



NRES WEEKLY NEWS

April 19 - 23, 2010

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

Eddy Carmack

Institute of Ocean Sciences, Department of Fisheries and Ocean

Quesnel, Queen of Lakes: Climate, Mixing and Fish



Two aspects of lake physics affect fish and their habitat in Quesnel Lake: (1) the underwater temperature climate and (2) circulation and mixing processes that control nutrient budgets. Annual patterns of thermal stratification determine, for example, the length of the growing season, the depth of critical isotherms, habitat 'fronts' and internal thermal 'shocks', vertical (nutrient) exchange and the temperature of out-flowing river water. Nutrient supply to the euphotic zone to support photosynthesis can come externally (e.g. from rivers, migrating fish, anthropogenic inputs) or internally (e.g. from the re-cycling of nutrients within a given lake). For simplicity, internal supply can be further divided into the re-supply during fall and spring 'overturn' (a process through which the surface and bottom waters of a lake are mixed) and additional vertical fluxes associated with diffusion and upwelling during the growing season.

While Quesnel Lake fits the classic definition of a temperate or 'dimictic' lake, in that its surface water cool and warm through 4 °C (the temperature of maximum density at surface pressure) twice yearly, in fall and spring, respectively, data show the lake to be anything but classic; instead, the combined effects of its depth (greater than 500 m) and strong, intermontane wind events point toward a complex partitioning of mixing processes throughout the overturn period.

It is suggested that Quesnel Lake could become the centrepiece study site of a lake climate observation network spanning British Columbia, Yukon and Northwest Territories.

April 16, 2010

3:30 - 4:30 pm

Lecture Theatre 7-150

Dr. Douw G. Steyn

Professor, Department of Earth & Ocean, UBC

Globalization of Smog



The prevailing conception of photochemical smog has been one of an urban based problem that is expressed at a regional scale. I will outline the ideas that lead to this conception, and then will show evidence that photochemical smog has a hemispheric (if not global) expression. I will examine the links between northern hemisphere development, and the global distribution of ozone, and will show how regional smog management initiatives have reduced peak (episode) values, while increasing lower concentrations, thus contributing to an increase in the hemispheric background ozone pollution levels. I will examine environmental, health and management consequences of these changes.

April 22, 2010

4:00 - 5:00 pm

Lecture Theatre 7-150

**HOSTED BY THE CONSULATE GENERAL UNITED STATES OF AMERICA IN VANCOUVER:
Interactive Audioconference with**

Dr. Gary Langham
Director of Bird Conservation, Audubon California

Shared responsibility for birds journeying the continental Flyways

Dr. Langham will be speaking on our shared conservation history and mutual responsibilities to protect the millions of waterfowl, seabirds, shorebirds and songbirds which move across our continent.

Dr. Langham will tell the story in four parts (for each continental flyway) and will illustrate the range of birds that migrate and the ways they navigate.

The format of the videoconference will be the talk by Dr. Langham followed by a generous opportunity for questions and answers from participants in Vancouver, Prince George, Ottawa, Calgary and Winnipeg. These formats allow members of the audience to share observations with others in Canada and provide an opportunity for participants to connect with others with shared interests throughout the country.

Dr. Langham earned his doctorate degree in ecology and evolutionary biology from Cornell University in New York. After a teaching assistantship at Cornell in Ornithology, Evolution and Introductory Biology, he became a lecturer in ornithology at University of California at Berkeley.

The program should last about 90 minutes.

April 22, 2010 Earth Day

11:00 am

Room: 7-172

The **Community Development Institute at UNBC** is pleased to announce that **Dr. Dawn Hemingway, Chair of Social Work at UNBC**, will be our Community Speaker this spring.

Dr. Hemingway is Associate Professor and Chair of the School of Social Work at UNBC and an adjunct professor in Community Health Sciences and Gender Studies. Her teaching and research interests include community-based research, organizing and policy development, northern/rural health/quality of life, formal/informal care giving and aging issues. Dawn is Co-Leader of the BC Network for Aging Research and a founder of the Women North (Health) Network.

The title of Dr. Hemingway's talk is:

"Boom or Bust: Northern Communities Must Have Social Infrastructure"

Wednesday, May 12th — Prince George

7:00 pm, Room 7-150, UNBC Campus

Thursday, May 13th — Fort St. John

7:00 pm, Room 202, Northern Lights Campus



PUBLICATIONS

Brown, M., Black, T.A., Nestic, Z., Foord, V.N., Spittlehouse, D.L., **Fredeen, A.L.**, Grant, N.J., **Burton, P.J.**, and J.A. Trofynow (2010) "Impact of mountain pine beetle on the net ecosystem production of lodgepole pine stands in British Columbia." *Agricultural and Forest Meteorology* 150: 254-264.

Meltis, Zoë A., and E. Harrison (2010) "Tourists and turtles: searching for a balance in Tortuguero, Costa Rica." *Conservation and Society* 8:1 (special issue for release before The International Symposium on the Biology and Conservation of Sea Turtles, April 2010.)

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

GRADUATE THESIS DEFENCES

Ms. Faye Krol is a candidate for the degree:

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

Ms. Krol will be defending her thesis entitled:

“The Impact of Climate Change and Harvest of Mountain Pine Beetle Stands on Streamflow in Northern British Columbia”

Supervisor: Dr. **Jueyi Sui**

Date: April 16, 2010

Time: 2:30 pm

Room: Room Senate Chambers

Mr. Robert Higgins is a candidate for the degree:

Doctor of Philosophy in Natural Resources and Environmental Studies

Mr. Higgins will be defending his thesis entitled:

“The Ant (*Hymenoptera: Formicidae*) Communities of the Central Interior of British Columbia: Adaptations to a Temperature-constrained Environment”

Supervisor: Dr. **Staffan Lindgren**

Date: April 19, 2010

Time: 9:00 am

Room: Conference Centre 6-205/211

Ms. Dana O'Bryan is a candidate for the degree:

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

Ms. O'Bryan will be defending her thesis entitled:

“Phylogeography and Conservation Genetics of Scaleless Carp (*Gymnocypris Przewalskii*) of Lake Qinghai, China”

Supervisor: Dr. **Brent Murray**

Date: April 22, 2010

Time: 1:00 pm

Room: Senate Chambers

Mr. Tyler Abel is a candidate for the degree:

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

Mr. Abel will be defending his thesis entitled:

“Dispersion Modelling During Particulate Matter Episode Events in Golden, British Columbia”

Supervisor: Dr. **Peter Jackson**

Date: April 22, 2010

Time: 1:00 pm

Room: T & L Bldg Room 5-405

Mr. Marc Steynen is a candidate for the degree:

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

Mr. Steynen will be defending his thesis entitled:

“The Consequences of Forest-Dependence for the Economic Growth and Socioeconomic Development of Houston, British Columbia”

Supervisor: Dr. **Greg Halseth**

Date: April 23, 2010

Time: 1:00 pm

Room: Room Senate Chambers

Mr. Duncan McColl is a candidate for the degree:

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

Mr. McColl will be defending his thesis entitled:

“Factors Affecting the Carabid (*Coleoptera: Carabidae*) Community in Successional Sub Boreal Spruce Forests. With Special Reference to their Interactions with Ants (*Hymenoptera: Formicidae*).”

Supervisor: Dr. **Staffan Lindgren**

Date: May 12, 2010

Time: 10:00 am

Room: Room Conference Centre 6-305

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CONGRATULATIONS

At the Annual Meeting of the Western Division, Canadian Association of Geographers March 25-27 (attended by five faculty members, ten graduate students, six undergraduates and one research associate from UNBC), Eric Kopetski (supervisor: **Greg Halseth**) received the best student paper presentation award. Eric's paper was entitled "You Want Me to Grow Trees?" The Social Implications of Agroforestry amongst Ranchers in the Quesnel Area" and described findings from his Master's research examining the bioenergy/bioproducts initiative in Quesnel.



Eric Kopetski receiving his award.



some of the UNBC attendees at WDCAG 2010

TRAVEL / CONFERENCES / FIELD WORK

Brian Aukema travelled with Laura Machial, Ewing Teen, and Sean Henderson to the Western Forest Insect Work Conference in Flagstaff, Arizona April 5-9. The Forest Insect Research Group at UNBC contributed to 8 presentations in total.



Brian, Laura, Ewing, and Sean exploring the Arizona desert at night.

From April 14-18th, Zoë Meletis will be attending the Annual Meeting of the Association of American Geographers in Washington, DC and presenting the following paper: Meletis, Zoë A. "Dealing with post-dissertation gender guilt: An exploratory exercise in searching for gender in the data." From April 25-30th, Zoë will be attending The International Symposium on the Biology and Conservation of Sea Turtles, in Goa, India and presenting the following paper: Meletis, Zoë A., and Lisa M. Campbell. "Who's helping, who's hurting, and who's in charge? Conflicting perceptions of conservation, tourism, and change in Tortuguero, Costa Rica."

Hot off the press! PhD candidate Rob Higgins (Supervisor **Staffan Lindgren**) has been accepted to participate in the 2010 Ant Course, an annual field-based course organized by myrmecologists (ant experts) and sponsored by the California Academy of Sciences. This year's course takes place in Borneo (<http://research.calacademy.org/ent/courses/ant>) . Perhaps we can get a NRESi seminar out of this!!

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