



PRESIDENT'S MESSAGE

Spring has arrived and it is a busy time for all CSSS members. Thank you to all who have recently renewed their membership or joined our society for the first time. You are one of the 256 active members of the CSSS, which includes students, postdoctoral fellows and professionals working in the field of soil science across Canada. We greatly appreciate you choosing to belong to CSSS and hope you will take full advantage of the opportunities that CSSS gives you to connect professionally with fellow soil scientists in Canada and abroad!

The Organizing Committee for the 2017 CSSS annual meeting has been working hard and have prepared an outstanding program for our conference from June 10-14, 2017 at Trent University in Peterborough, Ontario. The theme of the conference is "Soil and the Environment". We are looking forward to understand the broader context of this theme through the plenary talks of Dr. Greg Lawrence, who will speak about forest soils as an indicator of environmental change, and Dr. Keith Schilling, who will explain the connection between agricultural soil management and nitrogen dynamics in the land-aquatic system.

Many of our CSSS members are already registered to attend and present their research at the 2017 CSSS annual meeting, and the registration remains open (including on-site registration). Talks and poster presentations were accepted into 12 scientific sessions that cover topics from digital soil mapping and soil sensing to soil nutrient management and soil health assessment, as well as methods of communicating soil science to a variety of audiences. I hope that you could take part in other conference events, such as the pre-conference SWAT and SWAT-CUP modelling workshop and the soil management tour. During the conference, you will find ways to join others with common interests, at the CSSS Pedology working lunch and the CSSS Soil Education working lunch, and through informal discussions.

I would especially invite student members of CSSS to be active participants at the conference, beyond presenting your talk or poster – don't be shy about asking questions in the sessions, joining the workshops, tours and working lunches, and engaging other soil scientists in conversation during the coffee breaks and meals. This is a great opportunity for you to introduce yourself and build your professional network. Some of the soil scientists you meet at the CSSS annual meeting could be your future employer or colleague, so take advantage of this event to reach out and forge those personal relationships. Special thanks to Michael Carson for organizing this year's version of the always-popular CSSS Student Trivia Night, a fun way to test your knowledge of soil science and meet graduate students from across Canada.

Finally, I have been in touch with the Presidents of the Canadian Society of Agronomy and the Canadian Society of Horticultural Science about the possibility of a reduced membership fee for our CSSS student members. It would work like this – when you sign up and pay your CSSS student membership fee, you would be given the option to join those other professional societies at a cost below their regular student membership rate. We expect this will encourage more dialogue and participation of students in our Canadian societies, which we see as essential to acquire a strong understanding of other disciplinary norms and practices, in preparation for employment in workplaces that value on interdisciplinary and collaborative research, teaching and outreach. We will discuss in this and other business of importance for the CSSS at our Annual General Meeting at Trent University on Monday, June 12. If there are any items that you wish me to bring forward to our society at this meeting, please send me a message at joann.whalen@mcgill.ca

I'm looking forward to see you at the CSSS annual meeting from June 10-14 in Peterborough!

Joann Whalen
CSSS President



CSSS Council 2016

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Message from the CSSS Soil Education Committee

For the upcoming 2017 CSSS annual meeting in Peterborough, ON, our Committee has prepared the following three events:

- Working lunch meeting of our Committee. June 12, 2017 (noon – 1 pm)
- Conference session, entitled, “*Promoting soil: Communicating the importance and value of what lies beneath*”, June 12, 2017 (1-4 pm)
- A workshop, entitled, “*Structured Spontaneity for the Soil Science Classroom: Engaging Students with Improv*”, by Dr. Andrea Buchholz (Univ. of Guelph). June 12, 2017 (3-4 pm)

If you are planning to attend the 2017 CSSS annual meeting, we hope that you will join us for one or all of these events. Please note that you do not have to be a member of this Committee to join us for the working lunch meeting at which we exchange ideas and plan next year’s activities.

Co-Chairs of the CSSS Soil Education Committee:
Maja Krzic (UBC), Amanda Diochon (Lakehead Univ.), and Tom Yates (Univ. of Saskatchewan)

Useful Information on the CSSS 2017 Annual Meeting

Important Dates

Final registration deadline: **May 19**

In order to take advantage of the reduced membership rate you must hold a current 2017 CSSS membership. Complete your membership before continuing with registration.

CSSS – www.csss.ca

*****Note for students planning to compete for the CSSS student presentation awards – you MUST hold a current 2017 CSSS membership to be eligible.**

Important links

Contact the organizing committee

<http://csss-conference.ca/2017/organizing-committee/>

Travel and accommodations

<http://csss-conference.ca/2017/travel-hotels/>

Sessions and plenary session’s speakers

<http://csss-conference.ca/2017/call-for-proposals/>

Scientific program

<http://csss-conference.ca/2017/scientific-program/>

Presentation guidelines

<http://csss-conference.ca/2017/registration-info/guidelines/>

Workshops and tours

<http://csss-conference.ca/2017/field-trips/>

What's Going on in the Lab?

I am Carolyn Marshall, a PhD candidate under the supervision of Dr. Derek Lynch at the Dalhousie University Agricultural Campus (DAL-AC). I grew up in Nova Scotia and went to Acadia University where I did my undergraduate in biology. After that, wanting to stay near an ocean but also to expand my experience, I went to UBC Vancouver to do my masters degree in the Botany department where I first ventured into soil science. I studied the soil microbial community in a native grassland in Kluane National Park in the Yukon, where I could soil sample as deep as 5cm - if I was lucky. The move to agriculture came with a steep learning curve. While I understood soil, I did not understand much about the agricultural processes or its unique terminology. There's more than one type of plow? Ok, good to know!

My PhD research looks at the impact of no-till termination of green manures on soil health. One criticism of organic agriculture is the over-reliance on tillage to control weeds and incorporate organic inputs, such as green manures and animal manures. The approach to termination of green manures has been the target of attempts to reduce tillage in organic systems. Use of a roller crimper or blade roller has been used to terminate green manures, leaving the usually substantial residue on the soil surface like a mulch. The following cash crop can be planted directly into the mulch, which should provide some weed control without tillage. This technique has mostly been studied from the perspective of the performance of the cash crop and weed control and mostly in drier regions than Atlantic Canada. Although it is assumed to be beneficial for the soil, only very limited research has looked at what is actually happening to the soil under the mulch. My objective is to look closely at how this method of green manure termination impacts soil health.

To do this I have two sites, one at DAL-AC in Bible Hill, NS and one in Carman, MB in collaboration with Dr. Martin Entz at the University of Manitoba, each with a full season hairy vetch and oats green manure followed by wheat. I am comparing soil health under three methods of green manure termination; i) fall tilled (soil bare overwinter), ii) spring tilled (soil covered with mulch overwinter), and iii) no-till. Soil physical, chemical, and biological properties are being measured over several growing seasons after the tillage treatments to look for resilience in soil properties. Earthworms and ground beetles are being sampled as biological indicators of the soil ecosystem. We've already seen that the negative impacts of tillage on earthworms lasts for multiple seasons.



Sampling spring soil cores from a no-till plot at the Brookside Organic Research Site at the Dalhousie Agricultural Campus in Bible Hill, NS.

JOBS

Applied biology instructor (soil science), UBC, deadline May 14th

http://www.universityaffairs.ca/search-job/?job_id=39235

Food, Agricultural and Resource Economics - Assistant Professor (Agri-Food Trade and Policy), University of Guelph, deadline June, 20th

http://www.universityaffairs.ca/search-job/?job_id=38997

Pédologie, genèse et classification des sols - Professeur(e) adjoint(e), Université Laval, deadline June 1st

http://www.universityaffairs.ca/search-job/?job_id=39390

CSSS Student Travel Awards for 2017

This award was established in 1991 to promote student attendance at the CSSS Annual Meetings and is available to any CSSS member graduate student. The award is \$600 and a maximum of 12 travel grants will be awarded. Congratulations to the 2017 recipients:

First name	Last name	Degree	University
Carolyn	Marshall	Ph.D.	Dalhousie University
Carolyn	Mann	M.Sc.	Dalhousie University
Lori	Vanden Enden	Ph.D.	University of Toronto Scarborough
Tram	Thai	M.Sc.	University of Lethbridge
Tim	Philpott	Ph.D.	UBC
Valerie	Miller	Ph.D.	University of Alberta
Erin	Wepruk	M.Sc.	Lakehead University
James	Salter	M.Sc.	Lakehead University
Inderjot	Chahal	Ph.D.	University of Guelph
Jin Zhang	Jin Zhang	M.Sc.	Simon Fraser University
Siddhartho Shekhar	Paul	Ph.D.	UBC
Yan	Xu	Ph.D.	Laval

In addition to the 12 students who received a CSSS Student Travel Award, the society received additional monies from Canadian Scientific Publishing to support students wishing to attend and present at the CSSS Annual Meeting. This award is called the CSSS-CJSS student travel award.

Congratulations to the 2017 recipients:

Emma Avery University of British Columbia
Jordan Wiens University of Saskatchewan

Interesting Reading

Changing climate changes soils
<https://www.sciencedaily.com/releases/2017/01/170111133851.htm>

New TB drug candidates developed from soil bacteria
<https://www.sciencedaily.com/releases/2017/03/170301092711.htm>

Biochar provides high-definition electron pathways in soil
<https://www.sciencedaily.com/releases/2017/04/170403193052.htm>

Soils could release much more carbon than expected as climate warms
<https://www.sciencedaily.com/releases/2017/03/170309142136.htm>

Limited sign of soil adaptation to climate warming
<https://www.sciencedaily.com/releases/2017/01/170130140004.htm>

CSSS
Merchandise
Sale

T-SHIRTS \$13
KEYCHAINS \$2
TILLY HATS \$15
MUGS \$10

**QUANTITIES
ARE
LIMITED!**



For sale by registration desk during
breaks and lunch

Attention Graduate Students

Do you enjoy writing?

*Are you interested in Canadian
Soil Science?*

Do you want to PUBLISH?

(a *FEATURE* article in our newsletter)

If so please submit your name and university
to the CSSS graduate student representative:
mcarson@laurentian.ca

DEADLINE: May 26th, 2017

UPCOMING CONFERENCES

1st World Conference on Soil and Water Conservation under Global Change (CONSOWA),
12-16 June, 2017, Lleida, Spain.

3rd International Scientific Conference on "Sustainability challenges in agroecosystems", **19-21 June, 2017**, Osijek, Croatia.

Second Global Workshop on Digital Soil Morphometrics, Sctoland, UK, **20-23 June, 2017**.
GlobalSoilMap 2017 International Conference, **4-6 July, 2017**, Moscow, Russia.

ESSC International Workshop on "Soil Classification: a powerful tool for planning Soil Conservation, **21 July 2017**, Riga, Latvia.

7th World Congress on Conservation Agriculture, **1-4 August 2017**, Rosario - Santa Fe, Argentina.

International Symposium on Growing Media, Soilless Cultivation, and Compost Utilization in Horticulture, **20-25 August, 2017**, Portland, Oregon, USA.

Wageningen Soil Conference: Soil science in a changing world, **27-31 August, 2017**, Wageningen, The Netherlands.

2nd Global Soil Biodiversity Conference, **15-21 October, 2017**, Nanjing, China.

ASA, CSSA & SSSA International annual meetings, **October 22-25, 2017**, Tampa, FL.

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