



Canadian Society of Soil Science

Société Canadienne de la Science du Sol

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# CSSS Newsletter

## President's Message



**Dr. Richard Farrell**  
President, CSSS

Well, summer has finally arrived on the Prairies, and unlike the past few years, spring rains have provided optimism for a good crop year. And speaking of optimism, it is hard not to be optimistic about the future of the CSSS given that we currently have 372 active members, which is a 15% increase over last year and is the highest that membership has been in more than a decade. This includes a record number (159) of student members.

The society continues to be active and involved in soil science nationally and internationally, which was readily apparent from the sessions and presentations at the recently concluded 2025 Annual Conference that took place at UBC in Vancouver. I get to attend a lot of conferences, and this is my favorite as it feels more like family. The conference was a great success, due in no small part to the UBC team led by Drs. Maja Krzic and Sandra Brown. Membership was well represented at the conference, with 270 registrants and significant

student representation culminating in 68 oral and 47 poster presentations by students. Arranging the judging for student presentations is a herculean task, so a special thank you to Richard Heck for organizing the judging of these presentations, and to our judges for being generous with your time.

Senator Robert Black (Ontario) was the keynote speaker at the annual CSSS banquet on the last evening of the conference and gave a presentation on the just released report of the Standing Committee on Agriculture and Forestry titled CRITICAL GROUND: Why Soil is Essential to Canada's Economic, Environmental, Human, and Social Health.

## CSSS Council

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## Presidents Message (Con't.)

On behalf of the CSSS, I would like to take this opportunity to thank the many members of the Society who appeared before the AGFO Committee to provide expert information and opinion on the importance of soil to all Canadians. I would also like to acknowledge and thank Senator Black for his tireless work as a champion of the nation's soils. In recognition of his work and accomplishments, the CSSS was pleased to honor Senator Black as an Honorary Life Member of the Canadian Society of Soil Science.

On a personal note, I would like to congratulate our two newest CSSS Fellows, Drs. Judith Nyiraneza and J. Diane Knight, both of whom I had the great pleasure of serving with on Council and both of whom have contributed significantly to the advancement of soil science in Canada. Congratulations also go to Dr. Guoqi Wen who received the 2024 Early Career Professional Award.

Planning is currently underway for the 2025 Annual Meeting which will be held in Winnipeg, MB the week of July 20th and will be a joint conference of the Canadian Society of Soil Science and Manitoba Soil Science Society in conjunction with the 5th Global Soil Security Conference (hosted by the Soil Conservation Council of Canada), and the 2025 meeting of Division 1 (Soils in Space and Time) of the International Union of Soil Sciences. We will keep you posted as details emerge. Till then keep cool and have a great summer!



## 2024 CSSS Awards

### CSSS Honorary Life Member Award The Honourable Rob Black



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#### BIOGRAPHY

The Honourable Rob Black has worked in the rural, agricultural, and leadership arenas for much of his working career.

He has had close involvement with 4-H Canada and 4-H Ontario, and other leadership programs, such as Junior Farmers and the Advanced Agricultural Leadership Program (AALP). He credits his involvement in these programs with allowing him to develop the skills that would lead him to apply to be a senator. He is a Past President of the Canadian 4-H Council.

Rob was Ward 5 Representative on Wellington County Council. He is also a Past Manager of the Ontario Research and Development Challenge Fund, and President of the Ontario Agricultural Hall of Fame Association, and the Wellington County Historical Society.

Rob worked with the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) for 15 years. Following his time at OMAFRA, he spent 5 years as the Executive Director of 4-H Ontario. Rob then accepted the role of Executive Director of The Centre for Rural Leadership, which morphed into the Rural Ontario Institute (ROI).

In 2012, in recognition of Rob's significant contributions to 4-H across Canada over many years, he received the Queen Elizabeth II Diamond Jubilee Medal. In 2013, Rob was awarded the Outstanding Leadership Program Director Award from the International Association of Programs for Agricultural Leadership (IAPAL) and in 2016, Rob was made an Honorary Member of the Canadian 4-H Council. In 2024, Rob was made an Honorary Member of the Canadian Society of Soil Science.

Rob applied to be a senator in July 2016, after some prompting from his son, Tayler. In February 2018 he received a call from the Prime Minister, summoning him to the Senate to represent the province of Ontario. The Prime Minister told Rob specifically that he wanted him to bring his background in agriculture, rural community development, and leadership development to the Senate.

Since February 27, 2018 has been working on several issues of importance to Canadians through his role, and is the Chair of the Standing Committee on Agriculture and Forestry, and a member of Rules, Procedures and the Rights of Parliament and the Joint Committee on the Library of Parliament.

Rob served as the Chair of the Canadian Senators Group (CSG) from its inception in 2019 until October 2023.

In February 2021, Rob was recognized as one of the Top 50 Most Influential People in Agriculture by Canadian Western Agribition.



## 2024 CSSS Awards (Con't.)

### **BIOGRAPHY (Con't.)**

In July 2021, the Canadian Produce Marketing Association recognized Rob as the 2021 Produce Champion. The annual Produce Champion award is given to a Member of Parliament or Senator who has been supportive of the produce industry and effective at bringing industry issues to the forefront on Parliament Hill.

In March 2023, Rob was a recipient of the Hal Rogers Fellow Award, the highest honour conferred by the Kin Canada Foundation. This award is infrequently bestowed and reserved for those who have made a significant difference to their communities at the local, provincial, or national level.

Rob and his wife Julie live north of Fergus, ON and have four grown children and three grandsons.

### **BIOGRAPHIE**

L'honorable Rob Black a travaillé dans les domaines rural, agricole et du leadership pendant une grande partie de sa carrière professionnelle.

Il a participé étroitement aux activités des 4-H du Canada et des 4-H de l'Ontario, ainsi qu'à d'autres programmes de leadership, comme les jeunes agriculteurs et le Programme avancé de leadership en agriculture (PALA). Il attribue à sa participation à ces programmes le fait qu'il lui a permis d'acquérir les compétences qui l'amèneraient à poser sa candidature à la fonction de sénateur. Il a été président du Conseil des 4-H du Canada.

Rob était représentant du quartier 5 au conseil du comté de Wellington. Il a également été gestionnaire du Fonds ontarien du Défi de la recherche et du développement et président de l'Association du Temple de la renommée de l'agriculture de l'Ontario et de la Wellington County Historical Society.

Rob a travaillé au ministère de l'Agriculture, de l'Alimentation et des Affaires rurales de l'Ontario (MAAARO) pendant 15 ans. Après son séjour au MAAARO, il a passé 5 ans à titre de directeur général des 4-H de l'Ontario. Rob a ensuite accepté le rôle de directeur général du Centre for Rural Leadership, qui s'est transformé en Institut de l'Ontario rural (ROI).

En 2012, en reconnaissance des contributions importantes de Rob aux 4-H partout au Canada pendant de nombreuses années, il a reçu la Médaille du jubilé de diamant de la reine Elizabeth II. En 2013, Rob a reçu le prix du directeur exceptionnel du programme de leadership de l'International Association of Programs for Agricultural Leadership (IAPAL) et en 2016, Rob a été nommé membre honoraire du Conseil canadien des 4-H. En 2024, Rob a été nommé membre honoraire de la Société canadienne des sciences du sol.

Rob a postulé pour être sénateur en juillet 2016, après quelques incitations de son fils, Tayler. En février 2018, il a reçu un appel du premier ministre, le convoquant au Sénat pour représenter la province de l'Ontario. Le premier ministre a dit à Rob qu'il voulait qu'il apporte son expérience dans l'agriculture, le développement communautaire rural et le développement du leadership au Sénat.

## 2024 CSSS Awards (Con't.)

### CSSS Honorary Life Member Award The Honourable Rob Black

#### **BIOGRAPHIE (Con't)**

Depuis le 27 février 2018, il travaille sur plusieurs questions d'importance pour les Canadiens dans le cadre de son rôle et il est président du Comité permanent de l'agriculture et des forêts, membre du Règlement, de la procédure et des droits du Parlement et du Comité mixte de la Bibliothèque du Parlement.

Rob a été président du Groupe des sénateurs canadiens (GSC) depuis sa création en 2019 jusqu'en octobre 2023.

En février 2021, Rob a été reconnu comme l'une des 50 personnes les plus influentes en agriculture par Agribition de l'Ouest canadien.

En juillet 2021, l'Association canadienne de commercialisation des fruits et légumes a reconnu Rob comme le champion des fruits et légumes de 2021. Le prix annuel du champion des fruits et légumes est décerné à un député ou à un sénateur qui a appuyé l'industrie des fruits et légumes frais et qui a été efficace pour mettre les questions de l'industrie au premier plan sur la Colline du Parlement.

En mars 2023, Rob a reçu le prix Hal Rogers Fellow, la plus haute distinction décernée par la Fondation Kin Canada. Ce prix est rarement décerné et réservé à ceux qui ont fait une différence significative pour leurs communautés à l'échelle locale, provinciale ou nationale.

Rob et son épouse Julie vivent au nord de Fergus, et ont quatre enfants adultes et trois petits-fils.



## 2024 CSSS Awards (Con't.)

### 2024 CSSS Fellow Award:

Dr. Judith Nyiraneza, Research Scientist at AAFC- Charlottetown Research and Development Centre,

Dr. Diane Knight, Professor Emeritus of Soil Science at the University of Guelph



**Dr. Diane Knight**

Dr. Diane Knight worked at the University of Saskatchewan for 26 years before retiring as a Professor of Soil Science in June of 2023. Both her PhD (1995) and MSc (1990) were earned from the Department of Plant Sciences at the University of Saskatchewan, and she earned her BSc (1986) from the University of Calgary. Through her work as a Saskatchewan Ministry of Agriculture Strategic Research Chair, Diane's research focused on optimizing the role of N-fixing crops (shrubs, forage crops, pulse crops and herbs) in agroecosystems (traditional, organic and agroforestry), including rhizobial strain selection, inoculant development and delivery, and optimizing the role/placement of N-fixing crops in Prairie agricultural systems. Much of her research employed the use of stable isotopes ( $^{15}\text{N}$  &  $^{13}\text{C}$ ) to quantify and track nitrogen and carbon through agroecosystems and she served as the Director of the Department of Soil Science Stable Isotope Lab for 15

years. A mandate of the Research Chair position is to conduct research relevant for Saskatchewan producers, and over her career, Diane and her students presented at more than 400 extension events. Graduate supervision was always a priority for Diane, contributing to the supervision of 127 graduate students, 34 of those as primary supervisor. In 2023, Diane received the Women in Science Mentoring Award jointly awarded by the Agronomy, Crop, and Soil Science Societies of America—becoming the first Canadian to receive this award.



**Dr. Judith Nyiraneza**

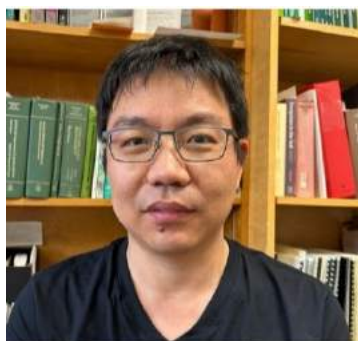
Dr. Judith Nyiraneza holds a BSc in Agricultural Sciences, a MSc in Soil and Crop Sciences, and a PhD in Soil and Environment. Her research activities contribute to increasing the resiliency of agroecosystems. She developed a suite of soil regenerative management practices, which enhance soil health and crop performance and reduce nitrate leaching to groundwater. She also identified novel strategies to enhance phosphorus and nitrogen use efficiencies in potato cropping systems. Dr. Nyiraneza is leading a pan-Canadian living laboratory project where scientists collaborate with growers to accelerate the adoption of environmentally friendly management practices. She is an adjunct professor at three institutions (Laval University, Dalhousie University, and University of Manitoba) and participates in training of highly qualified professionals by supervising graduate students. In 2023, she was recently recognized as one of the six Influential Women in Canadian

Agriculture. Judith disseminated research results to the scientific community and growers with more than 150 communications including 58 peer-reviewed scientific articles. Judith has served the CSSS in multiple ways such as Eastern Council, Associate Editor for the Canadian Journal of Soil Science, judge for graduate student presentations, session convener, active reviewer for the Canadian Journal of Soil Science and Canadian Journal of Plant Science (recognized as an outstanding reviewer by the Canadian Journal of Soil Science in 2015) and the Organizing Committee Chair for the 2021 CSSS virtual meeting.

## 2024 CSSS Awards (Con't.)

### 2024 CSSS Early Career Award:

Dr. Gouqi Wen, Research Assistant at the AAFC Ottawa Research and Development Centre



**Dr. Gouqi Wen**

Dr. Guoqi Wen is a research biologist at the Ottawa Research and Development Centre of Agriculture and Agri-Food Canada. He holds dual PhD's in Soil and Environmental Science from Université Laval and in Soil Science from the Chinese Academy of Sciences. His research focuses on soil fertility, plant nutrition, AI applications in agriculture, and organic waste management. Dr. Wen developed a needle-shaped electrical sensor-based platform to monitor plant physiological and morphological responses to external stresses. He also designed an AI-based platform for converting food waste into biogas and biofertilizers.

Dr. Wen is an editor of the Journal of Crop Improvement and a peer reviewer for multiple journals. He has published over 30 peer-reviewed articles in scientific journals and has actively presented at international conferences and workshops. He has received several awards, including the Graduate Thesis

Award from the Canadian Society for Bioengineering.

### CSSS 2024, Karl C. Ivarson Soil Science Scholarship:

*This scholarship was created by Dr. Karl C. Ivarson through a gift to then Agricultural Institute of Canada Foundation, which eventually became the Canadian Foundation for Food and Agricultural Education. In 2024, the administration of this scholarship passed to the CSSS.*

Dillon Brian Muldoon, PhD student at Trent University.



**Dillon Brian Muldoon**

Dillon Brian Muldoon is a Ph.D. Candidate in the Environmental and Life Sciences (EnLS) program at Trent University, Peterborough, Ontario (Canada). His research interests include soil health, soil microbial ecology, and carbon dynamics with an emphasis on improving Canadian agroecosystem sustainability. He received his B.Sc. in Sustainable Agriculture and Food Systems from Trent University (2017) and his M.Sc. in Environmental Sciences from the University of Guelph (2020). Before returning for his Ph.D., Dillon worked for the Ecological Farmers Association of Ontario (EFAO) as the Research and Soil Health Program Manager focusing on farmer-led research and soil education. Before his time with the EFAO, he worked at Lakehead University Agricultural Research Station, managing small plot variety and production trials for grain, oilseed, pulse, and forage crops in northwestern Ontario.

Dillon's Ph.D. research aims to improve our understanding of the mechanisms of microbially-mediated soil organic carbon cycling in agricultural soils. Using a combination of field and laboratory experiments employing molecular and biogeochemical methods, Dillon seeks to investigate the impacts of soil texture and cover crop species and functional diversity on microbial community composition and soil carbon partitioning.

## 2024 CSSS Awards (Con't.)

### CSSS 2024, Karl C. Ivarson Soil Science Scholarship (con't.):

In addition to research, Dillon enjoys being an active member of his community. He currently serves as the Treasurer for the EnLS Graduate Society and coaches the Trent University Varsity Women's Curling team, as well as previously serving in several graduate student government positions within the Ontario Agricultural College at the University of Guelph, and a variety of other activities within in the community. After the completion of his Ph.D. Dillon hopes to pursue a research and teaching career within academia or government. The importance of knowledge transfer and translation has been a key pillar throughout his work and educational journey and he hopes to increase community engagement and outreach around soil science and agroecosystem health as his career progresses.

### 2024 Student Presentation Awards

#### 2024 C.F. Bentley Award (Oral Presentations):

This award was initiated in 1983 to encourage and recognize excellence in oral presentations by students at the CSSS Annual Meetings. It honours Dr. Fred Bentley who was CSSS President in 1956-57 and inducted as a CSSS Fellow in 1973. The award winner receives \$500, the first runner-up \$300, and the second runner-up \$200.

- 1<sup>st</sup> Daniel Saurette (University of Guelph),
- 2<sup>nd</sup> Jamin Achtymicuk (University of Alberta),
- 3<sup>rd</sup> Shelby Conquer (Trent University).

#### 2024 President's Award for Poster Presentation

- 1<sup>st</sup> Amelia Clements (University of Saskatchewan),
- 2<sup>nd</sup> Tanya Brouwer (Thompson River University),
- 3<sup>rd</sup> Annah Young (Washington State University).



## 2024 CSSS Awards (Con't.)

### 2024 CSSS Student Book Awards

This award recognizes undergraduates at Canadian universities who demonstrate excellence in Soil Science. Candidates are nominated by their academic department. In 2024, these students will receive a print copy of *Digging into Canadian Soils: An Introduction to Soil Science*, published by the CSSS:

Alexandra Bélanger	Université Laval
Mollie R-A Brown	University of Winnipeg
Megan Deschenes	UQAC
Camille Fallu	McGill University
Mackenzie Hobbs	Laurentian University
Kanishk Kulhari	University of Manitoba
Rae-Anne Martin	University of Alberta
Roxanne Rosario	University of Toronto Scarborough
Cissy Zhang	University of British Columbia

### 2024 CSSS Student Travel Awards

This award was established in 1991 to promote student attendance at the CSSS Annual Meetings and is available to any graduate student who is a CSSS member. The award is \$700 with a maximum of 12 being granted. This year's award recipients are:

Matt Ball	University of Alberta
Andrea Cline	University of Saskatchewan
Stuart Downie	Dalhousie University
Rachael Harman-Denhoed	McGill University
Matthew Kyriakides	University of Victoria
Charlie Little	Dalhousie University
Abhijeet Pathy	University of Alberta
Shreemi Prabhakaran	Dalhousie University
Alejandro Quezada	Dalhousie University
Rida Sabirova	University of Manitoba
Ruchini Sovis	University of Winnipeg
Cobus Stals	University of Saskatchewan

## 2024 CSSS Awards (Con't.)

### 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) jointly sponsor annual awards to provide travel funds for student members of CSSS to attend international soil science meetings. This year's award recipients are:

Beatrice Delarosbil,	an M.Sc. student at L'Université Laval, to attend the 9 <sup>th</sup> International Symposium on Soil Organic Matter in Morocco, during May 2024
Brière Michaël,	an M.Sc. student at L'Université Laval, to attend the IUSS Centennial Celebration and Congress in Italy, during May 2024
Julianah Adediji,	a Ph.D. student at Queen's University, to attend the 22 <sup>nd</sup> Annual Meeting of the International Humic Substances Society in Italy, during August 2024

## Congratulations



**Dr. Augustine Osel**

### PhD Defense Successful

PhD student Augustine Osei successfully defended his PhD thesis "Assessment of soil carbon storage and greenhouse gas emissions in perennial bioenergy crops on low productive agricultural land in southwestern Ontario, Canada".

He is starting a 1-year post doctoral fellowship with Dr. Maren Oelbermann at The University of Waterloo on August 01, 2024.

## Congratulations (Con't.)



**Dr. Tim Ojo**  
**Manitoba Agriculture & Adjunct**  
**Professor**  
**Department of Soil Science**  
**University of Manitoba**

Adjunct Professor, Tim Ojo, has been selected to the top 10 of the Manitoba Future 40 winners. [See article](#)

Timi Ojo never imagined he'd warm up to Manitoba's frigid winters and mosquito-filled summers, but when an opportunity to study in the province opened, he decided to take it, as he was pursuing a career as a soil moisture and weather scientist.

Ojo immigrated from Nigeria to Winnipeg in 2009 to do his master's degree at the University of Manitoba. He had his sights set on Australia for his PhD, but his supervisor at the U of M, senior scholar and agrometeorologist Paul Bullock, persuaded him to stay.

"I definitely don't regret a day of it," Ojo said.

"Part of my work also takes me to so many rural communities. I've been to a lot of them and it's just the kindness: Everywhere you turn, you see people willing to give a helping hand."

Ojo did his PhD at U of M in collaboration with NASA, which launched a satellite as part of its soil moisture active and passive mapping project to take soil moisture data from around the globe.

Ojo created the first automated soil moisture monitoring network in the province for his postgraduate studies, and data from it helped flood forecasters during the flood of 2011 along the Red and Assiniboine rivers.

After the flood, a recommendation was made to increase the number of soil moisture monitoring stations. Ojo's efforts and expertise helped Manitoba almost double the number of stations in the province.

They've proven increasingly more important for predicting impacts of floods and droughts on Manitoba agriculture as rain and snowstorms get more intense and unpredictable, Ojo said.

Ojo has worked for the province as an agrometeorologist since 2015 and is also an adjunct professor at the U of M and acting manager of crop production.

He also leads a project across the Prairies that pools data from 500 weather stations to watch for crop disease risk.

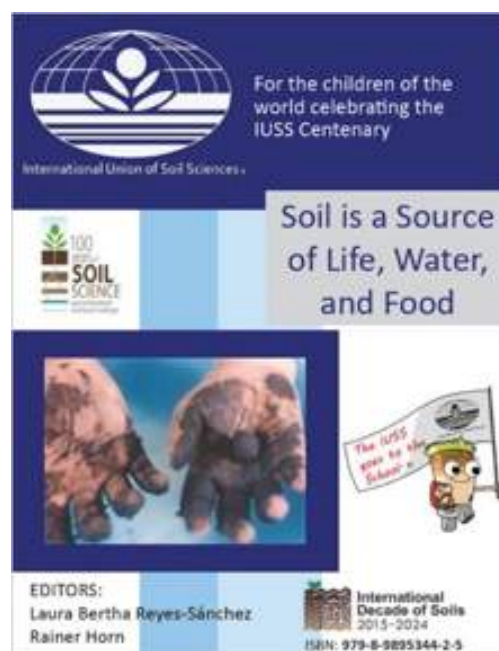
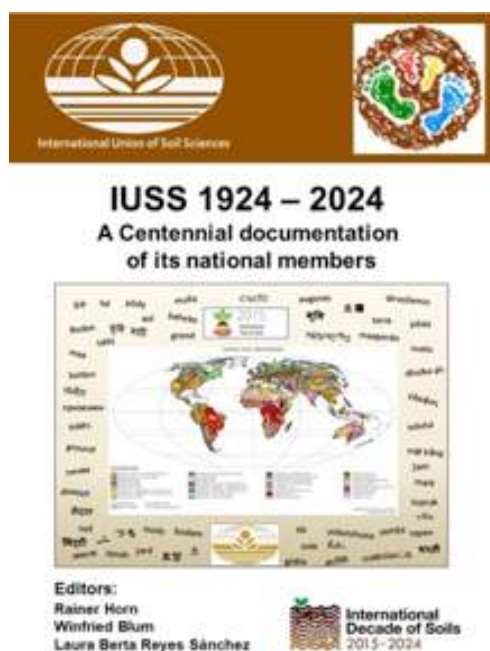
The father of two also recently became a self-published author of the children's book Jo's Super Skates, based on his daughter's experiences skating at The Forks.

## Canada in the IUSS - Towards 24th WCSS and Beyond

**Foreword** – This represents the second installment of reflections and news items from the IUSS, with special attention on its Centennial Celebration and Congress. Updates regarding our ongoing early work to organize the 24WCSS are also provided.

### 2024 - the IUSS Celebrates 100 Years and More...

On May 19, 2024, the IUSS kicked-off its Centennial Celebration and Congress, in Florence, Italy ([www.centennialiuiss2024.org/](http://www.centennialiuiss2024.org/)). This event, organized by the Italian Society of Soil Science, involved three days of plenary and technical sessions, as well as a pre-congress tour to visit the Palace of Villa Lubin in Rome (where the first ISSS Charter was signed), as well as several thematic soil post-congress tours. A commemorative video of the IUSS, produced for the Centennial can be viewed at: [youtu.be/2EOXZrsdgTg](https://youtu.be/2EOXZrsdgTg). The event also saw the launch of three books: “IUSS 1924-2024 A Centennial documentation of its national members” (which contains a contribution from the CSSS, available at: [www.iuss.org/soil-publications/iuss-publications/iuss-1924-2024/](http://www.iuss.org/soil-publications/iuss-publications/iuss-1924-2024/)), a multilingual children’s book about soil science “Soil is a Source of Life, Water and Food” ([www.iuss.org/soil-publications/iuss-publications/soil-is-a-source-of-life-water-and-food/](http://www.iuss.org/soil-publications/iuss-publications/soil-is-a-source-of-life-water-and-food/)), as well as “Soil Science in Italy”.



Among the various Canadian participants at the IUSS Centennial was Michaël Brière, an M.Sc. student at Université Laval, who was one of the 2024 recipients of the CSSS-CJSS Travel Award for International Soil Science Meetings.



## Canada in the IUSS - Towards 24th WCSS and Beyond (Con't)

As a special initiative of the Centennial Celebration and Congress, the IUSS also launched its 'World Soil of the Year' program. The "Chernozem of the Bălți Steppe, Moldova" was officially proclaimed as the inaugural "IUSS World Soil of the Year" during the closing ceremony. Official nomination of this soil was provided by the Soil Science Society of Poland and the Canadian Society of Soil Science, on behalf of the Moldovan Society of Soil Science. The objective of the IUSS WSY is to build on the success of various national programs, to enhance soil literacy across numerous countries and on a global scale. It is hoped this will aid in compiling a registry of soil heritage, to recognize the inherent natural and cultural values of soils, thereby helping to open doors for soil science to integrate with environmental protection activities and projects. In support of the 2024 IUSS WSY, a special issue of *Geoderma Regional* will be published with a focus on chernozemic soils internationally - this is now open for submissions (contact: [cezary.kabala@upwr.edu.pl](mailto:cezary.kabala@upwr.edu.pl)). Efforts are currently underway to convert the IUSS WSY Task Force into a regular IUSS Working Group – an opportunity for colleagues in the CSSS.



During the Centennial Congress, a special meeting was organized by Australia colleagues to discuss the idea of developing an international accreditation framework for soil scientists and practitioners, modelled after initiatives like the Certified Professional Soil Scientist program in the USA. This meeting involved representatives of Britain, Italy, New Zealand, USA and Canada, as well as from the Global Soil Partnership of the UN/FAO and the Soil Health Institute. A proposal is now being developed to establish an IUSS Working Group whose overall goal will be to “provide a global credential or accreditation that recognizes those who have knowledge and experience in the value of soil and sustainability, as well as how to

manage our soil resource effectively long-term for the benefit of society”.

Building on the previous introduction of the scientific structure of the IUSS, in this installment, I would like to provide greater insight into Division 1 Soils in Space and Time ([www.iuss.org/divisions/division-1-soils-in-space-and-time/](http://www.iuss.org/divisions/division-1-soils-in-space-and-time/)). Division 1 focuses on the “What” of soil science, considering “the soil as a body and how it was formed, the extent of its global coverage, and the many complex interactions and interactions with the biosphere, hydrosphere, atmosphere, and lithosphere.” Currently, Division 1 is comprised of six Commissions: 1.1 Soil Morphology and Micromorphology, 1.2 Soil Geography, 1.3 Soil Genesis, 1.4 Soil Classification, 1.5 Pedometrics and 1.6 Paleopedology. The Division also currently has eight active Working Groups: Cryosols (with Adrian Unc as Vice-Chair), Digital Soil Mapping, Global Soil Map, International Soil Judging Contest, Proximal Soil Sensing (with Asim Biswas as Chair), Soil Information Systems, Universal Soil Classification, and World Reference Base. Upcoming events of Division 1 include the 6th Global Proximal Soil Sensing Workshop (Belgium Oct’24 and the 17th International Conference on Soil Micromorphology (Peru, Dec’24). A Division 1 meeting will be held in July’25, jointly with the Global Soil Security Conference and the Annual Meeting of the CSSS/MSSS, in Winnipeg – with a special day-long plenary session entitled “Pedology 2025 & Beyond” being planned...SAVE THE DATE!

## Canada in the IUSS - Towards 24th WCSS and Beyond (Con't)

Recent efforts of the 24WCSS Committee have been primarily focused on the issue of establishing a Not-For-Profit, separate from the CSSS, to realize the Congress in 2030. At this year's CSSS AGM, members approved the proposal to create the NFP. Following the required IUSS Council ratification vote for Canada to host the 24WCSS, programmed for the upcoming IUSS Inter-Congress Meeting in Nanjing (Oct'24), we will be able to finalize our MOU with the IUSS and the agreement to secure our meeting venue.

During the 2024 Annual Meeting of the CSSS, in Vancouver, a session entitled "Soil Tours of Canada - Leveraging our Legacy Sites for the 24WCSS and Beyond", was organized to 'take stock' of field sites across Canada, and to discuss how these can serve as a starting point as we progress towards the 24WCSS and beyond. Special thanks to Jeremiah DuBovis (BC), Erin Daly (AB), Megan Westphal (MB), Jacynthe Masse (QC) and Brandon Heung (NS), as well as their respective co-authors, for their insightful presentations. As a reminder, David Lobb is chairing the 24WCSS Technical Tours Subcommittee.



International Union of Soil Sciences



## Bridging Ecuadorian and Canadian Perspectives in Soil Health: a new partnership to support soil conservation research



**The Ecuadorian and North American team visiting one of UCE's two agricultural research stations.**

Lakehead University (Thunder Bay, Ontario) has supported a new collaborative research initiative focused on soil management and health between Canadian and Ecuadorian researchers. Nathan Basiliko, Brian McLaren, and Amanda Diochon, from Lakehead, and Randy Kolka at the USDA Forest Service (Northern Research Station in Grand Rapids, MN, USA; adjunct faculty member at Lakehead), were awarded funding from the Lakehead University Vice-President Research and Innovation-International Research Partnerships program.

The partnership funding, along with support from Universidad Central del Ecuador (UCE, Quito) facilitated meetings and field tours in Ecuador with new research partners from UCE and Escuela Superior Politecnica de Chimborazo (ESPOCH, Riobamba), along with Paul Benalcazar, a post-doctoral fellow now at University of Guelph who completed his BSc and MSc at

ESPOCH and PhD at Lakehead. The North American team also participated in a workshop with a broader range of Ecuadorian university, ENGO, private sector, international partner, and governmental stakeholders interested in bolstering collaborative efforts on soil health research and monitoring, aiming towards a national soil health strategy. The timing of the Ecuador initiative is serendipitously aligned with an important soil health study just released by the Canadian Senate Standing Committee on Agriculture and Forestry, which was based on consultation with many CSSS members.

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**Prof. Renato Xavier Haro Prado (UCE) describing high altitude Andisol (left) and humid tropical forest soil (right) profiles to the group on part of a 3 day field tour.**



## Bridging Ecuadorian and Canadian Perspectives in Soil Health: a new partnership to support soil conservation research (Con't.)



**The Ecuadorian and North American team visiting one of UCE's two agricultural**

The North American team had the opportunity to tour UCE and ESPOCH research stations and laboratories, observe volcanic Andisols, visit paramo ecosystems and other high-elevation wetland environments, as well as tour humid tropical forests with weathered Ultisols (and 5 species of monkey!). The North and South American teams have made collaborative research plans to explore nitrogen cycling microbial guilds under new no-till production systems, and high-altitude wetland feedbacks to climate change. Bi-directional graduate research student exchanges between Lakehead and UCE and ESPOCH are a main goal of the new collaboration. Some of the key faculty researchers and facilitators involved in the tours, meetings, and new collaboration are Soraya Patricia Alvarado Ochoa, María Eugenia Avila

Salem, Renato Xavier Haro Prado, Fabián Homero Montesdeoca (researchers at UCE), Carlos Lenin Montufar Delgado (Dean of the Faculty of Agricultural Sciences at UCE), Norma Erazo, Magdy Echeverria, Diego Damian (Research Group in Development and Adaptation to Climate Change at ESPOCH), and Fernando Romero (former dean of the Faculty of Natural Resources at ESPOCH).



## Student Photo Contest

If you are a student interested in visually projecting your research and have interesting and memorable research photos you would like to share, consider entering the CSSS photo contest!

The top submission will receive a \$125 cash prize from CSSS and will be featured on the cover of the Canadian Journal of Soil Science (CJSS).



Select photos may be used as covers for special collections organized by the CJSS. Students whose photos are used for this purpose will receive a \$75 cash prize from CSSS.

All photos selected by the CJSS will be acknowledged on the CSSS website and in the CSSS newsletter, and at the CSSS Annual meeting.

The deadline for submissions is August 31 of each year.

All submissions must meet the following specifications:

- Image should focus on some aspect of soil science to reflect CJSS content.
- Image size and resolution must be at least 8.5" x 11" at 300 dpi or higher.
- No collages; one single image only.
- Image must be well focused and not blurry.
- Image must not include people.
- Image should not be manipulated or heavily edited.
- Acceptable image formats are jpg, png, or tif.

Students may submit more than one image per competition.

Send all entries to the CJSS Editor-in-Chief: Dr. M. Anne Naeth ([anaeth@ualberta.ca](mailto:anaeth@ualberta.ca)).

### CJSS Photo Submissions

If you are interested in submitting photos for consideration by the CJSS as an issue cover or as advertising material but not as part of the student photo contest please send directly to M. Anne Naeth ([anaeth@ualberta.ca](mailto:anaeth@ualberta.ca)). Any interested party can submit images provided that the images meet the criteria outlined for the student competition.

## Job Postings

**PhD Opportunity, Department of Soil Science, University of Saskatchewan, Canada** - Microbial drivers of soil N<sub>2</sub>O emissions from enhanced efficiency nitrogen fertilizers - [More information](#)

**MSc Opportunity, Department of Soil Science University of Saskatchewan, Canada** - Root and residue contributions to soil organic matter under contrasting nitrogen fertilization across diverse canola genotypes - [More information](#)

## Grounded in Soils Blog



Opportunities to participate in our public communications blog - Grounded In Soils! The blog enjoys an average of 600 readers per month!

All members can participate in our Grounded In Soils blog. We have two types of categories:

**Life as a soil scientist** encourages students to pursue a career in soil science by showing what real-life soil

scientists do! We need your help to let them know what it's like to be a professional! Be like Maren Oelberman, Grace Gowera, Daniel Saurette and more - it's filling out a simple set of questions, and providing two photos of you in "action" shots. These can be in the field or lab. Here is an example: <https://groundedinsoils.wordpress.com/2023/11/04/life-as-a-soil-scientist-daniel-saurette/>.

Email [csss.soils@gmail.com](mailto:csss.soils@gmail.com) for more information!

**Blog posts about your research projects!** Work with our social media manager to compile a relatable blog post about your research (at any level). We can even work with research papers. We do need two photos to help portray the work. Email [csss.soils@gmail.com](mailto:csss.soils@gmail.com) for more information! Here is an example of this type of blog post: <https://groundedinsoils.wordpress.com/2024/03/03/high-organic-matter-soils-in-southwestern-quebec-are-good-for-agriculture/>)

## Conferences | Events | Meetings

### International Conference: Impacts of Soil Amendments on Dryland Agro-Ecosystems

#### [ISADAE2024](#)

**October 28-20, 2024**  
**Reims, France**

Recognizing the importance of healthy soils, the [ISADAE 2024](#) conference aims to bring together researchers, PhD students, and policy-makers to facilitate the exchange of research findings and experiences, assess various approaches to producing and applying soil amendments. It also aims to foster international cooperation in developing strategies and projects for sustainable soil management in dryland agro-ecosystems.

### Tri-societies International Meeting AI Innovations for a Changing Climate

**<https://www.acsmeetings.org>**

**November 10-13**  
San Antonio, Texas.

Attend the 2024 ASA, CSSA, SSSA International Annual Meeting to inspire change in agronomy, crop, and soil sciences to impact scientific advancement. Rapidly changing climate is one of the greatest challenges for modern agriculture around the world. But there is hope! By leveraging advanced modeling tools, remote sensing, machine vision, autonomous machinery, and robots, AI enables improved soil management, climate-smart farming, and accurate forest mapping. Together, let's harness the power of AI to revolutionize the future of agriculture at the 2024 ASA, CSSA, SSSA International Annual Meeting.



CANADIAN SOCIETY OF SOIL SCIENCE  
SOCIÉTÉ CANADIENNE DE SCIENCE DU SOL

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