

Clayton H. Riddell

Faculty of Environment, Earth, and Resources

NEWSLETTER

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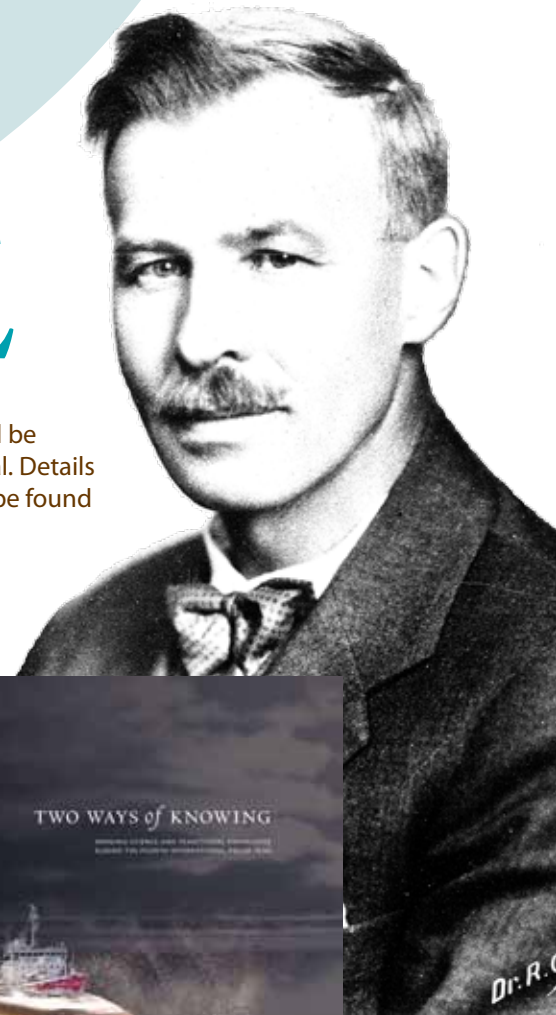
our PAST IS KEY TO our FUTURE

Understanding our planet's dynamic evolution and the implications of human activities builds a solid foundation that future generations need to survive. Past generations have created a rich legacy of knowledge about the Earth and its peoples and now it is our turn. The future, whether close at hand or dimly in the distance, demands that the decisions we make are not only well informed but respect the dreams and aspirations of future generations.

Dr. Robert Wallace understood this 100 years ago with the founding of what is now the Department of Geological Sciences and his legacy lives on in the cutting edge innovations and discoveries that continue today not only in Geological Sciences but also in the Riddell Faculty as a whole. In 2010, numerous events will celebrate the Centenary of Geological Sciences and especially the continuing achievements of the department. A brief history of the department can be found on pages 4 and 5, and information about celebratory events can be found on page 7.

The Centre for Earth Observation Science will also celebrate two notable events in February. The opening night of the New Music Festival at the Winnipeg Symphony Orchestra (February 6) will celebrate the International Polar Year including a presentation by Dr. David Barber and new works by composer-in-residence Vincent Ho and guest composer Derek Charke inspired by their Arctic journeys. In addition, the photo book "Two

Ways of Knowing" will be released at the festival. Details about the book may be found on page 6.



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In the News.

Alumnus **Dr. Ian Mauro** currently undertaking post-doctoral work at the University of Victoria, recently released an Internet research project “Inuit Knowledge and Climate Change” to coincide with the recent United Nations Climate Change Conference in Copenhagen (COP15). The project in association with Inuit filmmaker Zacharias Kunuk, will result in a documentary looking at Elders’ and hunters’ observations of climate change. Their blog, video segments, and raw footage can be found at <http://www.isuma.tv/hi/en/inuit-knowledge-and-climate-change>.

Dr. David Barber (Department of Environment and Geography, Canada Research Chair in Arctic Systems Science) spoke at the

“Bacon and Eggeheads” Parliamentary lecture series on October 29, 2009. The lecture series is held each month that Parliament is in session and is used to bring members together with science and engineering experts to communicate important work.

Dr. Vaclav Smil (Department of Environment and Geography and University Distinguished Professor) gave an extensive interview in the Dot Earth section of the New York Times. Video of the hour-long interview “Smil on Hummers, Hondas, Meat and Heat” can be found at <http://dotearth.blogs.nytimes.com/2009/10/19/smil-on-hummers-hondas-meat-heat>

PrioNet Funding.

Dr. Stephane McLachlan

(Department of Environment and Geography) has received \$200,000 in funding for his project “In Land and Life: Multi-Scale Implications of Chronic Wasting Disease for Aboriginal Communities and Other Stakeholders”. “PrioNet Canada is a Network of Centres of Excellence for research into prions and prion diseases. Prion diseases are untreatable, transmissible, and fatal neurodegenerative diseases of both humans and animals. PrioNet capitalizes on strengths in fundamental, applied, and social research to help solve the food, health safety, and socioeconomic problems associated with prion diseases such as bovine spongiform encephalopathy (BSE), Creutzfeldt-Jakob disease (CJD) in humans, and chronic wasting disease

(CWD) in deer and elk” (<http://www.prionetcanada.ca/>). Dr. McLachlan’s project will look at the implications of chronic wasting disease in deer and moose populations, and the impacts

on Aboriginal populations in Alberta, Saskatchewan, Manitoba, and the US. The research approach is distinctly multi-disciplinary applying both quantitative and qualitative data collection.



Thesis Prize.

Jeff Willows (B.A. Geography (Hons.)) was the recipient of the Riddell Faculty Undergraduate Thesis Prize. His thesis entitled “Explaining War in Darfur: A Radical Geopolitical Approach” reflects Jeff’s wide-ranging and creative thought processes and his wish to challenge himself. Inspired by various human geography courses, Jeff became intrigued not only by the power of some recently developed critical geopolitical approaches, but also by their limitations and recognized the need to seek answers to ‘why’ questions about critical political events related to conflict situations. In order to write intelligently about these matters it was necessary for Jeff to probe deeply into the history of Islam and to make sense of the various Islamic identities evident today, including the ways in which these change and also are challenged by various non-Islamic African identities.

Award Recipients.

Riddell Teaching Awards

The Riddell Faculty awarded the first of its teaching awards this year. The recipients were recognized for their dedication, commitment, and excellence in teaching. The recipients were:

Graduate Student Teaching Award - Janna Shymko
Award of Excellence for First Year Undergraduate Teaching - Leslie Goodman
Award of Excellence for Graduate Teaching - Iain Davidson-Hunt
Award of Excellence for Undergraduate Teaching - David Walker

Entrance Scholarships.

Ten Riddell Faculty undergraduate entrance scholarships were awarded in 2009. These outstanding students are recognized for their high academic standing on transferring to the Riddell Faculty from University 1. They are:

Chad Delaney
Alexander Favreau
Heather Kyle
Guillaume Lafond
Alison Mclvor
Joseph McLeod
Kevin Neyedley
Jolene Rutter
Christopher Stammers
Kimya Walcott

Twenty Riddell Faculty graduate entrance scholarships were awarded in 2009. These outstanding students are recognized for their high academic standing on applying to the University of Manitoba. They are:

Ademola Adetunji
Carmen Anseeuw
Addisalem Bulbula
Lydia Carpenter
Teresa Fisico
Olivier Gagne
Dale Giesbrecht
Geoff Gunn
Russel Hiebert
Asfia Kamal
Mohammed Khan
Meghan Moore
Robert Officer
Camille Partin
Breanne Reinfort
Alexis Richardson
Kariah Rudolph
Douglas Schindler
Yangji Doma Sherpa
Mya Wheeler

Department of Geological Sciences — 1910 to Present.

The Department of Geology and Mineralogy at the University of Manitoba was established in 1910 with the appointment of R.C. Wallace as Head. Dr. Wallace began teaching courses in mineralogy, petrology and petrography, and physical and historical geology. He also began field investigations of the natural gypsum deposits and saline brines in the Interlake district and of the sulphide mineral resources of the Precambrian Shield. Over the next twenty years, the teaching staff grew including the addition among others of E.I. Leith in 1935 (Stratigraphy and Sedimentation).

The small but ambitious department incorporated Geophysics in 1911 with the installation of a seismological

station at St. Boniface College. The Geology Club was formed during 1916-17, and student field trips were launched the following year. The donation of J.W. Winthrop Spencer's lifetime collections of fossil, mineral, and rock specimens to this day known as the "Spencer Collections" still form core components of departmental teaching materials.

During the late thirties to mid 1940s the University took steps to move all its facilities from the Broadway campus to what is today the Fort Garry Campus. The Department of Geology and Mineralogy moved into the Buller Building undergoing successful transition to a robust department, with well defined objectives in teaching and research.

Introductory classes taught by E.I. Leith drew ever-increasing numbers of students and led to larger enrolments in the General and Honours Geology programs; the Geological Engineering Curriculum was also taken on by the Department. It soon became obvious that the Department would require considerably more space leading the Department to move the Fitzgerald Building in 1963.

Annual geology and geophysics field courses were introduced first at the Chemalloy Mine property at Bernic Lake in 1964, and in 1971 at the newly constructed Star Lake Field Station. The field courses were augmented by local and international field trips to acquaint our students with a multitude of geological environments and processes, a philosophy that has continued over the ensuing years with trips to the Black Hills, Grand Canyon, Canadian Cordillera, plate margins in California and Baja California, Southern Appalachians, Florida Keys, Northwest Territories, and Yellowstone.



The Department provided geoscience education to grade school teachers through its EdGeo program at the Star Lake Field Station. Many staff members were also involved with continuing education, travelling to communities to present geoscience courses in places as far north as Churchill, and as unusual as Stony Mountain Penitentiary.

By 1975 the growth of the Department surpassed the capacity of the Fitzgerald Building despite additions to the building and trailers. After considerable delay the Wallace Building was opened on October 26, 1986 named after the Department's first head R.C. Wallace. Coinciding with the opening, the Department's name was changed to the Department of Geological Sciences.

The modern design of the Wallace Building represented a major change in architectural style and was also a harbinger of great changes for the Department.

During this time, the Department focused on the future and the changing role of the geological sciences in

Canada. This led in 2003 to the formation of a new faculty involving the Department of Geological Sciences, the Department of Environment and Geography, and the Natural Resources Institute. The name of the new faculty was modified in 2005 to the Clayton H. Riddell Faculty of Environment, Earth, and Resources. Clayton Riddell is an alumnus of the Department (B.Sc. Hon. 1955) and provided a \$10 million endowment to support the new faculty.

Since the move to the Wallace Building, the Ed Leith Cretaceous Menagerie has been created with generous donations from alumni, the R.B. Ferguson Museum of Mineralogy has been expanded, and another half storey has been added to the Wallace Building to accommodate the Riddell Faculty offices and the Centre for Earth Observation Science. Lab facilities related to the research of faculty have been redesigned using impressive, state of the art, analytical and data processing equipment.

Without question the most important component of the Department throughout its history has been the students, providing the Department with a sense of accomplishment,

satisfaction, and pride. The Department has strived to maintain contact with alumni and in return alumni have provided generous support through contributions to the Department's endowment funds, scholarships, and other initiatives.

The first B.Sc. degrees were awarded at the University of Manitoba in 1912 but without discipline designation. The first recorded B.Sc. Geology degree was awarded in 1922 to C.A. Merritt. The first M.Sc. Degree in Geology was conferred in 1924 to L.G. Thompson and the first Ph.D. Degree in Geology was conferred in 1960 to L.C. Kilburn. Departmental records for the period between 1922 and August, 2009 indicate the conferring of 902 B.Sc. Geology (Hon.) and B.Sc. Geology (Maj.) degrees, 357 B.Sc. Geological Engineering degrees, 300 M.Sc. degrees, and 45 Ph.D. degrees.

This article is a shortened version of a detailed history written by Bill Brisbin and Brenda Miller (Department of Geological Sciences) and is available at the Department of Geological Sciences web site at:

umanitoba.ca/geoscience



Dr. Ronald Stewart (Head, Department of Environment and Geography) was inducted as a fellow of the Royal Society of Canada. He is a global expert on precipitation processes within winter storms, and plays an important role internationally, including within the Global Energy and Water Cycle Experiment and its new initiative on climate extremes.

Dr. Clayton H. Riddell (alumnus of the Department of Geological Sciences) has become an Officer of the Order of Canada. A renowned exploration geologist and a leader in the Canadian petroleum industry, Dr. Riddell is a generous philanthropist in support of several organizations, notably the University of Manitoba, where his generous endowment supports the work of students of the Riddell Faculty of Environment, Earth, and Resources.

Two Ways of Knowing.

The photo book **"Two Ways of Knowing"** by David Barber and Doug Barber is to be released at the Circumpolar Flaw Lead (CFL) System Gala at the opening of the Winnipeg Symphony Orchestra New Music Festival (February 6, 2010). It gives the perspective of the merging of science and traditional knowledge during the International Polar Year. It takes readers through the astonishing images of the Arctic photographed by Doug Barber, and complemented by essays on the future of the region by both the people who live there and the scientists conducting their research on board the Canadian Coast Guard Ship Amundsen.

The book, in limited edition, is available for \$100 plus GST plus shipping and can be order from the CFL web site at:

<http://www.ipy-cfl.ca>

The web site also includes a preview of the book.



CFI and MRIF awards support research in prairie conservation.

In 2009, **Dr. Nicola Koper** of the Natural Resources Institute was awarded \$209,800 from the Canadian Foundation for Innovation and the Manitoba Research and Innovation Fund in support of her research on the conservation of prairie birds and their ecosystems. Along with additional funds provided by the Clayton H. Riddell Endowment Fund, the awards will allow for the purchase of two mobile research stations, all-terrain vehicles for accessing ecologically sensitive natural areas, nest video equipment, and associated field research equipment.

Loss and degradation of prairie habitats have resulted in dramatic declines of grassland bird populations over the last

four decades. Learning how to manage prairies and surrounding agriculture will help us conserve and restore prairies to benefit prairie birds. At the same time, this research will contribute to our knowledge of how disturbances, such as grazing, influence conservation of prairie birds.

Because cattle densities are quite low in arid prairies, such as those found in Saskatchewan and Alberta, grazing rarely directly destroys nests. Nonetheless, nesting success is sometimes lower in the presence of cattle. The new field equipment will allow us to determine whether nesting success is influenced by cattle because of indirect effects of grazing on vegetation, invertebrate prey, or predator communities. By indicating

the ecological effects of a wide range of grazing intensities, this research will help us manage grazing in prairies to benefit both ranchers and wildlife.

Birds may select which prairie remnants to inhabit based on a number of different factors. For example, their ability to get to prairies, predation pressure within those prairies, and invertebrate prey abundance, may all vary among prairies relative to prairie size, shape, and surroundings. Preliminary surveys indicate that prairie songbirds are rarely found within small prairies, but the reasons for this are unknown. The mobile research units will allow us greater access to wide-ranging prairies, so that we can evaluate effects of prairie fragmentation on birds at a landscape scale.

Geological Sciences Centenary 2010.

Events

The Department of Geological Sciences is looking forward to celebrating its centenary through several exciting projects that are underway to commemorate this special occasion.

Winnipeg Weekend 2010

A reunion of the Department will be held at the University of Manitoba during the weekend of August 27-29, 2010. The reunion will include a "beer and bull" session in University Centre on Friday evening, and an open house and formal welcome in the Wallace Building on Saturday afternoon/evening. On Sunday, alumni will be able to visit the Star Lake Field Station.

Department History Wall and Mosaic Map of Manitoba Geology

These two important displays will be added to the Department to celebrate the centenary. Design work has been finished and fundraising is underway.

GeoCanada 2010

A special technical session will be held at the GeoCanada 2010 Conference, May 10-13, 2010 in Calgary. The theme of the session will be geological processes over time in central Canada and the talks are anticipated to be broad ranging. This will be followed by a special issue of the Canadian Journal of Earth Sciences.

Jack Gallagher Visiting Scientists

Two prominent geoscientists have accepted invitations to be the Jack Gallagher Visiting Scientists during the centenary year. MaryAnn Mihychuk, Corporate Relations Services, will visit in March 2010. Alan Green, Institute of Geophysics, ETH Zurich will visit in September 2010. During the 2-3 day visits, they will give several talks and meet with students, faculty, and staff. The endowment fund for this program was established by Jack Gallagher in 1990 and enables the Department to bring in scientists with outstanding careers in the petroleum and mining

industries to meet with our students.

Geoscape Park

The largest and most ambitious project is the construction of a rock garden around the Wallace Building. The Geoscape Park will be designed to serve the outreach and teaching functions of the Department by showcasing the geology of Manitoba and the industrial and environmental importance of the geological sciences. It will transform the grounds around the Wallace Building into an attractive facility that will create a link between the outdoors and the Ed Leith Cretaceous Menagerie and R.B. Ferguson Museum of Mineralogy. The Geoscape Park will involve a major fundraising campaign which will commence in 2010.

Updates for the Winnipeg Weekend and the other centenary projects are available at:

umanitoba.ca/geoscience and on our Facebook page (Geological Sciences, University of Manitoba).

New Courses.

Cultural Landscapes of Northern Italy Field School

Students from the Riddell Faculty of Environment, Earth, and Resources and the Faculty of Architecture will have the exciting opportunity to experience the cultural landscapes of northern Italy. The course is taught in two segments: a pre-trip session (March 26 – 27, 2010) and a field school (May 13 – 26, 2010). It uses the concept of cultural landscapes as a means to bring together senior undergraduate and masters students from Environment and Geography, Geological Sciences, the Natural Resources Institute, and Landscape Architecture. Through an intensive two-week journey in northern Italy students will learn from Italian and Canadian scholars, and each other, as well as learn how to "read" and document cultural landscapes. Students will arrive in Venice and then travel into the Veneto region to examine cultural landscapes. The Venetian lagoon

and the pre-alpine valleys and forests of the Dolomite Mountains will allow students to examine their understanding of the relationship between nature and culture along with the policies and politics of identity and sustainable landscapes.

Summary: Costs: Travel Fee \$1700 covers most meals, local transportation, and accommodations. Travel to and from Venice, personal expenses, health and cancellation insurance, and tuition fee are not included

Credit hours: 3 at 4000/7000 level

For more information: Please contact Dr. Iain Davidson-Hunt at the Natural Resources Institute.

Close-Up on Courses.

Travel/Study Course Churchill, Manitoba

This Summer Session Travel Study course is located in Churchill and the surrounding region and looks at the wildlife, ethnoecology, ecotourism, and environment of the Manitoba Coastal Region. Kristina Hunter and Dr. Ryan Brook as co-instructors for the last two years, have provided unique educational experiences for students. As Kristina Hunter states: "I reflect on what makes this course so meaningful, and I think that it is the experiential form of learning that is so intense and so real".

Students in the course participate as members of undergraduate and graduate interdisciplinary research teams living and working at the Churchill Northern Studies Centre and the Nester 1 field camp. They are encouraged to focus on their own disciplinary interests and have unique access to historical, cultural, and ecological resources. Representatives from the region's four indigenous cultures, Cree, Dene, Inuit, and Métis, are also involved with course delivery.

Summary: Costs: Tuition (~\$710) Travel Fee (\$1300; covers most meals, travel and accommodations in Churchill), Flight to Churchill (~\$900)

Proposed Dates: August 16th – 26th, 2010

Credit hours: 6 at 3000 / 4000 level

For more information: Please contact Kristina Hunter at hunterkn@cc.umanitoba.ca or Dr. Ryan Brook at rkbroad@ucalgary.ca



Common Ground Research Forum

The Common Ground Research Forum (CGRF) is a five-year project (2009-2014) supported by a Community-University Research Alliance (CURA) grant from the Social Sciences and Humanities Research Council (SSHRC) of Canada. The CGRF partners include the City of Kenora, Grand Council Treaty #3, the University of Manitoba, and The University of Winnipeg, along with numerous other organizations in the public, private, and community sectors. Dr. John Sinclair of the University of Manitoba's Natural Resources Institute (NRI) is the program's principle investigator, with Dr. Iain Davidson-Hunt (University of Manitoba NRI) and Dr. Alan Diduck (University of Winnipeg) as co-investigators.

Building on the community-led initiative of "Common Ground", the project will examine how the City of Kenora and its surrounding First Nations are working together in a novel and unique partnership to plan and manage the use of several parcels of heritage land located within the municipality. This land, comprising Old Fort Island and parts of Tunnel Island, was gifted to the Rat Portage Common Ground Conservation Organization by AbitibiBowater in 2006 as part of its divestment of local assets



following the Kenora mill closure in 2005. The CGRF will document best practices for a partnership approach to northern regional planning and development along with recommendations for policy and legal reforms, curricula, and pilot

projects. It will provide limited funds, training resources, and support for related community projects that support the spirit and goals of the Common Ground Research Forum.

The program's first graduate student project, an investigation of community cultural assets within the partner First Nations,

will be the first of many academic research projects supported and informed by community partners. Fully funded student research positions are available to graduate student candidates enrolled or eligible for enrolment in the Natural Resources Institute, University of Manitoba. Undergraduate candidates must be enrolled or be eligible for enrolment in the Environmental Studies Program, The University of Winnipeg.

For further information, the Community Research Coordinator, Teika Newton, can be reached at (807) 466-2403 or teika@teika.ca or by visiting the CGRF office at Suite 2 - 530 3rd St. N, Kenora, ON.



News from Coop.

Alison Murata (Honours Environmental Science Coop Program) worked for researcher Dr. David Lobb (Department of Soil Science) this past summer to fulfill a placement required in the Cooperative Education Option. As a recipient of the Natural Sciences and Engineering Research Council Undergraduate Student Research Award, Alison had the opportunity to work on current research in the field of soil erosion and wetland hydrology. A component of the position required that she assist with stream bank sampling along the South Tobacco Creek (on the Manitoba Escarpment) while other responsibilities took her to Brandon to measure electrical conductivity of water taken from wetlands at the Manitoba Zero-Tillage Research Association (MZTRA) farm. Alison has published her research findings in a poster "Electrical Conductivity as an Indicator of Wetland Hydrology" and competed in the 2009 NSERC poster presentation. She will also present this poster at the 2010 Manitoba Soil Science Society conference held in February.

Cooperative Education Option is an experiential program that provides students with the opportunity to gain practical experience in research, industry, and government settings.

Graduate Student Research.

Leslie Carroll (M.Sc Candidate in the Department of Environment and Geography) is working with Dr. Vince Palace from the Department of Fisheries and Oceans Canada, Drs. Mark Hanson and Norman Halden from the University of Manitoba, in collaboration with Dr. Nadine Thébeau at the Ontario Ministry of Natural Resources (OMNR).

Her thesis research is attempting to better understand the cause of recruitment failure among lake trout in Red Lake, Ontario. Red Lake is located in the Canadian Shield of Northwestern Ontario and is a popular fishing area for lake trout. However, in 2001 OMNR observed evidence of lake trout population recruitment failure. One hypothesis for the failure has focused on metals associated with gold mining in the area. Leslie is taking a unique approach utilizing techniques to measure metal concentrations in the otoliths of lake trout. Otoliths are calcified structures located in the inner

ear of teleost fishes. They are mainly comprised of calcium carbonate and begin to develop at hatching and continue to grow during the fish's life. Once material is incorporated into their structure it is highly unlikely that it will be altered or reabsorbed. Therefore, otoliths provide a temporal account of the fish's growth history, including the metals it may have been exposed to during specific periods of growth and development.

Concentrations of five trace metals were determined in otoliths from lake trout captured in Red Lake. Leslie will be able to determine whether a specific metal and/or metals are a possible causal agent for the recruitment failure. This work on such an important issue is possible only through the collaborative and multidisciplinary nature of the Riddell Faculty.

Jennifer Ruch graduated with a Environmental Studies Major degree in February of 2006 and is now a Master of Environment candidate in the Department of Environment and Geography working with Dr. Rick Baydack. This past field season, she focused on wildlife conservation and management in Norman County, Minnesota where there are approximately 150 greater prairie chickens fitted with radio collars.

Beginning in early April, Jen trapped hens and cocks on active booming grounds. Each bird was processed (weighed, measured, etc.) and fitted with a radio collar before being released. Intense telemetry tracking ensued as the birds were followed, especially the hens, through egg laying and incubation. In late June and early July, nests began to hatch and Jen then focused on invertebrate numbers and diversity. Each day she located brooding hens and swept for insects along a habitat transect. Toward the fall,



she began radioing chicks to follow for another season. As insects are a limiting factor in prairie chicken brood survival, the ultimate goal of Jen's research is to

determine which habitat types produce the optimal number and diversity of invertebrates for successful chick survival.

Undergraduate Student Research.

Rosemary Dohan is enrolled in the Honours Environmental Studies Coop Program and is working with her thesis advisor, Dr. Rick Baydack, to look at Pine Martens in the Duck Mountain Provincial Forest (DMPF). Originally from Thunder Bay, (Ontario) Rosemary moved to Winnipeg to specifically pursue her degree in Environmental Studies at the University of Manitoba.

The main objective of the project is to determine, through both qualitative and quantitative methods, the status of the pine marten population within the DMPF. Partnering with Rosemary are also Donna Kopecky from Louisiana Pacific Canada, based out of Swan River, and Daniel Chranowski from Manitoba Conservation.

Through surveying trappers and other professionals in the area, Rosemary has tapped into an in-depth resource of ecological knowledge about the DMPF and pine martens. Attending the Duck Mountain Trappers Association (DMTA) meeting, and taking her Trappers Education Course has allowed her to effectively connect with the trapping community.

Rosemary wishes to extend her most sincere thanks to all the people involved in the community and especially the DMTA's president, Glen Roberts and the many community members who assisted with surveys. She would also appreciate meeting anyone currently trapping pine martens in the Duck Mountains or within the last 20 years.

Rosemary may be reached at (204) 291-5324, or umdohan@cc.umanitoba.ca.

"Coming into this project, I had no idea I would meet so many incredible people and learn so many fascinating things about trapping and ecology",



Photo courtesy of E. Watchorn

2009 Initiative Prize.

Sophia G. Laverne (Honours Environmental Science Program) is the 2009 recipient of the Riddell Faculty Undergraduate Initiative Prize. The award offers an annual prize to recognize an undergraduate student who has developed, built upon and/or contributed to local, regional, national, and international initiatives that serve the greater good. In 2008, Sophia volunteered with Global Vision's international wildlife research project in the Limpopo province of South Africa. She spent ten weeks involved in collecting data about large mammals in order to monitor populations and the implications for the increasing number of private enclosed wildlife reserves. Sophia, as seen in this photograph, assisted in tracking animals using radio telemetry, and was also involved with the removal of prickly pear (an alien invasive plant) and took part in visits to local schools.



IMPORTANT DATES

2010 United Nations International Year of Biodiversity

<http://www.cbd.int/2010/welcome>

March 10 Bridging Professionals of Today with those of Tomorrow

Event to bring together students, professors, industries and businesses

Organized by the student chapter of the Manitoba Environmental Industries Association and hosted this year by the University of Manitoba

For more information and to suggest participants contact Michele at umnich48@cc.umanitoba.ca

March 22 World Water Day

"Communicating Water Quality Challenges and Opportunities"

May 10, 2010

Deadline for the next issue of this newsletter

Picturing the Planet.

As a regular feature "**Picturing the Planet**" will bring inspiring and informative images, taken by our students and faculty, to reflect on the beauty and diversity of our world. If you have taken a picture that expresses the majesty and beauty of our planet, consider submitting it plus a few words for the next issue of the newsletter.



Barbara Bleho, recent graduate of the Masters of Natural Resources Management Program, captured this image while conducting her field work on effects of cattle grazing on conservation of prairie birds. Her research was conducted in Grasslands National Park, Saskatchewan, the site of the largest-scale cattle grazing management experiment in North America. Barbara found that while habitat diversity increased species diversity, it concurrently decreased habitat suitability for several species with declining population trends, emphasizing the importance of clear and specific objectives when developing management plans.



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