



ATLANTIC GEOSCIENCE SOCIETY NEWSLETTER

Volume 37, Number 4, October 2008



Most if not all readers will be aware of the wonderful news that Joggins (Cumberland County, Nova Scotia) received UNESCO World Heritage status as the official global icon of the Carboniferous Period. This image, taken at Coal Mine Point, shows several of the elements that combine to make Joggins a unique locality: superb cliff and beach exposure; a coal seam; a repetitive, mainly fluvial sequence (distance) interrupted by a major channel body (foreground); and extensive glacial deposits. Readers with “eagle eyes” might even be able to pick out one of the famous tree trunks in the “fossil cliffs”. Photograph and caption: Rob Fensome.

PRESIDENT'S FORUM 2

**JOGGINS FOSSIL CLIFFS NAMED
A UNESCO WORLD HERITAGE
SITE 3**

AGS ACTIVITIES

AGS Colloquium First Circular
and Call for Program Themes 4

The Environment Is the Issue 4

Beyond the Last Billion Years
Talk Series 5

Call for AGS Awards Nominations 6

Sponsorship Opportunity 6

CALL FOR APPLICATIONS

Mary Claire Ward Geoscience
Award 2009 6

REGIONAL NEWS AND UPDATES

Acadia University 7

Fundy Geological Museum 8

New Brunswick Museum 8

University of New Brunswick 10

UPCOMING EVENTS 11

The deadline for submissions to the next issue is ,
19 December 2008. Please send articles or
feedback to:

John Shimeld, AGS Newsletter editor
Geological Survey of Canada (Atlantic)
P.O. Box 1006, Dartmouth, NS B2Y 4A2
(902) 426 6759 John.Shimeld@nrcan.gc.ca

Production of this newsletter is by Nelly Koziel.

PRESIDENT'S FORUM

Well, back to the grind. Summer flew by and when you spend a chunk of it in the field or at sea, then it really goes quickly. Since the last newsletter our region hosted the Canadian Federation of Earth Sciences meeting and the Central Atlantic Conjugate Margins conference. I extend a tip of the hat to Dave Brown and Grant Wach (co chairs), and to all who helped organize the Margins conference. In total, 215 delegates representing 17 countries attended the three day meeting during which 93 poster and oral presentations were made.

The EdGEO workshop was a great success as well, and this year it was focussed on environmental aspects of earth sciences. There were 30 participants including teachers, Nova Scotia Museum staff, and children. Kudos to Mike Parsons, Terry Goodwin, Jennifer Bates, Nelly Koziel, Patrick Potter, and Bob Taylor for putting that on. Nelly also deserves an extra huge round of applause for representing us at the Nova Scotia Gem and Mineral Show in Parrsboro. She sold close to \$700.00 worth of AGS items at the event. What would we do without Nelly!

And finally, a heartfelt expression of gratitude to Scott Swinden, John Calder and the rest of the committee that nominated the Joggins Fossil Cliffs as a UNESCO World Heritage Site. If you haven't heard already, the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Committee made the designation during the committee's 32nd session in Quebec City this past summer. This puts our cliffs right up there with the Burgess Shales! This is Nova Scotia's second World Heritage site, the other being Lunenburg, and it's among 15 sites in Canada. I visited the new Joggins Fossil Centre this summer...I thought it was fantastic, despite the thunder and lightning and running out of gas ... but that's another story!

The wheels of AGS do not stop turning. Reports from New Brunswick are that organization of the 35th AGS Colloquium and Annual General Meeting is on track. It will be held at the Delta Beauséjour Hotel in Moncton, on February 6 8, 2009. A call went out already for solicitation of program themes and the call for abstracts will follow soon. In that vane, a call has gone out from Grant Ferguson for nominations of the AGS awards, including the Distinguished Scientist award (Gesner Medal) and the Distinguished Service award (Laing Ferguson medal). Another perennial effort by AGS members, the "Beyond the Last Billion Years" lecture series, is starting again this year and will be hosted by the Nova Scotia Museum of Natural History. Keep your eyes peeled for postings and please attend as many of the talks as you can.

A new initiative by AGS in the Halifax region is establishment of an International Year of Planet Earth GeoTimes Trail: a 4.5 km long trail, each metre representing a million years of Earth history. If you would like to help out with establishment of this trail or want some ideas for your own area, contact yours truly.

I've probably missed lots of other things that are happening but we'll include those in the next newsletter. I am always impressed with how much AGS members contribute to their communities. Keep it up!

David Mosher
DMosher@nrcan.gc.ca

JOGGINS FOSSIL CLIFFS NAMED A UNESCO WORLD HERITAGE SITE

The following article is reprinted with permission from the Nova Scotia Minerals Update, v. 25, no. 3, p. 1 2.

Tick tock, tick tock. It is Monday, the 7th of July, and the World Heritage Committee has been meeting now for seven days straight, deciding on the state of sites in danger, hearing reports of the state of conservation of others. Now, seven days in, the 21 countries that constitute the committee have begun to hear sites nominated after years of work, hoping to be added inscribed on the list of World Heritage Sites. Some countries already know that things look grim, as the reports from the bodies that have assessed them (International Union for Conservation of Nature (IUCN) for natural sites like Joggins, or International Council on Monuments and Sites (ICOMOS) for cultural sites like Lunenburg or the Taj Mahal) are laid out concisely in document 8.B Nominations to the World Heritage List.



On January 23, 2007, a dossier supporting the application of the Joggins Fossil Cliffs to become a UNESCO World Heritage Site was sent in three oak boxes to the World Heritage Centre in Paris. Photo shows (left to right) the Hon. Murray Scott, MLA for Cumberland South; Ms. Rhonda Kelly, Executive Director of the Cumberland Regional Economic Development Association; Ms. Jenna Boon, Director of the Joggins Fossil Institute; Dr. John Calder, Nova Scotia Department of Natural Resources Geologist and Scientific Liaison for the project; Premier Rodney MacDonald; and Mr. Keith Hunter, Warden for Cumberland County.

Just how much this means to many countries was very apparent at the meeting: it is perhaps the ultimate honour in a world that is so fractious and at odds culturally and politically. Almost every nation in the world big or small is here. For me, I feel that we are reaching the crest of a very steep hill one that has taken the better part of my career to climb and I don't know what lies on the other side. Perhaps surprisingly, I am not very nervous after all this time. Here with me pacing the halls of the Centre de Congrès in Québec City are Rhonda

Kelly, who through CREDA facilitated the nomination for the past 10 years, and Jenna Boon, who with a sure hand tackled management issues in the nomination and oversaw construction of the new Joggins Fossil Centre (see Minerals Update, v. 25, no. 2). I feel a curious mix of assuredness and resignation, and although I would have liked to tweak the nomination here and there, feel that we've done our job, and now must wait for the decision. Tick tock.

Through the week, I've made a point of meeting delegates from around the world, and I take comfort in my reception both as a Canadian and 'observer' from the nominated site of Joggins. I found kindred spirits in fellow scientists who, like expectant parents in a maternity hospital, are here to witness the birth of a natural World Heritage Site in their own countries. One is from Iceland, which has nominated the volcanic island of Surtsey, born of fire on the mid Atlantic Ridge, and the other from Switzerland, behind the nomination of the tectonic spectacle of Sardona, including the Glarus thrust, in the Swiss Alps. This is unusual, for there are many more cultural sites than natural on the World Heritage list, and decidedly few that are primarily geological in nature.



Photograph of a small section of the Joggins Fossil Cliffs at low tide (photo by Wally Hayes, Nova Scotia Department of Tourism, Culture and Heritage). The cliffs were designated a World Heritage Site by the United Nations Educational, Scientific and Cultural Organization (UNESCO) on July 7, 2008.

And finally it's time. Tim Badman of the IUCN, who conducted the onsite evaluation of Joggins last October, gives a précis of his report on Joggins: it is strong even glowing. I wasn't prepared for what followed, but there was an overwhelming sense of warmth and goodwill from the executive seated at the long podium in front of us. The acting Chair, from Israel, asked the committee if he was correct in reading their reactions, and if no one was opposed he should recommend that Joggins be inscribed by acclamation the only such occasion that many could remember. No contesting

votes, no discussion, save Australia's comment that this nomination had reset the bar for future nominations. It was over. And just beginning. Smiles and hand shakes from the Chinese ambassador, from the US delegation, from Australia, all seated around Canada. All I wanted to do now was to be in Joggins, where I could celebrate with the people to whom this means so much.

Almost 30 years ago, when I was in my early twenties, I had the dubious distinction of being asked by Deputy Minister John Smith to present the results of drilling to the coal miners gathered at the Miners' Hall in River Hebert. As I began to speak a hush fell over the men, and I remember to this day their grim faces as I began to tell them that the livelihood of their fathers and grandfathers was over. I made a vow to myself to do whatever I could to help the community. What price can you place on community pride and a sense of hope? Whatever that price is, it was all worth it.

John Calder
JHCalder@gov.ns.ca

AGS ACTIVITIES

First Circular and Call for Program Themes AGS Colloquium Moncton, NB, February 6-8, 2009

The 35th annual AGS Colloquium and Annual General Meeting will be held at the Delta Beauséjour Hotel in Moncton, New Brunswick on February 6-8, 2009.

A formal Call for Abstracts will be circulated in November, and a registration form by early December. The Call for Abstracts, registration forms, and other Colloquium related information will also be posted on the AGS website in the coming weeks.

Call For Program Themes

As yet we have had no suggestions for Special Sessions; anyone with an idea or proposal for a Special Session and a willingness to assemble a roster of presenters should contact Reg Wilson (reg.wilson@gnb.ca) as soon as possible.

Program

General Session

“Current Research in the Atlantic Provinces (and Beyond)”

Workshop

Rationalization of the Viséan to Namurian stratigraphic nomenclature across the Maritime Provinces.

Date

Friday, February 6, 2009

Convenor

Pierre Jutras, Saint Mary's University
Sussex Mine Tour

An underground tour of the PCS New Brunswick Division potash mine near Sussex will be part of the Moncton 2009 program. Participants will be accepted on a first come, first served basis, so if you are interested, get your registration in early (registration forms will be available on the AGS website (ags.earthsciences.dal.ca/ags.php) beginning in early December 2008). More information on the mine tour will also be forthcoming.

Accommodations

A block of rooms has been reserved at the Hotel Delta Beauséjour, 750 Main St., Moncton, and attendees should book their reservations by Monday, January 5, 2009 to take advantage of the conference rate. Room rates are \$133 for single or double occupancy, \$153 for triple, and \$173 for quadruple. For reservations call 506 854 4344 or 1 888 351 7666 and indicate that you are booking for the Atlantic Geoscience Society meeting.

The Environment Is the Issue

You'll be happy to know this is not a post election evaluation. Rather, it's to tell you about a possible awakening of the Nova Scotia EdGEO Workshop Program. This year, the workshop held in the Halifax area highlighted the intricate connection between geology and the environment. As geologists, we know that relationship very well but it is not always the case for educators whose important job is to enlighten the next generation.



Photograph: Jennifer Bates.

In late August, field trip leaders Terry Goodwin (NSDNR), Mike Parsons (GSC Atlantic) and Bob Taylor (GSC Atlantic) introduced the participants of the EdGEO 2008 workshop to several interesting sites and their related environmental issues. Of course, the geology and its history were important to convey as foundation knowledge. Sites in Bayers Lake Business Park and the Waterstone

Subdivision of HRM offered the opportunity to tell the tale of geology and urban residential development. Acid rock drainage and its mitigation is a key issue in these areas. A superb granite outcrop along Highway 103 was the focus of granitic melts and incompatible elements. Uranium, radon, radio nuclides and fluorosis were the environmental topics. On day two, a tour of the Halifax Wastewater Treatment Plant, gave participants the chance to consider the issues of sewage, metals, organic contaminants and ultimately water quality.

The afternoon stops were at Silver Sands Beach where long term development has greatly influenced the barrier beach system and at Montague Gold Mines where historical mining continues to influence the current environment and the community surrounding the old gold mining district.

The Tuesday evening session at BIO, led by Patrick Potter, allowed participants to better understand our beaches and the dominating feature of Halifax, its harbour. Heather Johnson of the Halifax Independent School presented her best resources and activities to the appreciative participants. Paul Batson assisted in the field. And, who else but, Nelly Koziel co ordinated much of the logistics and assembled the resources kit which included popular AGS education materials.



Photograph: Jennifer Bates.

If the feedback means anything, the environment as an element in these workshops is not to be ignored. Maybe we've been missing the boat. Is the environment a common ground where geologists can meet and connect with other societies that have an interest in education? I would not be surprised. It is something to consider for other AGS education activities.

Here are a couple of the many complimentary comments we received on the workshop:

"This workshop was well worth taking. I am inspired, armed with activities and thought provoking questions to use in class. Thank you so much!"

"I have attended many in services in the past 25 years. The EdGeo workshops in August and October have by far been the best organized, and interesting I have attended. Keep up the good work!"

Plans for next year are in the early stages. The Fundy Geological Museum is keen to host the workshop. Of course, we would like to include a visit to the Joggins section and the new Joggins Fossil Centre. And we'll look to see how we can include local environmental topics. Please contact me if you are interested in receiving information on the 2009 workshop.

Last, but certainly not least, I wish to extend my thanks to the NS EdGEO Committee members who, along with the field trip leaders, ensure a successful workshop year after year. Where would we be without them?

Jennifer Bates

Chair, NS EdGEO Workshop Committee

Jennifer.Bates@nrcan.gc.ca

Beyond the Last Billion Years Talk Series

This year marks the 7th season of the "Beyond the Last Billion Years" talk series, which is one of the many outreach activities of the AGS Education Committee. Without the continued support of Council and the Nova Scotia Museum of Natural History, this talk series could not exist. However the true credit should go to all of our past and future speakers. Giving a public lecture is not always an easy thing to do. Speakers need to consider the appropriate text, pictures, and descriptions that will appeal to and make sense to a general audience.

I have come to learn that not all of the messages in a talk reach all of the audience members, but the one thing that does stand out is the passion the speaker has for the subject matter. I especially love to see the speaker's family members in the audience. What a great way to show family members your inspiration for the many days of field work or the nights working at home. We are fortunate to work in an amazing field with extremely passionate professionals that love to talk about it.

I hope these talks will continue for many years to come. In order to do this we need audience members. Please come. Encourage your neighbours, colleagues, and friends to join us at the Nova Scotia Museum of Natural History and support all of our public talks. This season there will be 5 talks, and each

will be held on the second Wednesday of each month. The first talk, entitled "What is Climate Change? A Nova Scotian Perspective" was presented in a thought provoking style by Ian Spooner to a very receptive audience. On November 12th, Mark Deputuck will lead a journey through time to explore the geological evolution of the east coast offshore. Please consult the museum events calendar listed on Nova Scotia Museum of Natural History website (museum.gov.ns.ca/mnh/) for more information on upcoming talks.

Dustin Whalen
Dustin.Whalen@nrcan.gc.ca

Call for AGS Awards Nominations

The Atlantic Geoscience Society is accepting nominations in the following categories:

AGS Distinguished Scientist Award (Gesner Medal)
and
AGS Distinguished Service Award

Criteria

AGS Distinguished Scientist Award (Gesner Medal)

- 1) The Award is made to a person who has, through her/his own efforts (publications, maps, memoirs, etc.), developed and promoted the advancement of geoscience in the Atlantic region in any field of geology.
- 2) The contribution of the person should be of large enough scope to have made an impact beyond the immediate Atlantic region.
- 3) The person does not have to reside in the Atlantic region nor be a member of the Atlantic Geoscience Society.
- 4) The person must be alive and active in geoscience research, although not necessarily full time in the Atlantic region.

AGS Distinguished Service (Laing Fergusson) Award

This Award shall be given in recognition of exceptional and altruistic contributions to the Atlantic Geoscience Society over a long period of time. There are no specific criteria other than this.

Nomination Procedure

- 1) A statement of between 500 and 1,000 words, succinctly explaining how the candidate meets the selection criteria (see above).
- 2) Supporting documentation from the nominator and a letter of support from the seconder. The supporting documentation could include items such as (i) selected bibliography (must consist of *no more than* 20 key references; a complete bibliography including abstracts is not needed); (ii) documentation of impact of work; and, (iii) supporting letters from referees other than the nominator and seconder.

- 3) The nominator and seconder shall be members in good standing of the Atlantic Geoscience Society at the time of nomination.

Deadline for Nominations is **December 15, 2008**

If possible, nominations, supporting letters, and all documentation should be submitted electronically to allow easy transmission to judges. Please submit to:

Grant Ferguson
Vice President, Atlantic Geoscience Society
Department of Earth Sciences
St. Francis Xavier University
Box 5000
Antigonish, NS B2G 2W5

Telephone: (902) 867 3614
Facsimile: (902) 867 2414
Email: gferguso@stfx.ca

Sponsorship Opportunity

Does your group require a little extra money to get a project or event on the go? Does your project fall within the mandate of Atlantic Geoscience Society?

If so, we may be able to provide you with that extra bit of funding you need!

The Products Committee of the AGS is currently accepting loan or grant applications for projects that communicate ideas about the Earth and earth sciences.

For more information or to download the application, please visit the AGS website: ags.earthsciences.dal.ca/ags.php or contact a member of the Products Committee:

Rob Raeside (Rob.Raeside@acadiou.ca)
David Keighley (Keig@unb.ca)
Kay Thorne (Kay.Thorne@gnb.ca)

CALL FOR APPLICATIONS

Mary-Claire Ward Geoscience Award 2009

The Selection Committee for the Mary Claire Ward Geoscience Award is now calling for applications for the fifth annual presentation of the award. The award honours the many contributions to the Canadian geoscience community of Mary Claire Ward, a past president of GAC, long serving chair of PDAC's Geoscience Committee, and former

chairperson of Watts, Griffis and McOuat Limited. The award, which comprises a \$3,000 prize, a certificate and an opportunity to attend the annual meeting of either the Prospectors and Developers Association of Canada or the Geological Association of Canada, will be made to support a graduate student whose research has a strong emphasis on field mapping, in recognition of Mary Claire's strong belief in the importance of this work.

Eligibility

Full time graduate students attending a Canadian university and undertaking a Canadian geoscience thesis that has a focus on field mapping (e.g., bedrock or surficial geology, geochemistry, geophysics) are eligible for the award. The student must have active student status until at least the last day of April, 2009. Previous recipients of this award are ineligible to apply.

Selection Criteria

Applicants will be assessed on the contribution of their work to geoscience mapping in Canada, their academic qualifications and supporting statements from sponsors.

How to Apply

Additional information about the award, application procedures and application forms is posted on the websites of the PDAC

(www.pdac.ca/pdac/programs/awards/index.html#MaryClaire) and the GAC (www.gac.ca/awards/maryclaire.php)

Application Deadline: **December 15, 2008**

REGIONAL NEWS AND UPDATES

Acadia University

The Department of Earth and Environmental Science has started another busy year with 88 majors and 11 graduate students. The Fletcher Geology Club once again hosted the Canadian Blood Services blood donor clinic. The Environmental Science Students Organization has addressed a number of relevant environmental science topics through their new film series. Both clubs have a full agenda of events for the coming year.

Sandra Barr is surviving (barely) in her role as acting department head, as well as continuing to serve as Books Editor and Presidential Assistant with the Geological Association of Canada, teaching 3.5 courses this term, and trying to meet some of her research obligations. She is keeping the pressure on Rob Raeside to return to his job at the end of the year!

Linda Lusby has been elected Chair of the Canadian University Environmental Science network. During her three year term she will be heavily involved with efforts leading toward accreditation of Environmental Science programs as well as building a stronger relationship with the sister organization in the US. The Council of Environmental Deans and Directors. Linda was also selected to participate in a three year project funded by Project Kaleidoscope to promote interdisciplinary learning in the sciences.

David McMullin eagerly awaits his sabbatical, which starts next year. From January to March David will instruct for Class Afloat aboard the S.Y. Fryderyk Chopin. Class Afloat, in conjunction with Acadia University, allows young people from around the world to engage in learning while sailing across the planet. John Roff is enjoying retirement and currently instructing on the fall leg of Class Afloat from Copenhagen to Dakar. David will take over from Brazil to Lunenburg.

Nelson O'Driscoll has been busy this summer examining mercury and green house gas movements in coastal wetlands with visiting researchers from Portugal, St. Francis Xavier University, and Environment Canada. His new graduate student, Sam Edmonds is quantifying the distribution of mercury in blackbirds. Nelson's lab has quickly become recognized as a centre for the investigation of mercury in the environment.

Peir Pufahl spent time this summer with his new graduate student, Cole Edwards, in northern Quebec studying Paleoproterozoic sedimentary rocks. Peir's chapter on bioelemental sediments will appear in the new edition of Facies Models, which will be released next spring. He was also recently awarded the Petro Canada Young Innovator Award for his research on early life. Peir looks forward to leading his short course on modern and Pleistocene carbonate sediments of Bermuda next May.

Rob Raeside has remained busy as acting dean of the Faculty of Pure and Applied Science. He has somehow found time to compile three short course texts for MAC focused on Migmatites (Ed Sawyer - Chicoutimi), Laser Ablation ICP MS (Paul Sylvester - MUN), and Uranium Deposits (Kurt Kyser - Queen's).

Ian Spooner has finished projects in northwest British Columbia and Nova Scotia. His interest in physical limnology has led to new research endeavours in these regions. Ian also coordinates the new Master's degree in geomatics that is offered jointly with COGS.

Cliff Stanley went to Chile this summer, visiting the high altitude Quebrada Blanca porphyry copper mine with graduate student, Tamara Moss, to quantify the nature and degree of hydrothermal alteration. Although the results are preliminary, there is no doubt he came back gasping for breath!

The Earth and Environmental Science Department was included in a recent geological tour of the area by a group of Canadian geologists who have in common that they did their PhD degrees at the University of Wisconsin (Madison) in the late 1940's. Robert D. Hutchinson, his brother Richard, three other geologists of similar ages, and an assortment of spouses and other family members visited the department on October 2nd, as part of what may be the last of the reunions that they have held regularly over the years. Bob and Dick's father was an Acadia graduate of 1907. Bob is well known to geologists in Nova Scotia for his pioneering work with L.S. Weeks in southern Cape Breton Island that culminated in classic Geological Survey of Canada maps and papers on the Cambrian rocks in that area and the fossils they contain. In reminiscing with Chris White and Sandra Barr who have worked in the area more recently, Bob clearly showed evidence that he has a good memory (and fond memories) of his time in Cape Breton Island. He offered advice on the paleontological work that Chris and Sandra are doing on Cambrian rocks in Nova Scotia and New Brunswick in collaboration with acritarch and trace fossil specialists Teodoro Palacios and Sören Jensen of the Universidad de Extremadura in Badajoz, Spain.

Peir Pufahl
Peir.Pufahl@acadiiau.ca

Fundy Geological Museum

Nova Scotia Gem and Mineral Show 2008: We would like to thank the AGS and its members for their financial and personal support of this well received event. Despite an overall slower summer tourist season attendance was up again this year. The show continues to provide Parrsboro residents and visitors with an opportunity to learn about our natural heritage through participation in workshops, demonstrations and field trips.

FGM to celebrate its 15th Anniversary: The Fundy Geological Museum is gearing up for its 15th anniversary on December 4th. While geologically speaking 15 years may be a mere "blink of the eye", this will be an opportunity to join Museum staff and Cumberland Geological Society members as we celebrate the major mile stones encountered along the way. The project to rebrand of our site as a Discovery Centre for the Bay of Fundy is beginning to gain momentum and we would like to invite the general public to join us as we look to the Museum's future.

December 4th will also be marked by the closing of our "O' Christmas Tree" exhibit. Individuals and local businesses and heritage organizations will be decorating trees for this exhibit, beginning early in November. Museum visitors will be invited to vote for the trees, by making a donation to the local Food Bank. The Museum's entry this year will be decorated with

the names of current and past employees, volunteers and Board and Society members, keeping with our 15th Anniversary theme. During this time period we have seen over 100 150 individuals associated with the operation of this site. In a town of 1500 surrounded by smaller rural communities, it has been encouraging to see the impact that we have had in the development of career and life skills. Our contribution to our community goes above and beyond the dollars related to visitation and operational expenditures.

Where are they now? Although Katherine (Goodwin) Ogden's museum career may have begun as a summer student with the Ottawa House Museum by the Sea, the Fundy Geological Museum was able to "steal" her away. As Kathy travelled along the road from Student Interpreter, to Museum Intern, to Assistant Preparator, and then Laboratory Manager of the Fundy Geological Museum, she has helped ensure the success of our Museum. Congratulations are now in order as Kathy takes the next step, museologically, as Registrar, with the Nova Scotia Museum of Natural History in Halifax.

Ken Adams
AdamsK@gov.ns.ca

New Brunswick Museum

We are advertising the 2009 George Frederic Matthew Research grants in geology. Information can be found on the redesigned NBM web site (www.nbm.mnb.ca) by going to Collections and Research Natural Sciences Grants. Applications are due December 31st of each year.



Left to right: Howard Falcon Lang, Martin Gibling and Arden Bashforth on the Tynemouth Creek Formation. Photograph: Randall Miller.

In 2008, the NBM awarded George Frederic Matthew Research grants in geology to three projects. Undergraduate student Erin Powe at the University of New Brunswick

received \$500 toward her project “Petrology, petrogenesis, geochemistry, and distribution of the Cu zone at the Brunswick No. 12 volcanogenic massive sulphide deposit, Bathurst Mining Camp, New Brunswick”. Her work was presented at the 2008 GAC MAC conference in Quebec City (Powe, E.M. and Lentz, D.R. *Chalcopyrite diseased sphalerite from the basal Cu zone of the Brunswick No. 12 massive sulphide deposit, Bathurst, New Brunswick: Textural, compositional, and petrogenetic features*). Other previous Matthew Grant recipients also presented papers partly funded by the grant at the GAC MAC meeting (Mumford, T.R. and Shaw, C.S.J. *Zonation in experimentally grown clinopyroxenes; Influence of T t paths in closed systems* and Dickinson, P.J. and Broster, B.E. *A geological framework for human occupation of the lower Saint John River valley, New Brunswick, Canada*).

In 2008 Matthew Grants of \$1000 went to Arden Bashforth, a Ph.D. candidate at Dalhousie University to help fund his project on “Paleoecology of vegetation in the Early Pennsylvanian Tynemouth Creek Formation, southern New Brunswick” and Dr. Sören Jensen, Universidad de Extremadura for “A study of Cambrian acritarchs from New Brunswick”. Both researchers were in the field this summer.



Left to right: Sören Jensen and Sandra Barr examine the Somerset Street section in Saint John. Photograph: Randall Miller.

Continued work on the Campbellton Formation has resulted in a few additional papers concerning sharks and acanthodians. Once again previous Matthew Grant recipients have been instrumental in bringing their specialties to bear on some New Brunswick palaeo puzzles. John Maisey and Sue Turner have been sorting out the two sharks found in the Campbellton Formation, *Doliodus problematicus* and *Protodus jexi*. Sue Turner has also been involved in a new description of acanthodian spines originally described from Campbellton (see publication list below).

At the 2008 International Geological Congress in Norway, Miller was elected as a Member (Canada) of INHIGEO, the International Commission on the History of Geological Sciences (A Commission of the International Union of Geological Sciences). One of the duties of the position is to compile newsletter information studies of the history of geological sciences in our region.

This is the last year for a research project supported by a SSHRC CURA grant (Community University Research Alliances) jointly held by UNBSJ and the NBM. The geological component has been to look at “Science Culture, Geological Investigation, and the contribution to the cultural diversity of Saint John”. As part of the project Miller delivered a paper at the 3rd International UNESCO Conference on Geoparks and at the GAC MAC conference in Quebec City. Another result of the CURA project has been the preparation of a building stone guidebook for Saint John. Publication of the book is being supported by grants to the New Brunswick Museum from the Canadian Geological Foundation and the Architects’ Association of New Brunswick. The book titled “Rebuilt in Stone” by R. Miller and G. Hughes (NBM Curator of History and Technology) should be published in the next few months.



Cover image from the forthcoming book ‘Rebuilt in Stone’ from the New Brunswick Museum. Photograph: courtesy of New Brunswick Museum.

The New Brunswick Museum is currently showing the exhibit ‘Ice Age Mammals’ from the Canadian Museum of Nature. The exhibit will be in Saint John until January 18th. Ice Age Mammals is produced by the Canadian Museum of Nature in partnership with the Montreal Science Centre, the Royal Tyrrell Museum of Palaeontology and the Yukon Beringia Interpretive Centre.

Recent conference presentations

Miller, R.F. 2008. Geoheritage in New Brunswick, Canada. Geological Association of Canada/Mineralogical Association of Canada Annual Meeting 2008, Quebec, Abstracts.

Miller, R.F. 2008. A proposed 'Saint John Fundy region' Geopark in eastern Canada. 3rd International UNESCO Conference on Geoparks, June 2008, Osnabruck, Germany, Proceedings, p. 81-82.

Recent publications

Dunlop, J.A. and Miller, R.F. 2007. The fossil arachnid genus *Eurymartus* Matthew, 1895 and the eurypterid genus *Eurypterella* Matthew, 1889 from the "Fern Ledges" of Saint John, New Brunswick, Canada. *Neues Jahrbuch für Geologie und Paläontologie Abhandlungen*, 245 (3): 295-300.

Turner, S. and Miller, R.F. 2008. *Protodus jexi* Woodward, 1892 (Chondrichthyes), from the Lower Devonian Campbellton Formation, New Brunswick, Canada. *Acta Geologica Polonica* 58: 133-145.

Maisey, J.G., Miller R.F. and Turner, S. (in press). The braincase of the chondrichthyan *Doliodus* from the Lower Devonian Campbellton Formation of New Brunswick, Canada. *Acta Zoologica* 89.

Burrow, C.J., Turner, S., Desbiens, S. and Miller, R.F. (in press). Early Devonian putative gyraacanthid acanthodians from eastern Canada. *Canadian Journal of Earth Sciences* 45:

University of New Brunswick

Pamela Jeanne Dickinson defended her Ph.D. thesis entitled "Geomorphological Processes and the Development of the Lower Saint John River Human Landscape"; she was supervised by Prof. Bruce Broster, with Prof. David Black in Anthropology.

Prof. Dave Keighley just returned from leading a field symposium in Utah for the Rocky Mountain Association of Geologists and Utah Geological Society. Prof. Cliff Shaw is on a 1 year sabbatical in Frankfurt, Germany. Prof. Joe White is also on a 1 year sabbatical this year, but did take time out of his busy schedule to organize our 3rd year structural field school.

The 2008 28th Annual Workshop of the Canadian Tectonics Group/Structural Geology and Tectonics Division (GAC) meeting will be held in New Brunswick (Moncton) on October

17-19. It is being organized by Andy Parmenter at the University of New Brunswick. Drs. Sandra Barr (Acadia University) and Adrian Park (University of New Brunswick) will lead the field trip into the Caledonia Highlands in the vicinity of Fundy National Park in southern New Brunswick. Please check out the website for further information (www.brocku.ca/ctg/ctg/html/index.html)

The Atlantic Universities Geological Conference is being hosted by UNB this year from October 23rd to 25th. It is organized by both Kim Klaussen and Megan Trites. Our AUGC'08 Guest Speaker for the Banquet is Robert Quartermain, President and CEO of Silver Standard Resources. For further information please check out the website (www.unb.ca/conferences/augc/index.html)

The 24th International Applied Geochemistry Symposium (IAGS 2009) is being hosted by us next year from June 1st to 4th with field trips and workshops on either end of the conference. The Association of Applied Geochemists (AAG) has joined up with the International Association of Geochemistry (IAGC), the International Association of Geoanalysts (IAG), and the North Atlantic Minerals Symposium (NAMS) for this biennial meeting; it is the first time it has been back in Canada in over a decade. The Honorary Chairman for the IAGS 2009 is former UNB Geology professor Dr. Gerry Govett, a phenomenally well known and respected applied geochemistry researcher since the late 1960s. We are very proud Gerry and many of his former students will be returning to UNB for this meeting. The deadline for 200 word abstracts with extended abstract (up to 4 pages total) is February 15th (oral or poster presentations are invited). Please check out the IAGS 2009 website, if you or your students are interested in participating (www.unb.ca/conferences/IAGS2009/)

David Lentz
DLentz@unb.ca

UPCOMING EVENTS

Atlantic Universities Geologic Conference

October 23-25, 2008

University of New Brunswick, Fredericton
www.unb.ca/conferences/augc/index.html

The AUGC is the oldest geology conference in Canada, with the exception of the Geological Association of Canada. Every year the AUGC hosts a conference where undergraduate students have the opportunity to present their current work, learn about local geology, meet members of the Atlantic geologic community and enjoy the company of like minded students.

Beyond the Last Billion Years 2008 Talk Series

Close Encounters with the Ancient Seafloor

November 12, 2008

Dr. Mark Deptuck, Canada Nova Scotia Offshore Petroleum Board

Join us for fascinating geological time journey. Geologist Dr. Deptuck will time travel through geologic layers using 3D seismic data. Employing the “Principle of Superposition”, which states that sedimentary layers are deposited in a time sequence, you’ll have a special opportunity to see and learn how Canada’s eastern sea floor was created over time and to learn more about how it is studied.

24th International Applied Geochemistry Symposium (IAGS 2009)

June 1 4, 2009

University of New Brunswick, Fredericton

www.unb.ca/conferences/IAGS2009/

This biennial Association of Applied Geochemists meeting is co sponsored by the International Association of GeoChemistry (IAGC) and the International Association of GeoAnalysts (IAG) and will include the North Atlantic Minerals Symposium (NAMS). The meeting will be preceded by 5 professional development workshops to be held on Sunday, May 31st. As well there are 3 pre meeting field trips (Wednesday May 27 to Saturday May 30th) and 3 post meeting field trips (Friday June 5 to Monday June 8th) which will be run throughout the Maritimes, leaving from and returning to Fredericton.

First Annual “WHERE Challenge”

Location: National

October 17, 2008 February 28, 2009

In celebration of the International Year of Planet Earth, the first annual WHERE Challenge is asking Canadian kids aged 10 – 14 years to discover the answers to these questions: What on Earth is in your stuff and WHERE on Earth does it come from?

The WHERE Challenge is inviting kids and schools from across the country to compete for thousands of dollars in regional and national cash prizes by letting their imaginations run wild! Enter as a group or an individual. All you have to do is tell a story about what on Earth is in your stuff and WHERE on Earth it comes from.

Pick a favourite object in your home, school or playground, identify one or more non renewable Earth resources needed to make that object and tell us WHERE on Earth those resources

come from. Your story can be told through an essay, a poem, a song or a play, a painting or a poster, an audio, video or multimedia presentation or anything else you can dream up! The more original, the better! Winning entries will be announced on Earth Day, April 22nd, 2009.

For more information, please visit

www.earthsciencescanada.com

GeoHalifax 2009

September 20 24, 2009

Halifax Marriott Harbourfront Hotel, Halifax

www.geohalifax09.ca

The Canadian Geotechnical Society (CGS), the Nova Scotia Section of the Canadian Geotechnical Society and the Canadian National Chapter of the International Association of Hydrogeologists (IAH CNC) invite you to the 62nd Canadian Geotechnical Conference and the 10th Joint CGS/IAH CNC Groundwater Specialty Conference.

The conference theme Discover Geotechnique reflects Halifax’s history as a point of discovery for many early Canadians. It also refers to this conference’s tradition of providing a continuing forum for discovering new research developments and advancements in geotechnical engineering and hydrogeology.

Authors are invited to submit English or French abstracts of a maximum of 250 words through the conference web site by January 16, 2009. Invitations for submission of full papers will be sent by February 27, 2009 to authors whose abstracts are accepted by the conference’s Technical Committee. Submitted papers will be due by May 15, 2009 and will be reviewed prior to final acceptance for inclusion in the conference proceedings available on CD ROM. At least one author of an accepted paper must register for the conference.
