

THE SOILED PROFILE



NEWSLETTER DEPARTMENT OF SOIL SCIENCE UNIVERSITY OF MANITOBA “bringing you the latest dirt”



UNIVERSITY
OF MANITOBA

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Past issues of the Soiled Profile are on our
webpage: [umanitoba.ca/afs/soil science/](http://umanitoba.ca/afs/soil%20science/)

13 October 2017

Upcoming:

Saturday, Oct 14 – Special Event at Investors’ Group Field. **Parking restrictions will be in effect for W lot starting at 1:30 p.m.**

Friday, Oct 27, 12:30 p.m., Room 346 Ellis Building – Soil Science seminar series. Presenter: Dr. Rachel Krause, Assistant Professor in Biology, Canadian Mennonite University. Title: Soil, Public Health, And the World’s Most Common Parasites: The Soil-Transmitted Helminths.

Saturday, Oct 28 – Special Event at Investors’ Group Field. **Parking restrictions will be in effect for W lot starting at 1:30 p.m.**

Wednesday, Nov 8, 12:30 p.m., Room 346 Ellis Building – Soil Science seminar series. Presenter: Dr. Vince Palace, Head Research Scientist, IISD - Experimental Lakes Area Inc. Title: Freshwater Oil Spill Research at IISD-ELA.

Department Staff Away:

Martha Blouw	Oct 16-20
David Lobb	Sabbatical July 01 – December 31, 2017
Mario Tenuta	Sabbatical July 01 – December 31, 2017

Opportunities:

2018 Canola Agronomic Research Program

The objective of the CARP Program is to help canola growers increase yield, increase profitability and reduce production risk while enhancing sustainability through quality grower group-funded research and effective technology transfer. 2018 CARP Letters of Intent (LOIs) are being solicited on behalf of the three provincial canola grower organizations. Collaboration with multiple organizations/facilities is welcomed and encouraged.

The 2018 CARP research priorities:

- Disease
- Fertility
- Integrated Pest Management & Sustainability
- Stand Establishment
- Harvest and Storage Management

Links: [2018 CARP Research Priorities](#) [2018 CARP LOI template](#)

Deadline for submission of 2018 CARP LOI: **October 31, 2017**. Note: The ORS deadline is **October 24**. All submissions should be sent to the attention of Gail Hoskins, CCC Crop Production Administrator and CARP Coordinator at: hoskinsg@canolacouncil.org

Notifications and requests for Full Proposals will be sent to applicants by Thursday, November 30, 2017.

PhD in Environmental Biogeochemistry, Renewable Resources Dept, Univ. of Alberta, Edmonton, AB

The Athabasca bituminous sands have received global attention due to the highly visible profile of industrial operations, in stark contrast with the surrounding Boreal landscape. These striking images have provoked increased scrutiny related to potential impacts, such as the release of trace metals into the Lower Athabasca River (LAR). High-quality scientific investigation is therefore needed to assess industrial contributions to trace element concentrations in the LAR; however, distinguishing between natural and anthropogenic inputs is not straightforward. Myriad natural sources also contribute to the 125-km stretch of the LAR that is proximate to industrial operations, such as tributaries containing high concentrations of iron and organic matter. Thus, a sound understanding of the biogeochemical processes occurring during the mixing of sources is needed to assess their impact on trace element concentrations. Cutting-edge analytical methods and ultraclean metal-free sampling and analysis conditions are also required to measure trace element speciation at low natural background concentrations.

The SWAMP (Soil, Water, Air, Manure, and Peat) lab is a world class metal-free analytical facility in the Department of Renewable Resources at the University of Alberta, specially designed to measure metal concentrations at ultratrace levels (<https://swamp.ualberta.ca/>). The SWAMP facility houses iCAP-Qc quadrupole and Element 2 XR sector field ICP-MS instruments for multi-element quantification in the ng L⁻¹ and pg L⁻¹ range. Asymmetrical flow field-flow fractionation (AF4) is coupled to the iCAP-Qc system for the separation of dissolved trace elements into mainly ionic, organic-associated, and mainly inorganic species, allowing source differentiation based on the size distribution and speciation of trace elements in the colloidal phase. Absorbance and fluorescence detectors are coupled to the AF4 system for the characterization of dissolved organic matter. A G-SPLITT fractionation system is also available to eliminate filtration artefacts during the isolation of colloids.

The SWAMP lab team is currently seeking a highly motivated and qualified individual to undertake PhD research related to trace element sources and cycling in the LAR. The ideal candidate will hold an MSc degree in chemistry, geochemistry, or biogeochemistry, with a strong background in analytical chemistry. Laboratory experience is required, since lab work will comprise a significant proportion of all research projects. Fieldwork experience is an asset, as the work may require one or more two-week sampling tours on the LAR. To apply, please send a letter of application, CV, and the names of two references to Ms. Karen Lund (klund@ualberta.ca). For further information about the project, please contact Dr. Chad W. Cuss (cuss@ualberta.ca).

SIXTH PRAIRIE CONSERVATION AND ENDANGERED SPECIES CONFERENCE FELLOWSHIP

The steering Committee of the Sixth Prairie Conservation and Endangered Species Conference has created an endowment fund at the University of Manitoba from Conference proceeds. The purpose of the fund is to support graduate students at the University of Manitoba who are conducting research related to conservation issues on the Canadian Prairies (land or water).

The fellowship shall be offered to graduate students who:

- are enrolled full-time at the University of Manitoba in a Master's or Ph.D. program relating to prairie conservation and/or prairie endangered species management,
- have achieved a minimum cumulative grade point average of 3.5 (or equivalent) on the last two regular academic sessions while studying full-time,
- are conducting or have proposed to conduct research in the area of prairie conservation and/or prairie endangered species management in Canada,
- show great potential as researchers, as judged by the selection committee.

Value: \$1,425 (approximately)

Deadline: **November 10, 2017**. More information and to apply: [click here](#).

Community Service Learning Projects, University of Manitoba

CSL is currently recruiting interdisciplinary teams of students to participate in international community service-learning projects in South America, The Caribbean, The Amazon Rainforest and Northern Manitoba. Our programs are grounded in reciprocal and long-standing relations with community partners, and aim to introduce UoM students to the ethical and strategic realities and complexities of community and social justice work beyond their everyday world. This year, our project-based programs focus on climate change resilience and Indigenous knowledge and perspectives.

Reading Week, 10 days (February 2018)

- Amazon Rainforest, Ecuador – Alternative Reading Week: Merging Western and traditional Indigenous strategies to increase the climate-change resilience of a Kichwa rainforest community.
- Belize – Alternative Reading Week: Learn about Maya culture by facilitating project-based learning at a community school and participating in local outings to a cacao farm and Maya chocolate-maker.

Summer, 6 weeks (May-June 2018)

- Island of Chiloé, Chile: Assist with the promotion and coordination of workshops where Indigenous Williche youth and practitioners of Indigenous Health will gather to learn from each other, exchange perspectives and find a sustainable future for Traditional Indigenous Health in their communities.
- Leaf Rapids, Northern Manitoba: From food security and sustainability to education, recreation and Cree culture, discover the realities of everyday life in the North while living in a community, interacting with residents, and volunteering in the boreal gardening project and local school. This program runs for six weeks in May and June.

Program fees are all-inclusive: return airfare, accommodation, meals, and more. Bursaries of up to \$1,000 available. To apply and for more information: <http://umanitoba.ca/student/studentlife/servicelearning/> or service.learning@umanitoba.ca.

Events:

FGS Keynote Presentation, Thurs, Oct 26, 2:30 – 4:00, 306 Tier Building

PhDs that Work: Finding Success in an Uncertain Job Market

Join L. Maren Wood, PhD and Jennifer Polk, PhD, two pioneering career coaches and the founders of Beyond the Professoriate, as they share their expertise to help graduate students make better sense of today's challenging and shifting professional landscape.

[Registration link](#)

Manitoba Institute of Agrologists Fall BBQ, Thurs, Oct 26, 5:00 – 8:30, Kelburn Farm

Toban Dyck, award winning journalist and Manitoba farmer will be the guest speaker. More details about Toban are available [here](#).

A good home-cooked meal of stuffed chicken breast and spare ribs awaits everyone attending! Bring a friend! For more information and to register, [click here](#).

Global Food Security Symposium, Mar 21-22, 2018, Washington, DC

We're working on a major report exploring how to engage youth in low income countries and rural areas to spur creativity and productivity that leads to prosperity. Do you know of a student who is interested in shaping new ideas for food security and agricultural development? Encourage them to apply now to join the 2018 Next Generation Student Delegation! Selected students' travel to and accommodations in Washington DC are covered, and they enjoy the opportunity to engage in symposium discussions and interact with global leaders working on agriculture, food, and nutrition issues.

Learn more about [last year's Next Generation Student Delegation](#).

Applications are due on or before **Sunday November 5**. Questions about the application process? Please contact nextgendelegation@thechicagocouncil.org.