

# Homecoming 2015.

## Dr. Norman Halden

Last year's Homecoming talks on water struck a chord. The talks, examining the industrialization of water, water quality, and how water flows on a flat landscape attracted a wide audience many of whom were new to our Faculty, so we have decided to continue this year with thematic presentations on mining. Some of the talks and ideas that have been suggested around this theme include reflecting on the demands modern society puts on the Earth's resources in the area of critical and strategic metals. Mining in the north: is it feasible? Or how can equitable benefits accrue from mining. There is much discussion of course about the "*knowledge economy*", but the emphasis here needs to be on knowledge. To do anything well with due attention paid to the benefits as well as the impacts of activities, including mining, we need knowledge about how the Earth works. Many of our current students are involved in projects connected with

mining spanning mineralogy, environmental assessment, and exploration and many of our alumni are employed in the mining and environmental industries. We continue to develop partnerships with institutions such as the University College of the North to broaden access to our facilities and expertise resulting in more highly qualified Manitobans to develop our resources and economy while at the same time ensuring our social, cultural, and environmental wellness. As we look to a future that is often directed to the north, and also beyond to the Arctic, it is appropriate we explore these topics and prepare ourselves for what is to come with changing climate, access, and opportunity.

We hope that you will consider joining us on October 2<sup>nd</sup> for our interdisciplinary Homecoming Panel to continue these interesting and vital discussions.



Pictured, a Riddell student examining a continuous boring miner at PotashCorp's Rocanville mine approximate depth near 1 kilometer.  
Photo Credit: Jeff Young.



# Homecoming 2015.

## Speaker Panel: *Mining for the Future: The link between Environment, Earth, and Resources*

Alumni are invited to join us for a speaker panel: *Mining for the Future: The link between Environment, Earth, and Resources*. Reconnect with friends, classmates, and faculty from Environment and Geography, Geological Sciences, and the Natural Resources Institute.

Date: Friday, October 2<sup>nd</sup>  
Location: Klaus Hochheim Theatre (5th floor, Wallace Building)  
Time: 2:00 p.m.

Visit [www.umanitoba.ca/environment/alumni](http://www.umanitoba.ca/environment/alumni) for details.

## GEOLOGICAL SCIENCES - Welcome Back! Department of Geological Sciences

Date: Friday, October 2<sup>nd</sup>  
Time: 3:30 p.m.  
Location: Reception in the Geological Sciences Staff Lounge, 343 Wallace Building

RSVP to Steven Brown 204 474-9677 or [steven.brown@umanitoba.ca](mailto:steven.brown@umanitoba.ca)



Pictured left, an active face on the 33 level, Red Lake Mines, Goldcorp. Drilling was stopped so that students could examine the face and discuss the drilling technique. The image also shows the ground support (i.e., rock bolts and screening) necessary to support the walls and back (ceiling) of the drift (tunnel). Photo Credit: Jeff Young.

# UCN Transfer Students.

Two recent graduates **Michel Leclaire** (B. Env. Sc. (Hons.) May 2013) and **Nick Kosmenko** (B. Env. Sc. (Hons.) May 2013) were the first students to have completed their degrees as part of a University College of the North (UCN) transfer agreement with the Riddell Faculty and the University of Manitoba. This initiative is open to graduates of the two Year Natural Resource Management Technology Diploma from University College of the North who may apply for admission into the Bachelor of Environmental Science program in the Clayton H. Riddell Faculty of Environment, Earth, and Resources. Successful applicants will be granted 60 credit hours of transfer credit on admission towards the completion of the 120 credit hour Bachelor of Environmental Science degree.

Michel completed his NRMT diploma in 2010 focusing on water resources and fisheries conservation. Once at the University of Manitoba, he took part in three different research projects with Fisheries and Oceans. All three projects took him to northern Canada where he worked on population assessments of northern salmonids. These projects not only gave Michel a better understanding of the unique challenges of northern fieldwork, but also showed him the full range of ecosystem complexities that surround environmental research. He is currently working on his Master of Science in Environment and Geography once again with Fisheries and Oceans at the University of Manitoba in which he is examining the cisco species complex to determine the subtle differences of these species found in Great Bear Lake.

Having completed his NRMT diploma, Nick Kosmenko worked for three summers as a resource officer for Manitoba Conservation in Snow Lake, Thompson, and Flin Flon. He subsequently took a position as a wildlife assistant once again for Manitoba Conservation in Dauphin and then worked for Tolko



Pictured: Nick Kosmenko, Photo credit Nick Kosmenko.

Industries in The Pas as a forest surveyor. While at the University of Manitoba, Nick was also a Bison athlete in the University's cross country and track and field teams. Upon graduation, he enrolled in the Environmental Science M.Sc. program at the University of Windsor. Nick's research focuses on the ecological, morphometric, physiological, and behavioural traits of fish and their rates of respiration and consumption. This will form the basis of a predictive model to estimate potential trophic impact of introduced species.



Pictured: Michel Leclaire. Photo credit Michel Leclaire.



# Convocation.

## 2014 Convocation Ceremonies

Each year the University of Manitoba and the Riddell Faculty recognize student excellence. In May the Riddell Faculty hosts a reception to celebrate the accomplishments of our graduands for the year. In this way we celebrate not only the students' accomplishments, but also the valuable role of friends and family in supporting students to achieve and excel. The following students received such recognition over the past year:

### University of Manitoba Distinguished Dissertation Award

Camille Partin (Ph.D. in Geological Sciences) for "*On the evolution of atmosphere-ocean oxygenation and plate tectonic process as recorded in Paleoproterozoic sedimentary basins*"

### Riddell Faculty Gold Medal

Trevor Wideman (B.A. in Geography (Honours)) \*October 2013 graduate.

### Riddell Faculty Program Medals

Honours Program - Jemma Harrison B. Sc. in Geological Sciences (Geology Honours)  
Major or Advanced Program - Emily Czaplinski B. Env. Sc. (Major)  
General Program - Teagan Markin B. Env. St. (General)

### Riddell Faculty Thesis Prizes

Ph. D.

Carlos Idrobo (Ph.D. in Natural Resources & Environmental Management) for "*Ponta Negra Ethnoecology of Practice: Intergenerational Knowledge Continuity in the Atlantic Forest Coast of Brazil*" and

Camille Partin (Ph.D. in Geological Sciences) for "*On the evolution of atmosphere-ocean oxygenation and plate tectonic process as recorded in Paleoproterozoic sedimentary basins*"

Masters

Sarah Beattie (M. Sc. in Environment & Geography): for "*Mercury dynamics within natural and experimental sea ice*" and

Karley Campbell (Ph.D. in Geography candidate): for her Masters thesis: "*Analysis of sea ice microalgae biomass variability using transmitted irradiance*" \*(2013 prize not previously printed)

Undergraduate

Timothy Hayward (B.Sc. Geological Sciences (Geophysics Hons.)) for his thesis: "*Sensitivities of Electromagnetic Geophysical Responses in Anisotropic Media and Applications to a Magnetotelluric Survey near Churchill, Manitoba*"

## Riddell Faculty Teaching Awards

Award of Excellence for Undergraduate Teaching, Dr. John Hanesiak. Pictured right with Dean, Dr. Norman Halden.  
Graduate Student Teaching Award, Dr. Erin McCance. Pictured left with Dean, Dr. Norman Halden.



## V.E. Barber Memorial Fellowships in Arctic Research Award

Jack Landy (Ph.D. in Geography candidate) for his ongoing research on understanding the range of topographic scales associated with the temporal evolution of snow-covered sea ice in the Arctic.

## Riddell Faculty Entrance Scholarships

One Riddell Faculty aboriginal direct entry admission scholarship was awarded in 2014 to a student admitted directly from high school to pursue studies. The recipient was:

Ryan Desjarlais

Five Riddell Faculty direct entry admission scholarships were awarded in 2014 to students who are admitted directly from high school and pursue studies. The recipients were:

Dylan Delaroque  
Sonya Michaleski

David Legris  
Kylie Nielsen

Rachel McPhee

Five Riddell Faculty undergraduate admission scholarships were awarded in 2014. The recipients were:

James Bergal  
Rebecca Kingdon

Siobhan Boughen  
Daniel Shaw

Kera MacKinnon

Thirteen Riddell Faculty graduate entrance scholarships were awarded in 2014. The recipients were:

Samuel Bansah  
Ankar Sheng  
Anne Maclean  
Luis Chaves Barquero  
Christine Quiring

Md. Haque  
Brett Andronak  
Emily Ryall  
Jill Bueddlefeld

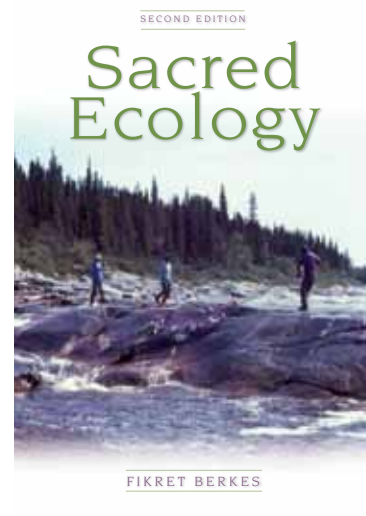
Jemma Harrison  
Chelsea Enslow  
Md. Sawayib Sikder  
Krista Kenyon





# Awards and Honours.

**Dr. Fikret Berkes** (Canada Research Chair in Community-Based Resource Management, Distinguished Professor, Natural Resources Institute (NRI)) is the recipient of the 2014 Sustainability Science Award from the Ecological Society of America for his book *"Sacred Ecology"* (Routledge, 2012). (cover image right.) *"The award is given to authors of a scholarly work that makes the greatest contribution to the emerging science of ecosystem and regional sustainability through the integration of ecological and social issues"*. In this book, Dr. Berkes *"explores the importance of local and Indigenous knowledge as a complement to scientific ecology and its cultural and political significance for Indigenous groups"*. Currently in its second edition, *"Sacred Ecology"* was originally published in 2008.



**Dr. Genevieve Ali** (Junior Chair in Watershed Systems Research, Department of Geological Sciences and the Centre for Earth Observation Science (CEOS)) is the recipient of the 2014 Canadian Geophysical Union

(CGU) Young Scientist Award. This award recognizes outstanding research contributions from Canadian geoscientists within 10 years of obtaining their Ph.D. The award was presented at the CGU/CSSS (Canadian Society of Soil Science) annual meeting in Banff, Alberta on May 6<sup>th</sup>, 2014. While delivering the citation, Jeff McDonnell (Professor of Hydrology and Associate Director of the Global Institute for Water Security) noted: *"Genevieve is already a leader in the field—promoting a new science of connectivity and leading many initiatives in Manitoba and internationally. I see Genevieve developing further as a leader in Canada in the coming years. We need more role models like her, particularly for young women entering our science."*

Pictured left (from left to right): Dr. Brian Branfireun (CGU President) Dr. Genevieve Ali, and Dr. Jeff McDonnell; Photo Credit: CGU.



**Dr. Vaclav Smil**, Distinguished Professor Emeritus, Department of Environment and Geography, (Pictured right. Photo Credit: Andreas Laszlo Konrath.) received the Organization of the Petroleum Exporting Countries (OPEC) Award for Research in recognition of his work on global oil and energy problems.



# The Wildlife Society's Annual Conference.

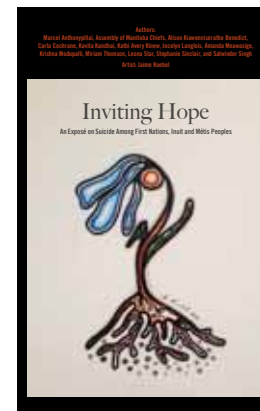
The 22<sup>nd</sup> Annual Conference of The Wildlife Society (TWS) will be held in Winnipeg, Manitoba on October 17-22, 2015, at the Winnipeg Convention Centre. The Manitoba Chapter of TWS will be in charge of arrangements and the Canadian Section of TWS will assume responsibility for the program.

The Annual Conference generally has about 1500 registered attendees. Extensive opportunities are available for networking and for mentoring students and young professionals.

For further information, contact Arrangements Committee Co-Chairs, Merlin Shoesmith ([109mejo@mymts.net](mailto:109mejo@mymts.net)) or Don Sexton ([sextonda@mymts.net](mailto:sextonda@mymts.net)).

# Aboriginal Issue Press.

Aboriginal Issues Press publishes refereed books dealing with aboriginal topics. Profits from the sale of these books are used to support the Aboriginal Issues Press scholarship at the University of Manitoba. Recent publications include the following:



## Inviting Hope: An Exposé on Suicide Among First Nations, Inuit and Métis Peoples

Creates awareness, develops allies and inspires change, to better the social, health, and political conditions impacting Aboriginal Peoples. It is essential for allies to stand with Aboriginal Peoples in the face of social injustice to assist in making change for a more equitable and just Canada. *Inviting Hope*...provides valuable insights on the role social injustices and systemic discrimination have in producing inequitable health conditions, which lead to suicide among Aboriginal Peoples nation-wide. To prevent this, contextual understanding of concepts of suicide, systemic discrimination, and oppression are integral to the treatment and health promotion of Canadian Aboriginal Peoples.



## Written in Mitten

Mittens keep your hands roasty toasty warm in the winter. What people are not aware of are the many aspects that are embedded within its linings.

*Written in Mitten* provides personal examples of how the cultural, spiritual, structural, social, emotional, historical, and environmental values of the designer are stitched into mittens. From one pattern, no two pairs of mitts look alike - they each have their own story to tell!

To order books from the Aboriginal Issues Press, please visit us at:  
<http://umanitoba.ca/faculties/environment/aip/books.html>

# Learning about the Arctic...IN THE ARCTIC.

In 2015, the Arctic Science Partnership (ASP) (a collaboration between the University of Manitoba, Aarhus University and Greenland Institute of Natural Resources) began a series of 6 field schools in Nuuk Greenland as part of a new education initiative. This initiative was led by the three education leads – Drs. Lise Lotte Sørensen (Aarhus University), Dorte Søgaard (Greenland Institute of Natural Resources) and **John Iacozza** (University of Manitoba). The goal is to offer these field schools every year in Greenland, allowing students to learn about the Arctic in the Arctic.

During Reading Week (February 13-20) this year, 21 national and international graduate students, including students from the University of Manitoba, Aarhus University and other institutions converged onto Nuuk to learn about various aspects of snow covered sea ice. These students were from various disciplines, including glaciology, biology, physics, and modelling. The multidisciplinary nature of the students not only enhanced the academic learning, but also led to interactions with students that might not be available through traditional conferences or workshops. The goal of this course was two-fold: the first and most obvious one was to provide students with a multi-disciplinary scientific understanding of snow covered sea ice, with the second to provide an opportunity to physically explore the Arctic marine system. Dr. John Iacozza and Dr. Lars-Chresten Lund-Hansen (Aarhus University) led the lectures which focused on the geophysics of snow and sea ice, optical properties of sea ice, and the biological habitat relationships. Ms. Ann Eileen Lennert (a Ph.D. student in Greenland) gave a lecture that provided students some insight into the social aspects of this feature on the past and present societies in Greenland. A critical component of the field school was hands-on experiential learning, with students actually going onto the sea ice around Nuuk and sampling both snow and sea ice. ***This was the first time a number of students had actually been on sea ice and provided them a unique opportunity to get their hands dirty...or wet and cold in this case!*** This part of the course was led by Dr. Nicolas-Xavier Geilfus (Aarhus University) and Dr. Dorte Søgaard.

It was not all work however. The Greenland Institute of Natural Resources hosted a reception for the students and mentors. This reception allowed students to interact with researchers at the Institute, as well as trying local foods including muktuk (skin and blubber of a whale),

seal, and dried cod. In addition to the social aspect of the reception, a presentation on local Greenlandic foods was provided by Ms. Natuk Lund Olsen, a Ph.D. student. This presentation provided students with some background on the importance of local foods to Greenlandic people, as well as the spatial differences in what is considered '**local**' food.

This field school could not have happened without the logistic and financial support from the Greenland Institute of Natural Resources, Clayton H. Riddell Faculty of Environment, Earth, and Resources, Department of Environment and Geography and ASP.

Overall, based on the reaction and evaluation by students, we can say that the first field school in Nuuk was a huge success, almost as large as the Greenland ice sheet itself! We provided students with some scientific and experiential understanding of snow-covered sea ice, while fostering and promoting long-term collaborations between future Arctic researchers! We hope that these collaborations will enhance not only the student experience but also provide new insights into the issues that are currently and will face the Arctic region in the future.

For more information on these field schools, as well as future courses, please go to the ASP website ([asp-net.org](http://asp-net.org)).

Pictured, An example of experiential learning. A student in the field school coring the sea ice, while other students record basic measurements of the sea ice. Photo Credit: Nix-Xavier Geilfus.

