Clayton H. Riddell

Faculty of Environment, Earth, and Resources

NEWSLETTER

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Hot Science in the Cold North.

The study of uranium sequestration processes in mine tailings can be used to develop a better understanding of uranium transport in the environment and prevent uranium from contaminating the ecosystem. The main

objective of **Dr. Mostafa Fayek's** (Geological Sciences) research is to characterize the uranium mineralogy and speciation in samples obtained from the Lorado and Gunnar historical tailings sites found near Uranium City, Saskatchewan in order to understand the processes of uranium mobilization and sequestration at these sites.

The Lorado and Gunnar historical tailings sites were chosen because (1) they have interacted with the environment for over 50 years, (2) they are highly stratified, because of the range in ore chemistry and host lithology, and the historical milling and tailings depositional processes, and (3) although numerous studies have focused on uranium mine waste in Canada, the USA and elsewhere in the world very few studies have focused on the tailings from Uranium City.

The Lorado and Gunnar mills operated from 1957-1960 and 1953-1964, respectively. The volume of the Lorado mine tailings is estimated to be 177,000 m³ on land and an additional 50,000 m³ under the water of Nero Lake,



(Photo Credit: Mostafa Fayek. Pictured above Jennifer Durocher of Laurentian University.)

resulting in a total of 227,000 m³ of uranium tailings at the Lorado mill site. Another 4.4 million tons of tailings were discharged at Gunnar. The (continued on page 2.)

One university. Many futures.





continued from cover Hot Science...

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'Not just another gentle breeze' and Lorado mill treated ore from the Lorado mine and from smaller satellite mines in the region, including the Cayzor, Rix Leonard, and the Cinch Lake mines, whereas the Gunnar mill mainly received ore from the Gunnar uranium deposit. Therefore, the chemistry and mineralogy of the tailings sites could be significantly different.

With permission from the Saskatchewan Research Council (SRC), Dr. Fayek's team took the opportunity to obtain preliminary samples from the Lorado and Gunnar tailings masses. Under Dr. Fayek's supervision and

consultation with Prof. Barbara Sherriff (Geological Sciences), Ph.D. student Guillaume Othmane (UPMC Sorbonne Universités and Université Paris Diderot), M.Sc. students

Laura Bergen (Geological Sciences) and Jennifer Durocher (Laurentian University), and undergraduate student Brandi Shabaga (Geological Sciences) sampled the tailings by

digging pits and driving PVC pipes into the tailings to determine if the uranium mineralogy or adsorption processes change with depth. Study of these samples will form the basis of the graduate students' theses. The students will be trained to analyse their samples using a variety of novel techniques including high-resolution transmission electron microscopy (HRTEM),

X-ray diffraction (XRD), inductively coupled mass spectrometry (ICP-MS) and synchrotron techniques. Specific questions include, is uranium adsorbed on mineral surfaces or does it occur as uranium mineral precipitates? Which minerals favour uranium adsorption? What are the uranium minerals?

This research is highly significant with respect to the environmental and economic well being of Canada. The uranium economy is strategically important to Canada, as Canada is one of the largest producers and exporters of uranium. With the projected rapid increase in demand for uranium as an energy source, understanding uranium containment and remediation from mine tailings is timely and crucial for the development of the uranium industry, the protection of the environment, and for improving public confidence in the entire fuel cycle. The results from the proposed research can be applied to potential high-level nuclear waste (HLNW) geological repositories and other old mine tailing sites (e.g., address legacy issues) that contain elevated uranium concentrations and former uranium mines, which raise environmental concerns.

(Photo Credit: Mostafa Fayek. pictured below, left to right Jennifer Durocher and Brandi Shabaga.)



Dr. John Hanesiak (Environment and Geography) is the recipient of a \$400,000 Canada Foundation for Innovation grant. The grant is in support of the purchase of equipment to create a Mobile Atmospheric in monitoring the formation of tornadoes, ice storms and other severe weather.

Cheryl Sobie (M.A. student,

Environment and Geography) (Photo been awarded the Network Environment for Aboriginal Health Research Graduate Fellowship in Aboriginal Health. This \$20,000.

Durdana Islam (Ph.D. candidate, Natural Resources Institute) is the recipient Canada Graduate Scholarship (CGS-SSHRC), valued at \$35,000 a year for three years.



Canada.



Awards & Appointments.

Dr. Jeff Masuda (Environment and Geography) has accepted a 3-year appointment to the Institute Advisory Board of the Canadian Institutes of Health Research (CIHR) Institute of Population and Public Health.

Dr. David Barber (Environment and Geography, Centre for Earth Observation Science – CEOS) has been appointed to the European Space Agency (ESA) Earth Science Advisory Committee (ESAC), the ESA's senior scientific advisory body, for a four-year term. This is a very high-level committee which helps the Director of the ESA set policy and programs for the ESA science effort.

Kipp Fennel (MNRM student, Natural Resources Institute) won Best Poster at the BC Clean Energy Generate 2011 Conference. The poster was titled 'Clean Energy: Backbone of a Stable Economy'.

Durdana Islam (Ph.D. candidate, Natural Resources Institute) won the top poster award in June from the Environmental Studies Association in

Dr. Anton Chakhmouradian (Geological Sciences) (Photo Credit: Anton Chakhmouradian, pictured above.) has been awarded the W.W. Hutchison Medal at the GAC (Geological Association of Canada) Annual Luncheon in Ottawa at the GAC-MAC 2011 meeting. It is awarded to a young scholar for their exceptional advances in Canadian earth sciences research.

Jason Jorgenson (Student Affairs Coordinator, Dean's Office) is the recipient of the University of Manitoba Service Award of Excellence.

Dr. Jeff Masuda (Environment and Geography) was recently recognized with a 2011 University of Manitoba Outreach Award. He was acknowledged for his research on the persistent inequities in Canadian cities, forging connections between academic, policy and community leaders in Winnipeg, Vancouver and Toronto, creating national momentum to address issues of social and environmental justice. His strong relationship with the Assembly of Manitoba Chiefs has led to the Manitoba First Nations Regional Health Survey; his research has had a tangible impact on Manitoba First Nations youth and families by mobilizing advocacy for improved health services.



DEFINE YOURSELF

At the U of M, we define ourselves as trailblazers, visionaries, innovators and so much more. Show us how you define yourself and you could win incredible prizes. As a grand prize winner, it's your choice: travel Canada's Arctic waters aboard the CCGS Amundsen, explore global public health projects in India, or meet and travel with visionary human rights leaders. Other great prizes and weekly draws also available to be won.

Who are you? This is your chance to tell the world and win.

FOR FULL CONTEST RULES, VISIT

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A Geographer at Heart.

Jeff Willows is a born-and raised Winnipegger, who came to the University of Manitoba in 2005, initially as a transfer student in psychology. However, as Jeff recalls "... as I entered the third year of my degree program, I had an epiphany and realized that I was a geographer at heart", and transferred to the Clayton H. Riddell Faculty of Environment, Earth, and Resources in January 2007 to pursue a B.A. (Hons.) in Geography.

For him "... this proved to be a wise decision. As a student in the Department of Environment and Geography, I was able to satisfy my intellectual curiosity ... to expand my knowledge of the inextricable links between human and physical systems". He also recounts how he was able to develop a strong rapport with faculty members through directed readings courses, and honed his research and writing skills through his

undergraduate thesis project, advised by Dr. Dan Todd (Environment and Geography).

After completing his undergraduate geography degree, Jeff took up a volunteer position as a GIS Project Coordinator with an information technology company in Douala, Cameroon. Here he improved his abilities in French and gained invaluable international and ArcGIS experience.

For Jeff, his undergraduate training in the Riddell Faculty provided him with the skills needed to succeed in graduate school. As a geographer with knowledge of physical factors such as soil regimes, climatic zones, and natural resource depositions, as well as expertise in examining political and economic problems, he knows he is well-positioned to make unique contributions to the field of international affairs. As he states, "... my undergraduate training as a geographer is largely responsible for my admission to the Master of Arts program at Carleton University's highly reputable Norman Paterson School of International Affairs", and is integral to a bright future for Jeff in international affairs and

development.

(Photo Credit: Jason Jorgenson. above left to right Jeff Willows is pictured with Dean Norman Halden at Jeff's convocation in 2009.)

Dr. Lee A. Groat (Ph.D., Geological Sciences, 1988) was appointed in July 2011 as a Founding Member of the Rara Terra Minerals Advisory Board. Dr. Groat's expertise in alkalic rock complexes and interest in Rare Earth Element (REE) deposits are considered a significant benefit to the company.

Dr. Zoltan Hajnal (Ph.D., Geophysics, 1970) was appointed in November 2011 to the Advisory Board of Athabasca Uranium Inc., an exploration and development company exploring an aggregate of over 60,000 hectares in the uranium-rich Athabasca Basin region of northeast Saskatchewan. Dr. Hajnal is a renowned uranium exploration expert, particularly in the application of seismic methods. His recent use of modern seismology in the Athabasca Basin has emphasized the importance of the spatial understanding of basement structures and their originating lithospheric processes in the selection of exploration areas and drilling targets.

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ALUMNI PROFILE

Jeff Willows (B.A. (Hons.) Geography, Governor-General's Gold Medal Award Winner 2009



Prairie Geographers ...on to Winkler!

The Prairie Division of the Canadian Association of Geographers meeting is an annual event bringing together graduate students and faculty from the member universities (University of Manitoba, University of Regina, University of Saskatchewan, Brandon University, University of Winnipeg, University of North Dakota, and Lakehead University). In 2011 it was held in Devils Lake, North Dakota, from September 16th to 18th. The PCAG upholds the objectives of the national Canadian Association of Geographers (CAG) in the encouragement of geographical study, teaching, research and application of geographic knowledge, particularly in Manitoba, Saskatchewan and North Dakota.

This year's delegation included seven students from the Department of Environment and Geography, with two graduate students and a faculty member presenting

na Cardona Claros (м.а. on their research. student, Environment and Geography) spoke on 'The political semiotics and symbolic resistance of mural art in the 'Mission Dolores District' of San Francisco.' and

(M.A. student, Environment and Geography) presented her work on 'Low income Aboriginal women's foodscapes: moving towards a geography of

food dignity'. (Environment and Geography) spoke on 'Playful methodologies: Reflexively researching the world, mixed methods, and playing with data.'

The Department of Environment and Geography is hosting the upcoming 36th Annual 2012 Prairie Division of the Canadian Association of Geographers (PCAG) meeting. In keeping with tradition and in support of the vision of the PCAG, the 2012 annual meeting will be held in a rural community. The PCAG 2012 Organizing Committee is pleased to announce that the next annual meeting will be held in Winkler, Manitoba from September 28-30, 2012.

For further information about PCAG 2012, please contact

(Environment and Geography) at wilsonj@cc.umanitoba.ca.

AIP Scholarship.

The Aboriginal Issues Press Scholarship had a recordbreaking 19 applicants for 2011. The selection committee awarded four awards, two for \$1500.00 and two for \$1000.00. The winners for this year's awards are:

Alena Rosen, a Masters student in Native Studies, and Karine Duhamel, a Ph.D. student in History, each of whom received a \$1,500.00 scholarship.

Katherine Peterson, a Masters student in Environment & Geography and Greg Boese, a Masters student in Psychology who each received a \$1,000.00 scholarship.

The AIP Scholarship is made possible by profits from the sale of its publications as well as a yearly contribution from the Clayton H. Riddell Endowment Fund.

In After the Mill, Mike Aiken, a long-time journalist and graduate from the University of Manitoba, compiled ten years of reporting on the developing relationship between municipal and Treaty governance in the Kenora area. The book launch, held March 16th, was hosted by the Lake of the Woods Museum and Clayton H. Riddell Faculty of Environment, Earth, and Resources with the Aboriginal Issues Press. At the book launch, senior representatives from Treaty 3 and the Kenora Municipality acknowledged the role closing the local mill had on the community and the importance of the steps taken by the community

to identify and strengthen their 'Common Ground'. Dean Norman Halden provided an insightful presentation; building on local geological formations and the positive steps the Municipality and Treaty 3 have taken to strengthen and steadily build their relationships. After the Mill was extremely well received and is being considered for use as required reading in courses exploring community relations, environmental issues and human geography.

The Aboriginal Issues Press began a series of community-based publications several years ago. The Pikangikum Cultural Landscape Documentation

Guide by Dr. Jain Davidson-Hunt (Natural Resources Institute) and Michael O'Flaherty with Whitefeather Forest Management Corporation contributes significantly to this growing series. This publication documents the Pikangikum First Nations' guidelines for documenting natural and cultural features of traditional land use areas in northwestern Ontario. Although it was designed specifically for the Whitefeather Forest and Woodland Caribou Provincial Park, the guidelines provided by the Pikangikum First Nation are invaluable to others involved with land use research where traditional or local knowledge is linked to GPS data.

Annually, the Aboriginal Issues Press (AIP) publishes peer-reviewed, sole-authored or multi-authored manuscripts from all disciplinary and multi-disciplinary perspectives. Completed manuscripts and ideas for theme publications for possible publication are welcome. Publications are available at wholesale prices from the Clayton H. Riddell Faculty of Environment, Earth, and Resources. All sales profits are contributed to the Aboriginal Issues Press Scholarship, which is offered to three or four students annually.

(Photo Credits: Rick Riewe, below left, pictured left to right Mike Aiken, Colin Wasacase former Executive Director and Chairman for the National Assembly of Grand Council Treaty #3, Dean Norman Halden, Mayor of Kenora David Canfield, Elder Joe Morrison. below right, pictured left to right Mike Aiken and Dean Norman Halden.)



Aboriginal Issues Press.



IMPORTANT DATES

February

February 20

March

March 22

May

Mav 21

Mav 22

Report on the Americana **Environmental Trade** Show and Conference.

Trinette Konae

(B. Environmental Studies Honours Co-op) represented the University of Manitoba at the 2011 Americana **Environmental Trade Show** and Conference in Montreal, supported by the Clayton H. Riddell Endowment Fund. Trinette worked as a volunteer, meeting conference delegates and professionals in the environment field, making it, as she notes "... a truly unique experience in the final year of *my degree* ... *and extremely* pertinent to my study area."



Exposed to a wealth of information, Trinette felt "inspired to think out of the box". Sessions on water were particularly interesting for her, especially presentations by municipal water utilities on major projects that transformed the way leaks are dealt with into an intensive monitoring system. Reduction of leaks and improper pressure maintenance within the water distribution system reminded her of how important systems are in water conservation; far more important than broadly marketing water conservation practices to the public. Trinette learned a lot and enthusiastically recommends volunteering at the Americana conference.

(Photo Credits: Trinette Konge. Pictured below, Trinette Konge.)



Climate Change Workshop in Inuvik, NT.

The Centre for Earth Observation Science (CEOS) actively Focusing on the climate change priorities established by regional representatives, the impact assessment will draw participates in a number of national and international research programs year round. One of these, ArcticNet, a Network of upon science, Traditional Ecological Knowledge, and a regional Centres of Excellence in Canada, works with Inuit organizations, climate model to produce future climate scenarios and northern communities, federal and provincial agencies and the adaptation strategies for associated impacts in the ISR and private sector to study the impacts of climate change in the western Nunavut. coastal Canadian Arctic.

During April 11-15, 2011, several researchers from CEOS participated in an ArcticNet-led workshop in Inuvik, NT, dedicated to climate change in the western and central Canadian Arctic. The objectives of the workshop were 1) to communicate research results to representatives of the Inuvialuit Settlement Region (ISR) and the Kitikmeot region of Nunavut and 2) to educate participants about a regional climate change impact assessment under development by ArcticNet.

With over 100 people in attendance, including approximately 30 community members, nearly 30 research presentations ulaval.ca facilitated valuable information sharing and networking among To learn more about the regional impact assessment for the participants. Many present at the workshop indicated that the western and central Canadian Arctic please contact the the presentations were interesting and enjoyable, including talks from CEOS scientists. The workshop also featured breakcoordinator, Ashley Gaden (Phone: 474-9084; Email: out group discussions to identify regional climate change ashley_gaden@umanitoba.ca) priorities in the western and central Arctic to shape the scope of the regional impact assessment underway by ArcticNet. (Photo Credit: Ashley Gaden.)



The writing stages of the regional impact assessment for the western and central Arctic will commence in the summer of 2011. A first draft of the document is anticipated for the International Polar Year (IPY) Conference in Montreal, From Knowledge to Action, April 22-27, 2012. Once the assessment is complete, members of CEOS and ArcticNet will distribute and share findings with the communities of the ISR and Kitikmeot, as well as with other policy and decision makers for these regions.

For more information about ArcticNet visit www.arcticnet.

New Faculty Profile.

Dr. C.J. Mundy (Environment and Geography/CEOS) is one of 3 new Assistant Professors hired within the Riddell Faculty as part of the Canada Excellence Research Chair on Arctic Geomicrobiology and Climate Change. His research interests involve the examination of physical and biological processes in the polar marine ecosystem, with a particular focus on primary producers. Climate warming and the rapidly disappearing Arctic sea ice cover have imposed new variability and potentially directional change on this system. Key elements in the structure and function of ecosystems are the timing, magnitude, location, and fate of primary production. His most recent work has been directed towards investigations of processes that influence these elements, thereby improving our understanding of variability and change in the polar marine ecosystem. To this end, Dr. Mundy's work is largely field oriented, examining both ice-covered and open oceans via oceanographic research vessels and sea ice-based field camps. He has played leading roles in large international research programs. These roles include being Chief Scientist on the CCGS Amundsen during a portion of the 2007-08 IPY-CFL (International Polar Year – Circumpolar Flaw Lead) project, and he is currently the lead principle investigator on an international sea-ice process study called Arctic-ICE, based

out of Resolute Bay, Nunavut (http://home.cc.umanitoba. ca/~ummundy0/CJMundy/Arctic-ICE.html).

In addition to a strong fieldwork component in his research, Dr. Mundy is currently developing a laboratory on campus that will examine photophysiological properties of Arctic marine algae through culture-based experiments. Similar experiments are also planned in upcoming years for the new Sea Ice Environmental Research Facility (SERF) located in the University of Manitoba's Smart Park.

Following a postdoctoral fellowship position at the Institut des sciences de la mer (ISMER) of the Université du Québec à Rimouski, Dr. Mundy returns to the University of Manitoba where he obtained his Ph.D. in 2007. Within the Department of Environment and Geography, Dr. Mundy is teaching courses on Arctic marine system sciences pulling on his interdisciplinary background in Biological Oceanography, Ecology, and Physical Geography.

(Photo Credits: Michael Fischer/ Alfred Wegener Institute for Polar and Marine Research.)







Not just another gentle breeze.

This past summer, Michelle Curry (B.Sc. Hons. student, Environment and Geography)

worked with Dr. John Hanesiak (Environment and Geography/CEOS) on prairie research. She investigated the occurrence of lake breezes in southern Manitoba. This involved looking at radar records for 2008-2010 and a more detailed study for 2011. This research is unique in that no one has previously looked at lake breeze events in southern Manitoba. The geography of this region differs guite significantly from other regions where lake breeze research has been done, such as in the Great Lakes area of Southern Ontario. It provides a great opportunity to diversify the research being done in this area. Additionally, the findings from this summer research is the basis for Michelle's undergraduate honours thesis.

Michelle says that "... it has been really interesting to be able conduct all my own research, collect my own data and shape the project ... the whole process has been very rewarding and I think it has helped me to build a solid foundation of skills to use if I choose to continue on to graduate studies."

(Photo Credit: John Hanesiak, pictured right, Michelle Curry.)

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Undergraduate Student Research.

Graduate Student Profiles.

Studying livelihoods and gender on the coast of Southeastern Brazil.

Lydia Carpenter is a Master's student working with Dr. Fikret

Berkes at the Natural Resources Institute. Her research, funded by the International Development Research Centre (IDRC) under the International Research Chairs Program, explores the gendered intra-household livelihood dynamics of one coastal community in the Paraty region of Southeastern Brazil. By exploring gender in the livelihoods context her research addresses the social context of gender roles and relations as they relate to small-scale agriculture, artisanal fishing, tourism and the larger livelihoods picture in one community.



During her four-month field season Lydia lived in the community of Ponta Negra. Although she worked with both men and women, she spent much of her time with the women of the community. Time was spent in and around the home, on the agricultural plots and performing various harvesting activities on the land and on the coast. The work presented several challenges including building rapport within a small community and working in a cross-cultural context. Lydia notes, "... The community is fairly isolated and initially I spent a lot of time alone thinking about the research process. I began to write out "to-do" lists in order to push myself to begin what seemed to be an impossible task-building rapport. Much of the list consisted of necessary day-to-day activities, including eating and making coffee while other tasks included home visits and talking to specific individuals. Before I knew it my days were entirely full with visits, interviews and invitations."

Working in a cross-cultural context presented both challenges and great rewards. For Lydia, "The most important lesson that I learned about doing research in a cross-cultural context is that the researcher must be open minded and easily able to adapt to changing circumstances. Once in the field I did adjust some of my techniques. Both changing circumstances, ongoing personal reflection and community feedback meant that I could not take anything for granted. I appreciate the process of critical reflexivity. It was a difficult but necessary process that allowed me to better understand my identity as a researcher and as an individual. I was also able to see the vulnerabilities inherent in the research process, something that I think is a critical component of doing graduate work. Ultimately, I found the work, and the process, to be extremely rewarding."

Lydia's research shows that at the community level, diverse livelihood portfolios are the norm. There are clear gender roles in the community between and within economic sectors that impact both current and future livelihoods and options for livelihood diversification. Furthermore, individual and household access to capital, and the resulting livelihoods diversity have implications for gender relations and female bargaining power at the household level. Lydia completed a Bachelor of Science



in Environmental Studies and Physical Geography from the University of Winnipeg before joining the Natural Resources Institute at the University of Manitoba. Her research is inspired by an interest in community-based resources management and food sovereignty issues. Lydia spent several formative years of her life living in Mexico where she was first introduced to the challenges communities face in managing their own resources. She has also spent time working and studying in Switzerland and Nunavut. During her years at the University of Manitoba, Lydia has spent time volunteering for several non-profit organizations working towards food sovereignty in Manitoba. Besides her studies, Lydia has spent time in rural Manitoba pursuing food production and small-scale agriculture as part of her livelihood.

(Photo Credits: Lydia Carpenter, photo left, view of Ponta Negra. photo above, Lydia conducting an interview with a community resident.) **Cheryl Sobie** (M.A. Geography student) is specializing in Health Geography with a focus on Aboriginal women's health. After exploring alternate career opportunities and educational interests she found herself back at the University of Manitoba in the fall of 2009, joining the Department of Environment and Geography to pursue a Bachelor of Environmental Studies. There, she says, "I met many inspiring people and professors in my quest for knowledge,

one of which was my supervisor, Dr.

Jeffrey Masuda." (Environment and Geography)

Her main research interest is in food security and food justice, because she asserts "... it is fundamentally unjust that we live in a society where people are going hungry although enough food is produced to feed everyone." She is also passionate about feminism and



emphasizes that, "...we cannot look at one aspect of feminism (e.g., sexism) without recognizing and standing against all types of discrimination and oppression that people experience."

These interests in food security and gender equity led to undergraduate thesis research which examined 'foodscapes', that is the total geography involved in the acquisition and consumption of food. Cheryl has been able to use her undergraduate research as the basis for her master's thesis, partnered with Ka Ni Kanichihk Inc., an organization located in the West End of Winnipeg that works with lowincome Aboriginal women. She will use the results and findings of her work to design a community-based action research project with the women at Ka Ni Kanichihk, using a combination of spatial analysis and go-along interviews to further analyze foodscape environments.

> Cheryl emphasizes that, "Aboriginal women's experiences and perspectives are not often heard and

Working for food security and justice.

yet they often face the most challenges. Women are among the most vulnerable groups of people who suffer from poverty in Canada, and among the challenges that accompany living in poverty, food insecurity ranks among the highest."

Her goal is to contribute to deepening the social analysis of Aboriginal women's foodscapes by characterizing the total geographic conditions within the neighbourhood settings in which food strategies are developed, journeys are made, food acquisition is experienced, food is eaten, and therefore health is impacted.

Cheryl is part of several research networks including The Centre for Environmental Health Equity, Network Environments for Aboriginal Health Research, and the Manitoba Alternative Research Alliance.

(Photo Credit: Cheryl Sobie, Ka Ni Kanichihk Inc. offices.)



Fall Convocation and Awards Reception.

For the first time, in October the Riddell Faculty hosted a reception to celebrate the accomplishments of our Fall graduands, undergraduate and graduate scholarship winners, and President's Scholars, with their friends and family prior to the University of Manitoba convocation ceremony. 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.

Undergraduate Admission Scholarship Winners

Six scholarships of \$1,000 were awarded to University 1 students who have completed 24 credit hours of course work (min GPA 3.5) and are pursuing studies in the Riddell Faculty. This year's recipients are:

Ameena Bajer-Koulack, Environmental Science Kimberly-Ann Commodore, Environmental Studies Rosina Hiebert, Geology (Honours) Emily Czaplinski, Environmental Science Krista Renwick, Environmental Science Jemma Harrison, Geology (Honours)



Graduate Entrance Scholarship Winners

Ten scholarships of \$5,000 are offered annually. They are awarded to outstanding students starting graduate programs in the Riddell Faculty, and are tenable, at the same value, in the recipient's second year of graduate program study. This year's winners are:

Ryus St. Pierre, Geological Sciences Alexey Bryksin, Geological Sciences Kelsey Molloy, Natural Resources Institute Inna Miretski, Natural Resources Institute Debora Peterson, Natural Resources Institute Jean Polfus, Natural Resources Institute Gabrielle Leo, Environment & Geography Karina Cardona Claros, Environment & Geography Chia Hao (John) Hu, Environment & Geography Christopher Stammers, Environment & Geography

Thesis Prizes and Awards

Laura Pisiak (B.Sc. Geological Sciences - Geology Hons.) has won the 2010-2011 Riddell Faculty Undergraduate Thesis Award for her thesis titled '*Paragenetic and geochemical constraints on niobium mineralization in the Aley Carbonatite Complex, British Columbia*'. This award is for \$1,000.

Maggie Sliwinski (Master of Natural Resource Management) has won the 2010-2011 Riddell Faculty Masters Thesis Prize, for her thesis '*Changes in Grassland Songbird Abundance and Diversity in Response to Grazing by Bison and Cattle in the Northern Mixed-Grass Prairie'*. The prize is for \$1,000.

Dr. Monika Pucko (Ph.D. in Geography) has won the 2010-2011 Riddell Faculty Ph.D. Thesis Prize, for her thesis 'The Effect of Atmosphere-Snow-Ice-Ocean Coupling on Hexachlorocyclohexane (HCH) Pathways Within the Arctic Marine Environment.' The prize is valued at \$1,000.

Teaching Awards

Dr. John lacozza (Environment and Geography) was the recipient of the 2010-11 Graduate Student Teaching Award and the Award of Excellence for Undergraduate Teaching. Congratulations are also extended to John, who graduated with his doctorate this year. As one of the award nominators noted, "John always puts his students first. His first priority is to make sure his students understand what he is teaching...John is very committed to his students and strives for their individual success."



Dr. Jeff Masuda (Environment and Geography) received the 2010-11 Award of Excellence for Graduate Teaching. In his nomination it was noted that "Dr. Masuda has a natural ability to instruct and direct his students to think critically and creatively."

President's Scholars

This award recognizes undergraduate students with a minimum 95% high school average. They are required to register for at least an 80% course load and maintain a 4.0 GPA. President's Scholars receive a number of benefits sponsored by the Office of the President and University of Manitoba Faculties. We are proud to acknowledge 'our' President's Scholars:

- Lauren Eggie, Geology (Honours)
- Lindsey Bylo, Environmental Science Major
- Timothy Hayward, Geophysics (Honours)
- Nicole Caithness, Environmental Studies Major Co-op

Leaders of Tomorrow

Leaders of Tomorrow scholarships recognize the high academic achievement and leadership potential of outstanding high school graduates entering undergraduate studies at the University of Manitoba. Valued at up to \$10,000 (\$4,000 in the first year, and \$2,000 renewals possible for second through fourth year), they are designed to recognize and support exceptional Manitoba and northwestern Ontario high school graduates to pursue post-secondary education. We are very pleased to announce Ameena Bajer-Koulack (Environmental Science) as 'our' Leader of Tomorrow.

(Photo Credits: Marie Jivan & Jason Jorgenson.)



They like us! They really like us!

Often it seems we are quick to express what has not been done well or where we see a need for improvement. Far less often are we told about where we have excelled, or where we have made a positive difference for another person. When it happens it's very special. It is particularly gratifying when the thanks come from our students. Over the last few months several student award winners have shared their gratitude for the support they have received, and it is only fitting that we share some

'HANK YOU

of their thanks with our Riddell Faculty community.

As noted by Ryus St

Pierre (2010-2011 Graduate Entrance Scholarship winner; see story in this newsletter), "Awards like these make it possible for students to fully focus on their research

resec and

allow them to reach their potential." The support of the awards are, however, far more than financial.

Krista Renwick (2010-2011 Undergraduate Admission Scholarship winner) eloquently

speaks to this in her thank you note, "My first year at the University of Manitoba proved to be exciting, challenging and incredibly rewarding. I thoroughly enjoyed the classes I took in this Faculty and am thrilled to now officially be a part of it ... It means a lot to me not only financially, but personally, to receive this scholarship."

To our award winners, and all new graduates, we appreciate your hard work and celebrate your success.

Picturing the Planet.

As a regular feature "*Picturing the Planet*" brings inspiring and informative images taken by our students and faculty. If you have taken a picture that expresses the beauty and diversity of our world, please consider submitting your image (high quality .jpg preferred) plus a few words for the next newsletter issue.

Riddell Faculty graduate student Lydia Carpenter (Natural Resources Institute) spent her 4-month field season here in Ponta Negra, Paraty region, southeastern Brazil. This remote, predominantly fishing community of about 200 people is being significantly impacted by resource restrictions associated with a local protected area and by jobs in a growing tourism economy.

(Photo Credit: Lydia Carpenter.)





University of Manitoba CLAYTON H. RIDDELL Faculty of Environment, Earth, and Resources

Phone: (204) 474-7252 Fax: (204) 275-3147 www.umanitoba.ca/environment