



NRES WEEKLY NEWS

March 28 - April 1, 2011

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

NRESI RESEARCH COLLOQUIUM SERIES

March 25, 2011

Mike Rutherford

Associate Professor
Environmental Science and Engineering
UNBC



Burnt Offerings from the Bioenergy Industry

Bioenergy processes which combust or gasify biomass can create significant quantities of ash residuals. The properties of ash depend on several factors including the nature of the input biomass. What can be done with these ash residuals? Landfilling is common but this approach is not sustainable or environmentally responsible. Do some ash materials enhance soil properties? If so, are there any risks associated with this approach? Biochar is a charcoal-based material specifically produced for environmental applications, such as for use as a soil amendment. The list of purported benefits of biochar usage in soils is long, but are these claims justified when biochar is used in Canadian soils? Are there any environmental risks associated with biochar usage? This talk will summarize some of the research activities conducted at UNBC that are exploring the utilization of ash and biochar materials as soil amendments.

Friday, March 25, 2011

3:30—4:30 pm

7-150

April 1, 2011

British Columbia's Inland Rainforest: Ecology, Conservation and Management

**Susan Stevenson, Harold Armleder, André Arsenault,
Darwyn Coxson, Craig DeLong, and Michael Jull**



The temperate rainforests of coastal British Columbia are world renowned, but much less is known about the other rainforest located 500 kilometres inland along the western slopes of the interior mountains. The unique integration of continentality and humidity in this region favours the development of lush rainforest communities that incorporate both coastal and boreal elements. In British Columbia's Inland Rainforest, scientists bring together, for the first time, a broad spectrum of information about this distinctive ecosystem. They also consider the ecological consequences of human activities in the rainforest and present strategies for its management and conservation.

Friday, April 1, 2011

3:30—4:30 pm

7-150

This event marks the launching of this book.
Following the Colloquium meet and chat with the authors at the reception
in the Bentley Centre.

For Elluminate information and link to the webcast: http://www.unbc.ca/nres/nresi_webcast.html
For a list of upcoming seminars: <http://www.unbc.ca/nres/seminar/>

April 7, 2011**NRESi Annual Lecture****Peter Ward**

Paleontologist

Professor of Biology and of Earth and Space Sciences
University of Washington**The Knowlegable Future:
what science can tell us about future life on Earth"**

Our society judges our planet to be stable - and builds cities, infrastructure, farms and the rest as if sea level will never change, or climate. But even a cursory look at the Geological Record shows that this is a foolish stance - made even more dangerous by the unprecedented tinkering humans are now doing to the Earth's atmosphere. In this lecture I will look at what being an "Earth-like Planet" means from both a geological and astrobiological point of view - one that looks back and forward in time, the other looking outward in terms of cosmic geography. In fact a great deal of the near as well as far future of our planet is discernable by what can be called "knowable" science.

**Thursday, April 7, 2011****7:00—9:00 pm****Canfor Theatre****Peter Ward**

Paleontologist

Professor of Biology
and of Earth and Space Sciences
University of Washington**A new view of mass extinctions****April 8, 2011**

Mass extinctions were planetary catastrophes that caused massive species die offs in (geologically) short periods of time. Since the paradigm changing discovery by the Alvarez group in Berkeley in 1980, that one of the biggest of the mass extinctions, the dinosaur killer of 65 million years ago was caused by an impact of a large asteroid with the Earth, it has been believed that most or all of the "Big Five" mass extinctions over the last 500 million years was the result of impact. In this talk I will use results from Canada to show why it was short term global warming that caused at least three of the so called Big Five.

Friday, April 8, 2011**3:30 — 4:30 pm****7-150****GRADUATE THESIS DEFENCE****Mr. Sean Sweeney is a candidate for the degree:****Master of Science in Natural Resources and Environmental Studies
(Biology)****Mr. Sweeney will be defending his thesis entitled:****“Environment, Climate and Tree Growth Relationships at the
Western Canadian Arctic Treeline“****Supervisor: Dr. Scott Green****Date: April 13, 2011 Time: 10:00 am Room: 6-305**

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

GRADUATE THESIS DEFENCE

Mr. Xinyuan Song is a candidate for the degree:

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

Mr. Song will be defending his thesis entitled:

**“Remediation of Salt- and Petroleum Hydrocarbon-Contaminated Soils
Using Ultrasound and Soil Washing“**

Supervisor: **Dr. Jianbing Li**

Date: April 14, 2011 Time: 9:30 am Room: 6-307

2011 NRES-Related Undergraduate Thesis Presentations

Monday April 4th from 10:20 to 12:00 am in the Bentley Centre

Each presentation will be approximately 15 minutes with 5 minutes for questions.

Coffee, tea, and pastries are being provided by the NRES Institute.

Time	Presenter	Thesis Title	Supervisor	Second Reader
10:20 - 10:40 am	Sam Barnes	Communicating Traditional Ecological Knowledge	Jane Young	Darwyn Coxson
10:40 - 11:00 am	Dusty Walsh	Monitoring nocturnal migration past wind farms with night-vision technology	Ken Otter	Brent Murray
11:00 - 11:20 am	Rurik Muentzer	Evaluating the effectiveness of public engagement in community forests	Kathy Lewis	Greg Halseth
11:20 - 11:40 am	Kathryn Berry	Trapping and feeding cattail mosquitoes, <i>Coquillettidia</i> (=Mansonia) perturbans, in north-central British Columbia	Lisa Poirier	Staffan Lindgren
11:40 - 12:00 pm	Vivien Arnold	Glutathione S-transferases and mountain pine beetle detoxification of secondary metabolites	Dezene Huber	Brent Murray

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

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PLEASE EMAIL ALL INFORMATION AND MATERIAL TO: [Jutta Koehler: koehlerj@unbc.ca](mailto:Jutta.Koehler@unbc.ca)

NRES INSTITUTE NEWS

The 2011 NRES Institute Annual Lecture will be held on Thursday April 7th at 7 pm in the Canfor Theatre. It will feature Dr. Peter Ward (University of Washington) who will present a lecture entitled "The Knowable Future: what science can tell us about future life on Earth".

PUBLICATIONS

Annie L. Booth and **Greg Halseth**. Forthcoming. Why the Public Thinks Natural Resources Public Participation Processes Fail: A Case Study of British Columbia, Canada Communities. Land Use Policy

CONGRATULATIONS

On March 15th, **Bryndel Fell**, **Heidi Knudsvig** and **Stephen Déry** were filmed by members of the Vancouver Aquarium in the Ancient Forest as part of a series documenting the work of researchers during BC's Year of Science.

ELSEWHERE ON CAMPUS

GLOBAL FRIDAYS

BENTLEY CENTRE
12:00 - 1:30 pm

Date: Friday, March 25, 2011

Room : 5-183

Time: 12:00—1:30 pm

Dr. Tony Weis, Geography

University of Western Ontario

"A Political Ecology of the Global Food Crisis"

March 25, 2011

The UNBC Student Chapter of TWS will hold its annual Quiz Bowl on Thursday March 31st in the Bentley Centre. All undergraduate and graduate students are encouraged to enter (teams will be randomly assigned before the event) -- please email Rachel (tws@unbc.ca) if you would like to sign up. It is also a fun spectator sport if you are not one a team!

FAREWELL

Farewell to postdoc Kishan Sambaraju who begins a new position as a research scientist in the epidemiological modeling of forest health agents with the Laurentian Forestry Centre in Quebec after a two and a half year postdoc in the Aukema lab. His warm smile and contributions to the Forest Insect Research Group will be sorely missed. We wish Kishan, his wife Madhavi, and their two children Reva and Sampat all the best! À bientôt!

TRAVEL

JP Laplante (MA NRES Geography, supervisor: C. Nolin) traveled to the Centre for Research on Latin America and the Caribbean (CERLAC) at York University to present his paper at the International Graduate Student Research Conference on Latin America and the Caribbean: Creative and Critical Perspectives. JP's paper is titled: *"Maya consultas and socially responsible investing: A case study examining perspectives on the indigenous right to free, prior and informed consent."*

On March 25th and 26th, students in Snow and Ice (ENSC 454/654) will participate in a field trip to Blue River to obtain an avalanche training course with the Mike Wiegeler Helicopter Skiing. company.

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TRAVEL continued

Once again this year, the UNBC Geography Program sent a group of undergraduates, graduate students and faculty to the Annual Meeting of the Western Division of the Canadian Association of Geographers. This year's conference was held 10-12 March in Burnaby, BC, and was hosted by the Department of Geography at Simon Fraser University. NRES students and faculty made substantial contributions to the conference.

A special note of congratulations is extended to Leah Vanden Busch (MSc candidate), who was awarded Runner Up in the Best Graduate Student Poster competition.



Below are lists of UNBC paper, panel and poster contributions. NRES students, both current and former, and NRES affiliated faculty members are highlighted in bold font.

Papers Presented

Blewett, Jessica (MA candidate) and **Hanlon, Neil**, "Towards a socio-spatial framework for understanding physical barriers to services and amenities for people with mobility issues."

Brewis, Teresa (MSc candidate) and **Menounos, Brian**, "Twentieth century glacier change and surface runoff modeling, Canoe Basin, BC."

Ehlers, Nick (MA candidate) and **Meletis, Zoë**, "The motors of ecotourism rev in Tortugero, Costa Rica."

Garraway, Leana and **Hanlon, Neil**, "Knowledge to action: A framework for engaging First Nations in environmental health research."

Tennant, Christina (MSc candidate), **Menounos, Brian**, **Wheate, Roger**, and Clague, John, "Nine decades of glacier change in the Rocky Mountains, Canada."

Schwamborn, Julia, "Joint management in protected areas: What is in it for First Nations in British Columbia?"

Panel Presentation

Ryser, Laura (MA, NRES), **Halseth, Greg**, and Markey, Sean, "Community engagement methods."

Posters Presented

Joe-Strack, Jocelyn (MSc candidate) and **Petticrew, Ellen**, "Mercury methylation and sulphur-reducing bacteria in Sub-Arctic lake sediments."

Vanden Busch, Leah (MSc candidate), **Petticrew, Ellen**, and **Rex, John** (PhD, NRES), "Seasonal storage and retention of marine-derived nutrients in the hyporheic zone of the Horsefly River, British Columbia."

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