



NRES WEEKLY NEWS

November 12 - 16, 2012

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

COMING EVENTS

NRESI RESEARCH COLLOQUIUM SERIES

For Elluminate information and link to the webcast: http://www.unbc.ca/nres/nresi_webcast.html



Craig DeLong

Senior Ecologist, Ecora Resource Group Ltd.



A tool for incorporating site level climate change impacts into land management decisions

Drought is one of the leading causes of forest mortality related to climate change. We have developed a tool to predict risk of stand-level tree species mortality from drought and drought-related insect attack. Within climatically homogeneous areas, we use past and predicted future climate data, along with typical site and soil conditions for ecosystem units, to calculate actual (AET) and potential evapotranspiration (PET) for these units. Knowledge of tree species drought tolerance limits, which can be expressed by AET/PET, can then be used to develop tree mortality risk maps using forest cover and ecosystem unit maps as input layers in a GIS. Risk related to tree mortality agents that are enhanced by drought (eg, bark beetle species), can also be mapped based on ecosystem-specific AET/PET values and tree species and age derived from forest cover polygons. The accuracy and reliability of the maps was tested with field data and dendrochronology lab analysis. The tool we have developed can be used to map the risk of drought-related mortality at a relatively fine scale for any plant species with a well-established drought tolerance. This tool thus provides information at an appropriate scale to guide operational forest management adaptation to climate change and complements other tools such as large-scale bioclimate envelope models.

Friday, November 16, 2012

3:30 - 4:30 pm

Room: 7-152

Olav Lian, PhD

Geography Program, University of the Fraser Valley



Optical Dating: historical background, basic principles, and its application to research in geomorphology, Quaternary geology, and archaeology

Luminescence dating, which includes thermoluminescence (TL) and optical dating, consists of a collection of numerical-age techniques that are among the most important chronological tools currently used in Quaternary research. In this talk I will review concisely the key basic principles of luminescence dating and its historical developments, from its roots in TL dating of heated minerals to the development of optical dating methods for sunlight-exposed sediments. I will discuss the feasibility of some of the techniques commonly used in optical dating, including multiple-aliquot, single-aliquot, and single-grain procedures, and how they can be applied to solving various problems in environmental science.

Friday, November 23, 2012

3:30 - 4:30 pm

Room: 7-152

REMINDER: Share your information about recent publications, grants, and/or other honors you may have received with others interested in NRES issues.

PLEASE EMAIL ALL INFORMATION AND MATERIAL TO: Michelle.Keen@unbc.ca

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



GRADUATE THESIS DEFENCE

Mr. Nicholas Ehlers is a candidate for the degree:

Master of Arts in Natural Resources and Environmental Studies (Geography)

Mr. Ehlers will be defending his thesis entitled:

“Little Boats and Big Concerns? Seeking a Balance Between Ecotourism and Motorboat use on Tortuguero, Costa Rica”

Supervisor: **Dr. Zoë Meletis**

Date: **November 21, 2012** Time: 10:00 am Room: 6-307 Conference Centre

GRADUATE THESIS DEFENCE

Ms. Reena Toor (Pahal) is a candidate for the degree:

Master of Science in Natural Resources and Environmental Studies (Environmental Science)

Ms. Toor (Pahal) will be defending her thesis entitled:

“Development of a Risk Assessment Tool for Mercury in Fish”

Supervisors: **Drs. Mike Rutherford** and Laurie Chan

Date: **November 28, 2012** Time: 9:00 am Room: 6-306 Conference Centre

GRADUATE THESIS DEFENCE

Ms. Jessica Blewett is a candidate for the degree:

Master of Arts in Natural Resources and Environmental Studies (Geography)

Ms. Blewett will be defending her thesis entitled:

“Disablement in Prince George, BC: A Qualitative, Holistic and Participatory Exploration”

Supervisor: **Dr. Neil Hanlon**

Date: **November 30, 2012** Time: 9:00 am Room: 6-306 Conference Centre

GRADUATE THESIS DEFENCE

Ms. Teresa Brewis is a candidate for the degree:

Master of Science in Natural Resources and Environmental Studies (Environmental Science)

Ms. Brewis will be defending her thesis entitled:

“Glacier Change and Contribution to Streamflow in the Canoe Basin, British Columbia, 1948-2005”

Supervisor: **Dr. Brian Menounos**

Date: **December 12, 2012** Time: 9:00 am Room: 6-307 Conference Centre

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COMING EVENTS — ELSEWHERE

GLOBAL FRIDAYS
ROOM 10-4520
12:00 - 1:30 pm

November 16
Dr. Maxwell Cameron, Prof. of Political Science, UBC and Director of the Centre for the Study of Democratic Institutions (CSDI)

“New Institutions for Participatory Democracy in Latin America”

All Global Friday presentations will be available to remote participants at: <http://bit.ly/unbc-globalfriday>

Wednesday, November 21
Central Interior Railway & Forestry Museum (850 River Road)
Reception: 6:00 - 6:30 pm
Lecture: 6:30 - 7:30 pm

“Evolution of British Columbia Forest Tenures and Policy”

Presented by **John Pousette**

Wednesday, November 21
7:00 pm, Room Canfor Theatre

“Switch”

In “Switch”, Dr. Scott Tinker gets the straight answers to our most controversial energy questions. He explores the world’s premier sites for all energies, coal to solar, oil to biofuels. He talks to the people driving energy today, international leaders of government, industry and academia. In the end, he cuts through the confusion to discover a path to our energy future as surprising as it is practical.

The Quesnel River Research Centre presents:
Have Lunch With Your Field Station!

Thursday, November 22
Noon - 1:00 pm, Room 5-122

The QRRC is a unique research facility nestled right in the heart of the Cariboo mountains. Potential study areas range from agricultural land to pristine interior forests to glacial headwaters to a unique fjord lake. A variety of land-uses within the watershed offer a wide range of possible research areas. All these possibilities are all within a 100 km radius of the QRRC.

The QRRC is growing. Recent successful grant applications have allowed the QRRC to expand its laboratory facilities and purchase new equipment. The first full-credit UNBC undergraduate course is being offered in the spring of 2013. Dynamic research continues to be produced at the QRRC. This growth is increasing our capacity.

We encourage faculty members to come have lunch, coffee, tea, meet the QRRC staff, discuss the future of the QRRC and find out more about one of UNBC’s premier research facilities.

Contact Sam Albers, QRRC Manager at 250-790-2031 or Samuel.Albers@unbc.ca for more information.

GLOBAL MONDAY
ROOM 7-150
7:00 PM

Monday, November 26
Screening starts 7:00 pm, Room 7-150

“Regressa Urgente” (Return Urgent)

A documentary film which explores migration, identity, and belonging, by João Sardinha (UNBC BA Geography '96) which is based on his doctoral research with Portuguese return migrants.

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PUBLICATIONS

Martinez-Carreras, N., Krein, A., Gallart, F., Iffly, J.F., Hissler, C., Pfister, L., Hoffmann, L., and **P.N. Owens**
2012 The influence of sediment sources and hydrologic events on the nutrient and metal content of fine-grained sediment (Attert River Basin, Luxembourg). *Water, Air and Soil Pollution* 223: 5685-5705

TRAVEL / CONFERENCES / RESEARCH

Ken Otter will be at Thompson Rivers University 12 - 16 November to discuss future collaborations with Dr. Matt Reudink. While there, I will be determining the feasibility of setting up study sites, as well as presenting some of our research on Mountain Chickadee/Black-capped chickadee interactions and hybridization. I will also be consulting with Dr. Reudink on the book that I am working on during my sabbatical, as he is interested in adopting it for a course at TRU.

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