



NRESi Bi-WEEKLY NEWS

Apr 17 - Apr 28, 2017

**A newsletter for faculty, staff, students and the community
who participate in the
Natural Resources & Environmental Studies Institute
and NRES Graduate Programs**

NRESi NOTES

Hello everyone,

The summer break is upon us after another exciting year at the Institute. Work will be continuing over the summer to prepare for the fall and winter semesters. We are currently in the process of filling in spots for our Fall 2017 Friday colloquium presentation series. As you will see in the table below, there are lots of spots still available. If you would like to present on your own research, or are hosting a visiting scholar who would like to present please send me an email and I will do my best to fit the presentation into the schedule either in the fall 2017 or winter 2018 semesters.

Best wishes to everyone for a safe and enjoyable summer. The NRESi newsletter will continue throughout the summer on a monthly basis, returning to bi-weekly issues in the fall.

Al Wiensczyk, RPF

Research Manager, NRESi

FROM THE RESEARCH MANAGER

UPCOMING EVENTS

NRESi COLLOQUIUM

Planning for the fall/winter 2017/18 colloquium series is currently underway. If you any suggestions for speakers, or if you would be willing to make a presentation yourself please contact me via email using the email address below.

TENTATIVE FALL SEMESTER COLLOQUIUM SCHEDULE

Presentation Date	Tentative Presenter and/or Topic
Sept 15, 2017	Dr. Dominick DellaSala, Geos Institute
Sept 22, 2017	
Sept 29, 2017	
Oct 6, 2017	Dr. Richard Schuster, University of British Columbia
Oct 13, 2017	Speaker TBD—Climate conversations in Prince George, for a CHANGE- Reflecting on Art, Change, & Creativity (ACC) engagement processes and resulting data.
Oct 20, 2017	
Oct 27, 2017	
Nov 3, 2017	
Nov 10, 2017	
Nov 17, 2017	
Nov 24, 2017	TBA—Inspiring Women Among Us (IWAW) sponsored speaker

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We're on the web at : www.unbc.ca/nres-institute/newsletter

UPCOMING EVENTS

THESIS DEFENCES

Ms. Kristen Keita

Candidate for the degree: Masters of Natural Resources and Environmental Studies (Environmental Studies)

Monday, May 15, 2017— 10:00 am

Conference Centre 6-305, UNBC

Kristen will be defending her thesis entitled: "An assessment of vegetation characteristics and hydrologic flow pathways on the effectiveness of vegetated buffer strips on phosphorus reduction in an agricultural watershed "

Ms. Kristin Denryter

Candidate for the degree: Doctor of Philosophy in Natural Resources and Environmental Studies

Thursday, May 18, 2017—9:00 am

Conference Centre 6-307, UNBC

Kristin will be defending her dissertation entitled: "Foraging ecology of woodland caribou in boreal and montane ecosystems of northeastern British Columbia."

UPCOMING EVENTS

Canadian Institute of Forestry E-lectures

Date/Time	Title	Presenter(s)
May 3, 2017 10:30 am PST	Firewood movement within Canada: A pathway and gap analysis.	Jennifer Gagné , BSc, MFC - I.S.A. Certified Arborist, Consultant, Invasive Species Centre

All electronic lectures are free. Your consideration of CIF/IFC membership would be appreciated. To become a CIF/IFC member: www.cif-ifc.org/membership-content/become-a-member/
www.cif-ifc.org/e-lectures/

For additional information or to register, contact the Ronnie Huang (CIF-IFC)

E-mail: electures@cif-ifc.org Tel: 705-744-1715 ext. 630

UPCOMING EVENTS

Great Northern Landscape Conservation Cooperative Webinars

Date/Time	Title	Presenter(s)
May 10, 2017 11:00 am PST	Evaluation of cultural ecosystem services using social media data http://greatnorthernlcc.org/event/936	Rebecca Hale —Idaho State University
May 26, 2017 1:00 pm PST	Sage steppe resilience mapping in the Green River Basin http://greatnorthernlcc.org/event/945	Not given

All webinars are free but require pre-registration. Click on the given link to find out more about the webinar and to access the webinar-registration page.

UPCOMING EVENTS

Learning Forum

Renewable Cities Global Learning Forum

May 17-19, 2017

Vancouver, BC.

Join us at Global Learning Forum 2017 to participate in a solutions-focused dialogue on the transition to 100% renewable energy in cities. 400+ leaders from local governments, the private sector, utilities, and the NGO and research communities will gather to engage and learn.

Free registration is available to **First Nations Community members** and **Northern local government staff** on a scholarship basis. For more details and to apply see this link: https://docs.google.com/forms/d/e/1FAIpQLSf_epMFdMjU_E_XQBA1jTPEmsynihfyVWk9huOwJpe-BLgyA/viewform

For more info on the forum go to: <http://www.renewablecities.ca/dialogues-projects/global-learning-forum-2017#1480950093346-17c9190b-c5b0>

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UPCOMING EVENTS

Invasive Species Research Conference

Invasive Species Research Conference: Turning Science into Action

June 20-22, 2017

Thompson Rivers University, Kamloops BC

Thompson Rivers University (TRU) and the Invasive Species Council of BC are co-hosting this conference which will bring together scientific researchers and practitioners and features two renowned keynote speakers, Dr. Daniel Simberloff & Dr. Anthony Ricciardi. The conference agenda includes a series of oral and poster presentations, lightning talks, invasive species field trips and more - all in the beautiful, sunny location of Kamloops, BC. Invasive species researchers and practitioners from across the Pacific North-West are invited to attend and to submit scientific research abstracts for presentations at the Invasive Species Research Conference.

For more information go to the conference website. <http://events.bcinvasives.ca/about-invasivespeciesresearchconference/>

UPCOMING EVENTS

Conference

Forest Genetics 2017: Forest Health and Productivity in Changing Environments

June 26-29, 2017

University of Alberta, Edmonton, AB

The hosting organizations for this conference are CFGA and WFGA, which represent academics, researchers, tree breeders, seed biologists, students and forestry practitioners involved in genetics and tree breeding in Canada and western North America. Their joint, biennial conference series provides a forum for sharing research results, technology transfer, and broadening the scope of their activities to cater for emerging economic and environmental challenges.

Visit the Conference website for more information and to register: <http://forestgenetics2017.ca/>

UPCOMING EVENTS

Conference

2017 Interior Safety Conference: Leading Safety – Building Strong Supervisors

May 27, 2017

Kin 1—CN Centre, Prince George, BC.

This year's safety conference is being held in partnership with the **Canada North Resource Expo** and both events will be located at the CN Centre in Prince George. Delegates attending the safety conference will also get free admission to the CNRE.

The 2017 conference's theme is "Leading Safety – Building Strong Supervisors". The conference will include sessions on how to build strong teams, WorkSafeBC requirements, and communicating with different generations. There will also be sessions on how to manage fatigue at work and steep slope logging. The conference will provide practical information and tools for all workers not just supervisors and managers.

The conference steering committee is made up of representatives from Industry, the BC Forest Safety Council and WorkSafeBC. Sponsorships from industry allow for free admission for delegates.

For more information, please contact Gerard Messier (BC Forest Safety Council) at 1-877-741-1060 or by email at Gerard.Messier@bcforestsafe.org.

[Online registration](#)

[Conference Agenda](#)

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TRAVEL & CONFERENCES

Staffan Lindgren will attend a forestry symposium at the University of Victoria on April 28, and the Canadian Society for Ecology and Evolution conferences in Victoria May 7-11.

Phil Owens and **Ellen Petticrew** spent four months in New Zealand as part of their sabbatical. They were collaborating with the NZ National Institute of Water and Atmospheric Research (NIWA) on a new 7-year federal project "Managing Mud" which is concerned with identifying and mitigating the sediment and associated pollutants being transported from the land into estuarine and coastal systems. Specifically they are helping with techniques to fingerprint the sources of the sediment. Part of their trip was funded by NIWA, and as well as being based at NIWA offices they visited several field sites on both Islands as well as gave talks in Hamilton and Christchurch.



Matukituki River, near Wanaka, South Island, New Zealand

PUBLICATIONS

Koiter, A.J., **Owens, P.N.**, **Petticrew, E.L.**, Lobb, D.A. (2017). The role of soil surface properties on the particle size and carbon selectivity of interrill erosion in agricultural landscapes. *Catena*, 153, 194-206.

Whitman, E, M-A Parisien, D.T. Price, M-H St-Laurent, **C.J. Johnson**, E.R. Delancey, D. Arseneault, and M.D. Flannigan. 2017. A framework for modeling habitat quality in disturbance-prone areas demonstrated with woodland caribou and wildfire. *Ecosphere* 8: e01787

NRESi Member News

The **Art, Change, & Creativity** research project team (a collaboration between UNBC, Two Rivers Gallery, and the Pacific Institute for Climate Solutions @ UNBC) is on the road this spring and summer, presenting on various aspects of the project, and resulting analyses. On May 5th, two UNBC Undergraduate Research Experience (URE) award winners: Carleen Paltzat (Environmental Science) and Scott Brown (School of Environmental Planning), will present in a special session on Art & Geography, at the Conference of Irish Geographers, in Cork, Ireland, with **Drs. Zoë A. Meletis** (Geography) and Mark W. Groulx (School of Environmental Planning). In late May, Zoë will represent the group at the Annual Meeting of the Canadian Association of Geographers (CAG), in Toronto, as she chairs the Special Session on Creative Engagements With Climate Change organized by the ACC team, and presents a second ACC paper. The special session has attracted papers on climate change as it relates to: maple syrup production and experiential learning; feminist political ecology; and marine hazards. The Cork presentation is entitled: **Who's Disrupting Whom? Reflections on process-related and personal learning in an arts-science-engagement climate change project called Art, Change, & Creativity, in Prince George, BC (Canada)**. The CAG paper is entitled **Art, Change, & Creativity (ACC): First results from a project engaging people in new discussions and activities about climate change, in northern BC**. Two additional conference workshop/interactive presentations are planned for June (Building Resilience CIP/APPI National Conference; Calgary) and for September (ICLEI's Local Governments for Sustainability, Livable Cities Forum--Advancing Low Carbon Resilience). **The ACC team will also present to the NRESi colloquium audience on October 13, 2017.**

Northern Analytical Laboratory Service (NALS) Update

The University of Northern British Columbia is home to an extensive suite of analytical science instrumentation that enables a broad spectrum of chemical, physical, and biological analyses. UNBC has made these services available to researchers as well as private, public, and non-profit sectors to help meet their research, development, and quality assurance needs through the Northern Analytical Laboratory Service (NALS).

One of the services offered is a **Water Analysis Package**. This is not a commercial service and is specifically designed to help local communities. Physical and biological tests, dissolved anions and elemental analysis are all available.

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Need more information?

<http://www.unbc.ca/northern-analytical-lab-service>

To arrange a tour please contact Hossien Kazeman at hossein.kazemian@unbc.ca or Phone: 250-960-5168

IN THE NEWS

(Government Press Releases)

Factsheet: Canada-U.S. Softwood Lumber Trade

Apr 26, 2017. Since 1982, softwood lumber exports from Canada to the U.S. have been subject to five separate rounds of U.S. trade litigation with three managed trade agreements. [For more details...](#)

FAQ: Softwood lumber dispute

Apr 26, 2017. Negotiation: Why weren't you able to reach a new agreement with the U.S.? B.C. worked closely with the federal government which is responsible for representing Canadian interests in trade negotiations. While the federal government engaged extensively with their U.S. counterparts, there is not yet enough common ground to support an agreement. [For more details...](#)

Factsheet: Prescribed burns and ecosystem restoration burns

Apr 10, 2017. Fire is a normal, natural process in many of British Columbia's ecosystems. Many species of plants, birds, insects and other animals depend on fire for its regenerative properties. [For more details...](#)

Forestry training, traditional ecological knowledge project coming to Lake Babine Nation

Apr 7, 2017—Burns Lake. Members of Lake Babine Nation will benefit from forestry skills training and traditional ecological knowledge development that helps advance Lake Babine's participation in the forest sector, made possible through \$210,000 in funding from the Province. [For more details...](#)

Job Opportunities

Instructor—Environmental Science

Keyano College

Fort McMurray, AB

Application Deadline: See job posting

The successful candidate will be required to teach/revise/design courses in consultation with the Chair, faculty and other post-secondary institutions. Responsibilities include carrying out regularly scheduled instruction, ensuring student awareness of course objectives, defining evaluation techniques, validating learning outcomes, staying current in their discipline, and engaging in scholarly activity. The successful candidate will also be expected to have office hours for student consultation and create an awareness of the discipline in the community. Participation in both Departmental and College affairs, particularly with respect to recruitment, tutoring, and academic advising of students is also required.

For more information: <https://careers.keyano.ca/postings/984>

Full Professor—Forest Entomology and Pathology

University of Natural Resources and Life Sciences

Vienna, Austria

The position of a Full Professor for Forest Entomology and Forest Pathology will become available from 1st October 2017 at the Institute for Forest Entomology, Forest Pathology and Forest Protection, Department of Forest and Soil Sciences, University of Natural Resources and Life Sciences, Vienna (BOKU).

The professorship is considered as a central position in the training and research areas of forest entomology, forest pathology and forest protection. It is expected that applicants have experience in integrated, preventive forest protection from an ecosystematic perspective, the biological and biotechnological control of forest pests, the taxonomy, ecology, population dynamics and epidemiology of forest insects and phytopathogenic fungi and are able to balance aspects of nature protection with those of forest protection.

Application deadline: May 26, 2017

For more information: http://www.boku.ac.at/fileadmin/data/H01000/mitteilungsblatt/MB_2016_17/MB15/Forstentomologie_Verlaengerung_.pdf (in German)

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Job Opportunities

SNC Lavalin

Prince George

SNC Lavalin is hiring two junior positions (0 to 3 years experience), one intermediate (3 to 8 years experience); and full project manager (>10 years experience). Education in any of the following areas will be considered: B.Sc./M.Sc./ B.A.Sc. Environmental / Earth Sciences / Env Engineering. Positions relate to contaminated site assessment and remediation, reclamation, and landfills, etc.

Contact Trevor McConkey for more information or to apply: 250-562-5172 ext 56557. Trevor.McConkey@snclavalin.com

PhD Opportunities

University of Alberta

Edmonton, Alberta

Boreal soil carbon

Start Date: September 2017

This Ph.D. project will aim to clarify how interactions between the soil geological material and vegetation may ultimately determine the response of boreal soil carbon to climatic changes. We will use a variety of methods, including NMR and stable isotope tracking, to evaluate the source and fate of boreal carbon in soil profiles under different environmental conditions.

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

University of Saskatchewan

Saskatoon, Saskatchewan

Topic: Soil phosphorus and carbon cycling in hydrocarbon degrading microbial communities.

The remediation of complex mixtures by microorganisms involves a wide variety of bacteria, archaea and fungi. Yet, little is known about the different roles played by various members of these 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.

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.

University of Saskatchewan

Saskatoon, Saskatchewan

Topic: Investigate the 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.

A primary concern at downstream hydrocarbon sites is human ingestion of contaminants, either from groundwater or from adhered soil. Regulators assume 100% bioavailability, or in other words, that all the ingested pollutant reaches the site of toxic action. This assumption is widely acknowledged as being too conservative, but orally ingested polyaromatic hydrocarbons have been shown to have bioavailability ranging between 6% and 100%, depending on the type of polyaromatic hydrocarbons, dose, vehicle, and animal species. It is difficult to a priori estimate bioavailability at a contaminated site, and thus regulators assume that the exposure to humans from contaminated groundwater is equal to the total chemical present in the groundwater. However, it is possible that only fraction of this pollutant is accessible to humans (i.e., bioaccessible) and that only a fraction of the pollutant that is bioaccessible actually reaches systemic circulation.

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.

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PhD Opportunities

University of Saskatchewan

Saskatoon, Saskatchewan

Topic: Investigate the soil ecology of the hydrochar corona during remediation and restoration.

The restoration and remediation of landscapes degraded by pollutants can often be ameliorated using biochars. However, biochars are difficult to produce, distribute and manipulate due to their hydrophobic nature and ash like properties. In contrast, hydrochars formed using hydrothermal carbonization, are hydrophilic and easily emulsified. 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.

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.

Course offerings

Advanced Forest Vegetation Management

Whitcourt, Alberta

May 15-18, 2017

Maritime College of Forest Technology, NB

North America's top Forest Vegetation Management Experts & Risk Management Strategists come together to provide your employees with state-of-the-art knowledge and skills that are needed in today's world.

Cost: \$2,399 + 5% GST

Contact Todd MacPherson for more info or to register (506) 458-0649. Email: ce@mcft.ca

Field Course in Human Ecology (HHSC760/NRES760). Spring semester (May-June).

This field school is an intensive, interdisciplinary course addressing themes including social-ecological systems, human-environment relationships and ecosystem approaches to health. The hybrid course will combine northern BC field experiences focused on integrative approaches to health, environment and community issues, with real-time connections with students and instructors from four universities (UNBC, Guelph, U of T. & INRS). Field activities and inter-institutional learning will focus on the course theme of: "The role of universities in their watersheds".

The hybrid course is supported by the Consortium for the Canadian Community of Practice in Ecosystem Approaches to Health: www.copeh-canada.org.

For more information about the UNBC course, please contact: Margot Parkes margot.parkes@unbc.ca

LITO AROCENA STUDENT AWARDS

In December 2015, dear colleague and founding UNBC faculty member, Dr. Lito Arocena passed away after a short battle with cancer. In honour of his memory, a UNBC memorial fund was established to support three student awards, which have recently been instituted:

Dr. Joselito (Lito) Arocena Memorial Scholarship (\$1000). Available to a full time undergraduate student who has completed 90 credit hours and is pursuing a Bachelor of Science honours or majors degree in one of the following: Biology, Environmental Science, Geography, or Natural Resources Management. Criteria: Academic excellence

Dr. Joselito (Lito) Arocena Memorial Undergraduate Thesis Prize (\$250). Awarded for the best thesis presented by undergraduate students completing an undergraduate major or honours degree in one of: Biology, Environmental Planning, Environmental Science, Environmental Studies, Geography, Natural Resources Management, or Nature-based Tourism Management.

Dr. Joselito (Lito) Arocena Memorial Graduate Prize (\$250). The Prize will be awarded to the student nominated by the NRES Graduate Program for the UNBC Governor General's Gold Medal.

Thanks to contributions from donors and UNBC, the fund is currently large enough to endow the \$1000 scholarship in

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perpetuity. However additional contributions are needed to permanently endow the two prizes, and to increase the amounts awarded over time. If anyone would like to contribute to this fund, through payroll deductions or otherwise, please go to www.unbc.ca/giving or www.unbc.ca/giving/employee-giving for more information.

SUSAN STEVENSON MEMORIAL AWARD

As its first project of this kind, the Natural Resources and Environmental Studies Institute (NRESi) has established the Susan Stevenson Scholarship Fund, in memory of wildlife ecologist and NRESi member Susan Stevenson. During a 35-year career built primarily in the BC central interior, Susan designed and implemented important research and inventory projects related to mountain caribou habitat, lichen biology, and silvicultural systems, collaborating with a diverse range of researchers, and gave generously of her expertise to the next generation of scientists. Susan exemplified the Institute's values of interdisciplinary curiosity and unselfish collaboration, and enriched the lives of all those who worked and studied with her.

Efforts have succeeded in reaching the goal of \$15,000 that will be matched by UNBC to allow for an annual award. Additional contributions to the fund are welcomed. The inaugural award will be presented in the 2016-2017 academic year. NRESi would like to thank everyone who contributed to the scholarship!

The following award criteria for the **Susan Stevenson Memorial Award** have been developed:

Value: \$1,000

Eligibility: Available to a full or part time female graduate student enrolled in either the Masters (NRES) or PhD (NRES) degree programs with a research emphasis in one or more of: wildlife ecology, plant biology, forest ecology, or innovative silvicultural systems and practices that emphasize wildlife management and biodiversity objectives.

Criteria: Satisfactory Academic Standing (3.0 GPA)

Conditions: Student is unable to receive this award more than once.

Recipient Selection: Senate Committee on Scholarships and Bursaries on recommendation of the NRESi Steering Committee. Applicants will provide a statement, not exceeding 500 words in length, explaining how their intended research fits within the areas specified for his award.

COLLOQUIUM ARCHIVE

Did you miss a colloquium or special lecture this semester? Visit NRESi's webcast archive to catch up! They can be found on the [NRESi Youtube channel](#). We are in the process of migrating the recorded talks to the UNBC video archive. The most recent colloquium and special presentation talks (2016/17) can be found at <https://video.unbc.ca/channel/NRESI/>

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