

NRESi NOTES

Hello everyone,

FROM THE RESEARCH MANAGER

NRESi Bi-WEEKLY NEWS

Jan 9 - Jan 20, 2017

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

The winter semester is in full swing. This Friday's colloquium (January 20th) features PhD candidate, Diana Kutzner, who will be talking about the impact of changing environmental conditions on wildlife tourism operations. Next Friday, Mark Thompson, with DWB Consulting Services will be talking about a project he has been working on relating to forest management impacts on amphibians. We have also secured Dr. Jim Pojar for the NRESi Annual Lecture which will be taking place on March 2nd. Watch for more details in a future newsletter.

Al Wiensczyk, RPF Research Manager, NRESi

UPCOMING EVENTS

NRESi COLLOQUIUM

Below is the tentative speaker line-up for the winter colloquium series. The lectures for the winter semester will be held 3:30—4:30 pm in the Canfor Theatre—Room **6-213.**

TENTATIVE WINTER SEMESTER COLLOQUIUM SCHEDULE

resentation Date	Tentative Presenter and/or Topic		
Jan 20, 2017	The Resilience of Wildlife Tourism Operations to Environmental Change. Diana Kutzner, UNBC		
Jan 27, 2017	Amphibian Landscapes in Northern BC: Research Techniques and Conservation Management. Mark Thompson, DWB Consulting Services Ltd.		
Feb 3, 2017	Supraglacial Rivers on the Greenland Ice Sheet. Dr. Laurence Smith, UCLA		
Feb 10, 2017	Dr. Matt Reudink, Thompson Rivers University.		
Feb 24, 2017	Dr. Paul Kushner, University of Toronto		
Mar 1, 2017*	Recent Pacific Anomalies: Oscillations, El Nino, and The Blob. Dr. Richard Dewey, Science Services, Oceans Network Canada		
Mar 3, 2017	Conservation in the Anthropocene. Dr. Jim Pojar, Ecologist		
Mar 10, 2017	Dr. Lisa Wood, UNBC		
Mar 17, 2017	Andrew Adams, Hope Farms		
Mar 24, 2017	Dr. Evelyn Merrill, U of Alberta		
Mar 31, 2017	Dr. Michele Venter		

NRESi COLLOQUIUM

Diana Kutzner

University of Otago, New Zealand Research Support Officer, Office of Research, UNBC

Resilience of Wildlife Tourism Operations: Birdwatching on the Otago Peninsula, New Zealand



Little is known about the resilience of nature-based tourism businesses facing environmental change. Resilience theory has been lauded as a comprehensive and systems-oriented concept well suited to analysing tourism systems. This presentation provides an overview of the results of my PhD thesis which investigates the social-ecological resilience of tourism operations offering birdwatching experiences on the Otago Peninsula, Dunedin, New Zealand. The research adopts a resilience assessment framework (Resilience Alliance, 2010) and qualitative research methods to identify key themes of birdwatching tourism operations' resilience. Semi-structured interviews were conducted with 33 participants from the Otago Peninsula and surrounding local area. Interviews were supplemented with an extensive review of local, regional, and national policy documents and resource management strategies. The focus of the presentation will be on the first two research questions. The findings presented have implications for, and raise critical questions about, resilience research in the context of sustainable nature-based tourism.

Friday, Jan 20, 2017

3:30 pm - 4:30 pm Canfor Theatre Room: 6-213 To participate remotely: http://www.unbc.ca/nres-institute/colloquium-webcasts

UPCOMING EVENTS

Mark Thompson

Senior Ecologist / Project Manager DWB Consulting Services

Amphibian Landscapes in Northern BC: Research Techniques and Conservation Management

Larval and adult stages of amphibians supply different ecological functions and are akin to two ecological species divided into terrestrial and aquatic environments. Northern landscapes are diversified by the geographic admixture of overlapping species with different habitat requirements, occupancy patterns, and migratory behaviours. Different landscapes vary the context for natural experimental design. Sampling design in mark-capture-recapture studies to measure abundance and biomass across varied landscapes will be reviewed, including results from two multi-year studies funded by the BC Fish and Wildlife Compensation Program and BC Hydro. Methods, hypotheses, and some of the techniques used for research into herpetofauna in northern BC will be presented, including PIT tag telemetry, digital record of skin pattern for fingerprinting, and software for population analysis. Provincial best management practices for amphibians and reptiles and related forestry practices will also be reviewed and discussed in relation to the science, conservation, and management of BC's northern herpetofauna.

Friday, Jan 27, 2017

3:30 pm - 4:30 pm Canfor Theatre Room: 6-213 To participate remotely: <u>http://www.unbc.ca/nres-institute/colloquium-webcasts</u>



NRESi/Polar Days COLLOQUIUM

Dr. Laurence Smith

Professor and Department Chair Department of Geography, University of California, Los Angeles



Supraglacial Rivers on the Greenland Ice Sheet

Meltwater runoff from the Greenland ice sheet is a key contributor to global sea levels, but as a hydrological process has received little direct study. This project is using field, satellite, and UAV technologies to assess surface water hydrology of the southwestern ablation zone, one of the most melt-susceptible areas of the ice sheet. Ongoing work will use a unique summer 2015 dataset of supraglacial river discharge to test the veracity of climate-model predictions of Greenland's runoff contributions to the global ocean. Key findings include that the ablation surface is efficiently drained; that digital elevation models alone cannot fully describe supraglacial drainage pattern and its connection to subglacial systems; that predicting outflow from climate models alone, without recognition of subglacial processes, may overestimate true meltwater release to the ocean; and that supraglacial rivers are a key, understudied process linking ice-sheet surface-mass-balance to global sea level rise.

Friday, Feb 3, 2017

Canfor Theatre Room: 6-213 3:30 pm - 4:30 pm To participate remotely: http://www.unbc.ca/nres-institute/colloquium-webcasts

UPCOMING EVENTS

Canadian Institute of Forestry E-lectures

Date/Time	Title	Presenter(s)
Jan 25, 2017 10:30 am PST	GHG Mitigation Potential of Forest Bioenergy Use	Jérôme Laganière —Research Scientist, Laurentian Forestry Centre
Jan 25, 2017 7:00 am PST	Algae Bioenergy: State of Technology Review	Dr. Leive Laurens—Senior Scientist, and Dr. James McMillan—Chief Engineer, National Bioenergy Centre
Jan 26, 2017 10:30 am PST	FireSmart Forest Management/Harvest Planning	Larry Fremont—Education and Prevention Coordina- tor, Saskatchewan Ministry of Environment
Feb 2, 2017 10:30 am PST	Recent successes in mitigation and prevention across Canada	Westley Steed—Wildland Fire Risk Mitigation Coordi- nator, NWT Environment and Natural Resources
Feb 9, 2017 10:30 am PST	First Nations emergency service wildfire mitigation and prevention in First Nations communities	Jeff Eustache—Manager Forest Fuel Management Department, First Nations Emergency Services Socie- ty of British Columbia.
Feb 16, 2017 10:30 am PST	Strategic fuel management planning for community protection	David Martell—University of Toronto

All electronic lectures are free. Your consideration of CIF/IFC membership would be appreciated. To become a CIF/IFC member: www.cif-ifc.org/membership-content/become-a-member/ www.cif-ifc.org/e-lectures/

For additional information or to register, contact the Ronnie Huang (CIF-IFC) E-mail: electures@cif-ifc.org Tel: 705-744-1715 ext. 630

Presentation

Global Fridays/UNBC Geography Department

January 20, 2017 12:00-1:30 pm

UNBC, Room 7-212 (also available via Livestream—<u>www.unbc.ca/livestream</u>)

Dr. Jeffrey Webber, Senior Lecturer, School of Politics and International Relations, Queen Mary University of London

"The Blood of Extraction: Canadian Imperialism in Latin America"

Rooted in thousands of pages of Access to Information documents and dozens of interviews carried out throughout Latin America, Blood of Extraction examines the increasing presence of Canadian mining companies in Latin America and the environmental and human rights abuses that have occurred as a result. By following the money, Gordon and Webber illustrate the myriad ways Canadian based multinational corporations, backed by the Canadian state, have developed extensive economic interests in Latin America over the last two decades at the expense of Latin American people and the environment. Latin American communities affected by Canadian resource extraction are now organized into hundreds of opposition movements, from Mexico to Argentina, and the authors illustrate the strategies used by the Canadian state to silence this resistance and advance corporate interests.

UPCOMING EVENTS

Graduate Student Poster Session

Green Day 2017

Tuesday, February 7th, 2017

Green Day is the annual day for us to celebrate our achievements as Canada's Green University. Green Day is also about bringing attention to the unsung heroes of sustainability initiatives on campus as well as gather and generate new ideas for the future. This year we will be celebrating **10 years of Green Day at UNBC!**

The Northern BC Graduate Students' Society (NBCGSS) is proudly supporting the graduate **student poster session** held in the Doug Little Lounge (in the Winter Garden). Students are strongly encouraged to display their research with the community as both a way to share and learn with others. The cost of printing will be covered by the NBCGSS!

If you like to have your poster displayed, please contact Kate Hewitt at khewitt@unbc.ca

UPCOMING EVENTS

Northern Silviculture Committee Conference

2017 Northern Silviculture Committee Winter Conference

Common Ground: Silvicultural tools, and Tactics for Diverse Ecosystems and Management Goals. February 20-21, 2017 Prince George Civic Centre, Prince George, BC Registration: \$300+GST

Student rate—\$50 per day (does not include banquet) Registration deadline: Thursday, February 16, 2017

Heading into 2017, silviculturists and forest managers in the Central and northern Interior continue to grapple with a diverse and changing set of ecological and social issues, at both the stand- and landscape scales. Our challenge includes the balancing of increasingly-constrained timber supplies, critical wildlife and riparian habitats, important social and cultural values, and bark-beetle-driven harvesting and road-access pressures. A complex challenge indeed.

Our goals as silviculturists and forest planners are to make the best choices we can for the wise stewardship of our forest landscapes, and for present and future generations.

At the NSC 2017 Winter Workshop in Prince George, BC, we present a wide array of speakers from industry, government agencies, and university researchers, with the goal of providing you with better tools and knowledge for these many challenges. The range of topics will encompass:

- Reforestation practices that consider changing climates and forest health challenges.
- Managing and enhancing our existing second-growth mid-rotation forests.

Northern Silviculture Committee Conference

- Adapting our forest planning and silvicultural practices to enhance moose habitat. And
- Improving our silvicultural management of mixedwoods and deciduous forest types.

For more information and to register visit www.nsc-bc.org/upcoming-events/winter-conference-2017

UPCOMING EVENTS

Association of BC Forest Professionals Conference

69th Annual Association of BC Forest Professionals Conference and AGM

Changing Landscapes, New Opportunities

February 22-24, 2017

Prince George Civic Centre, Prince George, BC.

The 2017 ABCFP forestry conference and AGM will explore how emerging markets, innovative technologies and recent land use decisions are enriching BC's vibrant forest community. For more information and to register visit the conference website.

UPCOMING EVENTS

PRESENTATION

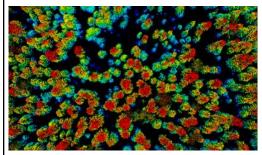
Bringing Genomics Home: Putting Genomics to work: Protecting the earth from climate change Dr. Sally Aitken, Professor, Department of Forest and Conservation Science, University of British Columbia February 23, 2017 6:30-8:00 pm Exploration Place, Prince George, BC Learn how cutting edge genomic tools are being used to detect and combat the threat of climate change in our environment. Open to the public Registration is free but required To register go to: http://www.genomebc.ca/news-events/event/putting-genomics-work-adapting-climate-change/

Cumulative Impacts Research Consortium (CIRC) news

The CIRC would like to welcome Ryan O'Toole as the new CIRC RA – Ryan joins the CIRC team from the Undergraduate program in Environmental Planning (Majoring in First Nations Planning) and will be working on the CIRC's living library – a searchable database of projects from across northern BC that broadly address the cumulative environmental, community and health impacts of resource development.

The CIRC 2016 year-end report is now available and can be found at http://www.unbc.ca/cumulative-impacts

Aleza Lake Research Forest (ALRF) news



A screenshot from the Aerial Laser Scanned (LiDAR) data out at the Winter at the Aleza Lake Research Forest. Aleza Lake Research Forest (~10,000ha).Data collection was made possible through the collaborative efforts of Drs. Che Elkin and Brian Menounos, the Aleza Lake Research Forest, and UNBC Research. (photo by Colin Chisholm)



(photos by Mike Jull)

Quesnel River Research Centre Update

If you are considering developing an Undergraduate Experiential / Service Learning (UESL) course, and would like to run it in an area of extraordinary environmental interest, or perhaps in a relatively remote rural community with dependencies split between resource extraction and recreation, the Quesnel River Research Centre (QRRC) would like to help!

To support UESL courses, the QRRC would be pleased to offer discounted accommodation rates in its 18-bed residence (contingent on availability), and the use of its scientific and other facilities on an at-cost basis. The centre has a well-equipped lab, spaces suitable for preparation and

instruction, a set of flumes which may be configured as artificial streams, fish hatchery equipment, and several lake and river boats. The centre is far enough from PG to offer a truly distinctive setting, but close enough (~3 hours' drive) for easy access. More information is available at http://unbc.ca/qrrc

Located near the former gold-rush village of Likely at the outlet of Quesnel Lake, in the foothills of the Cariboo Mountains and amid the western fringes of the globally-unique Interior Temperate Rainforest, the QRRC provides an ideal base for a wide range of environmentally-based activities. For socio-economic interests, the continuing perception of impacts resulting from the Mt Polley mine tailings pond breach has invoked something of a schism among the local populace, split primarily between those whose preoccupations relate to the recreational and natural resource extraction industries. Or perhaps the specific challenges of providing appropriate services in a community of between 300 (winter) and 600 (summer), an hour away from the nearest larger hub, could provide another field for exploration and contribution. As a former chinook hatchery, salmon are a continuing theme of study, from biological, climatological and cultural perspectives, with associated opportunities for habitat restoration and remediation.

If you would like to learn more about the possibility of basing a UESL course (or for that matter any other educational / research activities or meetings) at the QRRC, please contact Michael Allchin (<u>Michael Allchin@unbc.ca</u>).

IN THE NEWS

Training provided for forestry heavy-equipment operators, log truck drivers

Jan 19, 2017—Victoria. Twenty-eight underemployed or underskilled individuals are developing their skills by taking forest heavy-equipment operator or log truck driver training, made possible through the Canada-British Columbia Job Fund Agreement.

Input sought on moose winter tick survey

Jan 19, 2017—Victoria. The BC Wildlife Health Program is once again asking for help assessing the effects of winter ticks on the province's moose population as part of its annual moose winter tick surveillance program.

For more details...

For more details...

FACTSHEET: Biosolids

Jan 16, 2017. Biosolids are treated and stabilized wastewater treatment residuals. In British Columbia, this material is largely beneficially re-used as both compost and a soil amendment in agriculture or other applications, including land-scaping, forestry and site reclamation. Biosolids are composted and/or land applied to a variety of locations throughout the province in accordance with the Organic Matter Recycling Regulation (OMRR) which was enacted in 2002.

FACTSHEET: B.C.'s Climate Leadership

Jan 16, 2017. As a climate leader, British Columbia is showing it is possible to reduce greenhouse gas (GHG) emissions while supporting economic growth and job creation. For more details...

First Nation members get training for natural gas pipeline jobs and wildlife monitoring

Jan 12, 2017—Fort St. John. Ensuring more Aboriginal people have access to skills training opportunities and jobs related to the liquefied natural gas sector is a key goal of new skills training projects developed with the Doig River First Nation. For more details...

REMINDER: Share your information about recent publications, grants, and/or other honours you have received with NRESi newsletter subscribers via our bi-weekly newsletter. PLEASE EMAIL ALL INFORMATION AND MATERIAL TO: al.wiensczyk@unbc.ca

(Government press releases)

IN THE NEWS

Five conditions secure coastal protection and economic benefits for all British Columbians

Jan 11, 2017—Victoria. Following the Trudeau government's approval of Kinder Morgan's Trans Mountain Pipeline Project, the Province's clear, consistent and principled position on its five conditions has resulted in tangible and significant investments that will protect British Columbia's environmental and economic interests. <u>For more details...</u>

Trans Mountain Expansion project granted environmental assessment approval

Jan 11, 2017—Victoria. Environment Minister Mary Polak and Natural Gas Development Minister Rich Coleman have issued an environmental assessment certificate to Trans Mountain Pipeline ULC for the B.C. portion of the Trans Mountain Expansion project, which is an interprovincial pipeline approximately 987 kilometres long between Edmonton, Alberta and Burnaby, British Columbia.

Canada/U.S. softwood lumber trade dispute.

Jan 6, 2017—Victoria. Forests, Lands and Natural Resource Operations Minister Steve Thomson has issued the following statement today in response to a ruling by the U.S. International Trade Commission: "The U.S. International Trade Commission today has announced a finding of 'injury.'

Northern Analytical Laboratory Service (NALS) Update

A Unique Analytical Facility in Northern BC

The **UNBC-NALS** is home to an extensive suite of analytical science instrumentation that enables a broad spectrum of biological, chemical and physical analyses. NALS has a mission to contribute to the development and application of sound, well-documented science-based knowledge to support faculty research and client based analytical services. NALS is committed to providing analytical services, the pursuit and advancement of scientific knowledge, and the training of students aimed at creating highly qualified professionals capable of contributing to industry in their future careers. One of our main mandates is to make the lab services more responsive to the needs of researchers and corporate clients throughout Northern BC. As a



(Government press releases)

state-of-the-art education and research facility, NALS develops analytical methodologies at UNBC for both on campus and off-campus clients.

NALS analytical services are available to the private, public and non-profit sectors to help meet their research, development and quality assurance needs.

Some of the NALS Analytical Instruments are:

•	-
Inductively Coupled Plasma-Mass Spectrometer (ICP-MS)	High-Performance Liquid Chromatograph (HPLC)
Laser Ablation Inductively Coupled Plasma/Mass Spectrometer (LA-ICP/MS)	Ion-Exchange Chromatograph (IC)
Gas-Chromatograph/Gas-Chromatograph-Mass Spectrometer (GC-FID, GC-MS)	Auto Ion Analysis System (AA3)
Combustion Elemental Analyzers (Automatic C, N, S analyzer)	X-Ray Diffractometer (XRD)
pH/Ion and Conductivity meters, DO meters and COD meters	Scanning Electron Microscope (SEM-EDX)
Laser Particle Size Analyzer	Bomb Calorimeter
Colony Counters	BOD Incubator
High-Pressure Microwave Digesters	Isotopic Ratio Mass Spectrometer (IR/MS)
TOC Analyzer	
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Need more information?

http://www.unbc.ca/northern-analytical-lab-service

To arrange a tour please contact Hossien Kazeman at hossein.kazemian@unbc.ca or Phone: 250-960-5168

Other News

Do you have a favourite mountain? UNBC's **Dr. Brian Menounos** does. Check out this video to see which one it is: <u>https://www.youtube.com/watch?v=_I01nPnoWuU&list=PLkLWuDKntM8tN_HTAz0ZZDflCw3VDfz1C&index=8</u>

UNBC's **Zoë Meletis, Mark Groulx, Michelle Connolly** and *Carleen Paltzat* of the Art, Change, & Creativity research team would like to thank those who attended the welcome back talk/field trip on January 6th, at Two Rivers Gallery. Thanks also to George and Carolyn of the Gallery for being great research partners, and inviting us to co-curate CHANGE with them. Thanks to Sybil and Al for their engaging talks and Q&A. We counted a wonderful 74 attendees. Perhaps this will spark more NRESi field trip opportunities???

Canadian Society for Ecology and Evolution

The Canadian Society for Ecology and Evolution (CSEE) is a collective of scientists that conducts research on ecology and evolution. CSEE hosts an annual meeting that provides opportunities for investigators to meet, disseminate their results and participate in a variety of workshops. The society is especially helpful for graduate students, giving out student awards annually and hosting workshops and job forums for young investigators. In addition, your CSEE council represents you at NSERC to promote research on ecology and evolution in Canada.

Join/renew your membership today and be a part of a strong society of scientists in Canada! 2017 **membership** renewals : <u>http://csee-scee.ca/</u>

There are a few important deadlines that are coming up very soon (please see under `news` and `announcements` for more information on the awards and council nominations : $\frac{http://csee-scee.ca/?cat=29}{http://csee-scee.ca/?cat=29}$)

Election nominations for CSEE council: OPEN

Nominations for the Diversity and Excellence in Doctoral Research Award: February 1, 2017

CLUB NEWS

Geography Club Revival!

Calling all Geography Majors, Minors and Graduate Students! *and affiliated disciplines Where: NUSC Event Space; free pizza and pop

When: Tuesday, Jan. 31st 6-7pm

If you haven't heard yet, the UNBC Geography Club is mobilizing once again. We're having our second casual social on Tuesday, Jan. 31st, with free pizza and pop. We'll chat about the future possibilities for the club, as well as the upcoming road trip to the annual conference of the Western Division of the Canadian Association of Geographers (Bellingham, WA; March 2-4th) - an excellent forum to present your work (or work-in-progress), meet people, and share ideas.

Read the Call for Papers, Special Sessions or Posters here: <u>https://wp.wwu.edu/wdcag/call-for-papers/</u>

Direct any questions to Sinead Earley (sinead.earley@unbc.ca)

TRAVEL & CONFERENCES

Ibukun Olasanmi -a Masters student in the NRES program presented a talk titled "Evaluation of biosurfactant and biodegradation treatment on the removal of petroleum hydrocarbons from drill cuttings and oil-contaminated soils" at the 66th Canadian Chemical Engineering Conference in Quebec City, Quebec on Monday, October 17th, 2016. **Dr. Ron Thring** was co-author on this presentation. The theme of the conference was 'Sustainability and Prosperity' and this was the only representation from UNBC.

Catherine Nolin attended the Conference of Latin Americanist Geographers (CLAG) in New Orleans, LA during the first week of January. Catherine chaired the session on Mining in Latin America and presented a co-authored paper with Grahame Russell (Adjunct, Geography): "Mining in a Time of Impunity in Guatemala: Accountability and Necessary Civil / Criminal Law Reform in Canada."

TRAVEL & CONFERENCES

Nathan Einbinder (MA NRES Geography '10), now a PhD candidate at El Colegio de la Frontera Sur (Chiapas, Mexico), also attended to present findings of his newly published book based on his graduate research at UNBC (Supervisor: Catherine Nolin).

PUBLICATIONS

Rea, R.V., K.N. Child, D.A. Aitken. 2017. Seeing the forests for their hoofage and stumpage values. BC Forest Professional 24:18-19.

Mackenzie Nature Observatory. 2017. Mackenzie Nature Observatory Mugaha Marsh Bird Banding Station Annual Birding Report for 2016. <u>http://www.mackenzienatureobservatory.ca/documents/MNO 2016 Report.pdf</u>

Einbinder, Nathan (2017) Dams, displacement and development: Perceptions from Río Negro, Guatemala. Springer Briefs in Latin American Studies. <u>http://www.springer.com/us/book/9783319515106</u>

Catherine Nolin wrote the foreword for the book (*To Witness the Rage & Silence of Genocide in Río Negro and Pacux*) and **Grahame Russell** wrote the Epilogue (*There is No Means by Which to Quantify What Was Lost Here, in Río Negro*).

Ehlers, L.P.W., **Johnson, C.J.**, and Seip, D.R. 2016. Evaluating the influence of anthropogenic landscape change on wolf distribution: implications for woodland caribou. Ecosphere 7(12).

Crowley, S.M., **Johnson, C.J.**, and Hodder, D.P. 2017. Are latrine sites an accurate predictor of seasonal habitat selection by river otters (Lontra canadensis) in freshwater systems? Mammal Research 62:37-45.

Postdoctoral Opportunity

An opportunity for a postdoctoral candidate is available to work with Dr. Michele Piercey-Normore in the School of Science and the Environment at Grenfell Campus, Memorial University of Newfoundland (http://www.grenfell.mun.ca/Pages/Grenfell-Campus.aspx).

Dr. Piercey-Normore's research is focused on the symbiont interactions in lichens and the secondary metabolites (polyketides) produced by the fungal symbiont. The broad array of bioactivity of lichen polyketides includes antibacterial and antifungal properties or industrially relevant properties such as hydrophobicity and metal chelation. Discovery of suites of functional PKS genes has been made possible by recent technological advances in "omics" and the improved ability to manipulate lichen fungi and algae in culture. The successful postdoctoral candidate will work on the interaction in lichen symbionts with a focus on polyketide synthase (PKS) gene induction during early stages of the interaction. A postdoctoral candidate is sought who has experience in any one of more of these areas: culturing fungi and/or algae (especially lichen fungi and algae), molecular biology, gene manipulation, and phylogenetic techniques, and baseline knowledge of bioinformatics. The candidate should be able to work fairly independently and be willing to work alongside other researchers and students.

The position will commence as soon as a suitable candidate is available after January 30, 2017.

Please submit a cover letter, a cv, and the names of three referees who may be contacted by January 30, 2017.

For more information or to apply to this position please contact: Dr. Michele Piercey-Normore, School of Science and the Environment, Grenfell Campus, Memorial University of NL, A2H 5G4; email: mpiercey-normore@grenfell.mun.ca; phone: (709) 637-7166.

UNESCO Vacancy—Chief of Section for Small Islands and Indigenous Knowledge

Chief of Section—Natural Sciences Closing Date for Applications: **February 6, 2017** Primary Location: Paris, France Open to Internal and External Candidates

For more details visit: https://careers.unesco.org/careersection/2/jobdetail.ftl

RESEARCH FELLOWSHIP FUNDING OPPORTUNITY

<u>WCS Canada</u> is pleased to announce that with generous support from <u>The W. Garfield Weston Foundation</u>, they are able to award annual fellowships to graduate students to support field research relevant to WCS Canada's conservation objectives at their two long-term conservation sites: the boreal region of northern Ontario and the northern boreal mountains of Yukon and British Columbia.

The application deadline for the 2017 W. Garfield Weston 2015 Fellowship Program is **February 23, 2017**.

For full details about the Fellowship Program and how to apply please go to the WSC Canada Fellowship page.

Indigenous Scholar faculty position

The University of Manitoba Faculty of Agricultural and Food Sciences has an entry tenure-track faculty position for an Indigenous Scholar.

Position Start Date: July 2017

Closing Date for Applications: February 27, 2017

For details visit: <u>http://umanitoba.ca/cgi-bin/human_resources/jobs/view.pl?posting_id=91345</u>

Scholarship Opportunity

2017 Bullitt Environmental Fellowship

The Bullitt Foundation will start to accept applications for the <u>Bullitt Environmental Fellowship</u> beginning January 1st. Each year, one graduate student attending a university physically located in British Columbia, Washington State, or Oregon is selected for this prestigious award of \$100,000, distributed over two years.

Eligible candidates will have a strong academic record, a demonstrated capacity for leadership, the promise of emerging as an environmental leader, and be nominated by a university faculty member. Students of color, those who come from a disadvantaged background, or who have overcome significant hardship are highly encouraged to apply for this award. Application deadline: **April 1, 2017**.

Visit the website for more information, FAQ's, and complete application instructions.

On-line course offering*

Multivariate Analysis in Community Ecology with PC-ORD

Announcing a live online software training and multivariate analysis short course to be held daily **Monday-Friday 20-24 February** 10:00-15:00 Eastern Standard Time (UTC -5).

These short-courses provide an introduction to the multivariate analysis process for ecological datasets when using the PC-ORD software. Tools will be explained and demonstrated using sample datasets and participants will practice analyses on their own computers.

Tools include: Weighted Averaging, Polar ordination, Canonical Correspondence Analysis, Redundancy Analysis, Fuzzy Set Ordination, Principal Components Analysis, Nonmetric Multidimensional Scaling, Cluster analysis, MRPP, Per-MANOVA, Mantel Test, Fourth Corner Analysis, Indicator Species Analysis.

Skills include: Importing data, Screening data, Restructuring datasets, Exploring datasets, Preparing datasets, Selecting analysis tools, Interpreting output, Customizing graphs.

Courses are taught by Jeri Peck of Penn State University. Participants must have computers with the PC-ORD software already installed. Sample datasets will be provided in advance. More information can be found at http://silv.cas.psu.edu/pcord.htm or email peckj@psu.edu with specific questions.

The registration fee is \$425 (\$225 for students) and is only payable online by credit card. The required companion book (\$45 + shipping, <u>www.pcord.com/bookstepbystep.htm</u>) must be ordered separately no later than the registration deadline.

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Multivariate Analysis in Community Ecology with PC-ORD (con't)

Version note: this webinar will be taught using PC-ORD version 7. However, there should be no problem attending using version 6 if you have not yet upgraded. It is recommended, however, that you nonetheless upgrade to the Second Edition (2016) of the Step-by-Step companion book, as the course has been redesigned to match the newer edition of the book.

Registration Instructions

1. To reserve a place, each registrant must send an email by 1 February to <u>peckj@psu.edu</u> with the following information: name, email address, and any other information that should appear on the invoice (e.g., institutional address), type of data with which you work (i.e., plant community, fish count, water quality, etc.), and if you qualify for the student rate.

2. Wait for confirmation of registration; you will be sent an invoice for payment with your confirmation.

* if more than 10 people interested Judi could give the course on-site.

LITO AROCENA STUDENT AWARDS

In December 2015, dear colleague and founding UNBC faculty member, Dr. Lito Arocena passed away after a short battle with cancer. In honour of his memory, a UNBC memorial fund was established to support three student awards, which have recently been instituted:

- **Dr. Joselito (Lito) Arocena Memorial Scholarship** (\$1000). Available to a full time undergraduate student who has completed 90 credit hours and is pursuing a Bachelor of Science honours or majors degree in one of the following: Biology, Environmental Science, Geography, or Natural Resources Management. Criteria: Academic excellence
- **Dr. Joselito (Lito) Arocena Memorial Undergraduate Thesis Prize** (\$250). Awarded for the best thesis presented by undergraduate students completing an undergraduate major or honours degree in one of: Biology, Environmental Planning, Environmental Science, Environmental Studies, Geography, Natural Resources Management, or Nature-based Tourism Management.
- **Dr. Joselito (Lito) Arocena Memorial Graduate Prize** (\$250). The Prize will be awarded to the student nominated by the NRES Graduate Program for the UNBC Governor General's Gold Medal.

Thanks to contributions from donors and UNBC, the fund is currently large enough to endow the \$1000 scholarship in perpetuity. However additional contributions are needed to permanently endow the two prizes, and to increase the amounts awarded over time. If anyone would like to contribute to this fund, through payroll deductions or otherwise, please go to www.unbc.ca/giving or www.unbc.ca/giving/employee-giving for more information.

SUSAN STEVENSON MEMORIAL AWARD

As its first project of this kind, the Natural Resources and Environmental Studies Institute (NRESi) has established the Susan Stevenson Scholarship Fund, 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.

Efforts have succeeded in reaching the goal of \$15,000 that will be matched by UNBC to allow for an annual award. Additional contributions to the fund are welcomed. The inaugural award will be presented in the 2016-2017 academic year. NRESi would like to thank everyone who contributed to the scholarship!

The following award criteria for the **Susan Stevenson Memorial Award** have been developed: **Value:** \$1,000

Eligibility: Available to a full or part time female graduate student enrolled in either the Masters (NRES) or PhD (NRES) (con't)

SUSAN STEVENSON MEMORIAL AWARD

degree programs with a research emphasis in one or more of: wildlife ecology, plant biology, forest ecology, or innovative silvicultural systems and practices that emphasize wildlife management and biodiversity objectives.

Criteria: Satisfactory Academic Standing (3.0 GPA)

Conditions: Student is unable to receive this award more than once.

Recipient Selection: Senate Committee on Scholarships and Bursaries on recommendation of the NRESi Steering Committee. Applicants will provide a statement, not exceeding 500 words in length, explaining how their intended research fits within the areas specified for his award.

COLLOQUIUM ARCHIVE

Did you miss a colloquium or special lecture this semester? Visit NRESi's webcast archive to catch up! They can be found on the <u>NRESi Youtube channel</u>.