



NRES WEEKLY NEWS

March 11 - 15, 2013

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

COMING EVENTS

NRESI RESEARCH COLLOQUIIUM SERIES

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



**Peace Fish and Wildlife
Compensation
Program Presents:**



Dr. Richard A. Cunjak
Canadian Rivers Institute, Dept. of Biology and Faculty of Forestry &
Environmental Mgmt., University of New Brunswick

The response of Atlantic salmon to extreme warming in rivers



All freshwater fishes are ectotherms. Hence, ambient water temperature directly regulates their metabolic processes and survival. This feature makes them particularly susceptible to the increased variability in temperature predicted from climate change models. Our work in eastern Canadian rivers has shown that Atlantic salmon (*Salmo salar* L.) parr show a behavioural and physiological stress response when water temperature exceeds 23°C but the response differs between young-of-the-year and older (larger) parr. Territories are abandoned and fish will move long distances (kilometres) to aggregate around patchily distributed thermal refugia. Extreme temperature events now occur with such regularity that most wild Atlantic salmon in NB rivers will experience at least one event during their freshwater phase. But when is a thermal refuge too far, and how do fish 'know' where to find such coolwater sources? And what are the threshold conditions for initiating behavioural thermoregulation of salmon parr *in situ*? Such questions, currently being investigated by our research group, have important implications for conservation and recreational fisheries management. For example, if the incidence of temperature stress events and proximity to thermal refugia affect the distribution and abundance of wild, juvenile salmon, should management reflect this pattern? Whereas this seminar will emphasize extreme water temperatures in summer, how riverine fishes cope with warmer, milder winters will also be discussed, especially in relation to egg survival and development, and the potential impact from anthropogenic factors such as flow regulation.

RECEPTION TO FOLLOW IN 6-205/211

Thursday, March 14, 2013

3:30 - 4:30 pm

Canfor Lecture Theatre



Peter Lee
Executive Director, Global Forest Watch Canada

Industrial Land Uses and Changes in the Peace Region of NE British Columbia



The objective of the study of industrial and land-use changes in the Peace Region of NE British Columbia were to map current industrial land uses; map changes in landscapes over time, and; provide an indication of these land uses and changes on woodland caribou and grizzly bear. The results include:

1. The Peace Region has experienced rapidly escalating changes due to a convergence of industrial interests on the same land base;
2. Present levels of industrial-caused disturbances and projected future levels are very high in comparison to other major industrial projects such as Alberta's oil sands region; and;
3. The maps and analyses in this study are very conservative in relation to the actual amounts of various industrial-caused land changes.

Note room correction

Friday, MARCH 15, 2013

3:30 - 4:30 pm

WELWOOD THEATRE (7-238)

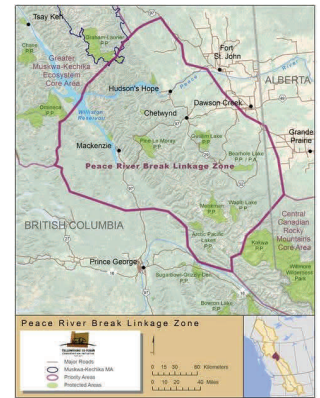
REMINDER: Share your information about recent publications, grants, and/or other honors you may have received with others interested in NRES issues.

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

THIS EVENT WILL NOT BE AVAILABLE ON ELLUMINATE



Protected or in Peril? The Peace River Break in the Canadian Rockies



Few people know it, but the Peace River Break is one of the most ecologically diverse places in the Yellowstone to Yukon region. It is also one of the most endangered, with not many protected areas and shrinking habitat for wide-ranging wildlife. The Peace Break provide a crucial wildlife link between the Rocky Mountains to the south and north. Industry is expanding fast there, and the prospect of a third hydroelectric dam, "Site C", on the Peace River, threatens this remarkable landscape.

Find out more about this special place, why it's important, and what we can do to protect it. Join Karsten Heuer, award-winning author (*Walking the Big Wild, Being Caribou*), adventurer, conservation advocate and President of Y2Y for an informative series of talks on British Columbia's beautiful Peace River Break.

Speakers include:

- Karsten Heuer, Author, Adventurer, & Y2Y President—"Walking the Big Wild—Then and Now"
- Tribal Chief Liz Logan, Treaty 8 Tribal Association—"First Nations and the Peace Break Region"
- Chief Roland Willson, West Moberly First Nations—"Keep the Peace: The Threat of The Site C Dam Proposal"
- Juri Peepre, Y2Y—"A Conservation Vision for the Peace River Break"

Friday, March 15, 2013

7:00 pm

Weldwood Theatre 7-238

GRADUATE THESIS DEFENCE

Mr. Shane (Herbert) Hartman is a candidate for the degree:

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

Mr. Hartman will be defending his thesis entitled:

"Investigating the Benefits and Impacts of Tourism Development for a First Nation Community in Northern British Columbia"

Supervisor: **Dr. Pam Wright**

Date: **March 27, 2013** Time: 9:00 am Room: Senate Chambers

OTHER EVENTS

March 15

Dr. John Loxley, Professor, Department of Economics, University of Manitoba

"Will Social Impact Bonds be the Future for Foreign Aid?"

March 22

Dr. Dana Wessell Lightfoot, UNBC

"Crisis and Opportunity: Jewish Women and Forced Conversion in Late Medieval Spain"

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



**GLOBAL FRIDAYS
ROOM 7-158
12:00 - 1:30 pm**

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

OTHER EVENTS (cont'd)

3rd Antarctic University Expedition — 28 December 2013 - 9 January 2014

Information Session : Friday, March 15th

2:00 pm

Room 10-4072

UNBC is again part of the Antarctic University Expedition and will be offering a course on tourism impacts and management (ORTM 433). Students from all disciplines are welcome to enroll in ORTM 433, but they can also choose to enroll in a course that is more closely matched to their field of studies: both Carleton and McGill Universities are offering earth sciences courses, and Oregon Health and Science University is offering a course on environmental systems and human health. **Graduate level options are also available.** Further information available at: <http://uantarctic.org> or contact Pat Maher (Patrick.Maher@unbc.ca).

FAREWELL

Celia Boone has left UNBC after spending 2 years with us as a post-doctoral fellow in **Brent Murray's** lab. Celia has contributed greatly to our community, providing guest lectures in several courses and co-organizing the Forest Insect Research Group activities over the past year in addition to a busy research schedule. Celia will take on a new challenge as of April 1, when she starts a new post-doc under the supervision of Dr. Jean-Claude Grégoire, Université Libre de Bruxelles, Brussels, Belgium, working on emerging pinewood nematode problems in Europe and elsewhere in the world. UNBC already has strong links with Dr. Grégoire, who spent two weeks here in 1997 and also visited for a conference in 2005. Furthermore, two students, undergraduate Nicolas Guisset (1997) and PhD candidate Loïc Dohet (2012) from ULB have spent time in Prince George. We look forward to continued collaboration and strengthened ties with Dr. Grégoire's lab via Celia! We wish Celia all the best and thank her for her contributions. We will miss her!

CONGRATULATIONS

Brock Harpur, who received his B.Sc. at UNBC in 2010, and now a PhD candidate at York University, is the recipient of the 2012 Canadian Association of Professional Apiculturists award as well as the Elia Scholarship from York University. The Elia Scholars Program is York University's most prestigious graduate award. Brock was a 2010 Julie Payette NSERC Research Scholarship winner based on his outstanding academic performance at UNBC, and he has received numerous other awards since then. Brock is now studying honey bee genomics and immunity under the supervision of Dr Amro Zayed, York University. Brock's scientific record to date is outstanding. He has published early in his career and his work is relevant to apiculture, honey bee science, social insects and entomology as a whole. Brock has been recognized internationally for his work. Along with a productive research career, Brock is also active in the beekeeping community and in the Entomological Society of Canada. Lasting legacies of Brock's time at UNBC include the bee hive and annual bee day, and the annual "Save Nemo" fund raising event for the UNBC reef tank by the Biology Club. Congratulations Brock – we are proud of you!

PUBLICATIONS

Smith, H.G., Blake, W.H., and **P.N. Owens** 2013 Discriminating fine sediment sources and the application of sediment tracers in burned catchments: a review. *Hydrological Processes* 27: 943-958

TRAVEL / CONFERENCES / RESEARCH

Mark Shrimpton will be travelling 17 - 24 March to meetings in Vancouver with the Pacific Trails Pipeline group and then heading to study sites on Vancouver Island and lower mainland to retrieve temperature loggers deployed last fall.

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