



NRES WEEKLY NEWS

January 21 - 25, 2008

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

Steve MacDonald
Fisheries and Oceans Canada

Tomorrow

Examination of Factors influencing Nechako River Discharge, Temperature and Aquatic Habitats: Assessing water release strategies from the Nechako Reservoir

Since the early eighties a water temperature management program has been in existence on the Nechako River system in central British Columbia. The program attempts to use water releases to meet a summer temperature target downstream to benefit spawning migrations of sockeye salmon in the Nechako River. Recently, water demand for other uses has pressured the DFO to justify this program. This presentation will:

1. assess the success of the water management scheme in terms of moderating high summer water temperatures in the Nechako at the target location upstream of the Stuart confluence;
2. consider the effects of the management scheme on temperatures in other Nechako habitats;
3. assess the overall effect of the management scheme on Nechako sockeye salmon; and
4. introduce a model that examines the consequences of constructing a cold water release facility in the Kenney Dam.

The temperature management program has been successful at moderating summer temperatures and thus has improved migration conditions and had a positive influence on sockeye spawning success. Although water release facilities at Kenney Dam may have many positive environmental benefits and allow compliance with current temperature targets, only modest water savings will result and there may be a net reduction in habitat quality in other parts of the watershed.

Friday, January 18, 2008

3:30 - 4:30 pm

Lecture Theatre 7-150

Light Refreshments will be Served

Next Friday

Sean Simmons
Angler's Atlas

Developing and Implementing a ten-year market development plan for sport fishing in British Columbia

Friday, January 25, 2008

3:30 - 4:30 pm

Lecture Theatre 7-150

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COMING EVENTS

THESIS DEFENCE

Ms. Angela Dale, candidate for the degree:

Master of Science in Natural Resources and Environmental Studies (Biology)
will be defending her thesis entitled:

"Genetic Structure Of The Foliar Pathogen *Dothistroma septosporum* In Northwest British Columbia Suggests Recombination And High Gene Flow "

Supervisor: Dr. Kathy Lewis

DATE: January 23, 2008
TIME: 1:00 pm
PLACE: Room 6-307, Conference Centre
UNBC Prince George Campus

GLOBAL FRIDAYS

January 18

12:00—1:30 pm
Room 6-306

Dr. Laurie Chan
Community Health Sciences, UNBC

"Living on Top of the World"

January 25

12:00—1:30 pm
Room 6-306

Dr. Catherine Nolan
Geography, UNBC

"Mining Misery: Earth and (Canadian) Skye in Guatemala"

LECTURE

Mark your calendars for the 3rd Annual NRESI Annual Lecture and Poster Presentation on **Thursday, February 28th, 5:30 pm**. The poster session will feature research by NRES graduate students and NRES Institute members. Following the poster presentation, **Dr. Daivd Hik (University of Alberta)** will deliver the NRESI Annual Lecture.

STUDENT CHAPTER OF THE WILDLIFE SOCIETY?

The Wildlife Society is an international, non-profit scientific and educational organization serving and representing wildlife professionals in all areas of wildlife conservation and resource management. It consists of a number of Chapters, including a recently formed Canadian Chapter. The goal of the Society is to promote excellence in wildlife stewardship through science and education. One of the ways in which the Wildlife Society addresses its educational goals is through Student Chapters. Student Chapters are composed of undergraduate and graduate students working with professional members of the Wildlife Society. To help gauge interest in forming a Student Chapter at UNBC, there will be a meeting:

Thursday, January 24th
Room 7-158
6:00pm - 8:00 pm

PRESENTATIONS

Stephen Dery is presenting a seminar entitled "Recent Northern Hemisphere snowcover extent trends" at the University of Alberta on Friday, 18 January 2008.

RESEARCH

UNBC PARTICIPATES IN GROUNDBREAKING PINE BEETLE GENETICS RESEARCH

(from January 15, 2008 UNBC Press Release)



Three UNBC professors will be participating in a landmark research project that will identify the genetic interactions between the mountain pine beetle, the fungus it carries, and pine trees. The \$4 million research project is being funded by Genome BC and Genome Alberta and is also involving researchers at UBC, the University of Alberta, and the Michael Smith Genome Sciences Centre in Vancouver.

The research will produce the first genome sequence of the mountain pine beetle, thousands of which are being collected from the area around Prince George for the analysis.

"By mapping large parts of the pine beetle genome, we'll be able to see how different genes are expressed in pine beetles both at different stages of their lives and when they're exposed to different environmental conditions," says **Dezene Huber**, a Canada Research Chair at UNBC and one of the three UNBC researchers participating in the project. "This will give us new information about how pine beetles are able to withstand a tree's natural defenses and how they can tolerate cold weather, for example." Other UNBC participants in the research are Biology professor **Brent Murray** and **Brian Aukema** of the Canadian Forest Service who is stationed at UNBC.

The pine beetle infestation throughout British Columbia is believed to be the largest Canadian insect infestation in recorded history. To date, it has killed well over half of the mature pine trees in the central and southern interior.

"While this research is focusing on the pine beetle, the fungal pathogen it carries, and the pine trees it kills, the results will be far-reaching," says Dr. Huber. "For example, the genetic similarities between the mountain pine beetle and other bark beetles will ensure that our results will be applied to other forest pests. No other bark beetles have ever been analyzed in this way but it would be naïve to think that the pine beetle is the only climate-related threat to our forests."

Other genetic research underway at UNBC is examining the pine beetle. These projects are looking at past outbreaks, beetle dispersal to new areas, and the potential adaptability of the pine beetle to spruce trees."



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 ELISSA ZEMLAK: zemplak@unbc.ca