

# NRESi WEEKLY NEWS

## March 23 - 27, 2015

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



### NRESi NOTES

### FROM THE DIRECTOR & RESEARCH MANAGER

Hello everyone,

This week I've included a summary of NRESi's upcoming events. Please mark your calendars!

**Today's colloquium** is a Special Lecture in partnership with the Peace Fish & Wildlife Compensation Program. Join us at 3:30 in the Weldwood Theatre (7-238) or [online](#). Our guest lecturer is Dr. Dale Seip, Wildlife Ecologist with BC Ministry of Environment. Dale's talk is titled: Ongoing Declines of Caribou Populations in British Columbia and the Challenges of Caribou Recovery. The abstract is found on page 2. Stay after the presentation for a reception, snacks, and further discussion.

If you are in the Fort St. John area, Dale will be doing a second caribou talk in May, also in partnership with the Peace Fish & Wildlife Compensation Program. More details to come.

While there are no NRESi events next week (Friday is a holiday), there's lots of others to take in. Read more starting on page 3.

For **Friday, April 10<sup>th</sup>'s colloquium**, Titi Kunkel from UNBC Quesnel Campus will be talking about UNBC's Sustainable Community Planning Project, focusing on renewable energy. Three videos are being developed as a case study for communities considering or planning to undertake a transition to bioenergy. During the presentation, we'll also have a preview of the first video in the series.

Dr. Karen Hodges, from UBC-O, will be doing a NRESi Special Lecture at the UNBC PG campus on **Monday, April 13<sup>th</sup> at 3:30** in 8-166 and [online](#) (both Livestream and Elluminate). Her presentation is tentatively on population issues at geographic range edges. Thanks to TWS UNBC Student Chapter for sponsoring this event.

This year's NRESi Annual Lecture is on **Thursday, April 16<sup>th</sup> at 7pm**. David Hughes, Geoscientist & Independent Energy Policy Analyst, will be doing a talk titled: The Potential LNG Industry and BC's Natural Gas Supply. It will be in the Canfor Theatre and [online](#) (Livestream and Elluminate). Further details on page 2. David will also be doing our colloquium presentation on **Friday, April 17<sup>th</sup>**.



Pussy willows!  
Photo: H. Massicotte



NRESi's Annual General Meeting will be on **Monday, April 20<sup>th</sup> from 12pm-2:30pm**. More info to come.

NRESi, in partnership with UNBC's Biochemistry & Molecular Biology department, will be hosting the 2015 Undergraduate Thesis Presentation Day on **Thursday, April 30<sup>th</sup>**. All are welcome to attend!

A beaver lodge covered in pussy willows. What a lovely way to decorate your home!  
Photo: H. Massicotte

Good luck to NRES Graduate Students preparing for and defending in the coming weeks!

Leanne Elliott, NRESi Research Manager

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**We're on the web at : [www.unbc.ca/nres-institute/newsletter](http://www.unbc.ca/nres-institute/newsletter)**

## COMING EVENTS

## NRESi SPECIAL LECTURE

Peace Fish and Wildlife  
Compensation Program Presents:



**Dr. Dale Seip**  
B.C. Ministry of Environment

### Ongoing Declines of Caribou Populations in British Columbia and the Challenges of Caribou Recovery



Woodland caribou populations across much of British Columbia are declining. Research and monitoring has shown that the primary cause of decline is excessive predation by wolves, bears and cougars. Although caribou populations co-existed with natural predators for thousands of years in the past, today those same predators are driving caribou to extinction. It appears that habitat changes due to industrial activities, and likely exacerbated by climate change, have created a landscape where caribou cannot co-exist with natural predators. Creation of early seral habitat by forestry and other industrial activities can enhance numbers of moose, elk and deer, leading to an increase in the distribution and abundance of wolves, bears and cougars on caribou range. Several studies have shown declining caribou numbers are associated with increased amounts of industrial activity on their range. Although protecting and recovering habitat is the ultimate solution to recovering caribou populations it would take decades for habitat recovery to occur. In the short term, directly managing the predator prey system with predator control, moose management or captive rearing is likely necessary to prevent ongoing declines and local extirpation of caribou herds.

**Friday, MARCH 27<sup>th</sup>, 2015**

**3:30 pm - 4:30 pm**

**RECEPTION to FOLLOW**

**Room: Weldwood Theatre (7-238)**

To participate remotely: [http://www.unbc.ca/nres/nresi\\_webcast.html](http://www.unbc.ca/nres/nresi_webcast.html)

## UPCOMING EVENTS

## NRESi's 2015 ANNUAL LECTURE

**David Hughes**  
Geoscientist, Independent Energy Policy Analyst &  
Formerly with Geological Survey of Canada

### The Potential LNG Industry and BC's Natural Gas Supply



Politicians in the US and Canada have promoted LNG exports as a way to monetize the perceived gas bounty made possible by the so-called "shale revolution". However, a review of major US shale gas plays suggests production is not sustainable at low prices and high volumes in the medium- and long-term. Several US shale plays are already past peak production and the recent collapse in oil prices suggests that other plays will not be far behind. In Canada, gas production is down 20% from its all-time peak in 2002. Ramping up BC production to supply five LNG terminals would require spectacular growth, from 409% to 633%, and the drilling of between 38,000 and 49,000 new wells at a cost of up to \$432 billion. These projects are vulnerable both from a lowered price in export destinations and from higher domestic gas prices. If the nascent BC LNG industry gets off the ground its economic impact is likely to be far less than purported, its environmental impact significant, and its impact on future Canadian energy security worrisome.

David Hughes is a geoscientist who has studied the energy resources of Canada and the U.S., including 32 years spent with the Geological Survey of Canada as a scientist and research manager, where he headed unconventional gas and coal research. His research focus is on unconventional fuels, primarily shale gas and tight oil, but also coalbed methane and other unconventional sources including oil sands, coal gasification and gas hydrates. Hughes is currently President of Global Sustainability Research Inc., a consultancy dedicated to research on energy and sustainability issues. Clients include a range of energy companies, investment firms and non-profits.

**Thursday, APRIL 16<sup>th</sup>, 2015**

**7 pm in UNBC PG's CanforTheatre**

**RECEPTION to FOLLOW**

To participate remotely: [http://www.unbc.ca/nres/nresi\\_webcast.html](http://www.unbc.ca/nres/nresi_webcast.html)

**REMINDER:** Share your information about recent publications, grants, and/or other honours you may have received with others interested in future NRESi newsletter issues.

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## OTHER UNBC EVENTS

### Public Participation Event on Bears

Date: Sunday, March 29th

Time: 1-5pm

Location: Gordon Room, PG Public Library Bob Harkins Branch

Free event, with refreshments and snacks provided

Hosted by UNBC Natural Resource Management students

The purpose of the exercise is to get people's opinion on bears and their conflict with humans. From 1pm-2pm, there will be a presentation by the President of the Northern Bear Awareness Society and then time for a public participation exercise that allows people to voice their opinions. From 2pm-5pm, it is open for anyone to drop in and voice their opinion, either by writing it down on the posters provided or telling the students in person.

## DO YOU CARE ABOUT BEARS?



Come voice your opinion on human/bear conflict and learn about how to keep bears from being killed in your neighbourhood

**Sunday, March 29<sup>th</sup> 1-5pm**  
Keith Gordon Room, Bob Harkins Branch of the  
Prince George Public Library

Come at 1:00pm to be a part of our public participation exercise

OR

Drop in from 2:00-5:00pm

**Refreshments will be provided**

Hosted by UNBC Natural Resource Management students in  
conjunction with the Northern Bear Awareness Society

## OTHER UNBC EVENTS

**GLOBAL FRIDAYS**  
UNBC PG Campus  
Room: 6-306  
12:00pm - 1:30pm

### National Native Title Tribunal of Australia: Sharing the Knowledge, Sharing the Future

Raelene Webb, QC, President, National Native Title Tribunal, Australia  
Thursday, April 2, 2015

In many countries around the world, states and others seeking to promote development need to engage in some way with indigenous land rights and use claims. The High Court of Australia first recognized the existence of native title in Australia in 1992, many years after it was first acknowledged in some other settled colonies. The slow progress of claims for native title since that time has continued to frustrate native title parties, as well as governments and third parties. It is well documented that recognition of native title and tenure certainty are essential steps to enable indigenous participation in economic development. This paper discusses a collaborative project which provides early access to historic tenure and other information relevant to land rights and land use, to allow knowledge to be shared, and assist parties work towards a shared future with benefits for all.

The presentation will also available to remote participants via [Livestream](#)

## OTHER UNBC EVENTS

**TERRACE LECTURE  
SERIES**  
4837 Keith Avenue  
Terrace, BC  
Room 147  
12:00pm - 1:00pm

### Indigenous Arts and Title Claims in Canada, Australia, and New Zealand

Rocque Berthiaume  
Wednesday, April 8, 2015

This presentation will also be available to remote participants by following on [Livestream](#).

## OTHER UNBC EVENTS

The Cell & Molecular Biology Interest Group (CMBIG) will be hosting another lecture before the end of the semester. Mark Monday, April 13th in your calendars to participate in Dr. Sharon Aviran's talk. Dr. Aviran is visiting UNBC from UC Davis. This will take place at 11:30 in 7-150.

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## UNBC EVENT OF INTEREST

### Film Night: Defensora & Connected by Coffee

Date: Wednesday, April 1<sup>st</sup>, 2015

Location: UNBC Rm. 7-158

Cost: Evening pass \$5

The Geography Program & the Guatemala Research Group, in partnership with local organizations such as Amnesty International, Development and Peace, 27 Million Voices, and the PG Public Interest Research Group, are hosting two films on April 1<sup>st</sup> as part of the Travelling World Community Film Festival:

**7pm:** DEFENSORA (2013), 40 min. Defensora is a documentary about Mayan Q'eqchi' resistance against mining in Guatemala. [www.defensorathefilm.com](http://www.defensorathefilm.com). A brief discussion after the film will be moderated by Geography Chair Catherine Nolin, who has worked with the communities documented in the film since 2004.

**8pm:** CONNECTED BY COFFEE (2014) 70 min. The film follows two North American coffee roasters on a journey across Mexico, Guatemala, El Salvador and Nicaragua to listen to the stories of the people who grow their coffee.

\*\*\* FYI, Catherine worked with the communities documented in Defensora since about 2004 and joined the film crew in their final filming days in Guatemala. Also, one of her very long-term community partners in Guatemala — the CCDA (Campesino Committee of the Highlands) — is featured in Connected by Coffee and Geography has hosted Executive Director Leocadio Juracan at UNBC twice in recent years.

More Info: Facebook PGTWCFF; Trailers: [worldcommunity.ca](http://worldcommunity.ca)

## TRAVELLING WORLD COMMUNITY FILM FESTIVAL

WEDNESDAY, APRIL 1 IN RM. 7-158 AT UNBC

7:00 P.M.  
HOSTED BY UNBC GUATEMALA RESEARCH GROUP, DEVELOPMENT & PEACE, PPIRG



Defensora

40 min. 2013 [www.defensorathefilm.com](http://www.defensorathefilm.com) Director: Rachel Schmidt  
Defensora is a documentary about Mayan Q'eqchi' resistance against mining in Guatemala. The story is set along the shores of Lake Izabal in the community of El Estor where a nickel mining company has operated for over 50 years. Tensions run high against a backdrop of pro and anti-mining camps, violence and forced evictions. The film takes audiences into the lives of defenders in the resistance who struggle to reclaim their ancestral lands and seek justice in Canadian courts for alleged human rights violations. "Defensora is a deeply moving testimony to incredible courage in the face of wanton brutality and a shining tribute to the human search for justice." Maude Barlow  
Silver Screen Award, Nevada Film Festival

8:00 P.M.  
HOSTED BY UNBC GEOGRAPHY PROGRAM, 27 MILLION VOICES, DEVELOPMENT & PEACE



Connected by Coffee

70 min. 2014 Stone Hut Studios. Filmmakers: A. Dennis & C. Dennis  
The film follows two North American coffee roasters on a journey across Mexico, Guatemala, El Salvador and Nicaragua to listen to the stories of the people who grow their coffee. On the way they meet with soldiers who have become growers, powerful women who are controlling their own destinies and many small-scale farmers joining together to form cooperatives. This film serves as a starting point to educate coffee drinkers about the basics of fair trade, cooperatives, social justice, shade grown, organic, the conflict in fair trade and the new challenges of dealing with coffee rust. In the context of historical injustices of global politics and international trade, the film asks some tough questions.

TRAVELLING WORLD COMMUNITY FILM FESTIVAL  
PGTWCF MARCH 25-APRIL 2

DAY PASS:\$5 AVAILABLE AT THE DOOR  
FESTIVAL PASS:\$30 AVAIL: AT BOOKS & CD & AT THE DOOR

## UNBC EVENT OF INTEREST

A Film By Tomas Borsas & Jean-Philippe Marquis

# LINE IN THE SAND

A new documentary offering a candid look at the context and consequences of the Northern Gateway pipeline

**WORLD PREMIERE**  
Prince George, BC

Tuesday March 31st  
6 - 9 pm  
Canfor Theatre, UNBC

Wednesday April 1st  
6 - 9 pm  
CNC Cinema, Room I-306

Admission by donation  
Directors in attendance

MUSIC BY KERRY CHAMBERS

Sponsored in part by UNBC & CNC

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## THESIS DEFENSE NOTICE

### GRADUATE THESIS DEFENCE

Ms. Heidi Knudsvig is a candidate for the degree:

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

Ms. Knudsvig will be defending her thesis entitled:

**“Characterization of Regional Air Temperature and Precipitation and its Relationship to Shallow Groundwater Resources in the Ancient Forest, British Columbia ”**

Supervisor: **Dr. Stephen Dery**

Date: **April 1, 2015** Time: 3:00pm Room: 6-205/211 (PG Campus)

## THESIS DEFENSE NOTICE

### GRADUATE DISSERTATION DEFENCE

Mr. Siraj ul Islam is a candidate for the degree:

**Doctor of Philosophy in Natural Resources and Environmental Studies**

Mr. Islam will be defending his dissertation entitled:

**“Ensemble Simulation and Forecasting of South Asian Monsoon”**

Co-Supervisors: **Dr. Youmin Tang & Dr. Peter Jackson**

Date: **April 7, 2015** Time: 1:00pm Room: Senate Chambers (PG Campus)

## THESIS DEFENSE NOTICE

### GRADUATE THESIS DEFENCE

Ms. Kirsten Thompson is a candidate for the degree:

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

Ms. Thompson will be defending her thesis entitled:

**“Ectomycorrhizal Fungal Communities of Douglas-Fir on Diverse Soil Lithologies of Central British Columbia”**

Co-Supervisors: **Dr. Hugues Massicotte & Dr. Paul Sanborn**

Date: **April 8, 2015** Time: 9:00am Room: 6-205/211 (PG Campus)

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## THESIS DEFENSE NOTICE

### GRADUATE THESIS DEFENCE

Mr. Michael Klaczek is a candidate for the degree:

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

Mr. Klaczek will be defending his thesis entitled:

**“Denning Ecology of Barren-Ground Wolves in the Central Canadian Arctic”**

Supervisor: **Dr. Christopher Johnson**

Date: **April 13, 2015** Time: 9:30am Room: 6-305 (PG Campus)

## THESIS DEFENSE NOTICE

### GRADUATE THESIS DEFENCE

Mr. Michael Bridger is a candidate for the degree:

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

Mr. Bridger will be defending his thesis entitled:

**“Assessing Cumulative Impacts of Forest Development on the Abundance and Distribution of Furbearers ”**

Supervisor: **Dr. Chris Johnson**

Date: **April 15, 2015** Time: 9:00am Room: 6-205/211 (PG Campus)

## THESIS DEFENSE NOTICE

### GRADUATE THESIS DEFENCE

Ms. Serena Black is a candidate for the degree:

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

Ms. Black will be defending her thesis entitled:

**“Building Resilience in the Agricultural Sector of the Omineca: Assessing Barley (Hordeum Vulgare) Cultivars Response to Water Stress and Cultural Practices of Northern Producers ”**

Supervisor: **Dr. Scott Green**

Date: **April 16, 2015** Time: 1:00pm Room: 6-307 (PG Campus)

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## PUBLICATIONS

Clark, D.E., Vogels, M.F.A., van der Perk, M., **Owens, P.N., Petticrew, E.L.** (2014). Effects of a small-scale, abandoned gold mine on the geochemistry of fine stream-bed and floodplain sediments in the Horsefly River watershed, British Columbia, Canada. *Minerological Magazine* 78, 1491-1504.

**Lautensach, A.K.** 2015. Sustainable Health For All? The Tension Between Human Security and the Right to Health Care. *Journal of Human Security* 11(1): 5-18. <http://www.librelloph.com/journalofhumansecurity/article/view/johs-11.1.5>

**Rea, R.V., O. Hjeljord, M. Gillingham.** 2015. Factors influencing the use of willow and birch by moose in winter. *European Journal of Wildlife Research* 61: 231-239.

## MEMBERS IN THE NEWS

The news in this section and next is from NRESi's social media connections to UNBC and others. See the original posts and hear the latest first by [following us!](#)

Ken Otter spoke to CBC News about the albino deer spotted in Fort St. John this week. Read it [here](#). Not only is it interesting from a scientific perspective, it's also pretty cute!

The Pacific Institute of Climate Solutions is a friend of NRESi and UNBC. Check out their latest newsletter [here](#). NRESi member Kyle Aben is spotlighted a few times, highlighting some of the projects he is working on.

## OTHER NEWS ITEMS OF INTEREST

UNBC will be honouring Xeni Gwet'in Chief Roger William and former UNBC president Dr. Charles Jago with honorary degrees this May. See the article in [The Province](#) and UNBC's [news release](#) to read more about their accomplishments.

## SUSAN STEVENSON SCHOLARSHIP FUND

As its first project of this kind, the Natural Resources and Environmental Studies Institute (NRESi) is building a fund to support a scholarship in memory of wildlife ecologist and NRESi member Susan Stevenson. During a 35-year career built primarily in the BC central interior, Susan designed and implemented important research and inventory projects related to mountain caribou habitat, lichen biology, and silvicultural systems, collaborating with a diverse range of researchers, and gave generously of her expertise to the next generation of scientists. Susan exemplified the Institute's values of interdisciplinary curiosity and unselfish collaboration, and enriched the lives of all those who worked and studied with her. The Institute invites you to join it in supporting the Susan Stevenson Scholarship Fund:

1. Visit UNBC Development Office's website: [www.unbc.ca/giving](http://www.unbc.ca/giving)
2. Click on the grey **Make a Gift** button
3. Enter the information requested
4. When you reach the question of **Please direct my donation to:** select **Other**
5. **Important** - In the **Comments** area, add that you would like your gift to be contributed to the **Susan Stevenson Scholarship Fund**

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## SHARE YOUR PHOTOS & STORIES

Do you have a favourite photo, story or update from your research that you would like to share with your fellow members and the broader NRESi community in the newsletter? Send them to Leanne to include in an upcoming edition!

## COLLOQUIUM ARCHIVE

Did you miss a colloquium or special lecture? Visit NRESi's webcast archive to catch up! This can be found through the following link: <http://www.unbc.ca/nres-institute/colloquium-series/archived-colloquium-series>

## ARCHIVE OF PAST EVENTS

Information, links, proceedings, and other information from past NRESi hosted and co-led events can be found at: <http://www.unbc.ca/nres-institute/special-events>. This site currently includes information about the Forest Tenure events (Annual Lecture and workshop) and a link to the Cumulative Effects Workshop site.

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