



# NEWSLETTER

Volume 31, Number 2, March 2002

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## *Deadline for next issue:*

May 31, 2002

## **PRESIDENT'S FORUM**

*Jennifer Bates*

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"So, now that you are the new AGS President, what are your plans?" I am not sure if these are the exact words but the sense is accurate. This question was posed to me only hours following the instalment of the 2002 Executive and Council at February's Colloquium. First, the question set me back on my heels, as I felt the sudden shift of responsibility onto my shoulders. But then it excited me. Never in my wildest dreams (most of which occurred during my occupation at Dalhousie) did I imagine I would have the opportunity to be in this position. It is indeed an honour and a privilege. This year is going to be a busy one for the Atlantic Geoscience Society and I look forward to working with my fellow members of the Executive and Council and for the AGS membership.

The 2002 AGS Colloquium and General Meeting held in February was from all accounts a clear success. I thank Brendan Murphy and his band of merry people at Saint Francis Xavier University for all their hard work. A full report on the Colloquium appears in this newsletter.

In 2003, the AGS will combine forces with the Geological Society of America (Northeastern Section) to host a joint conference in Halifax on March 26-29. You could consider this merely a change in the date of the Colloquium as much of the 'feel' of our annual meeting will be retained including the Friday social and the Saturday banquet (with post-prandial

entertainment). Mike MacDonald is the official AGS representative on the Local Organizing Committee, which is co-chaired by Marcus Zentilli and David Scott. Many of the LOC members are AGS members, which doubly ensures we will be equal partners with GSA-NE in the planning of the conference. This joint meeting is a tremendous opportunity for AGS and GSA-NE members. I encourage you to attend.

Have you heard about "The Last Billion Years" talk series? These public presentations, given by some of the many contributors to our famous book, have been taking place each month at the Nova Scotia Museum of Natural History (NSMNH) in Halifax. The attendance has been overwhelming, which speaks to the (perhaps unanticipated) public interest in geology. The last talk entitled "*Fossils of the Maritimes*" will be May 15. Fortunately, this is the last talk for *this* series. To retain this audience, the AGS Publicity Committee, with members of The Last Billion Years Committee and the NSMNH, are busy organizing a schedule of evening presentations for the 2002-03 season. My congratulations go to the instigators of the lecture series and to those ensuring the continuation of the program. Perhaps the old AGS evening talks have been reincarnated?

As a final note, I wish to thank all those who agreed to take on the responsibilities that come with being members of the 2002 AGS Council and Executive. As AGS ambassadors, I ask you to promote the AGS and its activities to new (and maybe not so new) students, employees and colleagues. Please consider posting

the newsletter and membership form on a bulletin board or placing them in mailboxes or sending the AGS website URL via email. Let's face it .. where else can someone have so much fun for \$10 (\$5 for students) a year?

I truly am excited about the year to come and I thank you for the opportunity to serve as AGS President.

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## AGS 2002 COLLOQUIUM AND ANNUAL GENERAL MEETING

Jennifer Bates

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The AGS launched into its 20<sup>th</sup> year as an active and vibrant society at the 2002 AGS Colloquium and Annual General Meeting held February 8-9 in Antigonish, Nova Scotia. The local host, the Department of Earth Sciences at Saint Francis Xavier, did a superb job organizing the two-day conference. The organizing committee, chaired by Brendan Murphy and including Alan Anderson, Jennifer Dorrington, Millie Dunbar, Tony Evans, Jonathan Ferrier, Erica Gillis, Rebecca Hert, Matthieu LaPointe, Tom Martel, Gary McLearn, Cindy Murphy, Tara Oicle, Michael Parkhill, David Risk, Dave Shephard, Ian Spooner and Peter Wallace, deserves a round of applause.

This year, 159 registrants, including 82 students, travelled from locations throughout Atlantic Canada and as far away as Ontario to attend the conference. Student participation has always been important for the annual conference. Over the last few years, their representation has equalled and at times even outnumbered the more 'experienced' participants. Let's hope this active participation by students continues as it speaks well for the future of earth science in Canada.

More than 43 talks were given during eight sessions on Friday evening and all day Saturday. Researchers from universities, provincial and federal surveys, and the private sector

presented their current research in the Atlantic Provinces on topics ranging from geophysics to glaciology to groundwater. Nineteen of the talks were by students from Atlantic Canada universities. The poster session included 30 visual presentations, of which 16 were prepared by students. I would like to thank the following people for organizing and chairing these interesting and thought-provoking sessions: Alan Anderson, Matthieu LaPointe, Tom Martel, Paul Ténrière, Tom Al, Larry Amskold, Kate Bostwick, Clint St. Peter, Serge Allard, Michael Parkhill, Lisa Kellman, David Risk, Steve King, Chris White, Susan Johnson, Elisabeth Levac, Eugene MacDonald and Mike MacDonald.

As with any successful event, there are many people who are owed a vote of thanks. These include the following volunteers: Michael Parkhill for preparing the Abstract Volume and the Program, Peter Wallace for co-ordinating registration and publication sales, Brendan Murphy for heading the local organizing committee and pinch hitting as the conference photographer, Ken Howells for handling all the financial responsib-

ilities, Reg Wilson and John Gosse for judging student posters, and Rob Raeside and David Piper for judging student talks. I would also like to extend appreciation to our corporate sponsors PCS-Potash (New Brunswick Division), Corridor Resources Incorporated and Nimbus Publishing. And there are always those who work behind the scenes to make a conference happen. On behalf of the AGS, I thank you all.

## Business and Social Events

Friday evening was time for the AGS to celebrate its recent publication of *The Last Billion Years*. This book, written for a public audience, has received a number of supportive reviews and is now in its third printing, which in itself speaks of its success. A recent review by Ward Neale in *Geoscience Canada* stated "*The Last Billion Years* is a magnificent scientific, literary, and artistic achievement with wide appeal". Yes, some have been surprised by the great public interest in the book and in people wanting to understand the world in which we live. So, now we know that the public is interested -



*The AGS Band/Symphony tunes up for its annual performance at the 2002 Colloquium. From left to right: Mike MacDonald, Scott Swinden, Peter Giles, Ian Spooner and Alan Anderson.*

they just did not know we call it earth science!

The Annual General Meeting is the time for the AGS membership to approve year-end reports of the working committees and the Treasurer and to vote on the incoming slate of executive and council. The 2002 AGS Executive includes Jennifer Bates (President), Reg Wilson (Vice-president), Peter Giles (Secretary), Ken Howells (Treasurer) and Tom Martel (Past-president). The Atlantic Canada geoscience community will be well represented by Councillors Tom Al, Jarda Dostal, Paul Durling, Murray Gingras, Linda Ham, Randy Miller, Dave Mossman, Brendan Murphy, Michael Parkhill, Alan Ruffiman, Ian Spooner, Clint St. Peter, Peter Wallace, Dick Wardle and Tim Webster.

At the Saturday evening banquet, Gordon Fader of the Geological Survey of Canada (Atlantic) entertained the crowd with his talk entitled *Multibeam Bathymetry: A Revolution in Marine Geology*. Many of you will already know that Gordon is a master of the public presentation and has a natural way of relating to his audience. This presentation was no different. The oceans are truly our last frontier

and Gordon gave everyone insight into the future of marine geology and how geologists will approach the study of this vast unknown territory.

The Saturday evening banquet was also stage to the 2002 AGS Awards presentations. A list of the recipients is included below. But, alas the true fun began once the tables were cleared and the room rearranged. For as long as I have been going to the Colloquium, the attendees have been a willing and appreciative audience for an *ad hoc* musical group of guitar, banjo, tin whistle and mandolin players. The rumour this year was that a bagpipe player was among the merry men - it is too bad we did not catch this on film! Let's hope that what is becoming a tradition continues for years to come.

## AGS Awards

### *Student Awards*

Each year at the Colloquium, students compete for two awards - best paper and best poster. The winners receive a monetary prize and their names are engraved on the respective plaques. Students enrolled in BSc, MSc and PhD programs compete side by side for these awards. In recent years, the

entries have been of a very high calibre and this year was no exception. Judges assessed the submissions on scientific content, organization and presentation of data.

### *Rupert MacNeill Award - Best Student Paper*

Dave Risk of Saint Francis Xavier University was awarded the Rupert MacNeill Award for his talk entitled *Physical processes controlling soil respiration: results from four sites in eastern Nova Scotia*, which was co-authored by Dave, Lisa Kellman and Hugo Beltrami.

### *Graham Williams Award - Best Student Poster*

David Moynihan of Dalhousie University was presented with the Graham Williams Award for his poster entitled *Metamorphism and structure of the White Rock Formation in the Yarmouth area, Nova Scotia*, which was co-authored by David, Chris White and Rebecca Jamieson.

### *Distinguished Scientist Award (Gesner Medal)*

The Gesner Medal is awarded to a person who has developed and promoted the advancement of geoscience in the Atlantic region through his or her own effort (*i.e.* publications, maps, memoirs, etc.). Dr. Martin Gibling of Dalhousie University was the 2002 recipient.

Martin began his studies at the University of Oxford, received his PhD at the University of Ottawa and spent three years teaching in Thailand before coming to the Atlantic Provinces in 1981 to join the faculty at Dalhousie University. Here, he has devoted considerable time studying the local Carboniferous sedimentology and stratigraphy, specifically the Sydney Mines Formation and the fossil cliffs of Joggins. Martin is also active in international research programs. Martin's passion for geology is well known in the community and has been experienced first



*David Moynihan (right) of Dalhousie University receiving the Graham Williams Award for Best Student Poster from AGS Vice-President, Reg Wilson at the 2002 Colloquium.*



*Rob Fensome (left), co-recipient with Graham Williams of the 2002 AGS Distinguished Service Award, receives his award from Alan Ruffman at the 2002 Colloquium.*

hand by his many undergraduate, masters and doctoral students.

#### ***Distinguished Service Award***

The Distinguished Service Award is given in recognition of exceptional and altruistic contributions to the Atlantic Geoscience Society over a long period of time. This year, Graham Williams and Rob Fensome were co-recipients.

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## **UNIVERSITY NEWS**

### **UNB**

*Murray Gingras*  
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Spring brings to a close a busy winter term at the University of New Brunswick. Over recent months, the Department of Geology was pleased to host several workshops and guest lecturers at UNB. In late November, a one day workshop, *Gold-mineralized shear zones: structural kinematics to fluid flow*, was hosted by the UNB-SEG student chapter. The workshop was convened by Alex Wills, MSc candidate in Economic Geology. Guest speakers included Francois

Robert (Barrick Gold), Shoufa Lin (University of Waterloo), Adrian Park, David Lentz, and Paul Williams. This term, Dan Kontak (NSDNR) presented a Fluid Inclusion Workshop. Thank you to the organizers and participants of these events.

UNB had the pleasure of hosting talks by Dr. J.P. Zonneveld, Dallas Davis, Dr. Larry Hulbert and Dr. Stan Stancliffe as guests of the Department of Geology. Each delivered high-calibre, informative talks that were enjoyed by students, faculty, and interested members of the local geological community.

Our course offerings are expanding with the addition of new faculty member, Cliff Shaw. Cliff and Dave Lentz are preparing a new course in volcanology and Dave is preparing a course entitled *Mineral Resources, Economics, and the Environment*. Murray Gingras is retooling a senior level, field-based course in modern sedimentary environments. Our teaching program is increasingly diverse and is supplemented by the able Adrian Park and James Whitehead.

Dr. Shaw is busily initiating his

research program. The pressure lab is being revamped (on schedule!), and all lab equipment will be operational by the end of June. Cliff is organising a course in data analysis techniques for X-ray powder diffraction, to be given by Professor Ross Angel of the Department of Geological Sciences, Virginia Technical University. Cliff is looking for graduate students interested in experimental petrology, mantle petrology and the dynamics of magmatic systems.

David Lentz continues his wide-ranging endeavours in Economic Geology. Last fall, Dave and his wife, Stephanie, visited Italy and sampled several volcanoes. Dave's Canadian interests continue to include New Brunswick, Ontario, Manitoba, and the Northwest Territories. Dave is presently organizing an outreach program for New Brunswick educators. Dave's graduate students (Dave's Demons) are slowly taking over the place.

Joe White has returned to the department after completing his secondment as the Vice President of Research (welcome back, Joe!). Among other endeavours, Joe is co-leading an initiative to investigate the structural geology of Carboniferous rocks in the Moncton area. Doctoral candidate, Paul Wilson, will conduct much of the research. We anticipate integration of sedimentological (Murray Gingras) and geophysical studies (Karl Butler) in the area. Clint St. Peter (NBDNRE) will be a research associate on these projects.

Karl Butler will also be focusing his efforts this summer on experimental field studies of seismoelectric phenomena, and on geophysical surveys in support of a multi-disciplinary study of the Fredericton aquifer. Along with new graduate student Jean-Christophe Nadeau, coming from Laval University, Karl will be building upon last year's riverine seismic surveys to reveal the stratigraphic and structural controls on recharge of aquifers that lie below the Saint John River and adjoining

floodplain.

Studies in 'soft-rock' are coming together at UNB. With Ron Pickerill and Murray Gingras, who have recently published a paper in *PALAIOS* on composite ichnofossils, we boast strong ichnological expertise. Bruce Broster and Murray are devising a research program that will focus on modern shoreline systems. Also, Bruce is expanding current research in geo-archaeology: on April 22, he held an open house on that topic. In addition, Murray continues to work on selected hydrocarbon-industry projects.

Nick Susak continues as our Undergraduate Student Advisor and chairs the Curriculum Committee. Nick has facilitated the commissioning of new (expensive) laboratory equipment and continues to pursue research interests in geochemistry.

Other faculty at UNB are busy nurturing established and dynamic research programs. Paul Williams, John Spray and Tom Al all continue to contribute enormously to the diversity and depth of the department. Their

impact can be estimated by the success of their numerous students, which is evident below in "Awards and Honors" and "B.Sc. (Geology) Honors Research Project Presentations". The impact of these researchers and their students on our program at UNB is inestimable and we tip our hats to them.

### Field Trips

This year, the Hale Trip for undergraduate students went to Spain. Coastal systems, fluvial systems, karst terrain, alluvial fans, volcanic deposits, and cerveza were all studied in great detail. The trip is sponsored by a memorial fund that honours Prof. Ernie Hale and promotes expanding the range of experience available to UNB's undergraduate students.

The Graduate Association of Geology Students travelled to Quebec City. It snowed.

### Awards and Honours

Konstantinos (Dino) Petrakos was a participant in the 2002 Canadian Society of Petroleum Geology Student

Industry Field Trip (SIFT). Kathy MacCarthy received the New Brunswick Branch CIM Earth Science Scholarship.

B.Sc. (Geology) Honours research project presentations were made by:

- Dan Conohan - *A Compilation and Preliminary Assessment of Groundwater Hydrogeochemical Data from Carboniferous Bedrock Aquifers Within the Province of New Brunswick* (Supervisor: Dr. Tom Al)
- Craig Parks - *Fault Systems of the Southern Thor-Odin Dome, Monashee Complex, British Columbia* (Supervisor: Dr. Paul Williams)
- Matthew Adams - *Nomenclature, Mineralogy, and Geochemistry of a Kersantite-Type Lamprophyre Suite, South Eastern Canadian Cordillera; British Columbia* (Supervisor: Dr. David Lentz)
- Tamara Holmes - *Geology of the Mowat Creek Breccia Zone, Hutton Township, Sudbury* (Supervisor: Dr. John Spray)
- Konstantinos Petrakos - *Geology of the Milnet Mine Breccia Zone, Parkin Township, Sudbury* (Supervisor: Dr. John Spray)
- Kathryn MacCarthy - *The Mechanisms of Lithification of Lunar and HED Meteorite Breccias* (Supervisor: Dr. John Spray)
- P. Kate Bostwick - *An Examination of Wrinkle Marks (Runzlemarken) As Microbially-Induced Sedimentary Structures* (Supervisor: Dr. Murray Gingras)

Geological Engineering research project presentations were made by:

- Natalie Smith - *Enhancement and Application of a Containment Transport Modelling Program* (Supervisor: Dr. MacQuarrie)
- Alena James - *Redesign of a Jetty on the MacKenzie River, NWT* (Supervisor: Dr. Haralampides)
- Derrick Budden - *Salmon Incubation Chamber Experimental*



Guest speakers at the workshop on gold-mineralized shear zone, hosted by the UNB-SEG student chapter in November 2001. From left to right: Dave Lentz (UNB), Francois Robert (Barrick Gold), Adrian Park (UNB), Shoufa Lin (U. Waterloo) and Paul Williams (UNB).

*Study* (Supervisor: Dr. Haralampides)

- Annie Daigle - *Resistivity Imaging Through a Recharge Zone of the Fredericton Aquifer* (Supervisor: Dr. Karl Butler).

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## Acadia

Sandra Barr

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Another academic year is rushing to a close, with exams nearly finished and the annual end-of-term field trip to Shelburne-Yarmouth (for the third year students) and field school (for second year students) just ahead (and over by the time you read this!).

The second-year field school (April 23-May 4) is co-ordinated by David McMullin, and co-taught by David and other faculty members. The first 6 exercises involve day trips in the Wolfville area, with evenings spent compiling and interpreting field data, and drawing maps and cross-sections. On the 7th day, the students get a change of scene when they travel with

David and Rob Raeside to Saint Francis Xavier University in Antigonish, which is the base for the last 5 days. Everyone knows that you can count on at least one snowy day during that part of field school!

Cliff Stanley was recently elected as the 2002-03 Distinguished Lecturer for the Association of Exploration Geochemists, and will give lecture tours through North America, Europe and the Southern Hemisphere (Australia, Chile, South Africa) over the next two years. In February, he was invited to the Université du Québec à Chicoutimi to present the lecture *Compositional Variation in Clastic Sedimentary Rocks: Conjuring Insights using Projective Geometry of Major Element Lithochemical Data* as part of their visiting speakers program.

In early March, the department enjoyed a visit from Rob Fensome and Andrew MacRae representing the petroleum group at the Geological Survey of Canada (Atlantic). In return for lunch, they provided an eager audience of students and faculty with

an in-depth (a pun surely worthy of Graham Williams?) tour of the Scotian margin - its stratigraphy, palynology, and hydrocarbon potential.

Having spent December and January at sea between Hawaii and California on the JOIDES Resolution, Heather Paul returned to Wolfville in early February to complete her BSc Honours thesis on *Petrology and lithochemistry of volcanic rocks hosting seafloor hot springs systems in the Manus Basin, southwestern Pacific Ocean*. She then departed again on March 31 to join the ship in Chile for another leg. Heather is from Bonavista, Newfoundland, and has been appointed senior scientific intern on a second ODP cruise, this time from Valparaiso, Chile, to Panama City, Panama. She will be assessing climate and oceanographic changes in the southeast Pacific over the past 20 million years, in particular looking for records of El Niño and orbital cyclicity in the sediment record. Heather's supervisor at Acadia was Cliff Stanley.

Other BSc Honours theses were completed by Dan Hagan (*Volcanic Rocks and Mafic Sills in the White Rock Formation, Torbrook Area, Nova Scotia: Petrology and Tectonic Setting*) and Matt Jodrey (*A study of flexural shear in the Crown Reserve Anticline, Port Dufferin, Halifax County, Nova Scotia*). Dan's supervisor was Sandra Barr, and Matt was working with Alan Macdonald and Rick Horne of the Nova Scotia Department of Natural Resources.

Third-year student John King was selected by the Canadian Society of Petroleum Geologists to participate in the Student-Industry Field Trip (SIFT) in Calgary in May. SIFT consists of a two-week stay in Alberta, examining the oil and gas industry, visiting the headquarters of many of the major companies and several important geological and palaeontological sites, participating on a four-day field trip in the Rockies, and a fly-over of the Rocky Mountains following the field trip.



*Acadia's student award winners for 2002, being feted by their colleagues at the annual end-of-term departmental banquet.*

The end-of-term departmental banquet was, as usual, a gala affair, held this year at the Old Orchard Inn in early April, and attended by about 40 students, staff, and faculty. After a superb meal, Department Head Robert Raeside kept everyone amused with the story of his career from his humble beginnings in the lowlands of Scotland to his ascent to the highlands of Cape Breton Island, with some time spent in central and western Canada in between. Students who had won various awards and scholarships were given the opportunity to stand in front for photographs and a congratulatory round of applause. Then the students took over and presented their own unique awards to deserving faculty and staff (affirming, for example, that they still love Dr. Macdonald, in spite of the fact that he teaches structural geology and metamorphic geology).

In mid-April, we were sorry to lose our exceptional secretary, Cathy Walsh, to a more lucrative job within walking distance of her home in Falmouth - obviously an opportunity that could not be declined. We thank Cathy for her great help during the past year.

To end on a positive note, we are pleased to announce that Dr. David Keighley has been appointed as an honorary research associate in the Department of Geology at Acadia University.

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## St. Francis Xavier

Cindy Murphy  
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The academic year is drawing to a close, and we would like to congratulate our graduating students for achieving their goals in the Earth Sciences, and wish them the best in their future endeavours. Some of our students are furthering their studies, and NSERC has awarded scholarships to graduates Dave Risk, MSc, (PGS B award), and Scott Rayner, BSc (PGS A), and a summer award to Craig Power, who is entering his senior year

in September 2002. We are pleased to announce that two students, both under the supervision of Lisa Kellman, have successfully defended their undergraduate theses. Scott Rayner's thesis topic was *Ground-water and soil gas pollutant plume monitoring and remediation at a contaminated compressor station, Alberta* (some of you may already be familiar with this topic after Scott's presentation at the annual AGS Colloquium in February), and Danielle Goulard's topic was *Relationship between air temperature and soil temperatures: Implications for emissions of radiatively active trace gases from soils*.

The students have inaugurated the Department's name change at their annual Awards Banquet, bestowing sweatshirts bearing the former name of Geology to some members of faculty and staff, while others received the Earth Sciences logo. This will be looked back upon as a truly *conformable* transition.

With greatly reduced teaching responsibilities during the spring and summer, faculty will take the opportunity to focus on their research, with the willing assistance of undergraduate students. The Department is also looking forward to hosting two James Chair Professors this summer. Dr. Alan Collins from the Tectonic Special Research Centre, Curtin University, Perth, Australia, will be arriving in May for 4 months to work with Brendan Murphy. Dr. Chuck Mitchell, arriving for the months of August and September from SUNY, Buffalo, will be collaborating with Mike Melchin on Ordovician-Silurian graptolites from South China.

This summer, Alan Anderson will be co-organizer, with Dan Kontak (NSDNR) of the 2002 Pan-American Conference on Research on Fluid Inclusions, in Halifax, July 21<sup>st</sup>-26<sup>th</sup> (see Upcoming Events for more information). Alan was recently appointed as an Associate Editor for the *American Mineralogist*, and was elected as a member of the Users

Advisory Committee for the Canadian Light Source. He is serving in his final year on the Proposal Evaluation Committee for ACPI, and will be co-organizer of an MAC short course on fluid inclusions in Vancouver in 2003, as well as contributing a chapter to the short course notes. Alan will be looking forward to his 6-month sabbatical in January of 2003!

At the time of this submission, Brendan, Hugo, and Lisa (half of the Department's faculty) are in Nice, France, on the *French Riviera*, avoiding the temptations of the Mediterranean while busily presenting papers at the European Geophysical Society's 27<sup>th</sup> General Assembly. Hugo is just completing his first sabbatical, and quite a successful time he has had! He has been actively pursued by the national and international media in relation to the paper he has co-authored in the upcoming issue of the journal of Geophysical Research Letters. He and his fellow colleagues at the University of Michigan were able to demonstrate warming trends in historic temperature profiles of bore holes on land.

While Hugo is returning from his sabbatical, Mike Melchin is beginning a 6-month sabbatical in July. The summer for Mike is beginning with the continuation of a visit of Dr. Fan Juanxuan from the Nanjing Institute of Geology and Paleontology (China). Dr. Fan is studying latest Ordovician graptolites from Scotland and is continuing his collaboration with Mike on Ordovician-Silurian graptolites from South China. Mike will also be finishing work with Henry Williams (PetroCanada, Calgary) on the graptolite biostratigraphy of the basal Silurian stratotype section, and with Chris Holmden (U. of Saskatchewan) on the stable isotope geochemistry of the Late Ordovician-Early Silurian succession in Arctic Canada.

Elisabeth Levac is continuing with us after her stellar year teaching at StFX, and will be the sabbatical replacement for Mike in the first term and for Alan in the second term.



THE  
GEOLOGICAL  
SOCIETY  
OF AMERICA



## ***PLAN NOW TO ATTEND***

### ***JOINT MEETING NORTHEASTERN SECTION, GEOLOGICAL ASSOCIATION OF AMERICA AND ATLANTIC GEOSCIENCE SOCIETY***

**March 27-29, 2003  
Westin Nova Scotian Hotel  
Halifax, Nova Scotia**

**Co-chairs:**

**David B. Scott and Marcos Zentilli**

**Technical Chairs:**

**Sandra Barr, Matthew Salisbury,  
David J.W. Piper, Martin Gibling**

**AGS:**

**Tom Martel, Mike MacDonald, Jennifer Bates**

**Treasurer:**

**Patrick Ryall**

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We are pleased to announce that Lisa Kellman has received tenure and has been promoted to Associate Professor. She is continuing with her research on the study of nitrogen and carbon biogeochemistry of natural and disturbed aquatic and soil environments, and the use of stable isotopes to better understanding cycling and processes in these environments.

Brendan Murphy will hopefully have time at the 27<sup>th</sup> EGS meeting in Nice to reflect upon his past year as Chair of the Department, and what contributions from this experience he will bring to the upcoming Department Chairs meeting at the GAC-MAC Joint Annual Meeting in Saskatoon later on in May. The James Chair Professor, Alan Collins, will also be attending this meeting with him. As

co-leader of the International Geological Correlation Program 453 on Ancient Orogens and Modern Analogues, Brendan will be organizing a conference in New Zealand this August.

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### **Dalhousie**

*Peter Reynolds*  
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### **Faculty News**

Dalhousie's Department of Earth Sciences welcomes this May its two newest faculty members: Dr. Grant Wach, Professor of Petroleum Geology, formerly with Chevron-Texaco in Houston, and Dr. Lawrence Plug,

Assistant Professor and Scholar of the Earth Systems Evolution Program of the Canadian Institute for Advanced Research, formerly at the University of California-San Diego. Lawrence's field of interest is Earth surface processes.

Since arriving last July, Canada Research Chair, Dr. John Gosse, has overseen the construction of his new research lab, a cosmogenic nuclide extraction (CNE) facility. The lab should be in production mode later in the spring, but the official opening will not be held until the fall academic term. Meanwhile, you can visit the website *via* the Earth Sciences homepage at [www.dal.ca/~es](http://www.dal.ca/~es); - click on "Facilities". Briefly, the purpose of the CNE Facility is to provide the infrastructure and equipment for

students and researchers to conduct geochronological and geomorphometric research in fields of study such as geomorphology, Quaternary geology, paleoclimatology, active tectonics, glaciology, and landscape evolution. John and his geomorphology group will also provide contractual services to industries and external researchers. They focus on the application of cosmogenic nuclides for exposure dating and determining rates of surficial processes. International and Canadian students and scientists are welcome to visit and use the facility. The CNE facility is a part of the Dalhousie Geochronology Centre.

### Student Achievements

Melanie Purves and Krista McCuish were each awarded NSERC PGSA scholarships. Jane Willenbring, a Ph.D. student studying with John Gosse, was awarded one of Dalhousie's prestigious Killam scholarships.

Our first-year graduate students presented their thesis proposals to the Department at a Graduate Mini-Symposium on April 24.

- Joyia Chakungal, a student of Djordje Grujic's, will work on high pressure metamorphism in the Bhutan Himalaya.
- Simon Gagne will work with Becky Jamieson on chemical, textural and age variation of monazite through progressive metamorphism in the Trans-Hudson Orogen, Baffin Island.
- Thian Hundert is working with David Piper on the role of ice domes and ice streams in the deglaciation of the Scotian Shelf.
- Sharon Lee is studying the regional fold geometry of the Meguma Terrane using geological and geophysical techniques with applied geomatics, under the supervision of Nick Culshaw.
- David Moynihan will work with Becky Jamieson on the metamorphism and structure of the White Rock Formation in the Yarmouth area.

- Mark Raistrick, with Nick Culshaw, is studying amphibolite petrogenesis and detrital zircon geochronology in the Grenville Province, Ontario.
- Kevin Vaughan is developing an absolute chronology for two Epipaleolithic archaeological sites in Israel with Dorothy Godfrey-Smith.
- Tim Webster is making a GIS comparison of moderate and high-resolution DEMs for the analysis of geological landforms and drainage basins around the Annapolis Valley under the supervision of Brendan Murphy.
- Jane Willenbring, John Gosse's student, is seeking to determine glacial erosion over a glacial cycle in a mountain environment using terrestrial *in situ* cosmogenic nuclides.
- Jack Wu Yue is working with Keith Loudon on the crustal structures of the Nova Scotia and Flemish Cap margins.

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### St. Mary's

Jarda Dostal  
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At the end of the academic year, Dr. Qadeer Siddique will be retiring from his faculty position at St. Mary's University after a long and distinguished career. Qadeer came to St. Mary's in 1968 after obtaining his PhD at Leicester University in England and working for a couple of years in industry. His area of expertise is micropalaeontology. His thesis focussed on Tertiary ostracods from West Pakistan, and most of his subsequent research continued to be centred on ostracods, to the extent that a new ostracod genus, *Siddiquicythere*, and five new ostracod species have been named after him.

During his tenure at St. Mary's, Qadeer was an active member of university life, serving on numerous committees. Although officially retired, Qadeer will continue his micropalaeontology research and part-

time teaching. He is pleased, however, to be able to spend more time at his outside interests and hobbies, particularly bird watching.

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## NEWS FROM OTHER ORGANIZATIONS

### Fundy Geological Museum

Ken Adams  
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Spring has arrived in Parrsboro and among the first signs has been the arrival of a family from Brazil and two Bald Eagles from the Valley. Early indications suggest that our school programming continues to be popular. To date we have booked 13 groups for "Overnighters" at the museum and we continue to receive the requests for day trips. The Museum will be hosting three Elderhostel programs this year, with the first scheduled for the week of July 14th. The other sessions will run in September and October.

Work on the prosauropod material recovered in 2000 continues, with preparation of the specimen focusing on the skull. You can follow the progress of this work on the Museum's web site at <http://fundygeo.museum.gov.ns.ca>. While there, check out this summer's program schedule. Mineral and fossil enthusiasts are reminded that the dates for Nova Scotia's Gem and Mineral Show are August 16th to 18th at the Lion's. Curatorial walks will be held on Saturdays throughout July and August and families, as well as the general public, are invited to take part in Museum Weekend activities on June 8th and 9th and Dino Daze on July 21st. The Museum Shop is gearing up for another busy summer with a number of new items for sale. We will have copies of *The Nova Scotia Atlas*, *Joggins Fossil Cliffs*, *The Last Billion Years* and *Nova Scotia Geology Map* available.

## DO YOU HAVE A FLAIR FOR DESIGN ?

The Organizing Committee for Halifax 2005 needs a conference logo for stationery, programs, advertising and other conference materials.

Our logo should convey an image of Halifax and Atlantic Canada. It should be in colour, bilingual and scalable for uses from stationery to large posters.

Here are examples from the 2001 and 2002 conferences to help you get started.



*"The focus of the 2001 meeting was the North Atlantic Borderlands, hence the map outline. The meeting was the first of the new millennium, hence the words in the surround. The starburst locates the meeting site for European and American geologists considering attending."*

R.F. Blackwood, Chair, St. John's 2001



*"Our logo displays the official green and gold colours of the province and of the university. The green also represents the crops of the south and the forests of the north, the gold represents our famous sunshine. On the left is a prairie grain elevator, on the right the northern forests of the Canadian Shield, with Saskatoon in the middle."*

From the Saskatoon 2002 website.

**The Organizing Committee welcomes all submissions. An appropriate award and acknowledgment will be made for the design chosen for the conference.**

**Please submit your designs, as completed design or sketch in paper or digital format, to the Editor of the AGS Newsletter (see page 1 for address information). A decision on the logo will be made during the fall of 2002.**

### New Brunswick Museum

Randall F. Miller

[millerrf@nb.aibn.com](mailto:millerrf@nb.aibn.com)

The New Brunswick Museum is pleased to announce that beginning in March 2002 our natural science collection records became available to search on the Internet. For the geoscience community, this means that almost 100% of our mineral and economic geology collection records and about 95% of our fossil collection records are accessible online. While the mineral collection, consisting of over 2,500 records, is international in scope, the fossil collection is largely New Brunswick-based, although it is geographically diverse. In addition to recent efforts to develop the

collection, the NBM holdings include specimens acquired by Abraham Gesner and the members of the Natural History Society of New Brunswick. The palaeontology collection contains Cambrian fossils from the Maritimes and elsewhere acquired by G.F. Matthew; Carboniferous plants, invertebrates and traces collected by C.F. Hartt, G.F. Matthew and others; Devonian plants, vertebrates and invertebrates from northern New Brunswick; Paleozoic trace fossils collected by R.K. Pickerill and colleagues; and Quaternary vertebrates and invertebrates from New Brunswick.

Our database is running on Inmagic DB/TextWorks, using Inmagic

DB/Text WebPublisher to put the records on the Internet. The Internet version of the database will be updated regularly and provides access to limited record information. It does not, for example, include detailed locality or collector information. Password access is required to view expanded records. Requests for password access will be considered on a case-by-case basis and can be made to the curator of the collection. We have also provided "password only" access to our database of Type References for the collection. Visitors to the site can also search a list of Natural Sciences Department publications and link to the NBM library catalogue. The library holdings will be of interest. The NBM

Archives and Research Library includes many older periodicals acquired from the Natural History Society of New Brunswick library. We have also been building our library collection in recent years, especially in palaeontology.

The NBM web site is <http://www.gnb.ca/0130/>. Follow the links to "Collections", "Natural Science", and "Click here" to connect to the Natural Sciences Department web site. From there, follow the links to various collections and other information. We are still experimenting with search and display screens. Undoubtedly, we will be modifying our search and display screens as we try to improve the web site.

Internet access to the New Brunswick Museum natural science collection is made possible by a grant from the New Brunswick Environmental Trust Fund.

The NBM is currently travelling two geology exhibitions. *Minerals Matter*, a look at minerals and mining in New Brunswick, is now at the Restigouche Gallery in Campbellton on a tour that has so far included Saint John, Moncton and Edmundston. The New Brunswick Mining Association is sponsoring travel of this exhibition. *Fossil Hunter; Will Matthew and the Giant Trilobite* has finished its New Brunswick tour. We are hoping to travel it beyond our borders.

We awarded two G.F. Matthew grants for 2002. Dr. Sue Turner (Australia) will be examining Devonian sharks with us and Dr. Robert Wagner (Spain) will be visiting the NBM to look at our Upper Carboniferous plant collection. The next grant applications are due December 31, 2002. See our web site for more information.

Recent publications by Museum staff include:

Miller, R.F., Harington, C.R. and Welch, R. 2000. A giant beaver (*Castoroides ohioensis* Foster) fossil from New Brunswick, Canada.

Atlantic Geology 36, pp. 1-5.

Miller, R.F. 2000. Late-glacial (Younger Dryas) Coleoptera from Saint John, New Brunswick (NTS 21 G/1). in *Current Research 1999*. Edited by B.M.W. Carroll. New Brunswick Department of Natural Resources and Energy, Minerals and Energy Division, Mineral Resource Report 2000-4, pp. 31-38.

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## Nova Scotia Museum of Natural History

Deborah Skilliter  
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The Nova Scotia Museum of Natural History recently wrapped up it's busiest March Break in history, with 33,380 visitors taking in the Rain Forest Exhibition.

In conjunction with the Atlantic Geoscience Society, the Museum of Natural History will be continuing its very successful talk series based on the book, *The Last Billion Years*, during the fall and winter of 2002-2003. The average attendance at each talk this year has been approximately 80, with some talks exceeding 120 people.

Construction in the collections lab has been completed. The collections lab now has a separate room for processing incoming specimens, a separate lab bench working area, and the collections themselves are now completely separate from specimens that are unprocessed.

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## HALIFAX 2005

Mike Cherry  
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Beginning with this issue of the AGS Newsletter, readers will receive regular updates from the Local Organizing Committee for the 2005 Annual Meeting of the Geological Association of Canada. Through these updates, we hope to solicit ideas from

and participation by AGS members in the preparation for the conference, and to ensure that participation in it by AGS members is at the highest possible level.

The LOC is pleased to report that it is well ahead of the five-year planning schedule provided by GAC. A core group of key LOC positions has been established under the general chairman, Scott Swinden. This group now includes Rob Raeside (Vice-chair), Pat Ryall (Finance), Mike MacDonald (General secretary), Sandra Barr (Field trips), Chris White (Co-chair, Program), Nan MacDonald (Fund-raising), and Mike Cherry (Publicity). Additional sub-committee chairs will be identified over the next few months so that the LOC can meet its objective of a first full committee meeting in the autumn of 2002.

The conference will be held on the campus of Dalhousie University from May 14 through 18, 2005. Those of you who are extremely well organized should mark these dates in your calendars now. The LOC plans a preliminary tour of the facilities on May 9, 2002 as one of its last group actions before breaking for the summer field season. We are also restarting a competition to design a distinctive logo for the conference, which we must have by late fall 2002. See the advertisement on the preceding page of this newsletter for more information.

We are exploring the possibility of sharing sponsorship of the meeting with CSPG. This would expand the technical sessions and Tradex, as well as increase the size of the meeting and expand fund-raising possibilities. Veteran attendees of GAC annual meetings will remember that CSPG played a major role in the 2000 annual meeting in Calgary.

For many years, the GAC's annual meeting has been held jointly with the annual meeting of the Mineralogical Association of Canada. MAC is currently discussing whether to continue this relationship or to hold a

separate meeting, and has not yet committed to being a partner in Halifax 2005. That uncertainty will be resolved shortly, and we should be able to inform readers in the next of these updates of final decisions with respect to participation by both CSPG and MAC.

What does the LOC do next? We need the enthusiastic participation of many members of the Atlantic provinces' geoscience community. There are still key subcommittee chairs to be named, and each of those chairs will require capable assistants on their committees. Anyone wishing to participate as either a chair or a committee member should contact Scott Swinden (telephone 902-424-7943; e-mail [hsswinde@gov.ns.ca](mailto:hsswinde@gov.ns.ca)) or any of the people named above.

### ***Coming Events***

**Saskatoon 2002 – Geological Association of Canada and Mineralogical Association of Canada Joint Annual Meeting**, University of Saskatchewan, Saskatoon, Saskatchewan, May 27-29, 2002. For more information, see the conference website at <http://www.usask.ca/geology/sask2002/>

**PACROFI 2002 - Eighth Biennial Pan-American Conference on Research on Fluid Inclusions**, PACROFI VIII, World Trade and Convention Centre, Halifax, Nova Scotia, July 21-26, 2002. For more information, see the conference website at <http://www.gov.ns.ca/natr/meb/PACROFI8/Index.htm>

**Atlantic Geoscience Society – Geological Society of America (Northeast Section)**, Joint Meeting, Westin Nova Scotian Hotel, Halifax, Nova Scotia, March 27-29, 2003. For more information, see notice on page 8 of this issue.

**Mining Society of Nova Scotia, Annual General Meeting**, Inverary Inn, Baddeck, Nova Scotia, June 6-7, 2002. For more information, see the Society's website at <http://www.msns.cim.org/>

**Nova Scotia Mineral and Gem Show**, Parrsboro, Nova Scotia, August 16-18, 2002. For more information, call the Fundy Geological Museum (902-254-3814).

**CANQUA 2003**, Canadian Quaternary Association Annual Meeting, Dalhousie University, Halifax, Nova Scotia, June 8-12, 2003. For more information, see the conference website at <http://www.gov.ns.ca/natr/meb/canqua/Canqua.htm>

*To have your event listed, send information to the Newsletter Editor at the address provided on page 1.*