



NRES WEEKLY NEWS

March 3 - 7, 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

**Dr. David Hik, Professor
University of Alberta**



HERBIVORES IN WARMING SUBARCTIC ALPINE ENVIRONMENTS

Of the four circumpolar sub-regions defined in the 2004 *Arctic Climate Impact Assessment*, "Alaska and the Canadian Yukon have experienced the most dramatic warming, resulting in major ecological impacts." I will discuss how the life history and behavior of alpine dwelling mammalian herbivores in the southwest Yukon (collared pikas, hoary marmots, arctic ground squirrels, Dall sheep) may affect their response to highly variable weather conditions, continued warming, and large-scale climate periodicity. Habitat connectivity is also of central importance in population dynamics, and the mobility of animals represents a challenge in terms of predicting immediate responses to climate-driven habitat changes. With continued climate change, lower elevation forest and shrub communities are expected to move upslope as milder conditions allow them to occupy areas that were previously too extreme. These advances will fragment and reduce alpine tundra habitat, and may restrict dispersal for some species. A set of future scenarios will provide an opportunity to make predictions about how reproductive success and population dynamics of these mammalian herbivores may be affected by continued climate change in northern mountain environments.

Friday, February 29, 2008

3:30 - 4:30 pm

Lecture Theatre 7-150

Light Refreshments will be Served



Dr. Stephen Déry
CRC - Northern Hydrometeorology
Environmental Science Program, UNBC

DEVELOPMENT OF THE CARIBOO ALPINE MESONET AND PRELIMINARY RESULTS

Rising air temperatures have profoundly impacted British Columbia (BC) mountain ecosystems, including the Interior Wetbelt. This region supports the sole interior temperate rainforest, or perhaps more appropriately "snowforest", of North America. Relatively cool air temperatures, abundant precipitation (including snowfall) and heavy snowpacks qualitatively define its climate. However, quantification of its climate is not well known owing in part to the sparse observational network that currently exists in the region, particularly at higher elevations. This talk will describe the recent deployment of a mesoscale network (mesonet) of meteorological stations known as the Cariboo Alpine Mesonet (CAMnet) that greatly enhances the existing observational network, particularly at higher altitudes (>1.5km). Information on the location of the stations, data being collected and possible future expansion of the network will be discussed. Some preliminary results based on CAMnet data will be presented and the talk will end with a discussion of the possible ecohydrologic impacts of a changing climate in the Cariboo Mountains of BC.

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COMING EVENTS

THESIS DEFENCE

Ms. Sarah Elmeligi is a candidate for the degree:
**Master of Natural Resources
and Environmental Studies**

Ms. Elmeligi will be defending her thesis entitled:

**"BEAR VIEWING IN THE K'TZIM-A-DEEN INLET:
EFFECTS ON GRIZZLY BEAR BEHAVIOUR
AND VISITOR PERCEPTIONS OF IMPACT"**

March 5, 2008 at 9:00 am
Senate Chambers, Administration Building
UNBC Prince George Campus

Co-Supervisors:

Dr. John Shultis and Dr. Pamela Wright

GLOBAL FRIDAY

Chris Opio
Ecosystem Science and Management
UNBC

**"Participatory Development: The Case of the
Northern Uganda Development Foundation"**

February 29, 2008
12:00—1:30pm
Room 6-305

TRAVEL

Phil Owens and **Ellen Petticrew** attended and gave several presentations at the 11th IASWS International Symposium on the Interactions between Sediments and Water in Esperance, Australia, between February 17-22, 2008. As Past President of IASWS, Ellen gave the opening keynote presentation. The next symposium will be in Totnes, England, in June 2011.

Hugues Massicotte was in Ottawa from Feb 17-22, 2008 as part of the NSERC Grant Selection Committee 03 (Plant & Food Science). This was his second year out of a 3 year membership mandate.

Chris Johnson was in Yellowknife, NT, from February 20-22, 2008 to deliver a community presentation and begin collaborating on an integrated multi-model framework for understanding cumulative effects of industrial development on barren-ground caribou.

PUBLICATIONS

Zhu, J., Y. Zheng, A.L. Carroll, and **B.H. Aukema** (2008) Autologistic regression analysis of spatial-temporal binary data via Monte Carlo maximum likelihood. *Journal of Agricultural, Biological, and Environmental Statistics*. 13: 84-98.

OF INTEREST

Chris Johnson, Kathy Lewis, Karyn Sharp (First Nations Studies), and Steve Cumming (University of Laval) received an NSERC Strategic Project Grant to understand and predict the effects of fire and climate change on barren-ground caribou and caribou dependent communities.

Mike Rutherford attended a meeting on Thursday (February 28th) on behalf of the NRES Institute. The meeting was to discuss developing possible biomass energy opportunities within the city. The meeting was also attended by other representatives from UNBC, the provincial government, the Northern Development Trust, Innovation BC, and the City of Prince George."

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