



NRESi Bi-WEEKLY NEWS

April 11 - April 22, 2016

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 folks

The 2016 winter semester has come to an end. As I mentioned in my last newsletter and would like to reiterate here, we have been treated to a wide range of very interesting topics and discussions in our colloquium series this year. A heartfelt thank you to all of our speakers for their presentations—your efforts are greatly appreciated. Also a big thank you to the faculty and staff members from NRESi, other faculty departments, PICS, CIRC, as well as the organizers of the Inspiring Women Among Us who helped us find and/or co-host our speakers.

Work is currently underway to recruit speakers for the fall 2016 semester NRESi colloquium series. If you have any suggestions for speakers that you would like to hear or that you think would be willing and able to present on a topic of interest to the NRESi membership please contact me via email at the address in the newsletter footer.

This year also featured a successful series of colloquium presentations funded by the Peace-Williston Fish and Wildlife Compensation Program. Conditional approval of funding for a similar series for the fall 2016/winter 2017 semesters has been received and speaker recruitment is currently underway.

To our graduating students—congratulations and good luck.

And 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

UPCOMING EVENTS

NRESi COLLOQUIUM

Planning for the fall/winter 2016/17 colloquium series is currently underway. If you any suggestions for speakers or would be willing to make a presentation yourself please contact me via email using the email address below.

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PLEASE EMAIL ALL INFORMATION AND MATERIAL TO: al.wiensczyk@unbc.ca

UPCOMING EVENTS

Undergraduate Thesis Presentations

Thursday, April 21, 2016—UNBC Prince George

Undergraduate students from NRES/Ecosystem Science and Management (ESM), Biochemistry and Molecular Biology (BCMB) and Chemistry will be presenting the results of their research projects.

Thursday, April 21, 2016—9:00 am - 2:00 pm—Presentations: Room 7-238. Posters in the Wintergarden.

Time	Student	Project Title	Advisor(s)	2nd reader
8:45—9:00	<i>Coffee*</i>			
9:00—9:15	Jennifer Noonan	Screening fungal extracts for antimicrobial activity	Egger	Massicotte
9:15—9:30	Karl Domes	Changes in spruce foliar nutrients in response to wood ash fertilization.	Rutherford/ Massicotte	Sanborn
9:30—9:45	Meaghan Forester	Endocrine regulation of thermogenesis: The role of pituitary adenylate cyclase-activating polypeptide (PACAP) and its affiliation with the melanocortin system.	Gray	Payne
9:45—10:00	Hayley Scott	Investigating climate history in the Northwest Territories using Dendroclimatology	Wood	Lewis
10:00—10:30	<i>Coffee*</i>			
10:30—10:45	Victor Lui	A specific protein-RNA interaction that promotes cancer phenotype	Lee	Rader
10:45—11:00	Preety Nijjar	Pituitary adenylate cyclase-activating polypeptide (PACAP) in vascular function.	Gray	Payne
11:00—11:15	Aaron Germuth	Pituitary adenylate cyclase activating polypeptide and its role in regulating adaptive thermogenesis from the ventromedial nucleus through the sympathetic nervous system.	Gray	Rader
11:15—11:30	Taylor Callander	Extraction and Anticancer potential of five mushroom species native to Northern BC	Reimer	Lee
11:30—1:00	<i>Lunch*</i> Poster presenters to be at posters from 12:15—1:00			
1:00—1:15	Jeff Jang	Structural elucidation of polysaccharides	Reimer	Lee
1:15—1:30	Landon Short	<i>Haloarcula marismortui</i> response to external potassium stress analyzed by qPCR	Gorrell	Erasmus
1:30—1:45	Victoria Rezendez	Heterologous expression and functional characterization of <i>D. ponderosae</i> genes	Huber	Gorrell
1:45—2:00	Jerry Doffe	eDNA Surveillance to track Alien Cyprinids	Erasmus	Murray

* Thank you to the Office of Research, Chemistry/BCMB departments, and Northern Medical Program for their sponsorship of this event.

499 Poster Presenters:

Jay Khatra (Lee)
 Michael Van Dijk (Lee)
 Sukhpreet Buttar (Lee)
 Gurbind Deo (Lee)
 Rashna Batliwalla (Erasmus) -
 Edward Meier (Gorrell) – pCup1T as a shuttle vector

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UPCOMING EVENTS

Canadian Institute of Forestry: Electronic Lecture Series:

Date/Time	Title	Presenter(s)
Apr 20, 2016 10:30 am PST	Atikokan's biomass conversion project: North America's largest 100% Biomass-fuelled power plant.	Brent Boyko - Senior Manager Business Development, Ontario Power Generation, Atikokan GS
Apr 27, 2016 10:30 am PST	SkyForest™, the Science: Using satellite imagery and digital surface models to create forest inventory information.	Benoit St-Onge - Professor, Université du Québec à Montréal (QAM)
May 4, 2016 10:30 am PST	Applying SkyForest™ to develop forest industries and related information.	Philip Green—CEO, and Yves Vivier—Director of Forestry, First Resource Management Group Inc.
May 11, 2016 10:30 am PST	Improving productivity of forest operations with SkyForest™.	Allan Foley—President and COO, and Claude Thibeault—Operations Manager, First Resource Management Group Inc.
May 18, 2016 10:30 am PST	Canadian Urban Forest Network: Yesterday, Today and Tomorrow	Adrina Bardekjian—Program Manager, Urban Forestry, Tree Canada.
May 25, 2016 10:30 am PST	The rise of the industrial drone.	Ian Glenn—CEO/CTO ING Robotic Aviation Inc.

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:

Svetlana Zeran (CIF/IFC) E-mail: lectures@cif-ifc.org Tel: 705-744-1715 ext. 530

UPCOMING EVENTS

Genomics Demystified: A technical session

April 27, 2016

University of Alberta, Edmonton, Alberta

Have you ever wondered what genomics is, and how this technology can be applied to forest management and other environmental stewardship topics? The objective of this technical session is to provide participants with a working knowledge of genetics, genomics and molecular biology, and to provide examples of how these technologies are being used – or could be used – to address pressing future challenges. Through this session, participants will acquire vocabulary and other fundamental concepts that will enable them to more easily access information about genomics, communicate with genomics practitioners, and become familiar with some of the ways in which genomics is being used in forest and environment research and development.

Hosted by the Canadian Institute of Forestry, University of Alberta, and the Foothills Research Institute.

[Agenda](#)

[To Register](#) (registration deadline April 20, 2016)

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UPCOMING EVENTS

Avoiding catastrophe: Linking armed conflict, harm to ecosystems, and public health.

May 4-6, 2016

Concordia University, Montreal, Quebec

Gathering experts from the medical, epidemiological, veterinary, conflict management, biodiversity conservation, climate change and political science communities, this conference will pursue an integrated understanding of the catastrophic combination of prolonged armed conflict, environmental alterations such as biodiversity loss, and challenges to the provision of public health, including emergent infectious diseases, nutrition, and mental health issues.

This event is hosted by the LOYOLA SUSTAINABILITY RESEARCH CENTRE, and is funded by the Canadian Social Sciences and Humanities Research Council Connections Program. Partners include: Montreal Institute for Genocide and Human Rights Studies, Doctors Without Borders, EcoHealth Alliance, Future Earth, the Human Security Institute, and the United Nations Secretariat for the Convention on Biological Diversity.

To register, follow this link: <http://bit.ly/1nF888V>

For more information, please contact Dr. Peter Stoett at Peter.Stoett@concordia.ca

Cumulative Impacts Research Consortium (CIRC) news

- Chris Buse and Rebecca Delorey (along with CIRC Steering Committee Member Wayne Salewski) ran a successful event exploring local perspectives on the cumulative impacts of mining and forestry in Vanderhoof and area on April 6 (full report forthcoming).
- Chris Buse facilitated a session on cumulative impacts in Prince Rupert for the Canadian Parks and Wilderness Society's *Take Back the Wild* youth leadership forum.
- The CIRC was recently awarded \$6000 from UNBC's General Research Fund to conduct a critical policy analysis of BC's Cumulative Effects Policy Framework.
- The CIRC was recently awarded \$10 000 from UNBC's Health Research Institute Seed Grant program to work collaboratively with Northern Health and the BC Centre for Disease Control on developing socioeconomic and health data indicators related to resource development.
- The CIRC was recently awarded \$149 532 from the Real Estate Foundation of BC to develop the next generation of integrative tools to track and understand cumulative environmental, community and health impacts of diverse land uses.

TRAVEL & CONFERENCES

Gail Fondahl presented an invited paper on "Agenda setting for arctic social sciences research: ICARP-III, IASC SHWG and AHDR-II," at a workshop on "Challenges for a Sustainable Arctic". The workshop, organized under "Borders in Globalization," SSHRC-supported Partnership project, and run out of the University of Victoria's Centre for Global Studies, involved Japanese and Canadian scholars.

PUBLICATIONS

Picketts, I. M., Andrey, J., Matthews, L., **Déry, S. J.**, and Tighe, S., 2016: Climate change adaptation strategies for local transportation infrastructure management in Prince George, Canada, *Regional Environmental Change*, **16(4)**, 1109-1120.

Klaczek, M.R., **C.J. Johnson**, and H.D. Cluff. 2016. Wolf-caribou dynamics in the central Canadian Arctic. *Journal of Wildlife Management*. Doi: 10.1002/jwmg.1070.

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IN THE NEWS

(Government press releases)

FACTSHEET: Trans-Pacific Partnership Agreement and B.C.

Apr 13, 2016—Victoria. The Trans-Pacific Partnership (TPP) agreement is one of the largest and most comprehensive trade deals in the world. [For more details...](#)

Japan trip strengthens B.C.'s natural gas projects

Apr 11, 2016—Victoria. Minister of Natural Gas Development Rich Coleman has completed a business-development trip to help strengthen British Columbia's working relationship with liquefied natural gas (LNG) partners headquartered in Tokyo, Japan. [For more details...](#)

B.C. invests \$8 million to advance wood and grow global markets

Apr 8, 2016—Kelowna. The Government of British Columbia announced today that it is investing \$8 million to promote the use of B.C. wood, help advance wood building systems and products, and to expand global markets for B.C. wood products. [For more details...](#)

Peace River Agreement to pay out \$50 million

Apr 7, 2016—Victoria. Community, Sport and Cultural Development Minister, Peter Fassbender, announced today that payments totalling \$50 million will be provided to eight local governments in the Peace River region at the end of April 2016. These payments will be in accordance with the terms of the 20-year Peace River Agreement (PRA) totalling \$1.1 billion over the duration of the agreement. [For more details...](#)

FACTSHEET: Province, First Nations pursue economic development

Apr 6, 2016—Victoria. Many First Nations in B.C. are seeking new and innovative business opportunities on their traditional territories and options for lasting reconciliation. [For more details...](#)

Province, Lake Babine Nation sign reconciliation plan

Apr 6, 2016—Victoria. An agreement between the Province and Lake Babine Nation will help to guide collaboration on natural resource management and economic development opportunities across the First Nation's traditional territory. [For more details...](#)

Province to review organic matter recycling regulation

Apr 4, 2016—Victoria. British Columbians will have a chance to engage with government as part of a comprehensive review of the organic matter recycling regulation (OMRR), to ensure it remains protective of human health and the environment. [For more details...](#)

Ecosystem restoration burns scheduled near Vanderhoof.

Apr 1, 2016—Vanderhoof. The Ministry of Forests, Lands and Natural Resource Operations and the Society for Ecosystem Restoration in North Central B.C. will be conducting a series of ecosystem restoration burns near Vanderhoof between April 4 and April 25, 2016, weather and site conditions permitting. [For more details...](#)

Public Input invited on Prince George Timber Supply Area

Mar 21, 2016—Prince George. Comments are being accepted until **May 24, 2016**, on a discussion paper released today as part of a comprehensive timber supply review for the Prince George Timber Supply Area. [For more details...](#)

IN THE NEWS

Stay up-to-date with the latest NRESi and member news by following us on Twitter: [@UNBC_NRESi](#)

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Spring Field School Announcement



The Biology Field School (BIOL 333-3) will be offered on B.C.'s North Coast this spring, from April 25th to May 6th.

As a complement to recent versions of this course that focused on tropical rain forest ecology in trips to Panama, the 2016 course will address temperate rain forest ecology here in British Columbia.

We will be based in the village of Oona River on Porcher Island, reachable by boat from Prince Rupert. The course will provide an immersive experience in the ecology, dynamics, and management of North American coastal rain forests. Exercises will include sampling for forest composition, structure and history. Students will be introduced to interactions between plants and animals and between forested, aquatic and marine environments. Each student will undertake a small independent research project.

This course will be of interest to students in Forestry, Wildlife & Fisheries, Biology, Outdoor Recreation, Environmental Studies, and Geography. As a pre-requisite for enrollment, students must have taken a university-level course in ecology, such as UNBC's BIOL 104 or BIOL 110/111, though BIOL 201 is preferred. Interested students should contact the instructor, Dr. Phil Burton – phil.burton@unbc.ca, 250-615-3333 -- for a course outline, additional instructions and pre-reading assignments as soon as possible. Registration is limited to 18 students.



With assistance from UNBC's Undergraduate Experiential Learning Fund, the Terrace Community Forest, and McElhanney Consulting Services Ltd., and in partnership with the Oona River Resources Association, we can deliver this course with an additional course fee of only \$400 per student (to be confirmed). This fee includes accommodation and meals for all 11 days, as well as boat transportation and miscellaneous supplies.

EXPERIENTIAL COURSE OFFERING

First Nations Cultural Heritage through Moose-hide tanning—FNST 444-3

May 2-20, 2016, Monday—Friday, 9:00 am to 3:30 pm

This intensive hands-on experiential-learning course will introduce students to concepts, case studies and perspectives on issues relating to Indigenous cultural heritage through the process of tanning a moose-hide. Co-facilitated with two Nak'azli Dakelh knowledge-holders, Yvonne Pierreroy and Mildred Martin, this course will engage students in the process of preparing hides while simultaneously exploring Indigenous voices and diverse themes in cultural heritage, including recovery, protection and revitalization. This class will include travel to UNBC as well as to the home of the knowledge-holders, in Prince George. **This seminar-based class is founded on discussions of the readings, lectures and participation in the moose-hide tanning, thus attendance and active engagement of students in the class is highly expected.** Through the tanning process, students will have hands-on experience while developing an understanding of Indigenous history and cultural heritage as well as appreciation for Dakelh traditions and skills in their traditional and contemporary contexts.

For more information please contact Agnes Pawlowska-Mainville at: agnes.pawlowska-mainville@unbc.ca or visit the FNST website at <http://www.unbc.ca/first-nations-studies>

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COURSE OFFERING

Field School in Human Ecology – HHSC 760/NRES 760— May 4-June 29: Wednesdays 10am-1pm (with additional field visits)

Human ecology addresses the complex inter-relationships between humans and other species and societies and ecosystems, unpacking the myriad interconnections between the social and the ecological in the co-creation of conditions for human and ecosystem health. It addresses issues of equity, social and environmental justice, governance, scale, meaning-making and impact. Ecosystem approaches to health integrate health, society and environments and give priority to participatory and interdisciplinary research, practice and policy that is conscious of social and gender equity. In this course, we will ask: What are the key challenges for ecological public health/ecohealth/human ecology now and into the future? How do people think about these challenges and what can we do that is productive in the face of complex environmental and social challenges? This interdisciplinary course includes a combination of class-based sessions run collaboratively across three other Canadian Universities (to foster cross-university engagement between students and faculty), as well as intensive field-based components that will allow students to explore case studies at the intersection of health, ecosystems and society. Accordingly, the course will leverage expertise from a pan-Canadian group of scholars across sites to provide synchronous opportunities for learning, while asynchronous course elements are designed to provide exposure to local field sites to enhance the understanding and application of course materials through experiential learning. Students with interests in sustainability, complex systems, traditional ecological knowledge, environmental/social justice, or human, animal and planetary health are invited to take this course. Please email chris.buse@unbc.ca for more information and to register.

COURSE OFFERING

PhD summer course: Climate Change Adaptation and Transformations towards Sustainability.

When: August 1-5, 2016

Where: University of Oslo, Oslo, Norway.

This PhD course explores the relationship between adaptation and transformation, two concepts that are key to understanding societal responses to climate change. The objective of the course is to engage students with the latest theories, frameworks, approaches and methods for addressing two critical questions in solutions-oriented global change research: What does it mean to successfully adapt to climate change? How can deliberate transformations to sustainability be carried out rapidly, yet in ways that ethical and equitable?

Organizers: Oslo Summer School in Comparative Social Science Studies at the University of Oslo, in collaboration with the Future Earth Norway Secretariat.

Lecturer: Professor Karen O'Brien, Department of Sociology and Human Geography, University of Oslo, Norway

Rolling admission, applications are now being accepted

Course Credits: 10 pts (ECTS)

Max. 25 participants

[Read more about the course and apply here.](#)

If you have any questions please get in touch with Linda Sygna at the Future Earth Norway Secretariat:

linda.sygna@sosgeo.uio.no

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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. The inaugural award is hoped to 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.

Application deadline for the 2016/17 academic year: August 1, 2016

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](#).

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