

ATLANTIC GEOSCIENCE SOCIETY

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Newsletter Address

Please forward newsletter items and/or comments to:

Jennifer Bates
Geological Survey of Canada (Atlantic)
Bedford Institute of Oceanography
P.O. Box 1006
Dartmouth, Nova Scotia B2Y 4A2
Tel: (902) 426-4386
Fax: (902) 426-4848
E-mail: bates@agc.bio.ns.ca

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PRESIDENT'S FORUM

Where has the time gone? It seems that I'm finally understanding what I am to do as President of the AGS and it is already time to pass along the duties to the next president! This is the last time for me to write a Forum, so here goes.....

First and foremost, I would like to thank everyone on the AGS Executive Council for their encouragement, assistance and sage advice on the many issues that have arisen over the past year. I also want to thank the AGS membership for allowing me the chance to sit in the President's chair for a year. It has been an honour and a lot of fun, and I now have a greater appreciation for all of the hard work being done by the various committees and individuals in the organization.

I know that there are at least a few of you out there in newsletter land that can remember life before the AGS, but not me! I was throwing snowballs and doing other adolescent things in those pre-Society days. The AGS has played an integral role in my entire career as a geoscientist. The Society was there when I was a graduate student at Dalhousie and throughout my tenure with the Nova Scotia government. Many of my colleagues and I cut our teeth by giving presentations at the annual colloquia. I want to acknowledge all of the Society members who helped to organize those events!

But enough of the soft and mushy stuff! Where is the Society going in this new millennium?

I am pleased to see that student participation in AGS events, most notably the annual colloquia, has continued to increase in recent years. This is great news for the future of the AGS. I have been very impressed with the professionalism of the students' oral and poster

presentations at recent conferences. Many students, in my opinion, have surpassed those given by the more senior members in both style and content ... this also bodes well for the Society! To all these students, congratulations.

The later part of the 20th century witnessed unprecedented downsizing, rightsizing and other vogue management initiatives. The longterm effects are yet to unfold. However, despite reductions in staff levels in many geoscience organizations including provincial surveys, such as my own, there continues to be a dedicated group of geoscience professionals that are committed to ensuring the legacy of the Society. To all these people, thanks.

The advent of the offshore, and possibly onshore, oil and gas production along the east coast of Canada will reshape the geoscience needs of the Atlantic region and will undoubtedly have a profound effect on the future of the AGS. This unprecedented boom in the Atlantic petroleum industry will undoubtedly present new challenges and opportunities for the Society, which I feel must be embraced if the Society is to remain vibrant in this new millennium. To this end, AGS has had initial discussions with the Canadian Society of Petroleum Geologists regarding potential partnership opportunities for the two societies. And, Tom Martel is currently organizing a technical session for the upcoming Colloquium in Moncton focusing on petroleum-related topics in Atlantic Canada. These are great first steps!

What about minerals? I am pleased to see that the mineral industry in Atlantic Canada continues to play an integral part of this region's economy. The mineral industry continues to employ thousands, mostly in rural regions where high-paying jobs are generally hard to find. Recent exploration has led to the discovery of numerous metallic and industrial mineral deposits in Newfoundland, New Brunswick and Nova Scotia, ensuring that minerals will continue to play an important role in our region. The potential for development of a plastics industry using the oil and gas from offshore projects may also provide a local market for several industrial mineral products, such as limestone or kaolin, as fillers. The petroleum industry also requires storage facilities, and subsequently presents a potential use for our salt structures. Many of these developments will require geoscience input and present other avenues for future AGS initiatives.

As a backdrop to these mineral and petroleum opportunities, the public continues to request/require geoscientific input into a plethora of environmental, geotechnical, educational and other issues. Geoscientists are, after all, Earth scientists, and as such should be at the forefront of any topics related to the Earth. Once again the AGS and its members can capitalize on many of these issues.

In short, I am confident that the Atlantic geoscience community can, and should, play an important role in the future of Atlantic Canada. I am encouraged by the continued enthusiasm of many AGS members and am sure that the Society will continue to grow and flourish. Thanks for allowing me to be President for the year! I encourage all of you to attend the AGS Colloquium in Moncton on February 9 and 10, 2001 at the Delta Beausejour Hotel where you can witness the breadth of geoscience research in our region. I hope to see you there!

Mike MacDonald, AGS President

NEWFOUNDLAND & LABRADOR OPEN HOUSE 2000

The 24th Annual Review of Activities of the Department of Mines and Energy took place on November 2, 2000. As in past years it was held in conjunction with the joint annual meeting of the CIM Newfoundland Branch. Over 150 delegates attended the meeting and despite the lower registration this year, the meeting was upbeat and positive. A delegation of Geological Survey of Canada (GSC) representatives were also present, some of whom participated in planning sessions with Geological Survey of Newfoundland and Labrador (GSNL) managers as part of the Joint Geoscience Programs Committee.

The open house included review presentations on GSNL and GSC activities in the province, mining and exploration updates, petroleum-sector update and a review of opportunities at the Centre for Earth Resources Research at Memorial University. Technical presentations included talks on the joint GSC-GSNL geological bridges of eastern Canada, new gold environments on the Burin Peninsula, and the Nain Plutonic Suite, host to the Voisey's Bay Ni-Cu-B-Co deposit. Thirty-eight posters were also on display during the open house and continued through the CIM meeting. A public lecture entitled "Life - The Real Survivor : A Four-Billion-Year Odyssey Through the Fossil Record" was presented by W. Douglas Boyce of the GSNL.

A Prospectors Tent, a Core Shack and a commercial trade show were also part of the CIM conference. About fifty prospectors attended the meeting with about fifteen exhibiting in the Prospectors Tent. A number of Newfoundland-based junior exploration companies were also present. An *Explore the Outdoors* display promoting prospecting and the mineral industry was sponsored by the Matty Mitchell and Norm Peters Prospectors Resource rooms, the CIM, the Newfoundland and Labrador Chamber of Mineral Resources and the GSNL. Finally, the CIM Newfoundland Branch presented Deborah Downey of GSNL and Ken Andrews of Mineral Lands with Certificates of Appreciation for their years of support for, and participation in, Branch activities.

Baxter Kean, Geological Survey of Newfoundland and Labrador

MINING MATTERS FOR NOVA SCOTIA 2000

For several years the media have devoted attention to the economic boom associated with Nova Scotia's offshore oil and gas industry. Against this backdrop, there has been considerable coverage of the "demise" of underground coal mining in Cape Breton Island. The result is an all-too-common view by many Nova Scotians that mining is a sunset industry which is not important to the provincial economy. This is far from true, and there are many exciting opportunities in the mineral industry in Nova Scotia. In light of this, the Department of Natural Resources (DNR) recognized the importance of raising the profile of mining with the general public, politicians and agencies involved with economic development in Nova Scotia. Accordingly, DNR changed the focus of its annual Review of Activities in 1998 to help raise the awareness and understanding of the mining industry in Nova Scotia. The new conference was called *Mining Matters for Nova Scotia: Opportunities for Economic Development*.

Mining Matters for Nova Scotia 2000 was held in Halifax's World Trade and Convention Centre on Monday and Tuesday, October 30 and 31. This year's conference was a partnership of the Department of Natural Resources, the Mining Society of Nova Scotia, the Nova Scotia Chamber of Mineral Resources and the Nova Scotia Prospectors Association. The meeting, subtitled *Opportunities for Economic Development*, retained the diverse program content initiated in 1998 as a way to illustrate to an equally diverse audience the contributions of minerals and mining to Nova Scotia. Invitations to attend the two-day event were widely distributed to other provincial government departments, regional development agencies, special interest groups and the general public, in addition to the traditional audience of local, national and international exploration companies, prospectors and producers, and other federal and provincial geological surveys. This advertising campaign resulted in a registration of approximately 325 delegates.

Oral presentations were grouped into three themes: *Current Developments in Nova Scotia's Mining Industry* (a session hosted by the Mining Society of Nova Scotia); *Building a New Economy in Cape Breton Island: Potential Contributions from Mining*; and *Current Geoscience Research in Nova Scotia*. The presentations examined a range of topics including: the source(s) of mercury in loons at Kejimikujik Park; base metal potential of major faults in central Nova Scotia; details of Carboniferous waters in the Sydney Coalfield; potential uses of

salt structures (including their use for

petroleum storage) in northern Nova Scotia; and exploring for buried Cretaceous - Quaternary valleys in Cape Breton Island. The content and presentation of this year's talks were outstanding.

Did you know that the best working hypothesis for the origin of our moon is that it resulted from a meteorite impact on the early-formed Earth? A number of fortunate delegates heard about this and much more in the keynote address entitled "The Terrestrial Impact Record" by Dr. Richard Grieve from the Geological Survey of Canada in Ottawa. Dr. Grieve presented a riveting overview of the geological evidence for impact structures on the Earth with specific reference to the Chicxulub structure in Mexico. This structure is the result of an impact that was most likely responsible for the global mass extinction at the Cretaceous-Tertiary boundary 65 million years ago.

Mining Matters for Nova Scotia 2000 featured a wide range of displays that made for a diverse and interesting poster session. Geoscience posters were presented by DNR staff, university researchers and the GSC (Ottawa and Dartmouth). Industry representations included displays by the Nova Scotia Prospectors Association, the Chamber of Mineral Resources of Nova Scotia, mineral producing companies (e.g. cement, salt, aggregate, silica sand, bricks and slate), mineral exploration companies and service companies.

Mining Matters for Nova Scotia 2000 was an unqualified success. Organizers are already incorporating suggestions for improvements into their planning for next year's conference which will be held in Halifax in early November.

Mike MacDonald, NSDNR

A QUARTER CENTURY OF INDUSTRY-GOVERNMENT RELATIONS

How time flies! Particularly so for the small event that began 25 years ago in Fredericton, New Brunswick as a means of increasing communications between government geoscientists and the mineral industry sector. This event is the New Brunswick Department of Natural Resources and Energy's Annual Review of Activities known informally as Open House.

Preparations for this year's Review of Activities, held November 6-8, started in early July when a decision was made to celebrate the silver anniversary. Over the ensuing months, several staff members worked diligently to prepare a special technical and social program.

Following on the success of the 1999 Industry Forum, this year's Forum was organized to continue participation by industry.

The 2000 Annual Review of Activities commenced with a pre-conference workshop and field trip. The one-day workshop, organized by the Geology Department of the University of New Brunswick and lead by David Lentz (UNB) and Marcos Zentilli (Dalhousie University) gave the 25 participants from industry an overview of the characteristics of porphyry Cu-Mo-Au deposits.

This year's field trip focused on the hydrocarbon sector which is currently attracting much interest. Clint St. Peter (DNRE) led a group of 25 people to sites in southeastern New Brunswick where most of the exploration for hydrocarbons has occurred.



NBDNRE field trip to southern New Brunswick hydrocarbon sites

After returning from these pre-conference events, delegates were welcomed by the annual *Business New Brunswick Meet & Greet* reception in the poster session and trade show exhibit hall. Here delegates had an opportunity to review the latest geoscience projects being carried out by government-university staff, visit the core shack displays and discuss potential business opportunities with the trade show vendors. This year 51 posters and exhibits were presented.

At mid-evening, more than 130 people gathered in the first *Prospector's Pub*, which included entertainment by the local band Mackinaw, an

informal jam session and lots of door prizes. Reports to date indicate that this event was a great success.

Tuesday morning commenced with introductory remarks by the Honourable Jean Volpé, Minister of Natural Resources and Energy, followed by presentations from the Prospectors and Developers Association of Canada and Noranda Incorporated. The technical program included talks given by staff of the Geological Surveys Branch and representatives of the University of New Brunswick, Acadia University, Geological Survey of Canada (Quebec) and the Maine State Geological Survey.



Dick Potter, guest speaker at the 2000 Annual Review, cuts open the door to the Prospector's Camp at the launch of the first New Brunswick Annual Review Prospector's Pub.

A highlight of this year's conference was the release of the updated and digitally produced 1:500 000 scale bedrock geology map of New Brunswick compiled by Les Fyffe, Steve McCutcheon and staff of the Geological Surveys Branch.

Honourable Jean Volpé and Les Fyffe viewing the newly released bedrock geology map of New Brunswick



The annual Tuesday night banquet attended by more than 165 people was a great hit. The focal point of each table was a Welsh miner's lamp. This year's guest speaker was Dr. R.R. Potter, former Assistant Deputy Minister of the New Brunswick Department of Natural Resources and Energy. Dr Potter's talk "Looking Forward in the New Millennium" was a refreshing look at accomplishments over the last quarter century and a positive outlook for tomorrow's industry.

Wednesday's Industry Forum consisted of presentations by exploration, mining, hydrocarbon and research industry sectors. Topics ranged from gold to potash, natural gas to reclamation, and value-added products to deep-penetration geochemical research techniques. A wealth of information was offered to the delegates.

Attendance at the Review of Activities was an all-time record of 280 delegates including prospectors, exploration geologists, engineering consultants, and government and university staff. As well, Division retirees returned to celebrate the Anniversary and the end of the Millennium.

The 2000 Review of Activity was seen as the best ever. But what about the next Annual Review in 2001? Watch for the first notice in June.

Don J.J. Carroll, NBDNRE

NBDNRE FIELD TRIP

All reports from Fredericton suggest that the New Brunswick Department of Natural Resources and Energy 25th Annual Review of Activities, November 6-8, 2000, was a success. This year, for the first time, a field trip was organized for those interested in the increasing onshore petroleum activity in southeast New Brunswick. Clint St. Peter and colleagues in the Department squired a mix of geo-logists, geophysicists, petroleum promoters and marketers, government people and the curious, to two sites that showed the Albert Formation oil shales source and reservoir rocks then to the location where a Columbia Natural Resources Limited (CNR) workover rig has been actively assessing prospective oil zones in a recently drilled hole.

The thirty-strong group endured the two-hour drive, with the fog and the "dry drizzle" that persisted all day, to visit the Upper Dorchester quarry site on the east side of the Memramcook River. The group then played the tides and walked the two-kilometre coastal section of the Albert Formation at Boudreau Village on the east side of the Petitcodiac River. We understand that all went well until it came to finding the CNR rig deep in the woods. Various cell phone calls routed via Buffalo to Fredericton finally found Don Gemmel of 3D Consultants onsite vigorously maintaining that he had put a perfectly visible sign at the end of the woods road which had by then been driven by twice. Indeed, on the third try the sign was there, though the good-hearted joshing of Don's sign-placing abilities continued over the two-day Open House and into the well-attended banquet on Tuesday evening.

AGS member Alan Ruffman made a surprise special presentation to the navigationally-challenged Clint St. Peter at the banquet, by way of thanks for his successful field trip efforts. The token of appreciation was a compass that incorporated a thermometer to tell Clint in the

future when he is getting closer to his target (hot) or further away (cold), and a piercing whistle when all else fails.

Alan Ruffman, Geomarine Associates

UPDATES FROM THE ATLANTIC PROVINCES' UNIVERSITIES AND MUSEUMS

Acadia University

The academic year is half gone, and the Geology Department at Acadia has been busy. The first big event of the year was the visit by Paul Olsen from the Lamont-Doherty Earth Observatory (Columbia University, New York) as the 25th Huggins Science Seminar speaker. Paul entertained a crowd of about 150 people with his observations on the beginning of the age of dinosaurs, and the surprising correlations between sudden declines in the number of dinosaurian species and major volcanic episodes on Earth. Next day, Paul spoke to a more geological audience on the correlations he has been able to establish between the Triassic-Jurassic rocks of eastern North America, including the Fundy area, and Morocco. I think we were all very surprised to see some remarkably familiar red sandstones and conglomerates in the mountainous desert of North Africa.

In November, we were privileged to host Ian Parsons, from Edinburgh University, as the Mineralogical Society of America distinguished lecturer. He made two presentations, one on the spectacular igneous layering in the Klokken intrusion in southern Greenland, and the other on the micro-structure of feldspars, leaving us with the intriguing possibility that dislocations in the crystal structure may have been the site where life first became organized.

For the past two summers we have hosted a team of researchers from Aberdeen University, Scotland, who have been investigating the stratigraphy, sedimentology and geochemistry of the Triassic sedimentary rocks around the Minas Basin. Led by Ph.D. candidate Simon Gould, and his supervisor, Brian Williams the group presented a short conference on their work to us in June.

In the Fall term, an eager group of students attended the 50th AUGC at Dalhousie University. Kaesy Gladwin did the honours for Acadia, giving a presentation on his thesis topic in which he displayed the results of his mapping of the new outcrops of the Halifax Formation along the Black River canal near Wolfville. He did a superb job and came home with the APICS prize for the best scientific paper at the conference.

During the Fall term, several department members displayed their work at the annual open houses of the New Brunswick and Nova Scotia Departments of Natural Resources. Sandra Barr and graduate student Paul Teniere presented the results of recent mapping in Guysborough County; graduate student Martin Ethier attracted much attention with his remotely sensed analysis of the geology of the Cape Breton Highlands; honours student Kaesy Gladwin presented his mapping of the Black River Canal; Barry Cameron and amateur palentologists Chris Mansky and Robert Godfrey displayed their recent findings of amphibian and dinosaur trackways in the Wolfville area; Cliff Stanley and honours student Jason O'Connell presented analysis of the distribution of gold-bearing veins near the Ovens, Nova Scotia and Cliff gave a talk on the application of litho-geochemistry to the analysis of plutons in the South Mountain Batholith; and Ian Spooner and honours student Melanie Barker displayed analysis of the environmental threat posed by landslides in the Cheticamp area, Cape Breton Island. At the New Brunswick Department of Natural Resources open house in Fredericton, Sandra Barr presented a talk on her ongoing field studies in southern New Brunswick and displayed new 1:20,000 scale maps of the area.

For more information on the Geology Department at Acadia University visit the web site at: ace.acadiau.ca/science/geol/home.htm or contact Rob Raeside at the Department of Geology, Acadia University, Wolfville, N.S. B0P 1X0

Dalhousie University

This October the Dalhousie earth sciences undergraduate students hosted the Atlantic University Geological Conference (AUGC) 50th anniversary of the founding of the AUGC at Dalhousie in 1950. This student-organized and run event was very well attended by students from Memorial University, University of New Brunswick, Acadia University, St. Francis Xavier University, Saint Mary's University and Dalhousie University. Representative students from each university presented papers; the CSPG award for the best student paper was won by Jenn Sabeau of Dalhousie for her presentation on her honours thesis entitled "Monitoring Oil Spill Bioremediation using Marsh Foraminifera".

In March, we were happy to welcome Djordje Grujic who joined the faculty as Associate Professor. Djordje, who is from Yugoslavia via Switzerland and Germany, is a structural geologist with interests in tectonics, analogue modelling, structure, tectonics and thermochronology of Himalayas, Madagascar and Alps. Djordje is also a talented photographer who very quickly joined the Halifax art scene as a partner in a new gallery, *ViewPoint*.

Next summer we look forward to the addition of two new faculty members. One of these will be a Tier 2 Canada Research Chair who will join our Earth System Evolution group. The second position will be in Earth Surface Processes, a joint appointment between Dalhousie

and the Canadian Institute for Advanced Research. Meanwhile, we are grateful to retired faculty, Gunter Muecke and Franco Medioli, for helping us to maintain our undergraduate programs by staying on in a teaching role.

Members of the Dalhousie Regional Electron Microprobe Laboratory have been awarded an NSERC Major Installation Grant to replace their old JEOL 733 purchased in 1984. A new instrument should be in place in the second half of 2001. This success is due in large part to the efforts of Prof. Barrie Clarke and Dalhousie technologist, Bob MacKay.

Prof. David Scott is part of a group headed up by R.T. Patterson (Carleton University) to examine paleoclimate records versus productivity on the west coast. This is funded by a four year \$600K strategic grant. David also has just received funding (with M. Risk at McMaster and C. Hillaire-Marcel at UQAM) to look at climate archives contained in deepsea corals off Nova Scotia. The belief is that deepsea corals hold the key to high-resolution climate records in the ocean. This is a five year \$1 million programme and should bring three new graduate students to Dalhousie.

For more information visit the web site at: meguma.earthsciences.dal.ca/

[es-home.htm](#) or contact Peter Reynolds at the Department of Earth Sciences, Dalhousie University, Halifax, N.S. B3H 4J1

Saint Mary's University

Within the last year, the Geology Department of Saint Mary's University has undergone a number of changes. A major loss in staff was incurred when Dr. John Waldron, a twenty-year member of the faculty, accepted a position as professor at the University of Alberta. His many contributions to the Department, his excellent teaching and research skills, and his friendly rapport with staff and students will be very much missed. We wish him all the best in his new position.

Dr. Victor Owen is on sabbatical leave from September and Dr. Georgia Piper is continuing another year as Director of Graduate Studies and Research in addition to her teaching and research workload. Two new full-time faculty have been hired to round out the geology program for the year. Dr. Dave Keighley took over the sedimentology, petroleum geology and structural geology courses of John Waldron. Dave has come to the Department after completing his Ph.D. under Ron Pickerill at UNB and undertaking a post-doc at the University of Liverpool, England, under Prof. Steve Flint. He is continuing his research on estuarine sequence stratigraphy in the Book Cliffs of Utah, and lacustrine sequence stratigraphy in the Uinta Basin of Utah. This research is now being extended to include lacustrine successions from the Carboniferous of the Maritimes.

Dr. Don Fox, who did his doctorate at Dalhousie University under Dr. Marcos Zentilli, returned to Halifax after teaching for one year in New Brunswick. He is currently teaching courses in Environmental Geology and Geochemistry at Saint Mary's. His research interests include mineralogy and geochemistry of acid rock drainage, water quality and metals in the environment, and GIS-based environmental modeling and digital elevation modeling. He is also looking after the maintenance of our web site.

Our part-time faculty include John Calder, A. Chatterjee, Howard Donohoe, Cecily Honig, Ann-Marie Ryan and Robert Ryan. Randy Corney will be instructing a web-based course in introductory geology that was initiated by John Waldron. Dr. David Piper was appointed adjunct professor in the Department. Dr. Jarda Dostal has once again taken on the position of Department chair.

At present, we have seven students working on their honours theses, one of whom, Ashley de Jong, recently gave a talk on her research at the Atlantic Universities Geological Conference. Two third year students are going to Mexico for five months, starting in January, 2001, to study and do research at the Instituto de Geologia, Universidad Nacional Autonoma de Mexico in Mexico City. The trip is sponsored by the NAFTA Student Mobility Program. The students' geology club is planning a field trip to Iceland during the winter study break.

This year, a new Geology computer lab has been established and includes software that will aid in mapping surface and subsurface features using seismic data. Also, GIS software will be installed on each computer.

For more information visit the web site at: www.stmarys.ca/academic/science/

[geology/geohome.html](#) or contact Jarda Dostal at the Geology Department of Saint Mary's University, Halifax, N.S. B3H 3C3

St. Francis Xavier University

The faculty in the Department of Geology at St. Francis Xavier University views teaching and research as complementary, synergistic activities and strive to involve senior undergraduate students in research. Currently, there are seven students pursuing post-graduate studies at St. F. X. Geology Department or with affiliated universities. All faculty members are supported by NSERC grants as well as receiving other sources of external funding that support their research programs.

Alan Anderson is the Chair of the Department. His research interests include geochemical and fluid inclusion studies of fluid processes in crustal rocks, with emphasis on ore forming environments, and microbeam x-ray absorption fine structure studies of metal complexes at elevated temperatures and pressures. He received the *Hawley Medal* for best paper published in 1998 in the Canadian Mineralogist.

Recently, he was an invited speaker at the 2000 AGU meeting in Washington, D.C. and the 1999 meeting of the NRC, Steacie Institute, Ottawa.

Hugo Beltrami is involved in research projects in paleoclimatology, climatic variability, nonlinear dynamics, and heat flow. He is a guest editor for a special issue of *Global and Planetary Change*, and the Canadian leader for the UNESCO, IGCP-428 Project *Past Climate Inferred From the Analyses of the Underground Temperature Field, Borehole Temperatures and Climate Reconstruction*.

Lisa Kellman is the most recent member to join the Department. She is actively involved in research on watershed biogeochemistry, environmental applications of stable isotope geochemistry, nitrogen cycling and agricultural contamination. She is involved with the Program in Interdisciplinary Studies in Aquatic Resources, and related projects dealing with the Antigonish Harbour environmental assessment, and evaluation of the St. George's Bay ecosystem.

Mike Melchin's interests include research in invertebrate paleontology and stratigraphy, particularly the bio-stratigraphy and paleobiology of graptolites. He is serving on the NSERC Solid Earth Sciences grant selection committee in addition to being Secretary of the International Subcommittee on Silurian Stratigraphy, editor of *EON* and assistant coordinating author of the 3rd Edition of the *Treatise on Invertebrate Paleontology, Part V, Graptolithina*.

Brendan Murphy's research focuses on orogenic processes, with particular reference to Avalonia. He was awarded the Gledden Scholarship by the University of Western Australia and will pursue research at the Tectonic and Special Research Centre in Perth in early 2001. He is presently co-leading the UNESCO IGCP- 453 Project on *Ancient Orogens and Modern Analogues*. He recently co-authored a textbook on Earth Systems for an introductory level university course, and is currently finishing another on Physical Geology.

Randall F. Cormier's (retired) research areas focused on rubidium/strontium geochronology of granitoid and volcanic rocks in the Northern Appalachians.

For more information visit the web site at: www.stfx.ca or contact Cindy Murphy at the Geology Department of St. Francis Xavier University, Antigonish, N.S. B2G 2W5

University College of Cape Breton

Geology is a major part of the School of Science and Technology at University College of Cape Breton (UCCB). Although it is not a degree granting discipline, it is a major component for several programs including, Environmental Health (Public Health Inspector), Environmental Engineering, Petroleum Engineering and Civil Engineering technologies. Students enrolled in these programs, as well as the Arts and Science and Business, take courses in Introductory Geology, Hydrogeology and Engineering Geology.

In addition to teaching these courses, Fenton Isenor is also involved in the Environmental Site Technician Certificate Program. This program, under the direction of the Department of Extension and Community Affairs, involves the development and delivery of a Watershed Management Course for displaced Sysco and Devco workers. Fenton just completed teaching his 7th Basic Prospecting Course contracted with the Nova Scotia Department of Natural Resources. This course exposes the general public to basic geological knowledge and mining issues in the Province of Nova Scotia. Over 100 students have graduated since 1993. Fenton's main research is in Quaternary Geology in the Loch Lomond - Stirling region of southeastern Cape Breton Island.

Erwin Zodrow (Professor Emeritus) is busy compiling and cataloguing his fossil collection for the Nova Scotia Museum at UCCB and continues to do research in the Carboniferous coal-fields of Cape Breton Island. His main focus is developing robust and objective taxonomic parameters for palaeobotany involving coal-plant fossils (not including the lycophytes) from the Cape Breton coalfields which can be applied to all the Carboniferous plant-bearing units. In addition to the classical taxonomy that for two centuries has been using morphology, Erwin is taking a more interdisciplinary approach to fulfill his objective by using many modern experimental techniques such as FTIR, py-Gc/Ms and ¹³C NMR methods for chemo-taxonomy, SEM and TEM methods for systematic analysis of epidermal morphology (cuticular studies) and microspore taxonomy, and fractal taxonomy. Involved in this basic and theoretical research is an international scientific team with members from the UK, Czech Republic, USA, Canada and Bulgaria. Research is being supported by NSERC, Indiana University, Nova Scotia Museum and the University College of Cape Breton.

For more information visit the web site at: www.uccb.ns.ca or contact Fenton Isenor or Erwin L. Zodrow at the Department of Physical and Applied Sciences, University College of Cape Breton, Sydney, N.S. B1P 6L2

University of New Brunswick

The summer and autumn have been busy as usual in the Department. We particularly pleased to welcome Murray Gingras as our newest faculty addition in Sedimentology/ Stratigraphy. Murray arrived in Fredericton for long enough this summer to make arrangements to leave for Amazonia where he has a continuing project, and has been developing projects in the Carboniferous of New Brunswick, as well as drooling over the Bay of Fundy. He has initiated several sediment/porosity problems, including one using magnetic resonance imaging for *in situ* imaging of core.

Tom Al has been commuting between New Brunswick, Ontario and Florida with research projects encompassing a range of hydrogeological, hydrogeo-chemical, solvent hydrology and environmental mineralogy issues. For much of the fall, he has been developing an groundwater NCE proposal. Karl Butler has been acquiring various new geophysical tools for studies in rock properties, groundwater flow and other near-surface geophysical programs. Much of the latter ties in with Bruce Broster's work on applied glacial geology, with hopes for a GPR system in the near future.

Dave Lentz is well into the expansion of economic geology since joining the Department last January. He has projects in New Brunswick, Manitoba and NWT. As part of the rejuvenation of mineral deposits geology, he has developed the ORE Group newsletter that can be accessed through the Department web site. Additionally, Dave received a New Opportunities Grant from CFI under the program to upgrade analytical capabilities in the Department.

When not editing, Ron Pickerill spends his time managing the state of ichnology in the world. For the past several months, Dr. Jeong Yul Kim of Cheongwon, Korea has been visiting with Ron but returned home at the New Year.

The Space and Planetary Centre, supported by NASA and CFI, has been formally established as part of John Spray's research program. This is the only NASA-supported Regional Planetary & Imaging Facility in Canada, and is open to researchers outside UNB. In addition to his crew in Sudbury, John has been involved in the Mars Society / NASA Project at Houghton crater, Devon Island.

UNB had a significant presence in the Arctic Islands last summer. In addition to the Devon Island project, Joe White was involved in the Cornwallis Pb-Zn belt project looking at structural control of mineralization. His other projects include late Paleozoic deformation in the Maritimes and Cenozoic to recent tectonics in the NW Cordillera, as well as micromechanical behaviour of rocks.

Paul Williams is on sabbatical in Perth Australia, but managed to find time to visit the Monashee Mountains this past summer.

For more information visit the web site at: www.unb.ca/web/geology/ or contact Joseph Clancy White at the Department of Geology, University of New Brunswick, Fredericton, N.B. E3B 5A3

Nova Scotia Museum of Natural History

Deborah Skilliter, the new Project Palaeontologist at the Museum of Natural History, has been working on an exhibit titled *Trace Fossils of Atlantic Canada* which is co-sponsored by the Nova Scotia Museum of Natural History and Heritage Canada. The exhibit will highlight the diverse and rich palaeoichnological heritage of the Atlantic Provinces and is set to open in 2002. The exhibit, which will be the first in North America to deal solely with trace fossils, will tour across Canada. Pending funding, an interactive, educational web site about the exhibit will be simultaneously launched.

Deborah is currently in the very final stages of completing her Master's thesis at Boston College in Massachusetts. The thesis examines distal marine influence in a portion of the Joggins Formation utilizing coal petrology, geochemistry, stratigraphy, sedimentology and palaeontology. She is currently preparing a publication on the geochemical and palaeoecological interpretation of the Forty Brine coal seam. Deborah's other research interest, with colleagues from Boston College, is the reevaluation of the traditional marine transgressive model of the Grand Canyon's Bright Angel Shale in light of recent palynomorph analyses from these sedimentary rocks.

Other news from the museum is that Robert Grantham, Curator of Geology, retired in November to take on the job of Executive Director at the new Johnson Geoscience Centre in St. John's, Newfoundland.

For more information visit the web site at: nature.museum.gov.ns.ca. or contact Deborah Skilliter, at the Nova Scotia Museum of Natural History, 1747 Summer Street, Halifax, N.S. B3H 3A6

Chris White, NSDNR

PROPOSED BY-LAW CHANGES

Linda Ham on behalf of the AGS Executive and Council proposes by-law amendments for members to be considered, and voted on, at the Annual General Meeting, February 10, 2001. The by-law amendments pertain to responsibilities and duties of both the Treasurer and the Newsletter

Editor. The amendments are as follows:

1. It is proposed that duty 4 of the Treasurer, currently reading "Maintains and updates master membership list" and duty 2 of the Newsletter editor, currently reading "Provides changes of addresses, etc., to Treasurer to update the membership list", be switched. Therefore, upon ratification at the AGM, the Newsletter Editor will be responsible for maintaining and updating the master membership list for the Society.

2. It is also proposed that duty 1 of the Newsletter Editor be reworded to reflect the current quarterly publication schedule for the newsletter. Currently, the bylaws read "Normally, there are nine issues per year, September to May" and it is proposed that the wording be amended to read "The Newsletter will be published at least quarterly".

3. An additional duty/responsibility is proposed for the Newsletter Editor. "The Newsletter Editor can, at his or her discretion, solicit newsletter contributions with the help of an *ad hoc* committee. This committee can be made up of Council members, Executive members or members at large. The purpose of the committee is to assist the Newsletter Editor in obtaining relevant information for inclusion in the newsletter".

Therefore, the new by-laws and the duties of these two positions would read:

Treasurer:

1. Prepares financial reports as required by law (37).
2. Submit balance sheet and operating account to Financial Reviewers prior to AGM (at least two weeks from AGM recommended) and same to members at AGM (39).
3. Handles sales of publications (task under review).
4. Provides changes of addresses, etc. to the Newsletter Editor to update the membership list.

Newsletter Editor:

1. Prepares and distributes the Newsletter covering the activities of the AGS and items of interest to AGS members in the Atlantic Provinces. The Newsletter will be published at least quarterly.
2. Maintains and updates master membership list.
3. The Newsletter Editor can, at his or her discretion, solicit newsletter contributions with the help of an *ad hoc* committee. This committee can be made up of Council members, Executive members or members at large. The purpose of the committee is to assist the Newsletter Editor in obtaining relevant information for inclusion in the newsletter.

Linda Ham, AGS Councillor

DATES TO REMEMBER

January 23-26, 2001

British Columbia and Yukon Chamber of Mines, Cordilleran Exploration Roundup. Hotel Vancouver, Vancouver, British Columbia. For more information please Sheila Holmes (604-681-5328) or e-mail: chamber@chamberofmines.bc.ca.

February 9-10, 2001

Atlantic Geoscience Society, Annual Colloquium and General Meeting. Delta Beausejour Hotel, Moncton, New Brunswick. For more information contact Mike MacDonald (902-424-2523 or mamacdon@gov.ns.ca)

March 11-14, 2001

Prospectors and Developers Association of Canada. International Convention and Trade Show. Metro Toronto Convention Centre, Toronto, Ontario. For more information contact the PDAC (416-362-1969 or info@pdac.ca)

March 6, 2001

Annual General Meeting of the Nova Scotia Chamber of Mineral Resources. Holiday Inn Harbourside, Dartmouth, Nova Scotia. For more information contact Terry Daniels (902-798-0187 or terry.daniels@ns.sympatico.ca)

May 27-30, 2001

GAC-MAC Joint Annual Meeting. Memorial University of Newfoundland. For more information phone 709-729-2301 or visit the web site at www.geosurv.gov.nf.ca/stjohns2001/

<p>Executive</p> <p>President: Mike MacDonald</p> <p>c/o Nova Scotia Department of Natural Resources</p> <p>1701 Hollis Street</p> <p>P.O. Box 698</p> <p>Halifax, Nova Scotia B3J 2T9</p> <p>Tel: (902) 424-2523</p> <p>Fax: (902) 424-7735</p> <p>E-mail: mamacdon@gov.ns.ca</p>	<p style="text-align: center;">AGS 2000 - 2001</p> <p>Vice President: Tom Martel</p> <p>Treasurer: Ken Howells</p> <p>Secretary: Peter Giles</p> <p>Past President: Chris White</p>	<p>Councillors</p> <p>Tom Al, Jennifer Bates, Jarda Dostal, Paul Durling, Linda Ham, Randy Miller, Dave Mossman, Brendan Murphy, Michael Parkhill, Alan Ruffman, Clint St. Peter, Ian Spooner, Peter Wallace, Dick Wardle, Tim Webster</p> <p>Editor</p> <p>Jennifer Bates</p> <p>Publicity</p> <p>Chris White</p>
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Colloquium and Annual General Meeting - 2001

February 9-10, 2001

Delta Beausejour Hotel, Moncton, New Brunswick

The AGS cordially invites you to attend the AGS 2001 Colloquium in Moncton, New Brunswick. The Conference Organizing Chairman is Mike MacDonald, Nova Scotia Department of Natural Resources. The conference will consist of two days of technical presentations at the Beausejour Hotel on February 9 and 10, 2001. AGS poster and oral presentations will be based on the following themes:

1. Current Research
2. Geological Correlations Between New Brunswick and Maine
3. Onshore and Offshore Oil and Natural Gas Exploration and Related Research

Registration

Anyone who plans to attend the 2001 AGS Colloquium is encouraged to pre-register on-line by visiting the AGS web site at is.dal.ca/~walla/ags/ags.htm. Pre-registration gives the conference organizers an idea of the number of delegates to expect. Please note that payment (by cheque or cash) must be made at the conference.

Registration fees for the conference have been set at \$40.00 for professionals and \$15.00 for students. These fees are a great bargain, as they include AGS membership fees for 2001/2002.

Delegates are encouraged to attend the Annual General Meeting, featuring a soup and sandwich luncheon and good old maritime hospitality, spiced up with some AGS business ... a great deal at \$11.50. In addition, don't forget to book your tickets for the Saturday evening banquet, always a hit! This year for the affordable sum of \$25.00 you can enjoy a great meal and hear Scott Swinden, President, Geological Association of Canada, speak about the recent communication events, including the attempted re-naming of Mount Logan.

Accommodation

The conference will be held at the Delta Beausejour Hotel in Moncton, New Brunswick. Requests and payment for accommodation must be arranged with the Delta Beausejour Hotel Inn (phone 1-800-268-1133 or 506-854-4344; fax: 506-858-0957). Rates are \$89.00 for rooms plus 15 % HST (1-4 persons per room).

Note: the AGS has reserved a block of rooms so that the society can have access to conference facilities at no charge. If a minimum number of room bookings is not achieved, the society will be charged for conference rooms. So lets all stay at the Beausejour! When booking your room please quote conference "AGS Colloquium".

Call for Papers - Second Circular

All participants are invited to submit abstracts which will qualify the authors to make either an oral or poster presentation. The Organizing Committee reserves the right to reject abstracts which are not presented in the correct format, to limit the number of contributions from any one author, and to assign any contributed paper to either oral or poster presentation, although we will attempt to accommodate the author's wishes wherever possible. Abstracts may be submitted in either English or French.

Abstracts need to be 400 or less words (Times Roman 12 point) and prepared in Microsoft Word 97. The abstracts will be published in *Atlantic Geology*, therefore the format must be consistent with the journal format: titles in bold with upper and lower cases as normal for first word and proper names; one line of spacing separating title from authors, followed by affiliations on the next line; all lines centre justified, and separated from the first paragraph by one line of spacing. Consult a copy of *Atlantic Geology* for details of abstract formatting.

Provide the author's names in order of decreasing contribution, and please indicate **separately**:

1. whether the paper is intended for poster or oral presentation,
2. student's name and degree program if a student is presenting (**it is critical to indicate the program level, i.e. B.Sc., M.Sc. or Ph.D.**)
3. whether a LCD projector will be used for the oral presentation,
4. if you require a table for your poster display,
5. whether student presenters wish to be considered for the Noranda Award (see below).

Student presenters are eligible for the following awards:

Rupert MacNeill Award - best oral presentation by a student

Graham Williams Award - best poster presentation by a student

Noranda Award - given by Noranda Mining & Exploration Limited for the best paper by a student in Economic Geology (either oral or poster presentation). This award involves summer employment with Noranda so you must indicate with the abstract submission whether or not you wish to be considered. A student submission with no indication will be considered a "no".

Abstract Deadline

Deadline for submission is January 12, 2001. Submit as a Word97 attachment, by email or mail to:

Michael Parkhill

New Brunswick Department of Natural Resources and Energy

P.O. Box 50

Bathurst, NB E2A 3Z1

Phone: 506-547-2070, Fax: 506-547-7694

email: Michael.Parkhill@gnb.ca

If you have questions or require additional information regarding any aspect of the Colloquium, please do not hesitate to write or call:

Mike MacDonald, Colloquium Chairman

Nova Scotia Department of Natural Resources

P.O.Box 698

Halifax, NS B3J 2T9

Phone: (902) 424-2523, Fax: (902) 424-7735

email: mamacdon@gov.ns.ca

GAC - MAC 2005 LOC NEEDS YOU!

The Atlantic Geoscience Society will host the joint annual GAC-MAC meeting in Halifax in May 2005. The core of a Local Organizing Committee (LOC) has been assembled and is starting the long process of ensuring that this meeting will be another successful undertaking by AGS.

The LOC needs a distinctive logo which will be used for a wide range of advertising and promotional applications. The logo should provide a graphic association with Nova Scotia

and include text identifying the city (Halifax) and the meeting (GAC-MAC 2005). It should be capable of reproduction in black and white, full colour and single colour, and scalable for use on letterhead to posters.

Submissions are invited from AGS members and other interested parties. Entries will be displayed at the Colloquium in Moncton on February 9 and 10, 2001 and attendees will be invited to cast a ballot for their choice of the submissions. The winning submission will be announced at the Colloquium banquet. **The author of the winning entry will receive a fabulous prize.**

Contestants are encouraged to submit their entries as digital files created in any commonly used graphics software. Entries submitted as paper must be capable of conversion to digital format by simple scanning. Deadline for submissions is January 15, 2001.

Entries should be sent to:

Mike Cherry

Chair, Local Organizing Committee, Halifax 2005

c/o Minerals and Energy Branch

Nova Scotia Department of Natural Resources

P.O. Box 698, Halifax, NS B3J 2T9

E-mail: cherryme@gov.ns.ca

WIN A FABULOUS PRIZE