



NRES WEEKLY NEWS

November 14 - 18, 2011

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



Nov. 18, 2011

Dr. Erin O'Brien

Ecosystem Science & Management Program
UNBC



Do Fine Feathers Make Fine Birds?

Sexual selection and the evolution of plumage ornamentation in male birds

Sexual selection is hypothesized to be the mechanism underlying the evolution of elaborate traits in many animals. This often takes the form of female mate preference driving the evolution of extravagant male displays, a pattern that appears to be particularly common in birds. Male ornamentation, however, frequently covaries with territory quality, such that observational studies cannot isolate male display quality from territory quality as objects of female social mate preference. Broods of many socially monogamous bird species also contain at least some offspring fathered by a male other than the social father. The high frequency of this extra-pair paternity, especially among songbirds, suggests that to understand the evolution of elaborate male plumage displays we must consider selection acting *within* as well as *outside* of the social pair bond. Finally, the production of male plumage displays may be temporally and spatially disconnected from the expression of female preference for those displays. If displays signal the fit of a male's genotype to a specific environment, this creates the potential for signal unreliability, which may constrain the evolution of female preference. We would therefore predict male dispersal patterns that maintain signal reliability within ecological constraints. I will present results from experimental work on mountain bluebirds, conducted as part of my PhD research at UNBC, as well as preliminary findings of my postdoctoral research on great tits in Wytham Wood, UK, that address these questions.

Friday, November 18, 2011

3:30 - 4:30 pm

Room: 7-158

Nov. 25, 2011

Dr. Celia Boone

Postdoctoral Fellow, Ecosystem Science & Management
UNBC

Constraints of Bark Beetle Populations



Bark beetles are most renowned as major disturbance agents during outbreaks in coniferous forests worldwide. However, these herbivores remain at low density, endemic levels in weakened, nutrient depleted resources for decades and only intermittently erupt into ecologically and economically damaging population densities. To transition from endemic to outbreak densities, bark beetles must surpass a series of biotic and abiotic constraints, such as host plant defenses, natural enemies, interspecific competition, and weather. Once each threshold is breached they no longer restrict herbivore progress. I will discuss my research investigating interactions among some of these constraints, and mechanisms that allow bark beetles to breach these thresholds to colonize robust, well-defended resources and ultimately cause landscape level disturbances.

Friday, November 25, 2011

3:30 - 4:30 pm

Room: 7-158

GRADUATE THESIS DEFENCE

Mr. Petter Jacobsen is a candidate for the degree:

Master of Arts in Interdisciplinary Studies

Mr. Jacobsen will be defending his thesis entitled:

“With a Connection to the Land, Our Spirit is Strong” Tłıch Traditional Knowledge of Climate Change and Impacts for Caribou Hunting: Implication for Traditional Knowledge Research”

Supervisor: **Dr. Chris Johnson**

Date: **November 21, 2011** Time: 1:00 pm Room: Senate Chambers

GRADUATE THESIS DEFENCE

Mr. Eiji Matsuzaki is a candidate for the degree:

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

Mr. Matsuzaki will be defending his thesis entitled:

“Carbon Stocks of Western Redcedar Western Hemlock Stands in Canada’s Inland Temperate Rainforest”

Supervisor: **Drs. Art Fredeen and Paul Sanborn**

Date: **December 7, 2011** Time: 9:00 am Room: Senate Chambers

TRAVEL / RESEARCH / CONFERENCES

Dezene Huber is attending the annual meeting of the Entomological Society of America 12 - 16 November in Reno, NV. On Tuesday he gave two talks: an invited symposium talk on various aspects of mountain pine beetle larval overwintering physiology, and a regular talk on the proteomics of host colonization in the mountain pine beetle. **Brian Aukema** is here as well and gave a talk on Sunday. And a former UNBC Forest Insect Research Group member, Gareth Hopkins, gave a great talk in the student sessions on dragonfly nymphs as predators and as prey.

Next week, **Brian Menounos** will be travelling to Columbia University in New York (Lamont Doherty Earth Observatory) to give an invited talk about western Canadian glaciers and their uncertain future. He will also be meeting with scientists to coordinate future research on past glacier dynamics in southernmost Patagonia.

Kathy Parker, Mike Gillingham, Becky Cadsand (NRES grad student), Krista Sittler (NRES grad student), and Robin Steenweg (former NRES grad student), recently travelled to the Wildlife Society’s Annual Conference in Waikoloa Village, Hawaii 5 - 8 November. Robin, Mike, **Doug Heard** (ESM Adjunct Faculty), and Kathy presented a paper entitled “Promoting caribou recovery by reducing predators through primary-prey management: evidence of increased wolf dispersal following increases in moose hunting quotas”. Becky, Mike, Doug, and Kathy presented a poster entitled “Movements and habitat selection of mountain goats in relation to heliskiing activity”. Krista’s poster (co-authored with Kathy and Mike) was entitled “Response of Rocky Mountain elk and Stone’s sheep to prescribed fire in the northern Rockies”. Becky and Krista also represented the UNBC Student Chapter of the Wildlife Society at several meetings.

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

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

PLEASE EMAIL ALL INFORMATION AND MATERIAL TO: [Michelle Keen: keenm@unbc.ca](mailto:Michelle.Keen@unbc.ca)