

# Homecoming 2016.

## Dr. Norman Halden

Manitoba is a province of diverse spaces and places with its resources, people, and environments variably distributed. The significantly more populated South draws resources yet people are often unaware of where those resources really come from and who lives nearby. Whether water from Shoal Lake, or nickel from Thompson, or crops from the Parkland region, Manitoba has a transportation network primarily designed to facilitate the movement of these materials east, west, and south. Given climate change, we see significant changes especially in the North and the Arctic that create challenges and also opportunities. For Churchill, its role as a port, as a unique tourism site, and as a hub for research activities has developed upon the settlement's foundations rooted in some of its origins as a trading post. As an Arctic port, it represents a node linking Manitoba's transportation networks to the global maritime network. As a tourist destination, it focuses on polar bears and belugas, both maritime species. As a hub for research, the Churchill Marine Observatory (CMO), to be completed in 2017, involves numerous university and government partners as well as the nearby Churchill Northern Studies Centre.

Churchill is not that far away; it is about the same distance from Winnipeg to Churchill, as it is from Winnipeg to Calgary, as it is from Moscow to Archangelsk, approximately 1000 km. Moscow and Archangelsk are linked by several airlines, railway connections, and an all-weather two-lane highway. We already have ~700 km of all-weather highway to Thompson, so as the climate warms, and sea ice conditions change, it is inevitable that we will need to turn our transport vision to the North, thus completing the compass.

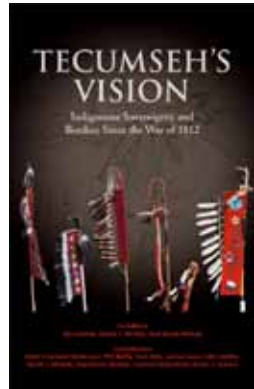
To celebrate the many important roles of Churchill now and in the future, this year's Homecoming panel theme is "*Churchill: Manitoba's Maritime Future*". The panel, including **Dr. David Barber** (who will discuss CMO) and **Lucette Barber** (who will introduce the new initiative with VIA Rail "*All Aboard*") will be held on Friday September 23<sup>rd</sup>, 2016 from 2:00 to 4:00 in the Wallace Building to be followed by a reception. Additional speakers will be announced soon.

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



# 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:



## Tecumseh's Vision: Indigenous Sovereignty and Borders Since the War of 1812

is co-edited by Ute Lischke, David T. McNab, and Paul-Emile McNab. It is a compilation of chapters by scholars from across Canada and the USA illustrating the history of *"the more than two hundred year relationship between Indigenous peoples and its borders from the war of 1812-1814 up until the Idle No More movement that swept across Canada in 2012 to 2014"*. The chapters cover a wide array of topics including an analysis of online comments following articles on the Idle No More movement, the work of Anishinaabe artist Norval Morrisseau, and the representation of Anishinaabe children in the writings of Louise Erdrich.

## My Silent Drum

By Ovide Mercredi is a collection of poetry and thoughts. To quote the author: *"I wrote these words, in a style that is free, based on an idea that becomes a short story. It may not be poetry as expressed from the perspective of Euro-Canadian literature, the words and thoughts are mine as one Indigenous voice drumming...silently"*. The foreward, by President and Vice-Chancellor of the University of Manitoba Dr. David Barnard describes Ovide Mercredi as: *"a leader in the communities where he has lived, in our province of Manitoba, and at the national level as National Chief of the Assembly of First Nations"*. Dr. Barnard concluded: *"These poems help us to think about our nation and ourselves"*.

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



# Environmental Studies.

The Riddell Faculty is often asked to explain the nature of Environmental Studies as it differs from Environmental Science. Environmental Studies focuses on the social, institutional, political, and legal aspects surrounding environmental issues and concerns. Through an interdisciplinary approach, environmental issues relating to human population, sustainable resource development, pollution conservation, environmental health, and, endangerment and preservation of species are explored. Such interdisciplinary and diverse approaches, however, lead to a wide range of potential careers.

Three of our recent Environmental Studies graduates have established quite different careers while benefitting from some distinctive features of the degree.

**Lindsey Banman** (B.Env.St.(Maj.)/2014) is the Environmental Programs Coordinator at HyLife Ltd, Canada's leading pork producer. She became interested in this type of environmental work in her program and could see a future for herself in these areas of rapidly growing global importance. Lindsey credits the real world projects and in-the-field experiences as well as opportunities to meet with professionals specializing in different environmental fields. To quote Lindsey: *"My professors and instructors were also terrific mentors and were a huge help with connecting me to specific people to network with along the way."*

**Sean Goertzen** (B.Env.St.(Hons.)/2012), following graduation served on the Mayor of Winnipeg's Environmental Advisory Committee where he explored innovative ways for the City of Winnipeg to reduce nutrient loading into Lake Winnipeg. In 2013, Sean went to the University of Toronto to pursue a Masters in Public Policy. On top of his passion for environmental and socioeconomic issues, Sean built a skill set in policy analysis and development that he put to use working in the Ontario Ministry of the Environment and Climate Change. Currently he is participating in the Manitoba Legislative Internship Program.

**Amanda Huculak** (B.Env.St.(Hons.)Coop/2009) is the Co-founder and Director of Educational Experiences at Travel Roots, a boutique travel company that promotes socially responsible travel around the globe. She had always loved to travel, and for her degree her focus area was Sustainable Tourism. To quote Amanda: *"If planned and managed properly there is a real opportunity to travel a bit off the beaten track, support small local businesses, contribute to local community development initiatives, and have an incredible travel experience"*. Further information about Travel Roots can be found at [www.travelroots.org](http://www.travelroots.org)

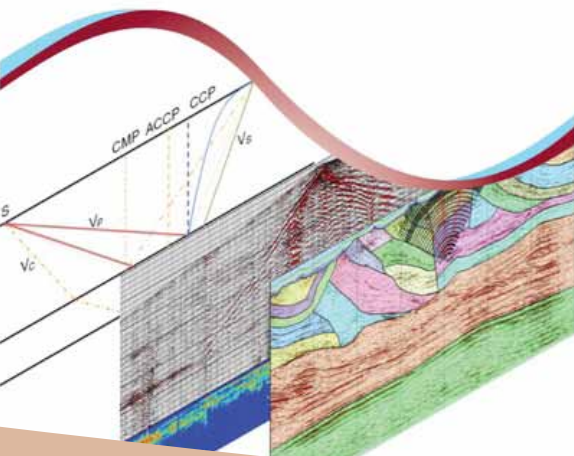
Pictured below (left to right): Lindsey Banman , Sean Goertzen and Amanda Huculak.

# Geophysics Donation.

The Department of Geological Sciences has received a generous donation from Schlumberger Petrotechnical Services of Calgary, Alberta. The donation consists of a 3-year software license and maintenance for Schlumberger's Vista 2D and 3D software installed on 25 computers (valued at approximately \$2.8 million). To quote **Dr. Mostafa Fayek** (Head and Canada Research Chair in isotope geochemistry): *"This software is an invaluable teaching and research tool for our students and faculty members in Geophysics... and goes a long way toward ensuring the continued excellence of our Geophysics courses and programs."*

Image Credit: Schlumberger: [www.slb.com](http://www.slb.com) (accessed May 27, 2015).

**VISTA**  
2D/3D SEISMIC DATA PROCESSING



# Convocation.

## 2015 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:

### Riddell Faculty Gold Medal

**Timothy Hayward** (B.Sc. in Geological Sciences (Honours) Geophysics) \*October 2014 graduate.

### Riddell Faculty Program Medals

Honours Program

**Scott Kehler** Bachelor of Science in Physical Geography (Honours)

Major or Advanced Program

**Lindsay McConnell** Bachelor of Environmental Studies (Major)

General Program

**Janelle Kornelsen** Bachelor of Arts in Geography (General)

### Riddell Faculty Thesis Prizes

Ph. D.

**Parnali Dhar Chowdhury** (Ph.D. in Natural Resources & Environmental Management) for "*Understanding the Dengue Transmission: Application of an Ecohealth Approach in Dhaka, Bangladesh*"

Masters

**Tabitha Martens** (Master of Environment) for "*Good news in food: Understanding the value and promise of Indigenous food sovereignty in western Canada*"

### Riddell Faculty Teaching Awards

**Award of Excellence for First Year Undergraduate Teaching, Dr. Ann Marie Murnaghan.** Pictured below left with Dean, Dr. Norman Halden.

**Award of Excellence for Undergraduate Teaching, Kristina Hunter.** Pictured below right with Dean, Dr. Norman Halden.

**Award of Excellence for Graduate Teaching, Dr. Jonathan Peyton.**



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

**Odile Crabeck** (Ph.D. in Geological Sciences) for her ongoing research on gas inclusions within the sea ice cover,

**Claire Hornby** (M.Sc. in Environment and Geography) for her ongoing research on the habitat use, movement and timing of belugas in the Mackenzie Estuary, and

**Jean Polfus** (Ph.D. in Natural Resources and Environmental Management candidate) for her ongoing research in developing a comprehensive understanding of the identities and relationships among caribou populations and Dene people in the Sahtú region of the Northwest Territories in order to inform and prioritize management efforts.



## Riddell Faculty Entrance Scholarships

Five Riddell Faculty direct entry admission scholarships were awarded in 2015 to students who are admitted directly from high school and pursue studies. The recipients were:

**Laura Alsip**                      **Janine Hunt**                      **Rachel Mandryk**  
**Michaela McKennitt**   **Vita Perillo**

One Riddell Faculty Aboriginal undergraduate admission scholarship was awarded in 2015. The recipient was:  
**Aiden O'Hara**

Four Riddell Faculty undergraduate admission scholarships were awarded in 2015. The recipients were:

**Leanna Fehr**                      **Hannah Polaczek**                      **Kaitlyn Reimer**  
**Joel Schreyer**

Twelve Riddell Faculty graduate entrance scholarships were awarded in 2015. The recipients were:

**Greg Ashcroft**                      **Reid Campbell**                      **Cody Ross**  
**Ezra Campbell**                      **Tawfig Md. Hasan**                      **Lynnea Parker**  
**Kurtis Ulrich**                      **Jonathan Andrews**                      **Hillary Beattie**  
**Kendelle Fawcett**                      **Scott Kehler**                      **Kyle Ziolkowski**

# Awards and Honours.

**Dr. C. J. Mundy** (Department of Environment and Geography and the Centre for Earth Observation Science (CEOS)) (Pictured right) is the recipient of the 2014 Rh award for natural sciences. The University of Manitoba's Rh awards were established in 1973 to recognize early career academic staff for their exceptional promise, innovation, and research excellence. Dr. Mundy's research on new observational techniques in the sea ice environment has significantly advanced our understanding of Arctic marine ecosystems. His recent work on the development of phytoplankton blooms in the water column underneath Arctic ice cover is groundbreaking and has influenced the development of new international projects in both the Arctic and Antarctic. Dr. Mundy is also the first to extensively show the influence of ice algal biomass on the spectral distribution of transmitted irradiance.



# Science Outreach in Norway House Cree Nation.

Jonathan Challis is a new Vanier scholar, co-advised by **Dr. Mark Hanson** (Department of Environment and Geography), who is also a part of the CREATE H<sub>2</sub>O program based at the University of Manitoba. The H<sub>2</sub>O initiative aims to help address water security and sanitation issues on First Nations communities. One of the communities that is a field site of Jonathan's Ph.D. research is Norway House Cree Nation (NHCN), located at the top of Lake Winnipeg. Working with the community, Jonathan has been characterizing the contaminants found in their wastewater, and developing new approaches to sample these emerging chemicals of concern.

scholars, **Chadwin Scatch** (a B.Env.St. student) and Hunter York, joined Jonathan to sample the wastewater treatment facility and surrounding surface waters. Chadwin and Hunter helped deploy passive samplers, sample water, and take water quality measurements. It was a great experience for them to learn about the water treatment system in their home community of NHCN, all the while reinforcing the skills and knowledge they gained through the Kirkness program. Hunter is entering his senior year of high school and Chadwin has entered his first year in the Faculty. Both of them are very impressive young students in their own right! Jonathan will return to NHCN in winter and summer 2016, and looks forward to working with Chadwin and Hunter again.

In the summer of 2014 and 2015, Jonathan mentored high school students from NHCN through the Verna J. Kirkness Science and Engineering program in the Faculty. This past summer two of these former Kirkness

Pictured below: Hunter York (left) works with Jonathan Challis (right). Photo Credit: Mark Hanson.



The John Patterson medal was presented to **Dr. Ronald Stewart** (Department of Environment and Geography) in an event in October well-attended by colleagues, faculty, and students. The award, including a certificate and a medal, was presented by Dr. David Grimes (Assistant Deputy Minister and Head of Environment Canada's Meteorological Service and President of the World Meteorological Organization).

The Patterson Distinguished Service Medal is presented each year for distinguished service to meteorology in Canada. The medal was established in honour of Dr. John Patterson (1872-1956), Controller (Director) of the Meteorological Service of Canada from 1929 to 1946. The list of recipients, since it was first awarded in 1954, features the nation's most accomplished individuals in the field. Pictured left, (left to right): Dr. David Grimes and Dr. Ronald Stewart.

**Dr. Fikret Berkes** (Distinguished Professor and Canada Research Chair in Community-Based Resource Management, Natural Resources Institute (NRI)) (Pictured right) was inducted into the Royal Society of Canada on November 27, 2015. Dr. Berkes is an influential scholar and international leader in the areas of commons theory and the interrelations between societies and their resources. He has been researching the conditions under which "*the tragedy of the commons*" may be avoided. He has produced some 230 scholarly publications, including ten books, and contributed to the literature of linked social-ecological systems, resilience, and Indigenous ecological knowledge.

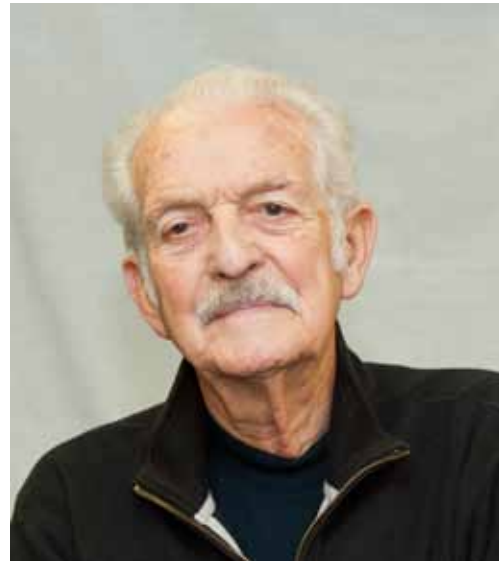


# Giving Back.

## Bill Brisbin Field School Fund.

The renowned British geologist Herbert Harold Read once said "*the best geologist is the one who has seen the most rocks.*" This simple yet profound statement illustrates just how important hands-on experience is in the field of geology, especially for students.

For this reason the Department of Geological Sciences recently established the Bill Brisbin Field School Fund – an endowment dedicated to providing geology students at the University of Manitoba with inspiring learning opportunities outside of the classroom. The Bill Brisbin Field School Fund was established in recognition of **Dr. Bill Brisbin**, who was instrumental in developing the field school offering in the Department of Geological Sciences. Alumni have an opportunity to demonstrate their fond memories of field school through a gift to this fund.



## The Sally and Keith Caldwell Teaching Assistant Award.

Designed to support the appointment of Teaching Assistants (TAs) in the Department of Geological Sciences, **Keith Caldwell's** [B.Sc./48, M.Sc./50] unique gift will play a critical role in ensuring faculty have appropriate support, graduate and undergraduate students have an outstanding learning experience, and the TAs themselves have the opportunity to develop the skills and leadership abilities that are essential for professional success.

To be considered for a Teaching Assistant Award, applicants must demonstrate passion and ability in their field of study and in the sub-discipline being taught. They must be high-achieving, outgoing, helpful, and invested in the teaching enterprise.

Caldwell always believed strongly in education, and never needed much incentive to give to his alma mater. Even after relocating to Alberta, where he met his wife Sally and together they raised their family, he never forgot his Manitoba roots and continued to give to the U of M, making more than 23 gifts over the years.



Although Keith Caldwell passed away early in 2015, before he could see the impact of his gift, these qualities are reflective of how he lived his life, and there's no doubt he would have been proud of those who received the award.

For more information, or to make a gift to support the Faculty of Environment, Earth and Resources, please contact **Bridgette Parker**, Donor Relations Officer at 204-318-2921 or by email at [Bridgette.Parker@umanitoba.ca](mailto:Bridgette.Parker@umanitoba.ca).

Pictured Right: (above) Dr. Bill Brisbin, (below) Sally and Keith Caldwell.



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