



PRESIDENT'S MESSAGE

Greetings CSSS members!

I am very excited for the opportunity to serve as society president this year, and to lead off our first newsletter of 2020. We only have one change in council membership from last year, welcoming Angela Bedard-Haughn from the University of Saskatchewan who joins as President-Elect. Likewise, I would like to extend gratitude on behalf of the CSSS to Noura Ziadi at Agriculture and Agrifood Canada for her service as Past-President in 2019 and earlier as President and President-Elect.

*What to do as president?* Last summer I was chatting with David Burton on a pleasant evening upon a rooftop patio in Saskatoon during our annual meeting. David was CSSS president in 2014 and noted how quickly the one year role as society president passes- he advised picking one tangible initiative to focus on in this brief time. In thinking about this and discussing ideas with fellow members, I settled on **working towards a society communications plan, and notably the effective use of social media**. There are important opportunities to enhance outreach and promotion of our discipline and our society at large, as well as enhance communications amongst membership. This aligns with a number of the goals in our Mission Statement as a national science society, but needs to be implemented thoughtfully and be informed by evidence. To this end the Soil Science Society of America has been an enormous help so far, particularly in offering the assistance of their 2 full-time science communications experts, Susan Fisk and Rachel Leege. The SSSA has committed to send Susan and Rachel to our 2020 meeting to lead workshops on effective science communications. A Sunday workshop will be aimed at a to-be-determined small group of CSSS members who will commit to actively run social media accounts. A second shorter workshop Tuesday late-afternoon following poster presentations, "Photography for relatable science" will be accessible to all conference delegates, and help us all learn to pitch soil science research effectively using social media. Beyond contributing to soil science outreach and informal education, the SSSA sees this investment in us as an opportunity to strengthen relationships and synergies among the two societies. I am also leveraging expertise at my institution, which is home to Canada's only graduate program in science communications, and hope to recruit a Masters of Science Communication student intern to contribute to research and development of the plan in May and June. Stay tuned for more on this initiative, including opportunities to provide input and feedback leading up to our 2020 meeting and AGM, when ideally the plan and communications guidelines will be brought to membership for formal consideration.

This year, the CSSS will hold its annual meeting in Charlottetown, PEI June 21-25th. The theme is *Building Bridges and Connecting Soil Properties*, and it is shaping up to be an exciting event with great pre-conference workshops, scientific program and invited keynote speakers, and post-conference tours. A huge thanks goes out to Conference Chairs and lead organizers Judith Nyiraneza and Scott Anderson at AAFC- Charlottetown and their entire team who are committed to planning



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## Presidents Letter (Con't.)

and running the meeting. More information is found later in this newsletter. The annual meetings of CSSS are a very important part of our society, and we hope to see strong participation by students and their more seasoned colleagues. Graduate students please take advantage of travel awards through your institutions and through the CSSS. I look forward to seeing many of you in Charlottetown in June!

*Nathan Basiliko*  
CSSS President

## 2020 CSSS Awards

Do you know an outstanding soil scientist worthy of recognition for their contribution to CSSS or society at large? Or maybe you are a student needing conference travel funds? For these opportunities and more, check out the CSSS Awards at <https://csss.ca/awards-criteria/>.

CSSS is now accepting applications and nominations for the 2020 CSSS awards. More information is available on the [CSSS website awards page](#).

### [Student Travel to CSSS Annual Meeting Award](#)

This Award was established in 1991 to encourage student attendance at the CSSS Annual Meeting. Since 2016, student travel to society meetings and conferences has been sponsored in part by the [Agricultural Institute of Canada](#). **Application deadline March 31, 2020.**

### [CSSS Fellow Award](#)

This is awarded to CSSS members with a distinguished record of accomplishment in Soil Science and service to the Society. **Nomination deadline April 15, 2020.**

### [CSSS Honourary Membership Award](#)

This is awarded to non-members who have rendered valuable or special service to soil science. **Application deadline April 15, 2020.**

### [CSSS Soils Science for Society Award](#)

This is awarded to a member or non-member who has made a contribution towards promoting soil science to the general public. **Application deadline April 15, 2020.**

### [CSSS Pedology Travel Awards](#)

This award is for CSSS members to participate in international meetings and workshops, specifically those related to Pedology, so as to secure our international presence and the future of our expertise in this area of soil science. **Application deadline is April 15, 2020.**

### [CSSS-CJSS Student Travel Awards for International Soil Science Meetings](#)

The Canadian Society of Soil Science (CSSS) and the Canadian Journal of Soil Science (CJSS) are pleased to jointly sponsor two annual awards to provide travel funds for student members of CSSS to attend international soil science meetings. **Application deadline is May 15, 2020.**

## Conferences, Meetings and Workshops

### [CSSS 2020 - Canadian Society of Soil Science Annual Conference](#)

June 21-25, 2020 | Charlottetown, Prince Edward Island

Register today to take advantage of the early bird registration rate which ends April 15th. After April 15th fees will increase by 30%. Online registration is available here [CSSS2020.ca/registration.html](https://csss2020.ca/registration.html)

Abstracts can be submitted online until March 20, 2020. For more information or to submit an abstract visit [CSSS2020.ca/abstracts.html#abstract-submission](https://csss2020.ca/abstracts.html#abstract-submission). All accepted presenters will be notified by April 30th. The Final agenda will be ready by May 15th.

Find out about the pre-conference workshops, field trips and the student event by visiting [CSSS2020.ca/activities.html](https://csss2020.ca/activities.html).

### [International Symposium on Mineral Nutrition of Fruit Crops](#)

June 7-11, 2020 | Yearim Hotel, Israel

The symposium will promote exchange of fundamental and applied understanding of the diverse aspects of Orchard nutrition.

### [Regional Soil Health Events](#)

March 10, 2020 - Kemptville, Ontario

March 11, 2020 – Cobourg, Ontario

Registration Fee: OSCIA Members \$60.00 + \$7.80 HST

Non-OSCIA Members \$75.00 + \$9.75 HST

### [GSSS 2020 - 4th Global Soil Security Conference](#)

June 1-4, 2020 | Seoul, Korea

Global Soil Security - Beyond the Soil to Human Health

### [8th International Crop Science Congress](#)

June 21-25, 2020 | Saskatoon, Saskatchewan

The theme of ICSC 2020 is 'Food Security & Safety – Globally'

## Warkentin Prize | Pacific Regional Society of Soil Science (PRSSS)

Annually, the PRSSS accepts nominations and applications for the Warkentin Prize. The Warkentin Prize of \$500 will be awarded to a graduate student, or someone who has graduated from a graduate program within the last two years, that has published a graduate thesis or peer-reviewed article in the field of soil science. The recipient will be acknowledged in our newsletter and on our website. This prize is open to soil scientists worldwide. The deadline to apply/nominate is **May 31, 2020** at 11:59 pm PST. For more information about the award and Benno Warkentin [click here](#).

## Obituary of Bruce MacDonald



Dr. Kenneth 'Bruce' MacDonald of Culross Township, tragically passed away as a result of a motor vehicle accident, on Tuesday, February 18th, 2020, at the age of 75.

Bruce is the cherished husband, best friend, and loving companion of Deborah MacDonald (née Blair).

He is dearly missed by his children, Hugh and Peg MacDonald of Vancouver and Katie MacDonald of Mississauga.

Bruce is loved by Deborah's children, Jason Rouse and Kristy Rouse of Guelph and is proud "Grandpa Mac" to Ella and Jagger Rouse. He is remembered fondly by Deborah's family including Eleanor Lane, Ernie and Linda Blair, Lynne Blair, Mark and Beatrice Blair, Margaret and Les Sherratt, Laura Lane and Gordon Lane.

Bruce touched the lives of many nieces and nephews, cousins, colleagues, neighbours, friends, and his fellow pipeband members and students.

Bruce is predeceased by his parents Kenneth and Hazel (née Wolfe), father-in-law John Lane, brother-in-law Kevin Lane and cousin Henry Jaques.

There are many words to describe Bruce: Professor, soil scientist, consultant, farmer, cook extraordinaire and curler. He was gardener, woodworker, and gracious host to family and friends. He was a gifted piper and pipe major that played across the world. He judged hundreds of piping events, taught many students who learned from one of the best. Bruce never failed to amaze everyone who he met.

## CSSS 2020 Annual Conference

### **BUILDING BRIDGES AND CONNECTING SOIL PROPERTIES**

WELCOME TO CHARLOTTETOWN, PRINCE EDWARD ISLAND

Dear 2020 CSSS participants,



We are excited to host the 2020 annual meeting of the Canadian Society of Soil Science in Charlottetown from June 21 to 25th, 2020. The organizing committee welcomes you at the birthplace of confederation where agriculture, tourism and fishing represent the largest industries. The meeting will start with interesting pre-conference workshops (details to follow) planned on Sunday the 21st, followed by three full days of sessions and the fourth day will be dedicated to field trips (details to follow). The theme of the meeting is "Building bridges and connecting soil processes". The keynote speakers and

scientific sessions will cover diverse and interesting topics including: soil ecology, impact of agricultural practices on soil health, linking soil organisms to ecosystems services, soil nutrient management and water quality, greenhouse gas measurements and modelling, precision agriculture and big data management, along with methods of soil mapping.

## Field Tour | 2020 CSSS Meeting in Charlottetown, PEI

### AGRONOMY TOUR

9:00 a.m.- Bus departs from Charlottetown, PEI at UPEI

#### Stop 1

Agriculture and Agri-Food Canada Harrington Research Farm – Field Plot Tour  
(Harrington, PE)

#### Stop 2

Soil Conservation Construction Project Site- PEI Department of Agriculture and Land  
(Central PEI site)

#### Stop 3

Cavendish Farms- Production Plant and Field Tour  
New Annan, PE

4:30 p.m.- Buses return to Charlottetown, PE

\*Picnic Lunch will be provided.

### COASTLINE TOUR

9:00 a.m.- Bus departs from Charlottetown, PE at UPEI

The Changing Coastline Tour will be held at the Greenwich National Park. This park features the largest sand dunes on Prince Edward Island where Mi'kmaq and Acadian culture is infused in the rhythms of the wind and waves which shape this dynamic landscape. In addition to the opportunity to explore the trails, beaches and interpretive centre at the park, the UPEI Climate lab will be featured discussing their research and science on climate change vulnerability, impacts and adaptation in this evolving landscape. After a beach-side brown bagged picnic we'll be digging deeper, examining island soil pedology with Kevin Keys, Ph.D., senior research and planning forester with the Nova Scotia Department of Lands and Forestry as he guides us through describing soil profiles. Finally the day will end with a discussion about dune formation and the protection of this changing coastal ecosystem.

5:00 p.m.- Buses return to Charlottetown, PE

\*Picnic Lunch will be provided.

***“The Cost to attend each tour is \$40 per participant. Because the places are limited to attend each tour, if interested please send an email to Kyra Stiles ([Kstiles@gov.pe.ca](mailto:Kstiles@gov.pe.ca))***

***Please specify if you are interested in coastline or agronomic tour. Accepted people will be notified and will be invited to pay their registration via E-transfer at:***

***[CSSS2020finacnial@gmail.com](mailto:CSSS2020finacnial@gmail.com)***

## Graduate Student Event at the CSSS Meeting in Charlottetown, PEI

Organizer: Gazali Issah, Email: [gazali.issah@usask.ca](mailto:gazali.issah@usask.ca)

The CSSS 2020 graduate student event will be held on Tuesday, June 23, 2020, in the evening. The event will be in two-folds; career guidance/professional development panel discussion and trivia night to be co-ordinated by Hannah Arseneault. The panel discussion will feature four speakers representing different backgrounds including Professor David Burton (Dalhousie University) representing the **Academia**, Steve Howatt, President & GM, Atlantic AgriTech Inc. representing **Industry**, Mary Finch (Watershed Ecologist, PEI Watershed Alliance) representing **NGO**, and Dr Claudia Goyer (Molecular Bacteriologist, Agriculture and Agri-Food Canada/Government of Canada) representing **Government Institution**. The panel discussion will commence with prepared questions to the panel members, followed by an open floor for questions and comments from graduate students. Details of the trivia (venue, time etc.) will follow soon.

## Pre-Conference Workshops and Thematic Meetings 2020 CSSS Meeting in Charlottetown, PEI

Pre-conference Workshops and Thematic meetings

### Digital Soil Mapping

Chair: Daniel Saurette: [daniel.saurette@ontario.ca](mailto:daniel.saurette@ontario.ca)

The CSSS 2020 Digital Soil Mapping (DSM) Workshop will be a 1-day technical workshop that will focus on a range of topics related to DSM, including theory of DSM and hands-on exercises for preparation of environmental covariates, sample plan design, use of machine learning models for continuous and categorical covariates and techniques for quantifying prediction uncertainty. A detailed agenda will follow closer to the event. This is a free workshop, the cost for registration is collected to provide lunch for all participants. Cost will be \$15 per participant with a minimum of 10 and a maximum of 25.

### Greenhouse Gas measurement workshop

Chair: Louis-Pierre Comeau: [louis-pierre.comeau@canada.ca](mailto:louis-pierre.comeau@canada.ca)

The morning session will involve making a brief introduction followed by presentations on ex-situ and in-situ sampling protocols. After coffee break, we will discuss about different measurement products and procedures (company representatives will be present and explain the characteristic of the GHG measurement machines). After lunch, we will go out to a field site nearby where chamber-based systems system in use. Discussion about different chamber types and the practical issues involved in sampling them will be made. People will be free to wander around to examine the different systems and talk to the people involved in the research. Cost will be \$25 per participant with a minimum of 12 and a maximum of 25.

# News from the Canadian Journal of Soil Science

NRC Research Press e-First Articles

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## Just-IN articles

Just-IN articles are PDF versions of authors accepted manuscripts prior to copy editing and page composition; they are citable but may differ from the final version of record.

## Linking hydrocarbon biodegradation to greenhouse gas emissions from oil sands tailings and its impact on tailings management

Tariq Siddique, Alsu Kuznetsova

Publication Date (web): 28 Feb 2020

DOI: 10.1139/CJSS-2019-0125

[» Abstract](#)

[» PDF with links](#)

[» High-Res PDF](#)

## Ammonia emission from manures treated with different rates of urease and nitrification inhibitors

Ahmed Agboola Lasisi, Olalekan Akinremi, Darshani Kumaragamage

Publication Date (web): 25 Feb 2020

DOI: 10.1139/CJSS-2019-0128

[» Abstract](#)

[» PDF with links](#)

[» High-Res PDF](#)

## Barley (*Hordeum vulgare*) seedling growth declines with increasing exposure to silver nanoparticles in biosolid-amended soils

Monica Gonzalez Linares, Yu Jia, Geoffrey Sunahara, Joann K Whalen

Publication Date (web): 25 Feb 2020

DOI: 10.1139/CJSS-2019-0135

[» Abstract](#)

[» PDF with links](#)

[» High-Res PDF](#)

## News from the Canadian Journal of Soil Science (Con't.)

### **Labiality of dissolved organic carbon from boreal peatlands: interactions between permafrost thaw, wildfire, and season.**

Katheryn Burd, Cristian Estop-Aragonés, Suzanne E. Tank, David Olefeldt

Publication Date (web): 25 Feb 2020  
DOI: 10.1139/CJSS-2019-0154

[» Abstract](#)  
[» PDF with links](#)  
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### **Spatial Variation of Soil Quality Indicators as a Function of Land-use and Topography**

Mina Kiani, Guillermo Hernandez-Ramirez, Sylvie A. Quideau

Publication Date (web): 25 Feb 2020  
DOI: 10.1139/CJSS-2019-0163

[» Abstract](#)  
[» PDF with links](#)  
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### **e-First Articles**

e-First articles have undergone copy editing, page composition, and correction by the author but have not yet been assigned to an issue. They represent the version of record and are citable.

### **Correction: Morphological, physical, and clay mineralogy of calcareous and gypsiferous soils in North of Lorestan, Iran**

Kolsum Rahman Salari, Mohammad Amir Delavar, Mehrdad Esfandiari, Ebrahim Pazira

Publication Date (web): 28 Feb 2020  
DOI: 10.1139/cjss-2020-0005

[» Citation](#)  
[» PDF with links](#)  
[» High-Res PDF](#)

### **Characterizing effects of mechanical compaction on macropores of reclaimed soil using computed tomography scanning**

Xiangyu Min, He Jiao, Xinju Li

Publication Date (web): 21 Jan 2020  
DOI: 10.1139/cjss-2019-0093

[» Abstract](#)  
[» PDF with links](#)  
[» High-Res PDF](#)



## Luncheon Discussion Session on Connecting 4R to the GHG Inventory

At the Charlottetown meeting this June, several sessions will deal with topics linking management practices to the carbon footprint of crop production. For field crops, nitrous oxide (N<sub>2</sub>O) is an important component of the overall carbon footprint, and N<sub>2</sub>O emissions constitute a key sustainability indicator.

Invited speakers include Doug Macdonald, Environment & Climate Change Canada, and Stephen Ogle, Colorado State University, both of whom have been involved in national greenhouse gas inventories. If you are interested in contributing to a lunch-hour discussion focused on representing the impact of 4R plant nutrition practices in the Canadian greenhouse gas inventory, please contact [Tom.Bruulsema@ipni.net](mailto:Tom.Bruulsema@ipni.net).

Please note that the date and location of the discussion session will be included in the final program.

## Employment

[Tenure-track Position – Assistant Professor of Digital Agronomy, Department of Soil Science, Faculty of Agricultural and Food Sciences, University of Manitoba \(28507\)](#)

Application Deadline: March 16, 2020

## Photos Needed for CJSS Journal Covers

The Canadian Journal of Soil Science is looking to compile a bank of photos to use on the CJSS journal covers. If you have soil science related photo's you are encouraged to send them to Anne Naeth, Editor in Chief of CJSS at [anne.naeth@ualberta.ca](mailto:anne.naeth@ualberta.ca).



CANADIAN SOCIETY OF SOIL SCIENCE  
SOCIÉTÉ CANADIENNE DE SCIENCE DU SOL

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