



# UNIVERSITY OF NORTHERN BRITISH COLUMBIA

## MEMORANDUM

**To:** Dr. Geoff Payne, Vice President Research  
Dr. Dan Ryan, Chair, Senate Committee on Academic Affairs

**From:** Dr. Darwyn Coxson

**Date:** 31 October 2017

**Re:** NRESi's 2016-2017 Annual Report and 2017-2018 Workplan

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Dear Drs. Payne and Ryan,

As per UNBC's Policy and Procedures for Centres and Research Institutes, please find attached the 2016-2017 Annual Report for the Natural Resources and Environmental Studies Institute (NRESi) covering the 2016-2017 fiscal year and NRESi's workplan of activities for 2017-2018. Both have been reviewed and discussed by its members at their 2017 Annual General Meeting.

On behalf of NRESi, I would like to thank you for your ongoing support. NRESi was focused on continuing the activities and initiatives that its members and the community have come to expect, as well as exploring and expanding possible research and project opportunities for NRESi and its members. Work has been focused on providing value to members, to UNBC, and the broader community, in a number of different ways. This will be explained in detail in the accompanying 2016-2017 Annual Report. NRESi continues to work towards the goals and objectives described in its five-year Strategic Plan, while also being flexible to new opportunities and ideas as they arise, as described in the 2017-2018 workplan of activities.

NRESi had another productive year, resulting in a positive financial report and is exploring opportunities for long-term financial planning and sustainability, the continuance of ongoing activities, as well as the addition of new projects and initiatives to further support the work of NRESi's members, UNBC, and its community partners.

Enclosures: NRESi Annual Report 2016-2017

NRESi Workplan 2017-2018

cc: NRESi Steering Committee Members



## Natural Resources & Environmental Studies Institute

### 2016-2017 Annual Report

#### Overview of NRESi

The Natural Resources & Environmental Studies Institute (NRESi) works to promote and implement integrative research to address natural resource systems and human uses of the environment, with a particular focus on northern regions and creating solutions-based approaches.

NRESi is an association of researchers from the UNBC faculty and external community that work and have interest in themes related to natural resources and the environment. This association of members have committed to learning from each other and seeing the value in collaborative initiatives that take an interdisciplinary approach. It is recognized that many, if not most themes related to this broad research area cannot be viewed or understood in isolation. Every research theme takes place in a complex world that surrounds and interacts with it, factoring into planning, management, monitoring, and policy. NRESi provides a venue and network to link together otherwise distinct research themes and topics for a broader understanding.

NRESi works towards its objectives of knowledge sharing and identification of collaborative research opportunities in a number of different ways. The most recognizable and well-known is through lectures, both in terms of its weekly colloquium series, as well as other special lectures and events that NRESi hosts. These events also provide networking opportunities between participating NRESi members and the community. In addition, through the guidance of NRESi's Steering Committee and the activities of its staff, NRESi works to support its members by identifying and pursuing possible project opportunities on behalf of its members. NRESi also has an important communications role to a range of audiences, including: within its membership, UNBC, the broader the natural resource and environment community, and the general public.

#### *Our Mission*

The focus of NRESi is to bring together members of the university and research community to promote and facilitate integrative research on natural resource and environment issues. From here, it is recognized that issues arise in northern BC and beyond that NRESi members, together with the community and partners, have the ability through expertise and experience to address and look for solutions. NRESi has an important role in helping to coordinate and be a venue for important dialogues and research projects that address natural and anthropogenic changes. NRESi can also assist in sharing research results that can be integrated into policy and management approaches and decisions.

NRESi has important role in creating linkages between researchers. This includes communication and the opportunity for interaction among UNBC and other university faculty, graduate students, and other associated researchers and research centers. It also recognizes the importance of making knowledge sharing and project participation open to the public, creating dialogues, and building linkages across a wide range of perspectives and expertise.

As a result of this integration across expertise, information can be developed in local communities to address local issues. Research findings can also be disseminated through NRESi's channels to allow for information to be shared to other areas facing similar issues or management and planning concerns. This has taken the form of presentations and extension, through NRESi's publication series and/or sharing current events and activities through the newsletter that others may find useful in their own work. NRESi continues to engage its members in discussions about how they would like NRESi to support their work, as well as the research needs of the broader community for mutual benefit that NRESi could help address.

#### *Governance*

The NRESi is overseen by a Director, selected for a 3-year term. There were two directors for the 2016-2017 fiscal year. Dr. Darwyn Coxson, serving in the 2<sup>nd</sup> year of his appointment, was on sabbatical from July 1-December 31, 2016. In his absence, Dr. Peter Jackson assumed the NRESi Director's responsibilities. In addition to a Director, NRESi is supported by a Research Manager who moves forward the day-to-day activities and needs of NRESi and its members, NRESi's initiatives, project development and communications. Alan Wiensczyk continued his role as NRESi Research Manager on a part-time basis for the 2016-2017 fiscal year.

The Director and Research Manager work closely with an internal Steering Committee. This group includes: three individuals elected to 2-year terms by the membership of the Institute, one member representing the Pacific Institute for Climate Solutions, and another representing the NRES Graduate Program. See Table 1. The intent of this group is to reflect the perspectives of NRESi's members, provide guidance to support the work and activities of NRESi, and ensure that the Institute functions in accordance with its vision statement and purpose.

**Table 1.** Steering Committee membership during 2016-2017 fiscal year.

<b>Name</b>	<b>Role</b>	<b>Term</b>
Darwyn Coxson	Director	1 July 2014 – 30 June 2018
Peter Jackson	Acting Director	1 July 2016 – 31 December 2016
Che Elkin	Elected Member	1 May 2016 – 30 April 2018
Steve Helle	Elected Member	1 July 2016 – 30 June 2018
Paul Sanborn	Elected Member	1 July 2016 – 30 June 2018
Stephen Dery	NRES Grad Program Rep	Began 1 Sept 2016 with No Fixed Term
Michelle Connolly	PICS Representative	No Fixed Term
Alan Wiensczyk	Research Manager	1 November, 2015 - 31 March 2019

During the 2013-2014 fiscal year, a framework was developed to consolidate the previous Management Committee and Advisory Committee into one group, the NRESi Advisory Panel. This new committee was presented and discussed at the 2014 Annual General Meeting and approved by the membership as an appropriate way to gather external insight and advice to NRESi's Steering Committee and membership. During the 2016/17 fiscal year the four of the five representatives plus an alternate attended the inaugural meeting of the committee held in June 2016. Efforts continue to develop a clear list of discussion points and items where advice would be valuable as NRESi moves forward. Members of the Advisory Panel will include the following individuals and representatives:

- Ex Officio members – Vice-President (Research) as Advisory Panel Chair, NRESi Director, Vice-President (External Relations), NRESi Research Manager
- Appointed members – One Steering Committee representative, five members external to the university community

**Table 2.** Appointed Advisory Committee members

<b>Name</b>	<b>Affiliation</b>
Melanie Karjala	BC Oil and Gas Commission
Shannon Carson	BC Ministry of Forests Lands and Natural Resource Operations
Trevor McConkey	SNC Lavalin
Hardy Griesbauer	College of New Caledonia
Luke Gleeson	Tsay Keh Dene Nation
Mike Tillson (alternate)	Tsay Keh Dene Nation (Chu Cho Environmental)

- Advice, support, and/or involvement from other UNBC representatives – Dean of CSAM, Dean of CASHS, Dean of Graduate Programs, Chair of NRES Graduate Committee, Directors of other Research Institutes

### *Membership*

NRESi has three types of memberships. They are: (a) Full Members for UNBC tenured faculty, (b) Associate Members for other types of UNBC faculty and researchers external to the UNBC community, and, (c) Lifetime Members who have received recognition through NRESi's Lifetime Achievement or Community Advancement awards for lifetime membership spanning beyond their active research careers. It was decided at NRESi's 2014 Annual General Meeting to adjust the existing membership process. Any new applications for Associate Members, which have 3-year terms, will have their renewal extended from their membership anniversary to the date of the NRESi's next Annual General Meeting plus three years. Existing Associate Members will have renewals reviewed prior to NRESi's Annual General Meeting and those that have expired

during the previous 12-month period will be notified and given the opportunity to renew for another 3-year term.

The below (Table 2) provides an overview of NRESi's current membership, the membership category that each belongs to, and the most recent date of renewal (if applicable). This table shows that there are currently 66 NRESi members (Table 2). Membership activity during the reporting period included the removal of 2 Associate members and the renewal of 1 Associate member. The status of two previously Full members, who have left UNBC, was changed to Associate members. Information about NRESi's members can be found on its website, such as their: research interests (<http://www.unbc.ca/nres-institute/institute-members>) and contact details (<http://www.unbc.ca/nres-institute/members>).

**Table 3:** Summary of NRESi's current membership, membership type, and the most recent membership expiry dates for Associate Members

Beckett, Douglas	Associate Member: March 2018	Maier, Patrick	Associate Member – April 2018
Burton, Philip	Full	Massicotte, Hugues	Full
Connell, David	Full	McGill, Bill	Full
Connolly, Michelle	Associate Member: November 2018	Meletis, Zoe	Full
Costello, Allan	Associate Member: March 2020	Menounos, Brian	Full
Coxson, Darwyn	Full	Mullins, Philip	Full
Curry, John	Full	Murray, Brent	Full
Dawson, Russ	Full	Nolin, Catherine	Full
Déry, Stephen	Full	Opio, Chris	Full
Egger, Keith	Full	Otter, Ken	Full
Elkin, Che	Full	Owens, Philip	Full
Erasmus, Daniel	Full	Parker, Katherine	Full
Fondahl, Gail	Full	Petticrew, Ellen	Full
Fredeen, Art	Full	Poirier, Lisa	Full
Gantner, Nikolaus	Associate Member: April 2018	Procter, Dennis	Full
Gillingham, Mike	Lifetime Member	Rea, Roy	Full
Green, Scott	Full	Rutherford, Mike	Full
Haeussler, Sybille	Associate Member: April 2019	Ryan, Dan	Full
Halseth, Greg	Full	Sanborn, Paul	Full
Hanlon, Neil	Full	Shrimpton, Mark	Full
Hartley, Ian	Full	Shultis, John	Full
Hawkins, Chris	Full	Sui, Jueyi	Full
Hawley, Alex	Lifetime Member	Summerville, Tracy	Full
Heard, Doug	Associate Member: April 2019	Tang, Youmin	Full
Helle, Steve	Full	Thielman, Aynsley	Associate Member: Oct 2019
Huber, Dezene	Full	Thring, Ron	Full
Jackson, Peter	Full	Venter, Oscar	Full
Johnson, Chris	Full	Wheate, Roger	Full
Lautensach, Alex	Full	Whitcombe, Todd	Full
Lavallee, Loraine	Full	Wilkening, Ken	Full
Lewis, Kathy	Full	Wilkerson, Orland	Full
Li, Jianbing (Jason)	Full	Wright, Pam	Full
Lindgren, Staffan	Lifetime Member	Young, Jane	Full

## Report on Activities for 2016-2017

*Background:* In 2011-2012, NRESi's Steering Committee undertook a Strategic Planning process in order to identify the longer-term requirements and a sustainable model for the resourcing of NRESi. At the same time, increased overhead contributions from the NRESi project on Biodiversity Monitoring and Assessment Program (BMAP), under the leadership of Dr. Mike Gillingham, has provided for a period of financial stability. This has allowed NRESi to hire a part-time (21 hours per week) dedicated Research Manager and work towards growth in activities and operations.

The below is a summary of NRESi's 2016-2017 initiatives, projects, and activities:

### *General Activities*

- Late in 2016, the NRESi Steering Committee decided to begin the task of reviewing and updating the NRESi Strategic Plan. The first step in the process was to develop and deliver a survey to Institute and Advisory Committee members to determine their level of satisfaction with current Institute activities and to solicit ideas for new activities/roles for the institute. The survey was sent by email in January 2017 with a feedback submission deadline date of early February. Twenty (20) Institute members and two (2) Advisory Committee members responded to the survey. There are many thoughtful responses, ideas, and feedback items for the Steering Committee to ponder as it considers the NRESi strategic direction moving forward.
- The Institute hosted 27 colloquia as part of the weekly NRESi Colloquium Series and which were organized by NRESi Research manager Al Wiensczyk. Most of the colloquium presentations have been posted to NRESi's You Tube channel ([https://www.youtube.com/channel/UC6WIRhriAQ2Yf3\\_Yu-3fy6A](https://www.youtube.com/channel/UC6WIRhriAQ2Yf3_Yu-3fy6A)) or the NRESi UNBC Video archive (<https://video.unbc.ca/channel/NRESI/>). A listing of past presentations and their abstracts can be found on NRESi's website (<http://www.unbc.ca/nres-institute/colloquium-series>).

**Table 4.** List of Colloquium Presentations including special presentations

Date	Name	Co-sponsor(s)
Sept 16, 2016	Dr. Briony Penn (U Vic)	
Sept 23, 2016	Travis Gerwing (UNBC)	
Sept 30, 2016	Dr. Francis Zwiers (U Vic – Pacific Climate Impacts Consortium)	
Oct 7, 2016	Dr. Fiona Johnston (UNBC)	
Oct 14, 2016	Ron Long (Pink Mountain)	
Oct 21, 2016	Dr. Cindy Hardy (UNBC) NRESi awards ceremony	
Oct 28, 2016	Dr. Ken Otter (UNBC)	
Nov 4, 2016	Vanessa Foord (FLNRO)	
Nov 9, 2016	Dr. Judith Kulig	Psychology/Nursing/Health Sciences
Nov 15, 2016	Dr. Werner Kurz (CFS)	Pacific Institute for Climate Solutions
Nov 18, 2016	Claire Martin (former CBC meteorologist)	Inspiring Women Among Us

Nov 25, 2016	Dr. Susan Wood-Bohm (Alberta Innovates)	Doug Little Memorial Lecture
Nov 30, 2016	Dr. Kari Stuart-Smith (Canfor) Ryan Bichon (Mackenzie Naturalists)	Peace-Fish and Wildlife Compensation Program - Mackenzie
Jan 6, 2017	Al Remple Dr. Sybille Seitzinger (PICS)	Pacific Institute for Climate Solutions
Jan 13, 2017	Dr. Mike Richards (SFU)	Department of Anthropology
Jan 20, 2017	Diana Kutzner (UNBC)	
Jan 27, 2017	Mark Thompson (DWB Consulting)	
Feb 5, 2017	Dr. Laurence Smith (UCLA)	Polar Days
Feb 10, 2017	Dr. Matt Reudink (TRU)	
Feb 24, 2017	Dr. Paul Kushner (U of T)	
Mar 1, 2017	Dr. Richard Dewey (Oceans Network Canada)	Canadian Meteorological and Oceanographic Society
Mar 2, 2017	Dr. Jim Pojar	NRESi Annual Lecture
Mar 3, 2017	Dr. Jim Pojar	
Mar 8, 2017	George Desjarlais (West Moberly First Nations) Scott McNay (Wildlife Infomatics Inc.)	Peace Fish and Wildlife Compensation Program – Fort St. John
Mar 10, 2017	Dr. Lisa Wood (UNBC)	
Mar 17, 2017	Andrew Adams (Hope Organics)	
Mar 22, 2017	Dr. Steven Cooke (Carleton U)	Peace Fish and Wildlife Compensation Program – Prince George
Mar 24, 2017	Dr. Evelyn Merrill (U of A)	UNBC Student Chapter of the Wildlife Society
Mar 31, 2017	Dr. Michelle Venter (UNBC)	

- Of the 30 colloquium that took place, many were special events and/or co-hosted with NRESi together with other groups on campus:
  - NRESi hosted the NRES Graduate Student Icebreaker event, which included a NRES grad student poster session and reception.
  - NRESi partnered with the “Inspiring Women Among Us” initiative to host a speaker in support of this year’s theme “Women, Media, and Masks”. The speaker wove into her presentation this theme that speaks to particular, and persistent gender-related challenges related to imagery and ideas originating in and / or popularized via the media around gender. It also recognizes that men and women often employ masks of sorts to better conform to gender-related expectations and norms, or to otherwise survive in society.
  - Each year, in partnership with the Peace Fish & Wildlife Compensation Program (PFWCP), NRESi organizes a special lecture during the colloquium that includes a presentation by a guest lecturer on a theme related to the PFWCP preceded by a reception/dinner to provide further networking opportunities. This year we had three events, one in Mackenzie with 2 presenters, one in Fort St John with 2 presenters, and one in Prince George (more details below).
  - Other groups partnering on NRESi colloquium presentations this past year included the Pacific Institute for Climate Solutions (PICS), the Doug Little Memorial Lecture, the UNBC fish and wildlife student chapter of The Wildlife

Society, the Canadian Meteorological and Oceanographic Society (CMOS), and the Anthropology, Psychology, Nursing and Health Sciences Departments.

- Work is continuing with UNBC's Communications Department to create a new video archive webpage for past NRESi lectures that will provide a more user-friendly interface that will be searchable by lecture topic, presenter, date, and keywords. The archive (<https://video.unbc.ca/channel/NRESI/>) has been launched and is populated with the most recent (2016/17) NRESi colloquium presentations and other special lectures. Work is ongoing to migrate the videos of previous year's presentation which are currently housed on the NRESi Youtube channel to the new archive.
- In the past, those interested in NRESi presentations and not able attend in person were able to participate via Livestream (video and slides) and Elluminate/Blackboard (slides and audio). In February 2016, an email was sent to the NRESi list subscribers to determine the level of use of the Elluminate/Collaborate system. The vast majority of respondents indicated that they preferred to use LiveStream. As a result it was decided to discontinue the Elluminate/Collaborate broadcast of the colloquium presentations effective in September 2016, due to the extra costs associated with the use of this system. However, further discussions with the course instructor for the Graduate student colloquium (701) indicated that some graduate students tuning in from remote locations preferred to have an additional option to tune in to the presentations. As a result, it was decided to provide online access to the NRESi Colloquium presentations via Blue Jeans as well as LiveStream. The provision of two methods of access will continue to be evaluated on an on-going basis. The advantage of the Blue Jeans system is that it does not require the 2 hour pre-talk set up time and 1 hour post-talk take-down time that is required with LiveStream.
- NRESi once again organized the annual Undergraduate Thesis Presentation Day for NRES and associated program students. Students completing a fourth-year thesis project are required to present their project and results. This year's event will be held on April 10<sup>th</sup>. The event was supported in partnership with the Office of Research. The presentations will be judged this year and the top student will be awarded the augural Dr. Lito Arocena Memorial Undergraduate Student thesis presentation prize.

### *Communications*

NRESi continues to provide a means of internal communication between its members, as well as providing linkages where possible with external researchers and members of the community. This takes a number of different forms:

- NRESi event announcements and updates are distributed through a managed NRESi distribution list and to UNBC college mailing lists. NRESi also has a members-only list, where communications relevant specifically to the membership can be distributed. Event announcements are also posted to UNBC's public events listings, the NRESi website and the NRESi Facebook page.

- NRESi maintains a website, to provide information to the public about NRESi and its members, as well as an information platform for the public. The process to update NRESi's website began this year, by revising text to reflect the work and focus of NRESi. This work will continue in the 2016-2017 fiscal year, by adding website features, making revisions, and refining its structure to make it more user-friendly and visually appealing.
- In previous years, all NRESi lectures are recorded and posted to the NRESi Youtube channel ([https://www.youtube.com/channel/UC6WIRhriAQ2Yf3\\_Yu-3fy6A](https://www.youtube.com/channel/UC6WIRhriAQ2Yf3_Yu-3fy6A)). This year the University Communications department has created a UNBC video archive with an NRESi channel (<https://video.unbc.ca/channel/NRESI/>). All 2016-17 presentations have been uploaded to this new video archive. Work is continuing to migrate the presentations from the NRESi Youtube channel to the new archive.
- NRESi has created two social media accounts to share information and updates. They are: (a) Twitter ([https://twitter.com/UNBC\\_NRESi](https://twitter.com/UNBC_NRESi)) and (b) Facebook (<https://www.facebook.com/unbcnresi?ref=hl>).
- NRESi's weekly newsletter continued in 2016-2017, being posted to NRESi's broad network distribution list every second Friday. Each edition includes: 'NRESi Notes' which provides updates or special announcements for members and the community, event announcements and information, recent NRESi member publications, sharing of travel or conferences details attended by members, links to NRESi members in the media and other UNBC media releases of relevance to the NRESi audience, NRES graduate student defense details and events of interest, as well as other UNBC or community events and news items of interest to the network. NRESi members are invited to contribute information, announcements, and news, as well as stories and photos that might be of interest to others in the NRESi community.

### *Research*

The NRESi links a community of researchers, with varied backgrounds and research interests, empowering them to pursue their disciplinary research in an interdisciplinary context. Consequently, many of the research initiatives undertaken by Institute members are collaborative efforts with other Institute members. Individual members of the Institute have strong disciplinary expertise in the natural, physical, environmental and social sciences; NRESi works to capitalize on this, by providing project and networking opportunities for knowledge sharing and finding new linkages. Work began, through scoping NRESi members and exploring opportunities, for building new NRESi projects that further connects multiple researchers and their interests. This will be expanded and a focus of activities for the 2017-2018 fiscal year, as well as identifying possible funders and project partners.

In 2015-16, several NRESi members partnered on a project proposal submission to the Peace-Williston Fish and Wildlife Compensation Program to study and assess the nutrient dynamics and complex web of interactions between Kokanee, stream-living macro-invertebrates (Aquatic insects), and the surrounding riparian zone (lichen communities) as a result of the introduction of Kokanee into the Williston Reservoir. The first year of this project was funded and successfully delivered in 2016-17. Conditional approval has been received for the 2nd year of this 3-year project. This project blends social and natural sciences and involves working with

three First Nations partners (Tsay Key Dene First Nation, Kwadacha First Nation, and McLeod Lake Indian Band). The project funding will additionally help with cost recovery of core salary expenditures by NRESi.

### *Cumulative Effects*

The NRESi continued to participate in the tri-institute partnership-created Cumulative Impacts Research Consortium (CIRC) which was established in 2015 as a platform for research and community dialogue on the cumulative impacts of resource development. The CIRC is a formal expression of collaboration between UNBC's three research institutes: The Community Development Institute (CDI), the Health Research Institute (HRI) and the Natural Resources and Environmental Studies Institute. There are three main objectives of the CIRC:

1. Foster integrative understandings of the increasingly intense challenge of cumulative impacts;
2. To conduct research in support of policy options for community development that local, regional, and provincial authorities can consider and potentially adopt; and,
3. To provide a platform for community engagement and dissemination of knowledge that will assist in understanding issues and options.

Over the last year, the UNBC CIRC initiative has continued to expand our capacity for research and community engagement in order to better understand and respond to the cumulative community, health, and environmental impacts of resource development in northern BC. As we move forward, CIRC will continue to build on past successes by continuing to reach out to communities in northern BC, responding to knowledge and capacity gaps with original research, building collaborations across campus, and enhancing our capacity to act as a regional hub of cumulative impacts information and resources. Key highlights from 2016 include:

1. Travelling to various communities in northern BC to convene community workshops around the topic of cumulative impacts, including events in Vanderhoof, Prince George, Fort Nelson and Fort St. John (<http://www.unbc.ca/cumulative-impacts/events>).
2. Sharing information with the public on the importance of cumulative impacts in order to collaboratively generate positive steps for future action, including giving over 19 public presentations and guest lectures amongst diverse audiences.
3. Developing a suite of research projects in response to concerns and issues voiced by communities in northern BC with funding from PICS, the tri-council agencies (SSHRC, NSERC, CIHR), the Michael Smith Foundation for Health Research, and the Real Estate Foundation of BC (<http://www.unbc.ca/cumulative-impacts/research>).
4. Expanding by hiring an additional employee, multiple student research assistants and research trainees (<http://www.unbc.ca/cumulative-impacts/how-can-students-get-involved>).

### *Peace Fish and Wildlife Compensation Program Lectures*

For the past number of years, NRESi has partnered with the Peace Fish and Wildlife Compensation Program to put on a lecture that has themes related to the natural resources around the Peace region and Williston Reservoir. Five presentations were delivered this year, one in Prince George, and two each in two other communities in the Northeastern region of the Province. Dr. Kari Stuart-Smith (Canadian Forest Products Ltd) presented information on forest management efforts developed by several forest companies in the interior of BC related to the Migratory Bird Convention Act and Ryan Bichon (Mackenzie Nature Observatory) spoke about the on-going work at the Mugaha Bird Banding station to an audience of 35 at the Mackenzie Recreation Centre on November 30, 2016. On March 8, 2017, George Desjarlais (West Moberly First Nations) spoke about the decline in ungulate populations in the west arm of the Williston Reservoir as observed by Elders from the West Moberly First Nations and Scott McNay (Wildlife Infometrics Inc.) spoke about the research that he and his associates have undertaken on the status of caribou in the area around the reservoir. Approximately 20 people attended the talk at the LIDO theatre in Fort St John. The final speaker in the PW-FWCP sponsored lectures was Dr. Steven Cooke from Carlton University in Ottawa, Ontario. Dr. Cooke spoke on March 22, 2017 about monitoring and research involving freshwater fish to an audience of over 40 at the Prince George, UNBC campus.

### *NRESi Awards*

In past years, NRESi has recognized members who have made valuable research contributions over their career with the Distinguished Fellow award.

1. Distinguished Scholar - a NRESi member who has achieved any or a combination of the described criteria over the past 12 months (it is possible to receive this award more than once over a career).
2. Lifetime Achievement – a NRESi member who has achieved a combination criteria over the course of their career (both as NRESi members and, if appropriate, in previous positions/activities) and recipients are given a lifetime membership to NRESi.
3. Community Advancement Award – an individual or organization from the broader community who has demonstrated achievement of any or a combination of the described criteria through their research and/or service and recipients or an identified representative from the recipient organization is given a lifetime membership to NRESi

Further information, nomination guidelines, and criteria can be found on NRESi's website (<http://www.unbc.ca/nres-institute/special-events-activities>).

This year, NRESi presented one award to a deserving researcher in the NRESi community. The Community Advancement Award was awarded to Dr. Darwyn Coxson for his work on the Ancient Forest Provincial Park initiative.

### *Scholarship Funds*

NRESi members continue to support two scholarship funds, respectively in memory of the contributions by the late Susan Stevenson and Lito Arocena. The 2016-17 recipient for the Susan Stevenson scholarship was Ms. Laura Grant, who is conducting research on mountain caribou in the Telkwa range of northern British Columbia. The 2016-17 recipient of the Dr. Joselito Arocena Memorial Scholarship was Joel Lavigueur. Recipients of the Dr. Joselito Arocena Memorial Undergraduate Thesis Prize and the Dr. Joselito (Lito) Arocena Memorial Graduate Prize for 2016-17 are still yet to be determined.

### *Publication Series*

Dr. Art Fredeen has been the Editor for the NRESi publications series since their inception. In the past, NRESi had two publication series that NRESi members and NRES graduate students could contribute to:

1. **NRESi Occasional Papers** are peer-reviewed publications of papers and symposia sponsored or produced by members of the Institute. They provide an outlet for position, idea, concept, and opinion oriented papers.
2. **NRESi Research Extension Notes** are peer-reviewed publications of the research findings of NRESi members and of graduate students in the NRES Graduate Program. This series is intended to provide an outlet through which Institute members can make their research findings available to a non-technical audience.

In 2014-2015, it was identified that there are times where reports are not broadly available, but have useful information and results. To provide a venue for to make this data accessible, NRESi created the Technical Report Series:

3. **NRESi Technical Reports** are comprehensive, but not peer-reviewed final reports of research projects. They contain results relevant to the region and the broader research community. This publication series creates an opportunity for NRESi members to make their research project results that would otherwise not be published or available either in part or in whole.

More information about the awards and the guidelines are found on NRESi's website (<http://www.unbc.ca/nres-institute/publication-series>). In addition, NRESi worked with UNBC's library to make the articles available to a wider network, by posting all publications to UNBC's online databases. Past and future reports will now available and more readily searchable.

No new publications were submitted this year.

Each year, NRESi also presents an award for a Research Extension Note written by a NRES graduate student. In 2016-17 this award was presented to Dr. Stefanie LaZerte for her extension note published in 2015.

## Budget Report

Revenues for the 2016-2017 fiscal year were derived from redirection of overhead from NRESi members, and from cost recovery of research manager salary from project grants, including Peace Fish and Wildlife Compensation Fund projects.

NRESi provided financial contributions to a number of events and activities throughout the year that it organized or help to organize:

- Annual Lecture, NRESi member and special invitation dinner and poster session, travel for a special lecturer, reception, and compensation for webcasting
- Undergraduate thesis presentation day and refreshment costs
- Graduate Icebreaker presentation, poster session, and travel for a special lecturer
- Special guest lecture presentations
- Colloquium series – assistance for travel for a presenter who participated in NRESi's colloquium series, advertising costs, compensation for allowing Livestreaming and Blackboard Collaborate

**Table 5.** NRESi operating budget: Summary for FY 2016-2017 and Projected Expenses for FY 2017/2018.

Fiscal Year		2016-2017 (estimated to FY end)	2017-2018 (estimated)
Opening Fund Balance:		\$302,667	\$274,674
Expenses:	Labour	\$49,842	\$51,000
	Course buyout	\$5,160	\$7400
	Meeting/Event	\$1,273	\$1,500
	Office	\$493	\$500
	Student grant	\$500	\$500
	Transfer to endowment (Stevenson)	\$500	\$500
	total:	\$57,768	\$61,400
Revenues:	Research grant overhead from members	\$15,569	\$18,000
	Salary recovery from Projects	\$14,149	\$16,000
	total:	\$29,748	\$34,000
Closing Fund Balance:		\$274,674	\$247,274
Fiscal Year change:		-\$28,020	-27,400

Our 2016/2017 year-end operating fund closing balance was \$274,674. The financial situation for NRESi has improved over last year. Operating fund expenditures in 2016-17 exceeded revenues by only \$28,020 (Table 5), while overall funds at year end were \$621,310, down \$7,324 from the previous year-end (Table 9). Proposed expenditures for 2017/2018 will be very similar, again drawing down the operating fund reserve by ca. \$27,000.

Revenue for the institute derives mainly from the reallocation of research overhead by members, which totaled \$15,569 in 2016/2017, up from \$9,835 in 2015/2016. NRESi continues to work towards new funding opportunities, such as our participation in the Fish and Wildlife Compensation Program projects, to reduce the drawdown of our operating fund.

NRESi has three endowment funds: (a) NRESi Endowment, (b) Northwood Endowment, and, (c) Linnea Fund. The largest endowment fund is the NRESi endowment. A one-time contribution of \$200,000 from BMAP overhead income in 2016 will enable use of the NRESi endowment fund as a source of future support for NRESi activities. Given the substantial funds held in the NRESi operating account in 2016/2017, no contribution was taken from the NRESi endowment fund in the past year, allowing this fund to grow for future use (Table 6).

Our second largest endowment fund is the Northwood endowment, which is used to fund the NRESi Annual Lecture series and other special events consistent with the original intent of the endowment. In years when the return on the endowment has been low (or even negative), NRESi's operating budget has been used to fund such activities in order to maintain an adequate balance in the endowment. This year, the Northwood endowment earned \$9,349 in interest (Table 7).

The Linnea fund is presently inactive, as most of its assets was transferred to the Susan Stevenson scholarship in 2016, upon direction from members at the general meeting.

It should be noted that the Linnaea Fund permits the spending of the principle to fund activities, while the Northwood and NRESi Endowments funds are traditional endowments, in which only a portion of the earnings can be used.

**Table 6.** NRESi Endowment (46055): year-end budget statement for FY 2016-2017.

Opening Balance (April 2016)	\$209,406
Revenue: Interest	\$14,160
Donation	\$250
Total Revenues (FY 15-16)	\$14,410
Total Expenditures (overhead)	\$916
Year End Balance (March 2015)	\$222,900

**Table 7.** Northwood/Canfor endowment: year-end budget statement for FY 2016-2017.

Opening Balance (April 2016)	\$116,185
Revenue: Interest	\$9,349
Total Revenues (FY 16-17)	\$ 9,349
Expenditure:	\$2,147
Total Expenditures	\$2,147
Year End Balance (March 2017)	\$123,387

**Table 8.** Linnaea Fund (34164): year-end budget statement for FY 2016-2017.

Opening Balance (April 2015)	\$350
Revenue: Interest	\$3
Total Revenues (FY 15-16)	\$3
Expenditure (overhead)	\$3
Total Expenditures	\$3
Year End Balance (March 2016)	\$ 350

**Table 9.** Summary of NRESi Fund totals and change during FY 2015-2016.

NRESi Funds	2015-2016 FY End	Change during FY
Operating	\$274,674	-\$28,020
Northwood	\$123,387	\$7,202
NRESi Fund	\$222,900	\$13,494
Linnaea Fund	\$350	\$0
Total:	\$621,311	-\$ 7,324



## Natural Resources & Environmental Studies Institute

### 2017-2018 Workplan

This workplan describes how NRESi's 2016-2017 activities will build on the momentum of the previous fiscal year and further the objectives of NRESi through engagement, identification of new project opportunities, funders and partners, as well as providing networking across members and the community. Further to this, it will also describe how NRESi will work with other research institutes and organizations at UNBC and its partners on some key initiatives.

The focus of activities for the new year are described under five broad headings, which includes a purpose, description, and desired outcomes for each. A proposed 2016-2017 budget can be found at the end of this report, outlining anticipated expenditures for the coming year.

### Project Descriptions

#### A. Partnerships & Project Development

**Purpose:** To develop partnerships and project opportunities to support the research goals of NRESi members and address the issues of UNBC's community through solutions-based approaches and projects.

#### *Description of Activities:*

NRESi will continue working to identify project and funding opportunities on behalf of its members and NRESi more broadly, working together with the Development Office and the Office of Research. Planned area of investigation in 2017/2018 include working to explore further opportunities for research collaboration with the B.C. Hydro Fish and Wildlife Compensation Program.

Information and suggestions collected from NRESi members through the membership survey will assist in developing additional project themes. Opportunities to engage with the other UNBC research institutes, in addition to the cumulative impacts work currently underway, will be considered.

### B. Service to NRESi Members and UNBC

Purpose: To maintain service delivery and networking between NRESi members and other UNBC departments for knowledge sharing, celebrating successes, building on each other's strengths, and reducing duplication of efforts where possible.

#### *Description of Activities:*

NRESi will continue to celebrate the achievements of its members and those in the natural resources research community. This will continue to be achieved in a number of ways. One example is providing NRESi's weekly newsletter as a venue for sharing new publications, awards NRESi members have received, conference presentations and other announcements.

NRESi also has its awards program that is presented each fall. The awards include: (a) Lifetime Achievement for career accomplishments, (b) Distinguished Scholar for project related accomplishments, and, (c) Community Advancement for individuals and organizations outside of NRESi's membership, but part of its network and making valuable contributions to natural resource research.

NRESi will continue to build opportunities for supporting its members' research and expertise. This includes investigating how to best make the expertise of NRESi members readily available to other members, potential partners and the broader community. It could also mean further accessibility of NRESi member data and information, such as continuing to explore tools for data sharing.

### C. NRESi Special Projects & Events

Purpose: To engage NRESi members, UNBC, and the broader community in events and activities on relevant topics of interest, providing the opportunity for sharing knowledge and a forum for discussion.

#### *Description of Activities:*

One of the main roles and functions of NRESi is to create opportunities for sharing knowledge, as well as networking across its membership and the broader research and natural resource community. A number of NRESi venues exist for this, including the weekly colloquium lecture series, the NRES Graduate Student Icebreaker, Annual Lecture and poster session, as well as others events and activities that include NRESi members and NRES graduate students. It also actively works to identify opportunities for relevant topics of discussion and projects that NRESi members can engage in, to feed their expertise into dialogues where experience and knowledge are valuable contributions. NRESi will continue to identify areas where it can support knowledge sharing, organize events for dialogue and discussion, and provide promotion within its membership and broader network of activities to create an ongoing culture of learning from each other.

NRESi received conditional approval of its proposal to extend its ongoing relationship with the Peace Fish and Wildlife Compensation Program for a lecture series in 2017-2018. This year

NRESi will be organizing three lectures, one in Prince George during the usual spring timeslot, plus two additional presentations in the fall and winter in a northeastern BC community.

NRESi received conditional approval for year two of a three-year proposal to the Peace Fish and Wildlife Compensation Program for the second year of a research project to study and assess the nutrient dynamics and complex web of interactions between Kokanee, stream-living macro-invertebrates (Aquatic insects), and the surrounding riparian zone (lichen communities) as a result of the introduction of Kokanee into the Williston Reservoir. First year results included identification of sample streams as well as preliminary field sampling. The second year of this project will involve continued field assessments of Kokanee, aquatic invertebrates, and riparian lichens in identified streams.

#### D. Communications

**Purpose:** To facilitate communication within the membership, to UNBC and external stakeholders, governments, communities, and other partners.

##### *Description of Activities:*

NRESi uses a number of different venues to share information across its network. This includes external communications efforts, such as through the bi-weekly newsletter, social media feeds, posters in UNBC hallways about upcoming events, as well as through email announcements. NRESi also works to provide information about opportunities to its membership list and engaging researchers where possible to do so.

NRESi is in the process of updating its website; the content itself has been revised, with further plans for this year to streamline its structure and make it more user-friendly. In cooperation with the UNBC Communications and IT departments, NRESi is also creating a new video archive website for its past colloquium presentations and special lectures. This new site will have a search function where videos can be queried based on topic, keywords (in the title, abstract), date and presenter. Further to this, videos will also be uploaded to YouTube to make them easier to be searched through broad web-searches. NRESi will be continuing to post information about upcoming events to UNBC's Events webpage, to create broader distribution of activities.

##### *Desired Outcomes:*

- NRESi's weekly newsletter and current social media sites, and other communications tools used to provide a venue to share information to wide audiences and allow for networking within the research, natural resource, and environmental studies community, as well as an opportunity to create a dialogue where possible on current issues, activities and opportunities that could be built upon
- Improvements to NRESi's web presence by making updates to allow information to be streamlined, found easier and in a more interactive fashion