeful future of SCL.

Kristen: I think we were also very lucky to work with each other: we made a great team! We supported each other's ideas and met

often to execute them. It made the experience a lot of fun.

What is the time commitment of a student rep?

Cecilia: I would say if you stick to your job as student rep, it isn't too much of a time commitment. When we started, we just had one task to do: create the student spotlight twice a year for the newsletter, but Kristen and I decided to get more involved to help improve the experience of the SCL student members by creating workshops/panel discussion at the conference.

Kristen: Really what it comes down to is you can put as much time or as little time as you want, but you get out of it what you put into it. I think we definitely went above our mandate, but it was an incredibly rewarding experience because of that.

Cecilia: Yes, I personally think that it was manageable anyway and the reward at the end is worth the commitment. The other point is that there are 2 student reps on the board which allows you to alleviate some of the workload in case you find yourself short in time because of your PhD or other commitments.


Kristen: Cecilia and I were also asked to be a part of subcommittees: Cecilia joined the JEDI subcommittee and I joined a subcommittee that was put together to oversee a potential merger with CCFFR. There was a time commitment involved with being on these

committees, but these are also the opportunities that allow you to make significant contributions that influence the direction of the society.

How do you become a candidate and get elected?

Cecilia: We had to write a statement of interest and send your CV, then everyone (SCL members and executive board members) who attended the annual SCL business meeting (during the SCL-CCFFR conference) got to vote. It is important to physically attend the conference if you are a candidate.

Kristen: Showing a lot of interest is likely the most important part. As SCL and CCFFR are merging the positions might end up looking a little different, but the process will be the

same. I'm hoping that the new society will have its own student/ECR committee, so there might end up being more positions. If it is something you are interested in, reach out to someone on the executive board, let them know you are interested, and they will point you in the right direction. In fact, if you are interested in student and ECR engagement, don't hesitate to reach out to me (kcoleman@yorku.ca)! 

Do you want to be our next student spotlight?

If you want to share your research project, send us an email at comms@socanlimnol.ca

- • - Recent Citings - • -

This section highlights some of the current work of our members. If you have a recent (past 6-12 months) contribution to the peer-reviewed literature that you'd like to share with the society, please e-mail it to comms@socanlimnol.ca!

1. Aukes PAK, Schiff SL, Venkiteswaran JJ, Elgood RJ, Spoelstra J. 2021. Size-Based Characterization of Freshwater Dissolved Organic Matter finds Similarities within a Water Body Type across Different Canadian Ecozones. *Limnology and Oceanography Letters* 6(2): 85-95, doi: 10.1002/lol2.10180.
2. Baron AAA, Dyck LT, Hamjad H, Bragg J, Kroft E, Newson J, Oleson K, Casson NJ, North RL, Venkiteswaran JJ, Whitfield CJ. 2022. Differences in ebullitive methane release from small, shallow ponds present challenges for scaling. *Science of The Total Environment*. 802: 149685, doi: 10.1016/j.scitotenv.2021.149685.
3. Baud A, Jenny JP, Francus P, Gregory-Eaves I. 2021. Global spatio-temporal analyses identify an acceleration of lake sedimentation rates associated with modern land-use change. *Journal of Paleolimnology*. 66: 453-467. <https://link.springer.com/article/10.1007/s10933-021-00217-6>

4. Hébert, MP, BE Beisner, M Rautio, G Fussmann. 2021. Later lake ice onset promotes consumer overwintering and shapes springtime food webs. *Proceedings of the National Academy of Sciences USA*, 118: e2114840118. <https://doi.org/10.1073/pnas.2114840118>
5. Hébert, MP, C Symons, M Cañedo-Argüelles, S Arnott, A Derry, V Fugère, W Hintz, S Melles, L Astorg, H Baker, J Brentrup, A Downing, Z Ersoy, C Espinosa, J Franceschini, A Giorgio, N Gobeler, D Gray, D Greco, E Hassal, M Huynh, S Hylander, K Jonasen, A Kirkwood, S Langenheder, O Langvall, H Laudon, L Lind, M Lundgren, A McClymont, L Proia, R Relyea, J Rusak, M Schuler, C Searle, J Shurin, C Steiner, M Striebel, S Thibodeau, P Urrutia-Cordero, L Vendrell-Puigmitja, G Weyhenmeyer, BE Beisner. 2022. Lake salinization drives consistent losses of zooplankton abundance and diversity across coordinated mesocosm experiments. *Limnology & Oceanography Letters*, In press. <https://doi.org/10.1002/lol2.10239>
6. Jasiak I, Wiklund JA, Leclerc É, Telford JV, Couture R-M, Venkiteswaran JJ, Hall RI, Wolfe BB. 2021. Evaluating spatiotemporal patterns of arsenic, antimony, and lead deposition from legacy gold mine emissions using lake sediment records. *Applied Geochemistry*, doi: 10.1016/j.apgeochem.2021.105053.
7. Johnston, S. K Finlay, R Spencer, D Butman, M Metz, R Striegl, M Bogard. 2021. Zooplankton release complex dissolved organic matter to aquatic environments. *Biogeochemistry*, <https://doi.org/10.1007/s10533-021-00876-7>
8. Larsen ML, Baulch HM, Schiff SL, Simon D, Sauvé S, Venkiteswaran JJ. 2020. Extreme rainfall drives early onset cyanobacterial bloom. *FACETS*, 5(1): 899-920, doi: 10.1139/facets-2020-0022.
9. Leclerc É, Venkiteswaran JJ, Jasiak I, Telford JV, Wolfe BB, Hall RI, Schultz MDJ, Couture R-M. 2021. Quantifying arsenic post-depositional mobility in lake sediments impacted by gold ore roasting in sub-arctic Canada using inverse diagenetic modelling. *Environmental Pollution* 228, doi: 10.1016/j.envpol.2021.117723.
10. Le Noac'h, P, V Ouellet Jobin*, BE Beisner. 2021. Vertical spatial overlap effects on phytoplankton diversity under experimentally altered lake stratification regimes. *Microorganisms*, 9, 2447. doi.org/10.3390/microorganisms9122447 (special issue on: New Insights on Phytoplankton Morpho-Functional Traits).
11. Littlefair, J., Hrenchuk, L., Blanchfield, P.J., Rennie, M.D. and Cristescu, M. 2021. Thermal stratification and fish thermal preference explain vertical eDNA distributions in lakes. *Molecular Ecology* 30: 3083–3096. doi: 10.1111/mec.15623
12. MacKeigan PW, Garner RE, Monchamp ME, Walsh DA, Onana VE, Kraemer SA, Pick FR, Beisner BE, Agbeti MD, Barbosa da Costa N, Shapiro J, and Gregory-Eaves I. 2022. Comparing microscopy and DNA metabarcoding techniques for identifying cyanobacteria assemblages across hundreds of lakes. *Harmful Algae* <https://www.sciencedirect.com/science/article/pii/S1568988322000166>
13. Molot LA, Higgins SN, Schiff SL, Venkiteswaran JJ, Paterson MJ, Baulch HM. 2021. Phosphorus-only fertilization rapidly initiates large nitrogen-fixing cyanobacteria blooms in two oligotrophic lakes. *Environmental Research Letters* 16: 6, doi: 1748-9326/ac0564.

14. Molot LA, Schiff SL, Venkiteswaran JJ, Baulch HM, Higgins SN, Zastepa A, Verschoor M, Walters D. 2021. Low sediment redox promotes cyanobacteria across a trophic range: implications for bloom management. *Lake and Reservoir Management* 37(2): 120-142, doi: 10.1080/10402381.2020.1854400.
15. Moore TN, Mesman JP, Ladwig R, Feldbauer J, Olsson F, Pilla RM, Shatwell T, Venkiteswaran JJ, Delany AD, Dugan H, Rose KC, Read JS. 2021. LakeEnsemblR: An R package that facilitates ensemble modelling of lakes. *Environmental Modelling and Software* 143: 105101, doi: 10.1016/j.envsoft.2021.105101.
16. Purchase, C.F., Rooke, A.C., Gaudry, M. Treberg, J. Mittell, E.A., Morrisey, M. and Rennie, M.D. 2022. A synthesis of senescence predictions for indeterminate growth, and support from multiple tests in wild lake trout. *Proceedings of the Royal Society B* 289: 20212146. <https://doi.org/10.1098/rspb.2021.2146>
17. Reint KL, Brookes JD, Carey CC, Harris TD, Ibelings BW, Morales-Williams AM, De Senerpont Domis LN, Atkins KS, Isles PDF, Mesman JP, North RL, Rudstam LG, Stelzer JAA, Venkiteswaran JJ, Yokota K, Zhan Q. 2021. Cyanobacterial Blooms in Oligotrophic Lakes: Shifting the High Nutrient Paradigm. *Freshwater Biology* 66, 1846-1859, doi: 10.1111/fwb.13791.
18. Ross, A.J. and Arnott, S.E. (2022), Similar zooplankton responses to low pH and calcium may impair long-term recovery from acidification. *Ecological Applications*. Accepted Author Manuscript. <https://doi.org/10.1002/eap.2512>
19. Ross, A.J., R.C. Grow, L.D. Hayhurst, H.A. MacLeod, G.I. McKee, K.W. Stratton, M.E. Wegher, and M.D. Rennie. 2021. Broadscale Assessment of Groundhog (*Marmota monax*) Predictions of Spring Onset No Better than Chance. *Weather, Climate, and Society*. 503-510. **Highlighted in Nat. Geo. Here:** <https://www.nationalgeographic.com/environment/article/groundhog-day-predictions-of-spring-no-better-than-chance>
20. St-Gelais, NF, RJ Vogt, PA del Giorgio, BE Beisner. 2021. The taxonomic and functional biogeographies of phytoplankton and zooplankton communities across boreal lakes. *Peer Community Journal* 1: e69. doi: 10.24072/pcjournal.74.
21. Salk KR, Venkiteswaran JJ, Couture R-M, Higgins SN, Paterson MJ, Schiff SL. 2021. Warming combined with experimental eutrophication intensifies lake phytoplankton blooms. *Limnology & Oceanography*, doi: 10.1002/lno.11982.
22. Tsuji JM, Tran N, Schiff SL, Venkiteswaran JJ, Molot LA, Neufeld JD. 2020. Genomic potential for photoferrotrophy in a seasonally anoxic Boreal Shield lake. *The ISME Journal*, 14: 2732-2747, doi: 10.1038/s41396-020-0725-0.
23. Turner, N., Charles, C., Watkinson, D., Enders, E.C., Klein, G and Rennie, M.D. 2021. Historic and contemporary movement and survival rates of walleye (*Sander vitreus*) in Lake Winnipeg, Canada. *Journal of Great Lakes Research* 47: 614–525. <https://doi.org/10.1016/j.jglr.2021.01.012>
24. MR Twiss, ES Brahmstedt, G Cabana, F Guillemette. 2022. Proliferation of phytoplankton along a 500 km transect of the St. Lawrence River from its outflow at Lake Ontario - *Journal of Great Lakes Research*, In Press

Thank you to all our members who contributed to this newsletter!

If you would like to contribute to our next newsletter, share your stories,
and cool research project, please contact

comms@socanlimnol.ca