

Volume 7
October
2010

Society of Canadian Limnologists – Student Newsletter



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Newsletter outline:

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1. MESSAGE FROM THE PRESIDENT

From where I sit as a limnologist working in a policy group in Environment Canada, it has been a very interesting year for freshwater in Canada. Concern over the impacts of oil extraction from the oil sands on the Athabasca River has resulted in major reviews by both the Federal and Alberta governments of how the river is monitored. A dry summer in Eastern Canada has raised alarms about water levels in lakes and rivers, while flooding on the Prairies wrecked its own havoc. Research conducted in universities across the country complements efforts by the federal government to develop programs and policies that are more firmly rooted in sound science to benefit both the environment and the economy. It is your grad work that will contribute to the understanding necessary to create good water policy in Canada. It is your grad work that will contribute to the understanding necessary to create good water policy in Canada.

I look forward to seeing you all in Toronto in January.

Martha

2. THE NEW SCL STUDENT REPS (2010 – 2013):

Vanessa J. Phillips (University of Regina):

Thanks to the SCL community for the nomination to be one of the new SCL student representatives. I started my PhD with Peter Leavitt in January 2010, and have been working on the transport and transformation of nitrogen and carbon through lotic prairie systems. I'm looking forward to the next few years as your student rep, and hope to hear from you!

Morgan Botrel (Université de Montréal / McGill University)

I am thankful that the SCL community gave me the privilege to be the new french SCL representative for the coming years. I started my M.Sc. last year with Roxane Maranger and Irene Gregory-Eaves and have been working on nitrogen and carbon stable isotopes in lake sediments as indicator of environmental change. Hope to see you all and learn about ongoing student projects.

We're looking for your input on how to improve SCL student communication and activities. Please feel free to send us an email (phillips.vanessa.j@gmail.com or morgan.botrel@umontreal.ca) if you have any suggestions.

3. THE 2010 PETERS AWARD WINNER

Congratulations to Adam Jeziorski from Queen's University for winning the 2010 Peters Award. The Robert H. Peters Award recognizes the best limnological paper published by a Canadian student or student studying in Canada during the past two years. Adam's paper, titled "The Widespread Threat of Calcium Decline in Fresh Waters", was published in *Science* in 2008.

The Widespread Threat of Calcium Decline in Fresh Waters

Adam Jeziorski,¹ Norman D. Yan,^{2,3} Andrew M. Paterson,³ Anna M. DeSellas,^{1,3} Michael A. Turner,⁴ Dean S. Jeffries,⁵ Bill Keller,⁶ Russ C. Weeber,⁷ Don K. McNicol,⁷ Michelle E. Palmer,² Kyle McIver,¹ Kristina Arseneau,¹ Brian K. Ginn,¹ Brian F. Cumming,¹ John P. Smol^{1*}

Calcium concentrations are now commonly declining in softwater boreal lakes. Although the mechanisms leading to these declines are generally well known, the consequences for the aquatic biota have not yet been reported. By examining crustacean zooplankton remains preserved in lake sediment cores, we document near extirpations of calcium-rich *Daphnia* species, which are keystone herbivores in pelagic food webs, concurrent with declining lake-water calcium. A large proportion (62%, 47 to 81% by region) of the Canadian Shield lakes we examined has a calcium concentration approaching or below the threshold at which laboratory *Daphnia* populations suffer reduced survival and fecundity. The ecological impacts of environmental calcium loss are likely to be both widespread and pronounced.

A little bit about Adam Jeziorski:

Adam is in the final stages of writing his PhD thesis under the supervision of Dr. John Smol and Dr. Andrew Paterson. His research focuses on the declining calcium (Ca) concentrations of Ontario softwater lakes and how paleolimnological techniques can be used to explore the responses of crustacean zooplankton communities to reduced Ca availability. Recently, he has been examining how daphniid communities have changed over the past ~150 years in low Ca lakes of the Experimental Lakes Area, a region remote from major sources of acid deposition.



4. NEWS FROM THE SCL

2010 SCL/CCFFR/SWS meeting

Thanks to everyone who participated in the 2010 SCL/CCFFR/SWS meeting in Winnipeg. With 10 sessions and 195 presentations, the meeting brought together a wide range of freshwater researchers from across the country. The Rigler Memorial Award Plenary lecture was presented by Dr. Joseph Rasmussen, who

gave a great talk about productive capacity in regulated rivers. Special thanks to the organizers for putting together a successful meeting!

G8 Freshwater Summit

SCL sponsor the 2010 Freshwater Summit, which was held last June in Bracebridge, Ontario. The Summit brought scientists, policy makers, Aboriginal peoples of Canada, students, interest groups and the public together to discuss the management and protection of freshwater in Canada. Speakers included David Schindler, Norm Yan, John Smol, Maude Barlow, Henry Lickers and Gord Miller. Presentations from the summit, as well as the resulting communiqué can be found at:

<http://2010freshwatersummit.org/index.htm>.

5. UPCOMING EVENTS

2011 SCL Meeting

The upcoming SCL/CCFFR/SES meeting will be held at the Royal York, in Toronto this January. Conference dates are from January 6th – 8th (and possibly a half day on the 9th), 2011. Abstracts and applications for the Clemens-Rigler Travel Award are due by October 31st. Please see <http://www.phys.ocean.dal.ca/ccffr/> and <http://www.phys.ocean.dal.ca/ccffr/> for details on major sessions, and abstract submission and travel award application guidelines. Hope to see you there!

Nominations for R.H. Peters Award

We're looking for nominations for this year's R.H. Peters Award. This award recognizes the best aquatic sciences paper published within the past two years by a Canadian student (working in Canada or abroad) or a student working in Canada. The student must be first author on the publication. To be considered in the competition, the student may apply for the award or may be nominated by the student's supervisor or colleague familiar with the work.

Student website in the works – send us your ideas.

We are working on setting up a student website, where SCL student members from across the country can interact with each other. The site is currently under construction, and will include a discussion board, a student spotlight section, and a photo contest. The discussion board will provide a place for SCL student members to interact – You'll be able to post questions to other SCL students (e.g. if you're looking for a roommate for an upcoming conference, a summer field assistant, or advice on an analytical method). The student spotlight section will highlight a different Canadian student (their research and interests) every few months. In addition, we'll be holding a photo contest for the best pictures of Canadian places, people, or species. Winners will be announced and pictures posted on the website in February. To get more information, check out the webpage at www.sclforum.wordpress.com - and let us know what you think.