

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/

28 April 2017

Upcoming:

Tuesday, May 2, 8:45 a.m., Room 346 Ellis Building – Department of Soil Science Annual Orientation/Safety Session. All department staff and students must attend as well as any others who may be working in the department or using department equipment. There will be coffee (provided by Edin Kurbegovic, VWR Scientific) and door prizes. The session should be finished by approximately 11:30 a.m.

Friday, Jun 9, 9:30 a.m., Room 346 Ellis Building – Department of Soil Science, M.Sc. thesis defense, Magdalena Rogalsky. “Phosphorus Beneficial Management Practices for Corn Production in Manitoba”

Department Staff Away:

Brian Amiro

Apr 24-28

News:

David Lobb received an award from the Lake Winnipeg Foundation

At the Lake Winnipeg Foundation Annual General Meeting on April 26, David Lobb received the Alexander Bajkov Award. It is named in honour of the pioneering researcher of Lake Winnipeg. The award recognizes individuals who exemplify Dr. Bajkov’s dedication to the understanding of Lake Winnipeg, and who demonstrate outstanding efforts to protect and restore the lake and its watershed. To the best of our knowledge, this is the first time that the award has been given to a soil scientist. It is very rewarding to see David and his research on landscape processes being recognized with an award focused on water quality. Congratulations, David!

Paper of the week:

Kumaragamage D., O.O. Akinremi and G.J. Racz (2016). Comparison of nutrient and metal loadings with the application of swine manure slurries and their liquid separates to soils. *J. Environ. Qual.* 45:1769–1775

Belated congratulations to Xiaopeng

On April 10, Xiaopeng and his wife welcomed their baby boy. No photos but baby and mum were doing well at last report. Congratulations!

Congratulations to Laryssa (nee Grenkow)



On April 16, former Soil Science M.Sc. student Laryssa Grenkow was married to Sidney Stevenson. Laryssa and Sidney are both Aggie grads. The beautiful location is in one of the greenhouses owned by Sidney's uncle, Bernie Whetter. Congratulations!

Terri's retirement lunch

On April 26, members of the department went for lunch with Terri on her last working day. (Just for clarification, we mean Terri Ramm. As far as we know, Terri Fairman has no immediate plans to retire!) Thanks to Mayowa for the photos.



Opportunities:

MacSon Professorship in Agronomy for Eastern and Northern Ontario, Plant Agriculture, Ontario Agricultural College, University of Guelph

Full-time, tenure track, Assistant Professor Position, specializing in Eastern and Northern Ontario Agronomy.

Deadline: **May 30, 2017**. ([More information](#))

Ph.D. Scholarship, Roma Zenovea Hawirko Graduate Scholarship

For PhD Students in Microbiology, Faculties of Science or Agricultural and Food Sciences

Approximate value: \$8,000. [Read more](#). Deadline: **May 19, 2017**

Ph.D. Opportunity, Department of Plant, Food and Environmental Sciences, Faculty of Agriculture, Dalhousie University, Truro, Nova Scotia

Topic: Soil organic carbon storage and deficit as influenced by soil type and depth and farm management regime.

Supervisor: Dr. Derek Lynch (<https://www.dal.ca/faculty/agriculture.html>)

Start Date: May, 2017 (preferred) or Sept. 2017

Stipend: \$24,000/year for three years. There are scholarship and teaching assistant opportunities to supplement the stipend above this base level.

Further information or to apply: Please contact Dr. Derek Lynch, Department of Plant, Food and Environmental Sciences, Faculty of Agriculture, Dalhousie University, PO Box 550, Truro, Nova Scotia B2N 5E3, Canada, E-mail: Derek.lynch@dal.ca. To apply please send transcripts and a resume, statement of career goals, and contact information (addresses, email and phone numbers) of at least two references.

Ph.D. Opportunity, Department of Renewable Resources, University of Alberta, Edmonton, AB

Topic: Boreal soil carbon

Qualifications: Candidates must have a M.Sc. (or equivalent) in soil science, chemistry or a related environmental science discipline. Strong verbal and written communication skills are essential.

The project will include some field sampling. A Class 5 Driver license is required, and experience working in difficult and remote terrain will be an asset. This project will also involve substantial laboratory work where attention to detail is essential. Prior experience with analytical techniques used in environmental chemistry is preferred.

Students must commence their graduate study between September 2017 and May 2018.

The project is funded by NSERC. A yearly stipend of \$25,000 will be provided. In addition, the University of Alberta provides competitive recruitment awards between \$5,000 and \$10,000 for outstanding applicants.

Graduates from a Canadian University with a GPA>3.5 on a 4.0 scale and international students with equivalent academic accomplishments usually receive an entrance award.

Interested candidates should e-mail their transcript, a detailed curriculum vitae, a cover letter that summarizes their qualifications and research goals, and the names and contact information of three references to Dr. Sylvie Quideau at sylvie.quideau@ualberta.ca.

Three (3) Ph.D. Opportunities, Department of Soil Science, University of Saskatchewan, Saskatoon, SK

1. Soil phosphorus and carbon cycling in hydrocarbon degrading microbial communities.

As part of a project between industrial and university partners, the University of Saskatchewan, Department of Soil Science, is recruiting a PhD student in soil microbiology, to identify and characterize the role and function of select members of the soil microbial community during engineered biostimulation. The successful candidates should have some experience in soil ecosystems, bioinformatics, ecological modelling, chemistry, and/or microbiology. The PhD candidate in soil microbiology would join an applied research laboratory group headed by Steven Siciliano, an NSERC/COOP Industrial Research Chair in In Situ Remediation and Risk Assessment. The successful candidate should expect to spend substantial time interacting with industrial partners and working at field locations with environmental engineering teams.

If interested, candidates are asked to contact Steven.Siciliano@usask.ca with a resume, a statement of interest, and a transcript. Exceptional master's candidates will also be considered.

2. Soil ecology of the hydrochar corona during remediation and restoration

As part of a project between industrial, college and university partners, the University of Saskatchewan, Department of Soil Science, is recruiting a PhD student in soil microbiology, to work on an interdisciplinary team of engineers, geologists, chemists, toxicologists and ecologists to explore the use of hydrochar to remediate hydrocarbon polluted subsoils. The successful candidates should have some experience in soil ecosystems, bioinformatics, ecological modelling, chemistry, and/or microbiology.

The PhD candidate in soil microbiology would join an applied research laboratory group headed by Steven Siciliano, an NSERC/COOP Industrial Research Chair in In Situ Remediation and Risk Assessment. The successful candidate should expect to spend substantial time interacting with industrial partners, working at field locations with environmental engineering teams, as well as working at the Northern Alberta Institute of Applied Technology with chemical engineers and material scientists.

If interested, candidates are asked to contact Steven.Siciliano@usask.ca with a resume, a statement of interest, and a transcript. Exceptional master's candidates will also be considered.

3. Human bioaccessibility of groundwater pollutants

The University of Saskatchewan Toxicology Group and the Ghent University Center for Microbiology Ecology and Technology are searching for a PhD Candidate interested in studying the interaction between pollutants, metals and the human intestine to help set remediation objectives. The successful candidate will use advanced in vitro digestors, 3-dimensional cell culture approaches and gene expression assays to address a series of linked questions: (i) Does bioaccessibility of pollutants in groundwater change throughout the year? If so, what predicts these differences? (ii) What water parameters influence in vitro bioavailability of differing groundwaters? And, (iii) Does dissolved metal concentrations in groundwater influence bioavailability through specific pathways?

Students may receive their PhD from either the Toxicology Program at the University of Saskatchewan or Applied Biological Science at Ghent University, but will be expected to split their time equally between both institutions. At both institutions, the working language is English but the community language in Ghent is Flemish and in Saskatoon, it's French and English. Interested candidates are invited to contact Tom Van de Wiele, Tom.VandeWiele@UGent.be, or Steven Siciliano, steven.siciliano@usask.ca, with a brief resume and unofficial transcripts.

PhD Position, Phosphorus Dynamics, Villenave d'Ornon, France

Topic: Dynamics of exogenous phosphorus partitioning and phosphorus remobilization from vegetative organs throughout grain filling in maize

Advisor: Alain Mollier INRA, UMR1391 ISPA, 71 Av E Bourlaux, CS20032, 33882 Villenave d'Ornon, France
alain.mollier@inra.fr 57 12 25 20 <https://www6.bordeaux-aquitaine.inra.fr/ispa>

Qualifications: Candidates are expected to be collaborative, highly motivated problem solvers who communicate well and enjoy working both in the field and in a laboratory/computational environment. The ideal candidate would have a background in some combination of Ecophysiology, Plant Ecology, Plant Physiology and Agronomy. Knowledge and interest in theory/mathematical modelling or data science/informatics is beneficial, and well-developed experience with R, Fortran, or similar programming languages is preferred. Applicants with only a subset of these skills are still encouraged to apply. Finally, the candidate should have obtained good grades and ranking at the master's degree.

Salary of the PhD position will be provided by the University of Bordeaux, provided that the applicant is selected by the committee of the local "Ecole Doctorale" (competition based on merit ranking). The hired person will receive the standard PhD student rate (net rate in early 2017 = approx. 1400 Euros monthly). (see <https://ed-environnements.u-bordeaux.fr/Doctorat/Concours>)

To apply, send your application to Alain Mollier (alain.mollier@inra.fr). The application file should include (1) a detailed CV, (2) a cover letter highlighting relevant training, (3) a copy of grades and rank for both the master 1 and master 2 degrees, (4) name and contact information for two reference persons. We recommend that you send your application as soon as possible and by no later than **26th May 2017**. Starting date: 1st of September 2017 (duration: 3 years) Location: Villenave d'Ornon / France

MSc Position, Soil Health, Lakehead University, Thunder Bay, ON

This is a collaborative project with the Laurentian University (Dr Nathan Basiliko), the Canadian Forest Service-Great Lakes Forestry Centre (Dr Paul Hazlett), and the Ontario Ministry of Natural Resources and Forestry-Ontario Forest Research Institute (Dr Trevor Jones). Interested candidates that meet the qualifications of admission should contact Dr Amanda Diochon directly for additional information (Phone: 807-343-8444, Email: adiochon@lakeheadu.ca).

Qualifications: A BSc degree in Geology, Earth Science, Soil Science or related discipline with a minimum of a B average on the last 10 full (20 half) university credits. Preference will be given to Canadian citizens and permanent residents of Canada.

Stipend: \$19 000/yr for two years. Desired start date: September 2017

Events:

Agricultural Bioscience International Conference, Sep 25-28, 2017, Winnipeg, MB

This year's conference will include concurrent workshop sessions, keynote sessions, technical presentations, an interactive tradeshow hall, a student research competition, industry tours, harvest dinners and more!

To submit an abstract, register, apply for a travel bursary or get more information:
<http://www.abic.ca/abic2017.html> .

2017 Summer Soil ID Course, May 23-25, 2017, Southern Vancouver Island

The PRSSS 2017 Soil ID Field Course will be taking place in Southern Vancouver Island – Saanich Peninsula from May 23 – 25, 2017.

Mentors: Bob Maxwell, Chuck Bulmer, Marty Kranabetter, Maija Finvers, Shannon Berch, Brian Titus, Deepa Filatow, and Doug Maynard.

Class Size: 25 people

For more information; [click here](#).