



ATLANTIC GEOSCIENCE SOCIETY
NEWSLETTER

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Among the many secrets of the Nova Scotian coastline is this outcrop of Carboniferous Windsor Group limestone at Newport Landing (Minas Basin, almost due north of Windsor). Not only is it limestone, it is a coquina reef with amazing porosity of well over 30%. Admiring the rock is Tracey Webb, a grade 12 geology teacher from Horton High School. Bill MacMillan from the Geological Survey of Canada is smiling for the camera, while Jennifer Bates (GSC) does her best to hide behind Bill. Furthest to the left, Hans Wielens (GSC) is supervising to make sure that no rock samples change ownership. Geoff Baldwin, a graduating student at Acadia University, has recently been trying to learn the secrets of these rocks with his supervisor Peir Pufahl through a B.Sc. thesis entitled “The sedimentology and diagenesis of a Mississippian brachiopod biostrome in the vicinity of Newport Landing, Hants County, Nova Scotia” (photo: Rob Fensome).

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The deadline for submissions to the next issue is June 15, 2007. Please send articles or feedback to:

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PRESIDENT'S FORUM

In Atlantic Canada we are incredibly fortunate to have so many individuals dedicated to advancing the geosciences and to promoting our field to the public, whether it be to politicians, school teachers, or indeed anyone trapped next to a bare patch of rock for even a few minutes. As geoscientists we are a passionate bunch, sometimes viewed with puzzled looks by other members of society who just can't seem to get all fired up about our crazy "rocks and minerals stuff." Over the years, my wife has patiently listened on ... at least I think she was listening ... as I've unintentionally launched into one geological explanation after another during our travels, although I now sense that new geological boundaries may be forming in our household as our four-year-old daughter amasses a sizeable rock collection in the middle of our dining room. Call us crazy if you will, but it's a good time to be a geoscientist in Atlantic Canada, and in most other corners of the globe.

The AGS will celebrate its 35th birthday this April 11th and, as incoming President, I find it humbling to look back on all that the Society has accomplished. These accomplishments reflect the hard work and dedication of the many excellent geoscientists in our region and the tireless efforts of a legion of volunteers, as Graham Williams has recently summarized in his written history of the AGS (available on our website). At the recent, highly successful Colloquium, I had the great honour of presenting awards to two individuals who epitomize the spirit of the AGS. This year, the Distinguished Scientist Award (Gesner Medal) was presented to Dr. Jarda Dostal of Saint Mary's University. The Distinguished Service Award went to Susan Johnson of the New Brunswick Department of Natural Resources. On behalf of the society, I would like to congratulate Jarda and Sue once again, and also extend our thanks to the nominators and reviewers who put in many hours to help recognize the important contributions of Jarda and Sue. I encourage all of you to read the award citations included within this newsletter.

The Colloquium was a resounding success thanks to the efforts of co-chairs Susan Johnson, Mike Parkhill, and Reg Wilson, as well as the Organizing Committee and many student volunteers. Despite threats of nasty winter weather in Moncton on Friday, February 3rd, two very successful workshops were held that afternoon and more than 165 registrants made it to the technical sessions later that evening and throughout the day on Saturday. Two concurrent sessions were hopping all weekend long with 54 oral presentations and 23 posters on a wide range of topics. Please see Reg Wilson's report on the Colloquium later in this issue for all of the details on this top-notch meeting. Particularly encouraging was the high level of student participation—no fewer than 26 oral presentations and 18 posters were offered up by students. After an exhausting day-and-a-half of evaluating all of these excellent presentations, two teams of judges awarded the Rupert MacNeill Award for Best Student Paper to Marc Laflamme of Queen's University, and the Graham Williams Award for Best Student Poster to Helen Neilson of Dalhousie University. The Society thanks Dr. David Piper of the GSC-Atlantic for his highly entertaining talk at the banquet, and also the many generous sponsors who played a crucial role in making the Moncton meeting such a success.

In February 2008, the AGS Colloquium and Annual General Meeting will be held in Halifax. Planning is in early stages right now, and we are looking for volunteers who would be willing to help out on the Organizing Committee, as the chair of a Special Session, or perhaps in some other capacity. A formal call for Special Session and Workshop proposals will follow in the

RECENT AGS AWARDS

coming months, but if you have already have some ideas that you'd like to share, please contact me directly. In view of the increased attendance at recent AGS meetings, Council is presently considering a proposal to extend the length of the Colloquium next year to reduce the need to run too many concurrent talks, and also to provide additional time on Friday evening for networking. One possibility would be to begin the meeting earlier on Friday, perhaps by running one technical session on Friday afternoon. Some members have also noted scheduling conflicts between the AGS Colloquium and other geoscience meetings on the first weekend in February, and have asked Council to explore the possibility of moving the Colloquium to the second weekend in February instead. To help us with these decisions, I would appreciate receiving feedback from the membership on these proposals—please send me your thoughts, whatever they may be, at the e-mail address below.

As I begin my term as President, I would like to thank the past and present members of the Executive, Councilors, and the many other generous volunteers who help keep the Society running day-to-day. I am particularly grateful for the support of Past President Ian Spooner, Secretary Rob Raeside, Treasurer Ken Howells, Webmaster Joe MacIntosh, Newsletter Editor John Shimeld, and the manager of our e-mail distribution list, the venerable Peter Wallace.

The Executive is very pleased to announce that David Mosher of GSC-Atlantic has recently been elected Vice President by an overwhelming majority of e-mail votes. Council is fortunate to have several new members this year, including Andrew MacRae (Saint Mary's University), Grant Wach (Dalhousie University), and Jim Walker (New Brunswick Department of Natural Resources). Unfortunately, we have also had to accept the retirement of councilors Steve McCutcheon, Peter Wallace, and Reg Wilson—the Society thanks all three for their past service, but warns that we may occasionally seek out their sage wisdom in the future. Finally, the AGS is very thankful to Nelly Koziel of the GSC-Atlantic, who has graciously stepped forward to take over the handling and sales of publications from Peter Wallace. Peter is to be commended for his dedication to this important job over so many years.

I look forward to working with all members in the coming year to expand the influence and awareness of our Society in the Atlantic Region and beyond. These are exciting days for AGS—our finances are healthy, our journal, *Atlantic Geology*, has completed the transition to online delivery (don't forget to submit those manuscripts!), and our various committees have all sorts of great projects on the go. Council will be working hard on various initiatives throughout the year and, as always, we welcome your input. Thank you for your support.

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RUPERT H. MACNEILL AWARD: MARC LAFLAMME

Marc Laflamme of Queen's University accepts the Rupert H. MacNeill Award from Mike Parsons for Best Student Paper. Marc's paper was entitled "Tiering in Ediacaran fronds from Mistaken Point, Newfoundland" (photo: Reg Wilson).



GRAHAM WILLIAMS AWARD: HELEN NIELSON

Helen Nielson of Dalhousie University was the recipient of the Graham Williams Award for Best Student Poster. Her poster, co-authored by her supervisor John Gosse, was entitled "Landform evolution in the south central Andes: Determining the major mechanisms of formation of the great escarpment between 32 and 38 degrees south, Argentina." John Gosse is seen here accepting the award on Helen's behalf. Making the presentation is incoming AGS President Mike Parsons (photo: Reg Wilson).

CITATION FOR THE GESNER MEDAL: JARDA DOSTAL

In recognition of his lifetime scientific contributions to the fields of Geochemistry and Igneous Petrology, Dr. JarDA Dostal, Professor Emeritus at Saint Mary's University, is the 2007 recipient of the Gesner Medal. JarDA's research career is now well into its fourth decade, and his publications are impressive both in terms of quantity and quality. He has published in a wide variety of prestigious journals, on the national and international scene. For much of this time, his work has focused on mineralogy, geochemistry and petrology of igneous rocks. However, a cursory look at his curriculum vitae will show that this is a gross oversimplification. He has tackled every important petrological process from mantle evolution, to magma mixing, to liquid immiscibility in rocks ranging from Archean to recent in age! His contribution to any one of these fields of research is sufficient to have merited a first-class international reputation. Taken together his contributions are truly outstanding, and for the rest of us mere mortals, humbling.



Incoming President Mike Parsons (right) and Brendan Murphy (left), who read the citation, present the AGS Distinguished Scientist Award (Gesner Medal) to JarDA Dostal of Saint Mary's University. Is Mike trying to sneak that plaque under his jacket? (photo: Reg Wilson).

JarDA instigated and maintains the X-Ray Geochemical Centre at Saint Mary's, where all of us get our staple diet of major and trace element analyses performed. This lab has gone through a series of upgrades over the past 20 years. The efforts to obtain these upgrades were spearheaded by JarDA in the form of several grant proposals to NSERC. The national success rate of these proposals is very low and so JarDA's success is testament to his reputation as a geochemist and in his adroit skills at managing the Centre.

JarDA completed his undergraduate degree at Charles University in Prague in 1964, left the former Czechoslovakia during its troubled 60s and emigrated to Canada. After

completing his Ph.D. studying the geochemistry and petrology of Loon Lake in Ontario in 1974, JarDA became a professor at Saint Mary's University in 1975, where he has been ever since. For 12 of those years, he has served as department chair. I often complain that serving as chair is supposed to slow one's research down, but JarDA's track record shows no such effect, he really is an unstoppable force! Either that or his brakes are worn out!

By the time JarDA finished his Ph.D., he already had 8 publications in refereed journals, predominantly in the field of mineralogy (from amphiboles to asbestos), and there was one paper that included the results of field mapping. Many of his early papers were on uranium and rare earth geochemistry, in igneous and metamorphic rocks ranging in age from Precambrian to Recent in regions such as Sardinia, Algeria, Iran, the Canadian Shield and the Andes. Taken together, his studies on the distribution of uranium and related elements in volcanic rocks is an enormously impressive contribution, spanning much of the geologic column and in all corners of the globe (including Nova Scotia). These studies were many years ahead of the vast volume of literature that ultimately related these elements to a combination of primary and secondary processes. Once again, in his insights and research interests, JarDA demonstrated that he was well ahead of the bandwagons.

Not content with the geographic limitations of continents, he also got involved in Deep Sea Drilling Projects. In the late 1970s his work around the Mediterranean expanded to include Greece, the western Alps and the Massif Central, and other parts of northern Africa. During this time, JarDA was one of the first to point out that continental tholeiites may not fit into traditional trace element discrimination diagrams (all the rage at the time) because of their crustal contamination, principles he used to great effect in his studies on the Precambrian, Paleozoic and Mesozoic continental tholeiitic rocks in Atlantic Canada. His work on the tholeiitic basaltic rocks in Coppermine (1984) and Natkusiak (1986) basalts stimulated much discussion and further research on the petrogenesis and tectonic setting of these rocks, debates that continue to this day.

By the early to mid-1980s, JarDA had become a world authority in the various manifestations of igneous rocks, modern and ancient, and on a wide variety of petrological processes associated with their genesis. JarDA tackled important petrological problems head-on by providing compositional constraints and textural insights in order to predict their tectonic environments. By the late 1980s, Atlantic Canada had begun to reap the dividend from JarDA's accumulated expertise. By that time, he had authored or co-authored papers on virtually every conceivable age and type of igneous activity in the Appalachians. JarDA's thinking was well ahead of the pack and most of his basic conclusions are still as valid as the day they were written (not many of us can say that!).

In the 1990s, of more than 80 publications, several stand out as landmarks. For example, his 1992 paper (with Mueller) on Archean shoshonites in the Abitibi is important because it provides clues as to whether modern environments can really provide actualistic analogues for Archean settings. His 1996 paper on the inception and demise of a pre-Pan-African ocean basin in Algeria is a very important contribution to our understanding of Neoproterozoic global-scale orogenic activity and has implications for the tectonic setting of our own Avalonian belt. In 1996 and 1998 papers on the ocean island basalts from French Polynesia, he showed how the distribution of light elements such as boron, lithium and beryllium may be used as tracers for the character of subducted components. These are first-order contributions to our understanding of subduction zone processes and, true to form, will no doubt be applied to Atlantic Canadian geology in upcoming studies. His papers on the early Mesozoic dykes of Atlantic Canada also stand out as a contribution to our understanding of the timing, setting and igneous manifestations of divorce from our Late Paleozoic neighbours.

Most recently, Jarda has focused much of his research on the terra incognita of southern Mexico, using igneous petrology and geochemistry to constrain evolution of magmas in a wide variety of settings. He has made a considerable contribution to the understanding of the one-billion-year-old Oaxacan complex, which is a portion of a Grenvillian orogen that has been dismembered by the breakup of Rodinia, Gondwana and Pangea. This is a crucial piece of work because it constrains Neoproterozoic continental reconstructions.

And so, 30+ years after Jarda embarked on his research career, we look at his publications over the last five years and what do we see? Nearly 50 refereed publications! In addition to continued research into Neoproterozoic to Mesozoic igneous complexes in the Caledonide-Appalachian orogen, there are papers on Paleoproterozoic to Mesozoic magmatic events in Greenland, Mexican igneous complexes ranging from Paleoproterozoic to Mesozoic in age, continued research into the Archean of northern Canada, the accreted igneous complexes of western Canada, and many more.

Jarda's research has been innovative with a level of sustained excellence for over 30 years. The breadth and depth of his contributions span some of the most fundamental concepts in the fields of mineralogy, geochemistry, igneous petrology, and their relationship to tectonics. Jarda should serve as an inspiration to the modern crop of Ph.D. students in igneous petrology. He tackled some of the most important petrological challenges of our time and consistently provided novel and plausible insights into fundamental processes responsible for them. In bringing and maintaining state-of-the-art analytical equipment to Atlantic Canada, his contributions have provided the infrastructure for many more researchers.

Jarda has been a great supporter of the geoscience community over the years, most notably as chair of the Atlantic Provinces

Council on the Sciences committee on the Earth Sciences. He is a regular attendee of the annual Atlantic Universities Geological Conference, where undergraduate student research projects in Atlantic Canadian universities are presented. Although he tends to stay in the background, late in the evening he can be found in reasonable proximity to the bar (a Czech custom, no doubt) waxing most eloquently about the complexities of igneous geochemistry. I confess to having learned most of my geochemistry on the adjacent bar-stool.

Jarda is a scientific leader. He was always well ahead of the pack throughout his career. I believe it is time to formally recognize his lifetime contribution. He is a most deserving recipient of the Gesner Medal.

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**CITATION FOR THE DISTINGUISHED SERVICE
 AWARD: SUSAN JOHNSON**

I am pleased to announce that my good friend and colleague Susan Johnson of the New Brunswick Department of Natural Resources, is the 2007 recipient of the Distinguished Service Award. Susan has been a member of the society for over 25 years and has always been actively involved in AGS. Susan is from the Moncton area and is a graduate of Acadia University.



Susan Johnson of the New Brunswick Geological Surveys Branch is presented with the AGS Distinguished Service Award by Past-President Ian Spooner (left), and Mike Parkhill (centre), who read the citation (photo: Reg Wilson).

Before coming to the New Brunswick Department of Natural Resources Sussex office in 1986 she worked in the private sector for Shell Oil and at Mount Pleasant Mines. Susan became an AGS Councilor in 1991 and served a 7 year term on council. When AGS council shifted to New Brunswick in

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the mid 1990s she keenly took on the position of Vice-President. In 1996, during her term as President she was on the organizing committee and presided over the Bathurst, New Brunswick AGS meeting. This was the first AGS Colloquium to take place outside of a traditional Atlantic university location. In 2003, Sue started her second stint as a councilor, a position she still holds.

As Reg Wilson said in his supporting letter “It has been her luck, or misfortune, depending on your point of view, to live in the geographic center of AGS territory. As such, she has assumed the role of a latter-day Laing Ferguson in organizing/hosting AGS Colloquia (she must by now run a close second to Laing in this category)”. She has been a major driving force behind no less than seven of them, including the Silver Jubilee, 25th anniversary meeting in 1997 at the Wandlyn Inn in Amherst, Nova Scotia. This meeting also coincided with the Geological Association of Canada’s 50th anniversary and by all accounts was a highlight in the history of our society. Sue is still hard at work on our behalf having taken on the role of helping to organize the popular Moncton Colloquiums in 2001, 2004 and the most recent 2007 meeting.

In addition to her work on council and in organizing colloquiums, Susan is a well respected scientist who has presented many papers at the Colloquiums and edited papers for our journal, *Atlantic Geology*. Malcolm McLeod, a colleague who has worked with Susan in the public and private sectors for nearly 25 years, mentioned her significant contributions to the understanding of southern New Brunswick’s geology and mineral deposits through her work with the New Brunswick Geological Surveys Branch.

She co-led one of the trips and was part of the field trip committee for the 2005 Halifax GAC/MAC meeting which was co-hosted by the Atlantic Geoscience Society. Susan never turns down a request to do school presentations as part of the AGS Education Committee’s outreach goals. She has also been a member of the APICS Earth Science Committee since 2002.

It is evident from her outstanding work on behalf of the Atlantic Geoscience Society and supporting letters from colleagues, that Susan Johnson more than fulfills the criteria for the Atlantic Geoscience Society’s Distinguished Service Award. It is amazing to me that Susan has not already received this award. She is a most deserving 2007 recipient. It is most appropriate for her to be awarded the Distinguished Service Award on her “home turf” at a Moncton Colloquium.

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The 33rd Colloquium and Annual General Meeting of the Atlantic Geoscience Society was held at the Delta Beauséjour Hotel in Moncton, February 2nd and 3rd. The program began with an all-day Friday workshop entitled “A Review of Physical Volcanology: A Metallogenic Perspective”, which was convened by Ryan Toole and David Lentz of the University of New Brunswick. Records have not been kept for comparison but it seems likely that this workshop approached an attendance record, with more than 50 people registered. Seven presenters expounded on many aspects of volcanic rocks and environments, highlighted by an excellent address on mineralization associated with Archean subaqueous calderas by 2006-2007 Canadian Institute of Mining, Metallurgy and Petroleum Distinguished Lecturer Wulf Mueller of l’Université du Québec à Chicoutimi. Other contributors were David Lentz, Cliff Shaw, and graduate students Warna Downey and Alex Wills, all from UNB, and Steve McCutcheon and Reg Wilson from the New Brunswick Geological Surveys Branch. On Friday afternoon, a second workshop, entitled “North American Soil Geochemical Landscape Project – Orientation Session” was convened by Toon Pronk of the NBGSB. The purpose of this workshop was to review protocols for a multi-national program designed to meet the need for soil geochemical data for assessing and managing natural resources and risks of environmental hazards.



Banquet speaker and GAC Past-President David Piper of GSC Atlantic (left) accepts a “parting gift” from Susan Johnson while AGS Past-President Ian Spooner looks on from the rear (photo: Reg Wilson).

Roughly 165 registrants were present for the Friday evening to Saturday technical program, which featured 54 oral presentations divided into four special sessions and several

general sessions in two simultaneous theatres. In addition, 23 poster displays were presented. Special sessions included “Mineral Resources Research” (organized by Sabine Vetter and the Society of Economic Geologists Student Chapter at UNB), “Salt Matters: Tectonic, Thermal and Resource Aspects of Paleozoic to Mesozoic Evaporite Basins” (Marcos Zentilli, Dalhousie University), “Patterns and Geohazards in the North Atlantic” (Cristian Suteanu, Saint Mary’s University), and “Late- and Post-Glacial Climate Change Events in Eastern Canada” (Ann Miller).

The subject matter of the latter two sessions allowed AGS to win an endorsement from the Canadian National Committee for the International Year of Planet Earth, as an “official contribution” to IYPE. These sessions conformed to two of the ten major research themes of IYPE, namely “Hazards” and “Climate”, allowing AGS to be the first geoscience society anywhere to promote IYPE in their technical program.

The climate change session concluded with an outstanding and balanced overview of the climate change debate by outgoing AGS President Ian Spooner and co-author Rob Raeside, entitled “Global warming, climate change and geoscientists: a volatile mix”. Coincidentally, earlier in the afternoon AGS had some competition across the street in the form of David Suzuki, who included a flying trip through Moncton on his cross-Canada tour to rally support for strict climate change counter-measures.

The conference general sessions encompassed current research being carried out in the Maritimes on topics as diverse as hydrocarbon systems, geological evolution of the Appalachian region, correlating geological properties with durability of construction aggregate, the geology and geochemistry of soils in Nova Scotia vineyards, and many more.

Student participation is typically an important part of the AGS Colloquium and this year was no exception. Twenty-six student oral presentations and 18 posters kept two teams of judges busy and made their life difficult with the usual near-impossible task of choosing the winners of the AGS student awards from among the many outstanding efforts. These awards were presented during the annual Saturday night banquet, with Marc Laflamme of Queens University earning the Rupert MacNeill Award for Best Student Paper for his talk (co-authored by Guy Narbonne) “Tiering in Ediacaran fronds from Mistaken Point, Newfoundland”. Honourable Mention went to Tony Barresi of Dalhousie University for his presentation, “A petrogenetic model of prospective stratigraphy in the Eskay Rift, northwest British Columbia”. In judging for the Graham Williams Award for Best Student Poster, Helen Neilson of Dalhousie University took the honours for her display (co-authored by John Gosse), “Landform evolution in the south central Andes: Determining the major mechanisms of formation of the great escarpment between 32 and 38 degrees south, Argentina”. Honourable Mention went to Matthew Ferguson of (yet again) Dalhousie

University (co-authored by Tim Webster and John Gosse) for “The application of high-resolution laser altimetry to deglaciation dynamics: Bridgetown, Nova Scotia”.

The AGS banquet is also the occasion to confer our two major AGS awards, the Distinguished Service Award for exceptional and altruistic contributions to AGS over a long period of time, and the Gesner Medal, or AGS Distinguished Scientist Award. This year, the Distinguished Service Award went to Susan Johnson of the NBGSB, who has, among other things, committed much time and energy as chief organizer of several AGS Colloquia in recent years—a large task that seems to get more complex over time. The Gesner Medal was awarded to Dr. Jaroslav (Jarda) Dostal, Emeritus Professor at Saint Mary’s University, an incredibly productive igneous petrologist and geochemist who is also one of our profession’s true gentlemen. See elsewhere in this issue for full citations for these exceptional individuals.

The AGS banquet concluded with an after-dinner presentation by Geological Association of Canada Past-President David Piper (GSC Atlantic) entitled “Apprenticeship in geology—a second look”. This highly entertaining talk simultaneously served as encouragement to students of earth science and a source of great hilarity for all. David weaved his homilies and humour into the lively tale of his experience as a neophyte geologist, complete with several fascinating photos of young Piper the Apprentice. Thanks are due to Ian Spooner and to incoming President Mike Parsons for their commendable performances as masters of ceremonies of the banquet and awards ceremonies, respectively.

The success of the Colloquium this year can be attributed to the efforts of numerous individuals. Co-chairs Susan Johnson, Mike Parkhill and Reg Wilson led an Organizing Committee that also included Peter Wallace (registration), Ian Spooner (audio-visual), Dave Lentz and Ryan Toole (workshop), Toon Pronk, Cyndie Pitre, and Marc Desrosiers. The roster of student judges included Mike Parsons, Sonya Dehler, Kay Thorne, John Langton and Serge Allard. Student volunteers from Acadia University (Stephanie Anderson, Rafael Cavalcanti de Albuquerque, Sheri Lyons, Gabe Nelson, Mary Samolczyk, Aaron Satkoski, and Doug Stiff) deserve much credit for loading the PowerPoint files and keeping the technical program rolling without a glitch. Finally, no conference is entirely successful without an eye on the bottom line, and the AGS is grateful to the many corporate sponsors that helped keep our fees as low as possible, especially for students. The sponsors were: the Association of Professional Engineers and Geoscientists of New Brunswick, l’Université de Moncton, Xstrata Zinc Canada, Corridor Resources Inc., Blue Note Caribou Mines, the Potash Company of Saskatchewan (New Brunswick Division), Freewest Resources Canada, First Narrows Resources, the University of New Brunswick, and the Canadian Institute of Mining, Metallurgy and Petroleum.

This year delegates arrived from Newfoundland, Quebec, Ontario, Saskatchewan, and Alberta; we're confident that they have returned home with fond memories of a good time, and hope that there may be a few glowing accounts of "The Biggest Little Geoscience Society in Canada." Next year the meeting will be in Halifax, at a February date and venue to be announced later—we hope to see you all there to help AGS and the Colloquium continue to grow.

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REGIONAL NEWS AND UPDATES

ACADIA UNIVERSITY

Another busy term is drawing to a close. The department was well represented by a large group of about 15 faculty and students at the AGS annual meeting in Moncton in early February. Once again, Ian Spooner and his teams of Acadia students did an excellent job in managing the data projection equipment during the conference, as well as looking after their various scientific presentations and social activities.

Three graduating students submitted their honours theses in geology this term. Geoff Baldwin, working with Peir Pufahl, completed his thesis entitled "The sedimentology and diagenesis of a Mississippian brachiopod biostrome in the vicinity of Newport Landing, Hants Country, Nova Scotia." Rafael Cavalcanti de Albuquerque, working with Ian Spooner and Cliff Stanley, finished his thesis on "The southern Nova Scotia Wine Terroir: A geological and pedological approach including the cation exchange capacity of soils from vineyards." Crystal Laflamme, working with Cliff Stanley, completed her thesis on "Gold and sulphide minerals in the Triple Seven VHMS deposit, Flin Flon, Manitoba." In addition, Ian supervised Environmental Science honours student Ty Smith in his project on "A Baseline Assessment of Surface Water Quality in the Kesagami River Wilderness Area, Ontario", and Ian and Cliff co-supervised Environmental Science student Mary Samolczyk in her thesis entitled "Arsenic, uranium and other key constituents in water from drilled wells: a study of local geochemistry and its effects on the residents of Grand Pré area, Nova Scotia." Mary's presentation of her thesis results won the best paper award from Natural Sciences and Engineering Research Council at the annual Atlantic Provinces Council on the Sciences Environmental Studies Conference held in Corner Brook, Newfoundland, in March. Mary also won the Canadian Society of Petroleum Geology award for best paper at the Atlantic Universities Geological Conference last October.

Clearly her work is an outstanding example of synergy between geology and environmental science.

In January, the department welcomed a new graduate student, Matthew Tucker, from the University of Ottawa. Matthew will be working with Sandra Barr to attempt to unravel geological problems in the Faribault Brook area of the western Cape Breton Highlands. Graduate students projects on-going in geology at Acadia can be viewed on the departmental website (<http://ace.acadiau.ca/science/geol/index.html>).

During the mid-term break, Erin Dodge, a fourth year student in Geology, participated in a field school investigating the geology and petroleum industry of Trinidad organized by Dr. Grant Wach of Dalhousie University. Much appreciated financial support was provided by the Department of Energy to allow students from Nova Scotian universities to participate in energy-related training opportunities outside of the province.

Sandra Barr and her graduate student Aaron Satkoski presented papers at the annual meeting of the Northeastern Section of the Geological Society of America in Durham, New Hampshire in mid-March.

The annual end-of-year Acadia Geology Department banquet was held in the just-opened Fountain Learning Commons at Acadia University. An excellent turkey dinner was preceded by a "highlights of the year in photos" power point presentation and followed by banquet speaker Dr. Tim Webster (Centre of Geographic Sciences), who provided a glimpse into the application of GIS techniques in Nova Scotia, past, present, and future. Student award winners received certificates of recognition of their achievements. Professors also received "award" certificates, for mainly their less than admirable achievements over the year.

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UNIVERSITY OF NEW BRUNSWICK

Stefan Kruse defended his Ph.D. thesis entitled "Structural evolution of the northern Thor-Odin Culmination, Monashee Complex, southern Canadian Cordillera" which was supervised by Prof. Paul Williams. Stefan is working mainly in Mongolia now as a structural consultant for Entrée Gold. Congratulations Stefan for an excellent defense. Kudos are also due to Ph.D. candidate Andrew Parmenter who is the 2007 recipient of the Mary-Claire Ward Geoscience Award (see elsewhere in this newsletter). Two undergraduate students, Thomas Mumford and Jillian Martin, successfully defended their B.Sc. theses last December.

Prof. Bruce Broster is currently departmental chairman; he's been busy with his duties here, with committees of the Association of Professional Engineers and Geoscientists of New Brunswick, and with the Canadian Council of Professional Geoscientists. Prof. Ron Pickerill is busy with his many, many editorial responsibilities. Dr. Donovan Blissett, who defended his Ph.D. last year, is now a Post-Doctoral Fellow with Profs. Karl Butler and Dave Keighley on a hydrocarbon reservoir research project. Although still on sabbatical until June, Prof. Karl Butler has returned from Down-Under and is enjoying doing research back in his lab.



Fossilized tree stumps that were recently donated to the UNB Geology Department by NB Coal (Minto, NB) (photo: NB Coal staff).

Prof. Cliff Shaw visited his old friend Prof. Ross Angel (Virginia Tech) last month to work on some crystal-chemical problems; I'm sure beer consumption was involved in solving those problems. Dr. Sol (Maria) O'Leary, a Post-Doctoral Fellow funded by Consejo Nacional de Investigaciones Científicas y Técnicas (Argentina), has been visiting Prof. David Lentz's research group for several months to work on the hydrothermal alteration of the giant breccia-hosted Agua Rica Cu(Mo-Au) deposit in Argentina. One might think with a name like O'Leary that she would have been out for an all-night celebration of St. Patrick's Day (like the rest of the O'Leary's here in Fredericton) but, in all honesty, she is definitely a "true blue" Argentinian.

I don't keep track of my students as closely as some of them may think (although ... I am thinking of investing in tracking bracelets!). Warna Downey (Ph.D. candidate) returned from Munich (Germany) where she was working on peperite experiments with Prof. Don Dingwell's research group. Warna returns to Germany at the end of this term to finish off most of her experiments. In early January, David Shinkle (M.Sc. candidate) and Prof. David Lentz enjoyed a 9 day field trip to some of the giant Cu-(Mo-Au) deposits being mined in

northern Chile. The trip was sponsored by the Society of Economic Geologists and was lead by Profs. William Chavez (New Mexico Tech) and Erich Petersen (Univ. of Utah). A total of 16 students from various countries across the globe were provided airfare and accommodations by the SEG...thanks SEG!



UNB participants David Shinkle and Prof. David Lentz enjoyed a SEG-sponsored field trip in northern Chile with a total of 16 international students (photo montage: David Shinkle).

The much anticipated special issue of "Exploration & Mining Geology" on base-metal deposits in the Bathurst Mining Camp, edited by Prof. David Lentz, finally came out last month (www.cim.org/geosoc/indexEmg.cfm). It includes 11 papers predominantly from student-related research that was supported financially, and in many other ways, by NBDNR-Minerals, Falconbridge-Noranda (now xstratazinc plc), and NSERC Discovery grants.

The Friends and Alumni Reception hosted by the UNB Geology Department at the 2007 Prospectors and Developers Association of Canada was a huge success again this year. Alumni, professors and students got to share their UNB experiences. Dr. Allan Sharp, Dean of Science, was on hand to discuss UNB's current achievements on the academic front and the department's role in supporting technology and development in geoscience. Robert Quartermain, UNB alumnus and president of Silver Standard Resources, spoke of his geological education at UNB and how current geology students should be very proud of the UNB experience. Ellen Barry, Assistant Deputy Minister, New Brunswick Department of Natural Resources, spoke about the current positive upswing in mineral exploration and mining activities going on in the province.

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RECOGNITIONS

Mary-Claire Ward Geoscience Award: Andrew Parmenter

The primary objective of this award is to encourage and support a graduate student in Canada whose work is likely to increase geological knowledge of Canada through field mapping. Consisting of a \$3000 cash prize and a certificate, the award is organized through a coalition of the Prospectors and Developers Association of Canada, the Geological Association of Canada, the National Geological Surveys Committee, and Watts, Griffis and McQuat Ltd. Andrew Parmenter, a Ph.D. candidate at the University of New Brunswick, was selected this year for his thesis entitled "The structure of the Cranberry Mountain region of the Thor-Odin dome, Monashee Complex, and its bearing on the tectonic evolution of the Canadian Cordillera in southeast British Columbia".



Andrew Parmenter, UNB doctoral candidate (centre) being presented the Mary-Claire Ward Geoscience Award at the 2007 Prospectors and Developers Association of Canada convention. Presenting the award are PDAC vice-president Scott Jobin-Bevans (left) and Robert Marquis, Geological Association of Canada president (right) (photo: Heather Campbell).

The award was created in 2004 to honour the memory of Mary-Claire Ward, a geoscientist who was a strong advocate for maintaining Canada's geoscience knowledge base as one of this country's principal economic advantages. She translated her firm beliefs into political action, persuading policy makers at every opportunity that mapping is key to understanding and benefiting from this country's rich natural endowment.

UPCOMING EVENTS

April 5: 165th anniversary of the opening of Gesner's Museum of Natural History, New Brunswick Museum, Saint John.

Did you know that the current New Brunswick Museum in Saint John can trace its origin back 165 years to Dr. Abraham Gesner's large collection of minerals, zoological specimens, and assorted curiosities obtained from visiting sea captains? If he were still alive, Dr. Gesner would be a very wise 210 years old this May 2nd. More can be found about this fascinating man at: www.biographi.ca/EN/ShowBio.asp?BioId=38570

April 11: 35th anniversary of the founding of the Atlantic Geoscience Society. Get out and celebrate!

October 17-21: Bedford Institute of Oceanography Open House 2007, Dartmouth.

The Bedford Institute of Oceanography, which is home to the Atlantic Division of the Geological Survey of Canada, will open its doors to members of industry and academia, students, the scientific community, and general public. The last Open House in 2002 was very well-received with in excess of 30,000 people attending over the course of five days.

There are over 700 federal government scientists, technologists, administrative support staff, and managers working at BIO. Most of these are employed by the Department of Fisheries and Oceans, Natural Resources Canada (which includes the GSC), Environment Canada, and National Defence. The broad scientific disciplines pursued here include hydrography, physical and biological oceanography, and marine geology and geophysics. Much of the work is interdisciplinary in nature, addressing complex problems and involving people with various backgrounds from government, academia, and industry.

Display ideas are still pouring in, but early submissions include exhibits on the impact of ice keels on pipelines in the Beaufort Sea, oil and gas in the offshore, metals in the environment, coastal evolution, deep sea corals, and a host of biological themes. In addition, a spectacular 3-D model of the seafloor and surrounding topography of Halifax Harbour will be unveiled. As in the past, visitors may tour the Canadian Coast Guard Ship Hudson.

AGS members are invited to the opening ceremonies on the morning of Wednesday, October 17. Thursday and Friday are reserved for school tours and on the weekend BIO will be open to the general public.