



Minutes of the CSSS Soil Education Committee Meeting, June 12, 2017

- 2017 CSSS Annual Meeting, Trent University, Peterborough, ON -

In Attendance: Chris Crowley, Kent Watson, Jacynthe Masse, Paul Hazlett, Ken van Rees, Paul Smith, Therese Festin, Amanda Diochon, R. Jay Goos, Tom Yates, Bobbi Helgeson, David Burton, Nathan Basiliko, Carolyn Marshall, and Maja Krzic

Meeting Agenda

- 1) Overview of activities since our 2016 meeting in Kamloops, BC - Maja Krzic
- 2) World Soil Day, Wikipedia Edit-a-thon on Dec 5, 2017 – Maja Krzic (*see attachments for more info*)
- 3) Canadian summer pedology school - Jacynthe Masse
- 4) Soil science education and Ontario's soil health and conservation strategy – Paul Smith, OMAFRA (*see attachments for more info*)
- 5) Identify next priorities for Education Committee – Amanda Diochon
- 6) Other

DISCUSSION

Meeting began with introductions of people present. Maja convened the meeting at 12:23 pm EST.

1) Overview of activities since our 2016 meeting in Kamloops, BC (Maja Krzic)

Our Committee is organizing one session at the conference this year, which is entitled “Promoting soil: Communicating the importance and value of what lies beneath”. There are six speakers in the session and we have three posters. At the end of the session, Dr. Andrea Buchholz (University of Guelph) will lead a workshop “Structured Spontaneity for the Soil Science Classroom: Engaging Students with Improv Linkages” during which she will demonstrate several interactive techniques that could help us make our lectures and presentations more engaged, interesting, and fun. Dr. Buchholz also shared with us an extensive list of interactive techniques that can be found in a PDF posted at our web page (<http://csss.ca/education-committee/>). The PDF is entitled “**Kevin Yee Interactive Techniques.pdf**”



We are also in the process of working on a second paper focusing on the foundation year/first year soil science courses that are offered at universities and colleges in Canada. The survey is available at <https://survey.ubc.ca/surveys/krzic/2017-csss-ms/> and we hope to submit a draft of the manuscript by the end of the year. This is following up on our recent manuscript examining soil science offerings in Canadian universities and colleges entitled "*Profiling undergraduate soil science education in Canada: Status and projected trends*" (available at <http://www.nrcresearchpress.com/doi/10.1139/CJSS-2016-0058#.WUJLZ9yQyvF>).

2) World Soil Day, Wikipedia Edit-a-thon on Dec 5, 2017 (Maja Krzic)

Maja explained that there is an open invitation to edit pages related to soil during an Edit-a-thon on Dec 5, 2017. Additional details are provided in the attachments.

3) Canadian summer pedology school (Jacynthe Masse)

Jacynthe explained that there is a critical mass of scientists in Canada that are concerned about the loss of pedology and knowledge in Canada. She attended a month long course focusing on statistics that inspired her to think about delivering something similar in Canada but focusing on soils. She is partnering with Dave Kroetsch and Richard Heck to make this a reality but is also looking for volunteers. She will be expanding on her vision for the course in the afternoon session. Guelph was discussed as a proposed location. Tom Yates suggested increasing connections with industry etc. to increase enrollment and fill a niche.

4) Soil science education and Ontario's soil health and conservation strategy (Paul Smith, Ontario Ministry of Agriculture, Food and Rural Affairs – OMAFRA)

Paul discussed Ontario's soil health strategy. One of the questions he is interested in exploring is whether Ontario has the knowledge base and courses available to ensure that students and practitioners are properly trained. What are the needs in Ontario from business/industry and the academy? He is interested in engaging with universities and colleges in Ontario to inventory and take stock of the skills that students acquire. Pedology has been identified as an area of particular interest.

Dave Burton suggested a working document that outlines the significance of soil science to the industry. A working group could develop this document.

Jay Goos (soil science professor from North Dakota) asked if Ontario had anything like the Certified Soil Classifiers that are in North Dakota. There is not.

There was an identified need to determine the value from industry and government in terms of having a professional type designation.



This soil health initiative in Ontario might also prove to be helpful to Jacynthe's initiative on Canadian summer pedology school.

5) Identify next priorities for Education Committee (Amanda Diochon):

Amanda suggested that the committee could design a poster similar to the US poster (https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/edu/?cid=nrcs142p2_053588), which would show all of the soil orders of Canada. Kent Watson has many outstanding photographs of soil profiles that could be used for this. In addition, we could also solicit photographs from other members. The poster could be distributed to science teachers. This will be presented at the AGM.

Meeting adjourned at 12:58 EST.

ATTACHMENTS

World Soil Day edit-a-thon on Dec 5, 2017

We are organizing a coordinated *World Soil Day* Wikipedia edit-a-thon, where scientists, professionals and students work simultaneously to edit and update soil science information on Wikipedia, particularly where information gaps currently exist. Wikipedia edit-a-thons can be a great way to promote a particular cause or event, and we thought this would be a great opportunity for soil scientists to connect with a large audience through this online encyclopedia resource. The *World Soil Day* edit-a-thon is proposed to take place on December 5, 2017, as a part of celebration of the International Decade of Soils (2015-2024).

What is a Wikipedia edit-a-thon?

A Wikipedia edit-a-thon¹ is an organized event where people can edit and improve a specific topic or type of content on Wikipedia, typically including basic editing training for new editors. Wikipedia edit-a-thons have taken place at Wikimedia chapter headquarters, accredited educational institutions, museums and archives. A Wikipedia edit-a-thon can be:

- a scheduled time where people edit Wikipedia together, whether offline, online, or a mix of both;
- focused on a specific topic (e.g. women's history, soil science, Organic soils);
- a way to give new-comers an insight into how Wikipedia works.

The Opportunity

¹The word is a portmanteau of "edit" and "marathon"



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Often, the best outcomes are achieved when the focus of an edit-a-thon is on a specific topic that has not been fully developed in Wikipedia. One focus of the proposed *World Soil Day* edit-a-thon is to expand on so-called “stubs” (Wikipedia pages that are too short to provide encyclopedic coverage of a subject, and can be expanded). Wikipedia has a list of Soil Science stubs, which is a useful starting point for identifying information gaps https://en.wikipedia.org/wiki/Category:Soil_science_stubs .

A review of other information gaps is currently underway by the edit-a-thon organizers, who have identified some suggested pages to edit. For example, at

https://en.wikipedia.org/wiki/Canadian_system_of_soil_classification we could add media, maps of orders across Canada, link to other pages (e.g., Podzolic order), name equivalent taxa in other classification systems, link keywords in descriptions to other pages (e.g., parent material); could create pages for Great Groups, Subgroups, etc.

One key opportunity is to enhance the presence of Canadian soil science content on Wikipedia. For example, there is no Wikipedia entry for the Canadian Society of Soil Science. It would be very helpful if you could review the soil science information that is currently available on Wikipedia and bring forward any specific suggestions of knowledge gaps that could be filed by our community at the *World Soil Day* edit-a-thon.

Important: Do not worry if you’ve never edited a Wikipedia entry before! There will be training and support, and a range of different kinds of edits available for you to work on (ranging from very simple to more complex in the list below):

- Minor edits - typo corrections, formatting and presentational changes, rearranging of text without modifying content, etc.
- Major edits – adding/deleting page content, new sections, etc.
- Add references – inline citations and footnotes
- Add images, sounds, videos (this is a great opportunity for those of you with great photo libraries)
- Add an infobox to a page
- Create a new page from scratch

Edit-a-thons improve the encyclopedia and can be a great way to help new “Wikipedians” learn to edit and give them insight in to how Wikipedia works.

Event Details

The *World Soil Day* edit-a-thon will include an event hosted by the University of British Columbia (UBC) soil science community in conjunction with Wikipedia experts from the UBC’s Centre for Teaching, Learning and Technology, in Vancouver on Tuesday, Dec 5, 2017, 1:00 – 4:00 pm, (PDT), location TBA. In addition, soil scientists from across the country are invited to participate online from any location. If there is a volunteer to set up a satellite meetup at another institution, please contact Maja at maja.krzic@ubc.ca.

The online hub that will bring the *World Soil Day* Wikipedia editors together is what’s called a Wikipedia: Meetup page (https://en.wikipedia.org/wiki/Wikipedia:Meetup/World_Soil_Day_2017_Edit-a-thon). Here you



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will be able to sign up for the event, access details about the edit-a-thon, including the event description and goals, find instructions on how and what to edit, and connect with other editors.

Join us to work on creating more accessible soil knowledge for everyone! Tell your colleagues and friends!

Soil Science Education and Ontario's Agricultural Soil Health and Conservation Strategy

Ontario is developing an Agricultural Soil Health and Conservation Strategy to re-examine all aspects of how agricultural soils are managed and the tools and systems used to inform soil management. A discussion paper was issued for a consultation period in the fall of 2016 "Sustaining Ontario's Agricultural Soils: Towards a Shared Vision".

As part of this strategy OMAFRA² is looking at education regarding soils in terms of general public awareness of soils and in providing training of people with the essential skills needed for sustainable management of agricultural soils. We took advantage of the Canadian Society of Soil Science education committee's analysis of university and college course offerings and the analysis of secondary curriculum supports.

We anticipate further work will be needed to assess the soil-related knowledge and skill workforce needs for sustainable agricultural soil management and whether change is needed in the content of university, college, elementary and secondary curriculum, courses and programs in Ontario. We hope that the Society could be a partner in that work.

More information on the soil strategy - <http://www.omafra.gov.on.ca/english/landuse/soilhealth.htm>

²Ontario Ministry of Agriculture, Food and Rural Affairs