



NRES WEEKLY NEWS

September 28 - October 2, 2009

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

This Friday

Dr. Paal Krokene

Norwegian Forest and Landscape Institute

**The role of acquired resistance in
conifer-bark beetle-fungus interactions**



Tree-killing bark beetles and their fungal associates must deal with the potent anatomical, chemical and molecular defenses of living conifers. These defenses include preformed, constitutive defenses as well as inducible defenses that are upregulated in response to an attack, such as cell wall lignifications and formation of traumatic resin ducts and wound periderms. In addition, local or systemic acquired resistance, which may be considered a long-term consequence of induced defenses, may increase the tree's resistance towards future attacks.

Acquired resistance is elicited by beetle attacks, fungal inoculation, mechanical damage, or treatment with chemical elicitors such as methyl jasmonate (MeJ). Such exposures are priming the trees by acting as stimuli that accelerate, enhance or potentiate tree responses to subsequent challenges. Priming may turn phenotypes that normally would succumb to an attack into highly resistant ones that survive with only minor symptoms. The exact mechanisms responsible for acquired resistance in conifers are not fully understood, but probably involve activation of inducible anatomical defense responses such as changes in polyphenol-containing parenchyma cells (PP cells) in the phloem and induction of traumatic resin duct formation in the sapwood. These responses are paralleled by upregulation of defense-related transcripts and elevated levels of secondary metabolites, including monoterpenes and diterpene resin acids.

Light Refreshments will be Served

Sept. 25, 2009

3:30 - 4:30 pm

Lecture Theatre 7-152

Unable to make it in person? Log onto Elluminate and watch the colloquium at your desk!

http://elm.illuminate.com/HOSTEDUNBC/join_meeting.html?meetingId=1247973097103

Log in as "Guest"



Dr. Andrew Derocher

Professor, Dept. of Biological Sciences, University of Alberta

The ecology and politics of polar bears and climate warming

Next Friday

Polar bears evolved to become an obligate predator of ice breeding seals. While the global distribution of the species has changed little over recorded history, the rapid change in their sea ice habitat over the past few decades has caused increased concern for their conservation. The symptoms of climate warming on polar bears are manifest in many ways but most importantly, the energetics of polar bears is affected by reduced energy intake, and possibly greater energy use, which results in lower fat stores. Pregnant females with lower fat stores produced fewer cubs with lower recruitment which can result in population declines. Following extensive analyses, polar bears were recently classified as a threatened species in the USA. Canada, however, due to a flawed assessment report, proposed the lower level of risk of special concern. Polarized views on the status of this iconic species augmented by opportunistic pseudo-science have confused the public. In its simplest form, polar bears are facing nothing more than the most common threat to wildlife. Habitat loss is the appropriate metric of change.

Light Refreshments will be Served

Oct. 2, 2009

3:30 - 4:30 pm

Lecture Theatre 7-152

OTHER COMING EVENTS

Global Fridays
Senate Chambers
12:00—1:30 pm

September 25, 2009

Emilie Smith, Diocese of New Westminster, BC & Guatemalan Anglican Church

Gold Lust: Canada and Mining on Sacred Land in Guatemala

NRES Graduate Student Poster Session / Fall Social

We invite you to attend the NRES Grad Ice Breaker and Student-Nominated Colloquium event on Friday, October 2, 2009. Graduate students and/or supervisors are invited to present research papers. Please email Roger Wheate (wheate@unbc.ca) or Ken Otter (otterk@unbc.ca) to reserve poster space. Posters can be landscape or portrait orientation, and the dimensions no greater than 36"x48". Poster set up in the Wintergarden will be from 3:00-3:30.



Andrew Derocher (University of Alberta) will be presenting the colloquium from 3:30—4:30:
The ecology and politics of polar bears and climate warming

From 4:30 to 5:30, we will be having the icebreaker poster session in the Wintergarden, after which time participants can retire to the Thirsty Moose for further deliberations.

3rd Annual Dr. Max Blouw QRRRC Open House — Saturday, October 3rd starting at 10:00. Research talks by UNBC faculty and students will be followed by a BBQ and site tour. If you are interested in attending and would like to travel with other UNBC folks please contact **Ellen Petticrew** (ellen@unbc.ca) or **Phil Owens** (owensp@unbc.ca) by Monday, September 28th.



UPCOMING THESIS DEFENCE

Mr. Robin Urquhart is a candidate for the degree:

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

Mr. Urquhart will be defending his thesis entitled:

“Building Consultation From the Bottom Up: A Case Study of the North Yukon”

Supervisor: **Dr. Annie Booth**

Date: October 6, 2009

Time: 9:00 am

Room: Senate Chambers Room 1079
UNBC Prince George campus

PUBLICATIONS

Tl'azt'en Nation and Shaw, L. (2009) “Ethnobotany of Tl'azt'en Nation” In: John, B., **Young, J.**, Shaw, L. (eds) *Community-University Research Alliance Project: The ecology of food and medicine plant gathering sites as defined by Tl'azt'en Nation*. (Chuzghun Resources Corporation, Fort St. James, BC.) 48 pp.

TRAVEL / RESEARCH / CONFERENCES

Phil Burton took part in a Canadian Forest Service (CFS) planning workshop September 14-17. Sequestered away at the Université du Montréal biological field station north of St. Hippolyte, Quebec, 27 CFS scientists from across the country devised a plan to integrate and coordinate research on forest productivity and dynamics with research on climate change impacts and adaptation. While in Quebec, he also met with fellow researchers at the Université du Québec à Montréal regarding projects on forest insect outbreaks and managing for forest resilience.

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

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

PLEASE EMAIL ALL INFORMATION AND MATERIAL TO MICHELLE KEEN: keenm@unbc.ca