



ATLANTIC GEOSCIENCE SOCIETY

NEWSLETTER

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PRESIDENT'S COLUMN

Reg Wilson

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Greetings again to all members of AGS. I hope you are having a pleasant summer of field work, research, vacation, or “whatever”.

This issue of the Newsletter is largely devoted to summaries of field programs being carried out by the New Brunswick, Nova Scotia, and Newfoundland and Labrador geological surveys. These summaries reveal an impressive variety of activities, particularly considering the dwindling resources most surveys have. For example, in addition to geoscience data and services aimed at “traditional” mineral industry clients, many geoscience programs are now commonly delivered to clients in the hydrocarbon and environmental sectors. In view of the waning importance of metallic minerals in the economic mix of the Maritime provinces, it is particularly vital that university and government geoscientists are poised to respond with sound programs of research and field study on such issues as water resource identification and protection, waste disposal, geohazards, and land use.

To supplement the reports on the provincial surveys, it seems appropriate to briefly review some highlights of exploration in the minerals and hydrocarbon sectors. As I haven't had time to make inquiries with my counterparts in Nova Scotia and Newfoundland and Labrador, this account deals only with New Brunswick. Contributions are encouraged to inform readers of similar developments in the other Atlantic provinces!

The base metal industry, centred in my backyard in northern New Brunswick, continues to wallow in the doldrums with low demand and prices, and the giant Brunswick 12 mine is only a few years from closure because of ore depletion. There is cause, however, to be optimistic about the future of the mineral industry in New Brunswick, as exploration efforts on several fronts in the southern part of the province suggest excellent potential for gold to replace base metals as New Brunswick's dominant mineral commodity. The most important of these are Free-west's Clarence Stream project and Geodex's Armstrong Brook property, which includes the formerly producing Gordex Minerals gold deposit near Saint John. In both cases, according to company press releases, reserves have been defined and significant geochemical and geophysical anomalies and gold showings have been only partly tested.

On the hydrocarbon front, a joint venture between Corridor Resources and the Potash Corporation of Saskatchewan has led to the discovery of large reserves of natural gas adjacent to the PCS mine near Sussex. PCS is now tapping gas from a small part of this field at a rate of 2 mcf per day and using it as an on-site source of energy for drying potash ore. Also at Sussex, PCS has reported that a 5 hole drilling project has out-lined a significant new potash deposit adjacent to and south-east of the mine/mill facility. A reserve figure has not been announced. Anyone wishing further information on these or other mining/exploration plays is invited to direct questions to the DNR offices in Fredericton, Sussex and Bathurst.

Getting back to AGS and Atlantic geoscience events, the CANQUA – CGRG meeting held recently in Halifax was a resounding success (see report in this issue), with about 120 delegates attending seven conference sessions and a total of 53 participants on a pre- and post-conference “Three Coast Field Trip”. At the meeting, Ralph Stea of NSDNR was installed as Vice-President of CANQUA, and will become President next year. Our best wishes go to Ralph for an enjoyable and successful tenure with CANQUA.

The Nova Scotia Gem and Mineral Show will be held in Parrsboro from August 15 to 17. Peter Wallace has spearheaded an effort to set up a display table (in conjunction with the Nova Scotia Prospectors Association) to promote AGS and sell some publications. My field work will prevent me from wandering too far away from northern New Brunswick this summer but, having attended similar shows in the past, I recommend it to anyone who enjoys spectacular examples of exotic and not-so-exotic minerals (not to mention some pretty exotic prices!).

Howard Donohoe reports that, despite a predictable summer slowdown in activity, the new version of the Nova Scotia Geological Highway Map is scheduled for completion by Christmas. Geomatics Nova Scotia is developing the layout of this entirely digital product, while Howard attempts to negotiate a satisfactory royalty arrangement. An initial printing of 15,000 copies is planned.

On the EdGEO front, the workshop planned for New Brunswick teachers by Murray Gingras and David Lentz has unfortunately been cancelled because of under-subscription. The workshop was to be implemented as one of the NB Department of Education “summer institutes”, and its cancellation is believed to be a result of a scheduling conflict with sessions devoted to the new NB science curriculum. We hope that this workshop initiative is not abandoned, and that

the institute organizers with the Department of Education can be prevailed upon to avoid such conflicts in future.

The 208th meeting of AGS Council was held on May 5, 2003. In order to maximize attendance at its meetings, especially with most of the Executive now residing in New Brunswick and a large contingent of councillors still in the Halifax – Dart-mouth area, Council has opted for a teleconference plan through InterCall Canada. The first, two-hour meeting was accomplished without complications and at a surprisingly modest cost. Teleconferencing has the advantage of saving some councillors the time and expense of travelling long distances for meetings, and is therefore likely to remain the preferred mode of conducting future Council meetings.

With that, I’ll bring this edition of the Forum to a close. I hope you are able to enjoy our all-too-brief season of warmth and sunshine. Scary as it is to contemplate, the next issue of this newsletter will (shudder!) probably coincide with the return to colder weather.

PROVINCIAL SURVEY NEWS

2003 Field Program of the Geological Surveys Branch, New Brunswick Department of Natural Resources

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The 2003 field season is underway in New Brunswick with several new projects starting up and several others wrapping up. In order to provide clients with more access to our data, the New Brunswick Department of Natural Resources is currently re-vamping and updating its web access. John Langton will be involved in the design and development of the “new” website. He will also be finishing up

field mapping in the Blue Mountain area (NTS 21 O/16c), south of Charlo.

Reg Wilson will initially be carrying out some field checking to resolve lingering problems in the interpretation of Late Ordovician to Middle Devonian sedimentary and volcanic rocks in the Campbellton map area, which has occupied his summers for the past four years. Subsequently, he will move farther inland and examine the stratigraphy and metallogeny of the Ramsay Brook area in north-central New Brunswick. This area straddles the major Rocky Brook – Millstream Fault and is the location of a number of (so far) sub-economic gold occurrences. Reg has a couple of papers in the works, based on his investigations in the Gaspé Belt in the northern part of the province.

Jim Walker will continue with mineral deposit studies in the Bathurst Mining Camp, specifically, the Gilmore Brook and Maliseet Zn occurrences. Some work will also be conducted on base-metal +/- Au deposits/occurrences hosted by Early Devonian rocks of the Tobique - Chaleurs zone.

Jeff Carroll will ‘wrap-up’ the Appalachian Foreland and Platform NATMAP Project in northwestern New Brunswick. The NATMAP Appalachian and Foreland Architectures project involves the collaboration of GSC Québec and MNRQ under the Appalachian Foreland and Platform NATMAP Project. Four 1:50,000 scale map sheets are now completed; however, abundant work remains in synthesizing the data for final presentation. Key areas to be investigated include the southeast corner of the 21O/11 sheet (checking the Chaleur Group / Matapédia Group contact), the east-central part of 21O/14 (checking the Grog Brook Group / Matapédia Group contact and ‘edge-matching’ of the 21O/14 and O/15 boundaries), and the northwestern part of the 21O/13 map sheet (better definition of the contact between the Temiscouata and York Lake /York River formations. The

latter two formations are newly identified in New Brunswick).

During the course of work in the area, a number of calc-alkaline mafic and lamprophyric dykes/sills was identified in the Grog Brook and Matapédia groups. Several samples from the two suites have been sent for $^{39}\text{Ar}/^{40}\text{Ar}$ analysis (results pending). In view of the association of lamprophyres with Au mineralizing systems and their unique relationship with specific tectonic regimes, a small study is planned to evaluate their tectono-stratigraphic and economic significance to the area; perhaps with some contribution from UNB.

Michael Parkhill will be finishing up the NATMAP Quaternary mapping project in the Kedgwick (21O/11), Gounamitz River (21O/12), States Brook (21O/13), and Menneval (21O/14) map sheets. A number of gold occurrences have been reported near the New Brunswick border along the Grand Pabos – Restigouche fault system, and there is a porphyry copper-skarn deposit at Patapedia. The project also has application for finding new sources of aggregate and clay-rich till for construction purposes. There will also be some minor follow-up till sampling in the map area (approximately 50 samples) and investigation of glacial dispersal trains, *i.e.* clasts and till geochemical anomalies, in the vicinity of mineralized intrusions e.g. Patapedia, and Quisibis Mountain. Mike has a couple of papers in the EXTECH-II Economic Geology Monograph on the Bathurst Mining Camp due to be released later this year, and a couple of Open File Reports in the works dealing with soil and till geochemistry.

Toon Pronk, Serge Allard and Rex Boldon will continue their surficial mapping and till geochemistry sampling project in southwestern NB in support of mineral exploration and gather baseline regional overburden data. This summer their focus will be on the St. George and Saint John map areas (21G/02 and 08 respectively). A minor follow-up study is taking place in the Canaan area of the Carbonifer-

ous Basin, to follow up on some minor gold anomalies and jasper zones in the basin margin sediments.

Al Seaman will be conducting surficial geology investigations in the Napadogan and Hayesville map areas in central New Brunswick. He will be attempting to determine if a Younger Dryas till, now known from only one site, is more extensive, and if it can be differentiated from the Wisconsin-age till derived from the Miramichi Highlands that constitutes the target sample medium for till geochemistry sampling. Al has a couple of publications in the works – a report on follow-up till sampling in the Coldstream map area, and a review paper on the Late Pleistocene history of New Brunswick.

Dave Keighley will be continuing his field mapping of the Carboniferous strata of the Case Syncline, west of Sussex. He will also continue to log core from the lacustrine Carboniferous Albert Formation, across southern New Brunswick, with the goal of developing a lacustrine sequence stratigraphic model for the region. With Clint St. Peter, he will also be continuing to update the lithostratigraphy of the region.

Kay Thorne's field season will commence with a detailed study of the gabbro-hosted Sheba gold prospect in Marrtown, just north of Sussex. This will include detailed mapping, core examination, sampling for geochemical and petrological studies, and limited isotopic analyses. Kay's second project will focus on the isotopic signature and possible dating of the mineralization at the Anomaly A zone of the Clarence Stream gold deposit located proximal to the Silurian – Devonian Saint George Batholith in southwestern New Brunswick. The results of these field programs will be highlighted in a couple of papers to be prepared at the end of the field season.

Tim Webb will be involved in an examination of New Brunswick's slate resource potential to be undertaken in a map area in northwestern New

Brunswick predominately underlain by sedimentary rocks of the Early Devonian, Temiscouta Formation. Tim's study will involve a review of basic resource requirements and specifications for various slate products and a geological reconnaissance of Crown-owned lands. In addition, a multi-faceted review of geotechnical and related logistic information that potential aggregate producers normally request when considering suitable tidewater production – export sites will be undertaken. This project will focus on the potential bedrock aggregate resource and development potential of mafic volcanic rocks of the Ordovician Fournier Group in the vicinity of the Port of Belledune in northern New Brunswick

Dominique Bérubé will continue his beach profiling project at twelve beach monitoring sites in the province. He also has a photogrammetry mapping project dealing with coastline recession in the Val-Comeau, Grande-Digue and Youghall Beach areas.

2003 Field Program of the Geological Services Division, Nova Scotia Department of Natural Resources

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This year's field program for both the Geological Mapping and Geochemistry Section, managed by Bob Boehner, and the Resource Evaluation Section, managed by Bob Ryan, is largely focused on completion of projects that have been underway for several years. These include the Southwest Nova mapping project, and the program of bedrock and surficial mapping and mineral deposit studies in south-central Cape Breton Island that has operated since 2000 in collaboration with the Geological Survey of Canada, with funding support from the federal government's Targeted Geoscience Initiative (TGI).

Geological Mapping and Geochemistry Section

Terry Goodwin will continue to investigate geochemical variations in rocks, soils and waters throughout Nova Scotia, including contributing to a project being initiated by Dr. Mike Parsons of the Geological Survey of Canada – Atlantic to examine the distribution and behaviour of metals, particularly mercury and arsenic, within and around tailings at past-producing gold districts. The objective of this project is to improve understanding of the movement and ultimate fate of these and other elements in mine tailings.

Linda Ham will continue to work with Paul Smith on the Eastern Shore Compilation project. This project will produce a comprehensive knowledge base for gold mineralization in this part of the Meguma Terrane. This year, Linda plans to complete open file maps for NTS areas 11F/03 to 06, and to continue work on maps for NTS areas 11D/10 to 15, and 11E/02 and 03 (Fig. 1).

Rick Horne will work with Chris White in the final year of the Southwest Nova Bedrock Mapping project (see following paragraph), focusing on NTS areas 21A/04, 05, 08 and 12, and 21B/01. Rick will also continue his bedrock mapping activities in the Meguma Group in central Nova Scotia, and plans to complete 1:10,000 scale open file maps of the Ellershouse (21A/16) and Pockwock (11D/13) areas. Finally, Rick will continue his investigations of the structural geology of Nova Scotia gold deposits, as a contribution to a broader program to evaluate Meguma gold deposits that also involves Paul Smith and Dan Kontak. Rick hopes to continue work on the Dufferin deposit and to begin new work on the Mooseland, Moose River and Forest Hill deposits. Much of this work is dependent on access to new surface and underground exposures at active industry projects.

Chris White will complete work on

the Southwest Nova Bedrock Mapping project, with a focus on NTS areas 20P/11 and 20P/14. This project will produce 1:50,000 scale bedrock geology maps for all or parts of the twelve NTS areas that underlie Digby, Yarmouth and Shelburne counties. Chris will also undertake limited field work in the Torbrook and Wolfville areas to improve understanding of the stratigraphy of the White Rock Formation and its correlation with other formations in the area. As a contribution to the TGI project on Cape Breton Island, Chris will complete a compilation of the bedrock geology of NTS area 11F/14, focusing on pre-Carboniferous rocks in the Creignish Hills and North Mountain. Also in Cape Breton Island, Chris will begin a new project with Garth Prime to investigate aggregate resources, which are urgently needed for infrastructure development.

Rob Naylor plans to continue detailed mapping of the Carboniferous basin in the Debert – Kempton area of the Cobequid – Chedabucto fault system south of the Cobequid Highlands. Understanding of this complex geology will be enhanced by access to seismic surveys that were recently undertaken as part of industry exploration for hydrocarbons.

Ralph Stea will begin his field season by helping to organize the CANQUA – CGRG 2003 conference (see article elsewhere in this issue). Following the conference, Ralph will concentrate on completing the surficial geology component of the TGI project, including 1:50,000 scale surficial geology maps of NTS areas 11F/11 and 11F/14.

Resource Evaluation Section

John Calder will continue his studies of organic deposits and Carboniferous sedimentary basins to provide information in support of exploration and development of coal and hydrocarbon resources. John will also continue to play a key role in the current initiative to gain recognition of the Joggins fossil cliffs as a UNESCO World

Heritage Site.

Garth DeMont will complete his work to update the mineral occurrence database for the TGI project in Cape Breton Island. As an outcome of that project and a recent increase in interest for carbonate resources, Garth will spend considerable time enhancing our knowledge of these resources in NTS areas 11F/11, 11F/14 and 11F/15. Garth will also continue his ongoing work to upgrade and expand the mineral occurrence database for all of Cape Breton Island.

Phil Finck will work with Garth DeMont on carbonate resources in Cape Breton Island, and will also spend some time evaluating sand resources on the island, in light of recent expressions of interest in this commodity. In addition, Phil will spend some time in the field to undertake preliminary evaluations of known occurrences of a variety of other industrial mineral commodities.

Dan Kontak will continue his ongoing study of pegmatite-related mineralization in southern Nova Scotia. Dan will also spend time in the field this year to investigate zinc mineralization in rocks of the Meguma Group, and mineralization associated with the Cobequid – Chedabucto Fault System in NTS areas 11E/06 and 11E/07.

Ron Mills will continue to provide assistance to prospectors in the form of consultations, training and property visits. Ron also plans field work to investigate pegmatites and related resources in the northern mainland.

George O'Reilly will undertake a compilation of gold occurrences along the Eastern Shore, in conjunction with the Eastern Shore Compilation project being carried out by Linda Ham and Paul Smith. George will also work with Dan Kontak to investigate mineralization in the Cobequid – Chedabucto Fault System.

Garth Prime is nearing completion of an investigation of aggregate resources in the Annapolis Valley

(NTS areas 21H/01, 02; 21A/12, 14, 15). With completion of this work, Garth will shift his focus to Cape Breton Island, where infrastructure development in the coming years will require new sources of aggregate.

Paul Smith will work with Linda Ham on the Eastern Shore Compilation project in NTS areas 11F/03 to 06 and 11D/10 to 15, for which his responsibility is to compile and write comprehensive reports on selected gold districts. Paul will also work with Terry Goodwin and Mike Parsons (Geological Survey of Canada – Atlantic) on the latter's project to investigate metals in tailings from past-producing gold mines.

News from Newfoundland and Labrador – Survey Activities, Exploration and GAC Newfoundland Section Events

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Geological Survey of Newfoundland and Labrador

The Geological Survey of Newfoundland and Labrador (GSNL) continues to have an active field program, although funding for such activities is less than in some previous years. This scenario is doubtless familiar to public-sector geoscientists elsewhere!

On the island of Newfoundland, regional mapping projects include the Bonavista peninsula (Sean O'Brien), where there is interest in sediment-hosted copper deposits, and the western Notre Dame Bay area (Brian O'Brien), long known for its volcanogenic sulphide deposits. Metallogenic studies will be carried out in the Tally Pond area of central Newfoundland (Gerry Squires, replacing Paul Moore), in and around the Duck Pond Zn-Cu deposit, which is currently being assessed for commercial development by Aur Resources. Gerry will also spend some time examining interesting new

gold prospects in the areas around Botwood and Badger. Metallogenic studies will also be conducted on gold mineralization in the White Bay area (Andy Kerr). Lawson Dickson will continue his work on dimension stone prospects throughout the Province, in conjunction with the Department of Industry, Trade and Rural Development. Quaternary mapping and till geochemistry studies will be conducted on the Bonavista peninsula and northern Burin peninsula by Martin Batterson.

In Labrador, mapping of the complex and varied plutonic rocks of the Nain Plutonic Suite and their country rocks will continue in the area north of Nain, under the direction of Bruce Ryan and Don James. Charlie Gower will continue his work in the Grenville Province by examining the newly-constructed segment of the Trans-Labrador highway between Red Bay and Cartwright. Aggregate resource assessments in the areas around the new highway will be conducted by Jerry Ricketts. Andy Kerr will continue his work on magmatic sulphide mineralization via a brief examination of sites with anomalous PGE values in the mafic rocks of western Labrador.

In addition to these field projects, office-based projects such as the Mineral Occurrence Data System (MODS) and GIS compilations will continue, and other project geologists will be busy working on final reports on work from previous years.

Mineral Exploration remains active in Newfoundland and Labrador, with most interest presently focused upon gold. The "Botwood Basin" area, site of a joint venture project between Altius Minerals and Barrick Gold, is considered to have potential for Carlin-type sediment-hosted gold deposits, and has attracted considerable staking activity in the last 2 years. Similar interest has developed in the White Bay area of western Newfoundland. There is also active exploration

for base metals in several areas of central and eastern Newfoundland.

Mineral Exploration in Labrador has fallen from the high levels experienced following the Voisey's Bay discovery, but it is anticipated that interest in this vast territory will return as development proceeds at Voisey's Bay over the next few years. Altius Minerals has initiated a new project to assess parts of central Labrador for iron oxide – copper – gold mineralization.

GAC Newfoundland Section

The GAC Newfoundland Section held a successful technical meeting in February, including keynote addresses by Greg Arehart (Carlin-type gold deposits), Harvey Thorleifson (diamonds in Canada), Hugh Wishart (deep-water petroleum exploration), Christian Zdanowicz (glaciers and climate change) and Richard Grieve (giant impacts and their effects). Our annual lobster boil was also successful and very much enjoyed by everyone except the lobsters. A fall field trip is now being planned for early October in Gros Morne National Park, and will be led by Bob Stevens and Tom Calon. Interested AGS members should watch for further announcements about this trip.

UNIVERSITY NEWS

Acadia

Sandra Barr

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Winter term at Acadia was the usual hectic round of classes, speakers, theses being finished, and preparations being made for summer. Term ended with a very successful field school, partly held locally and partly at Antigonish, and which will long be remembered as the field school when it DIDN'T snow, and finally with ten B.Sc. and two M.Sc. students receiving their degrees and scattering to the four winds.

A highlight of the term was the week of the AGS – NEGSA meeting. Not only did the departmental plotter go into overdrive, but the student Fletcher Club organized the biannual Acadia stop for the Canadian Blood Services donor clinic at the same time. The Fletcher Club was recognized with an award for ongoing service to the community for 55 years of hosting this event. The department practically closed down when almost all faculty and much of the third and fourth year classes disappeared off to the Westin Hotel in Halifax for the conference.

Cliff Stanley and Rob Raeside gave presentations at the GAC – MAC – SEG meeting in Vancouver in May, on aspects of their research in the Yukon and Shelburne, Nova Scotia, areas respectively. Rob also participated in the council meetings of the Mineralogical Association of Canada, and compiled the short course series book "The Analysis and Interpretation of Fluid Inclusions". Rob is the series editors for these books.

Sandra Barr was elected as vice-president of the Geological Association of Canada, the country's leading national geological society. While honored to be invited, it is with some trepidation that she takes on this role, bringing with it, as it does, the "promotion" to president and past-president in the subsequent two years, up to three council meetings across Canada annually, delegation responsibilities with the Canadian Geoscience Council, and of course responsibilities keeping the GAC afloat and running smoothly. Being the "nearest councillor" to the headquarters in St. John's, she will no doubt have to make a few jaunts over to the business office to ensure all is running properly there. It is a good thing that time passes so quickly and the 3 years will be over before she realizes how busy it is!

Dalhousie

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Undergraduate Events

Trinidad Excursion: During the winter break in February, Grant Wach took a group of advanced undergraduate and graduate students to Trinidad for an excursion entitled "Field Methods in Petroleum Geology". Some of the excursion costs were covered with the assistance of industry sponsorship from Shell Canada Ltd. and Imperial Oil Resources Ltd. The group teamed up with students and faculty at the University of the West Indies to view a wide variety of rocks at outcrop, and to carry out exercises in petroleum assessment. A visit to the famous Pitch Lake was a particular highlight. The group returned tanned and enlightened about one of the world's most famous petroleum systems.

CIM Awards: Several students from the 2001 - 02 thesis year won awards for their honours theses from the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) in their annual national competition. Patrick Collins won the President's Medal in the Geology category for his thesis "Fixation of Sulphur during Framboidal Pyrite Development in a Petroleum Reservoir in Cretaceous Volcanics in the Andes: Implications for Cu metallogenesis". Other winners were Chris Leblanc in the Coal and Oil Sands category ("Central Scotian Slope Stability: The Possible Role of Gas Hydrates"), Belinda Culgin in the Environment category ("Mercury in Till and Bedrock, Kejimikujik National Park Area, Nova Scotia"), and Trevor Finlayson in the Mineral Processing category ("Distribution, Mineralogy, and Potential Recovery of Rutile from the Chuquicamata Porphyry Copper Deposit of Northern Chile"). Congratulations to all of them!

Undergraduate Theses: Ten theses in a wide range of topics in Atlantic Canada and around the world were completed and successfully defended in April 2003. The highest mark was

awarded to Joe Kidston for his thesis "Depositional Environment and Provenance of the Dina Formation, Proost Oil Field, east central Alberta, and a discussion of hydrocarbon distribution within" (supervised by Grant Wach). The effective writing award went to Jane Hawken for her thesis "Seismic Structure of the Ocean Continent Boundary in the Newfoundland Basin from a Multichannel Seismic Line" (supervised by Keith Louden).

Seismic Cruise: The Nova Scotian seafaring tradition is alive and well! Three undergraduate students are gaining excellent experience on a seismic cruise this summer. The "Ramform Viking", operated by PGS, is obtaining seismic profiles on the Scotian Shelf on behalf of Marathon. Jane Hawken, Maureen White and Jonathan Crealock are each spending 6 weeks on board as part of the operation.

Dawson Club Banquet: In April, we enjoyed the annual end-of-term banquet, held in a downtown restaurant, at which about 60 faculty members and students appeared in unaccustomed splendour. Under the direction of Dawson Club President Adam Layman, numerous informal awards were presented, representing a suite of remarkable and curious accomplishments by members of the Department over the past year.

Earth Science Professor of the Year: *Djordje Grujic:* The Dawson Club made this award to Djordje for his skill and enthusiasm in teaching. The citation, written by Karla Pelrine, stated: "In my opinion one of the most important qualities any professor can have is to be excited about the subject they teach. It catches student's attention and the enthusiasm spreads. Who knew a whole class could get excited about stereonet. Once we figured out whether he was saying fault or fold, structural quickly became our favourite class. One of the best aspects of Djordje's classes was the hands-on examples. We got to play with grape juice, phone books, breast implants,

and plasticine. We always knew there would be a great example when Djordje showed up wearing an apron and oven mitts. He was always approachable, friendly, and willing to take extra time to make sure everyone understood the topics covered. Another important contribution Djordje has made to our department is his wonderful photography. He has generously donated several pieces to the SEG art shows that ended up causing several fierce bidding wars. So, in conclusion, I consider myself very lucky to have been a part of Djordje's first class here at Dal, as well as the opportunity to work with him for a summer term, although I'm still trying to convince him to take us on a field trip to Bhutan. Thanks for everything Djordje".

Graduate Events

Theses Completed: The Grenville Province in Ontario got a good workover from two theses that were defended in the spring: the Ph.D. of Trond Slagstad ("Muskoka and Shawanaga domains, Central Gneiss Belt, Grenville Province, Ontario", supervisor Becky Jamieson) and the M.Sc. of Mark Raistrick ("Depleted Mantle Derived Magmas and Laurentian Detritus in the Supracrustal Lighthouse Association, Grenville Province, Ontario", supervisor Nick Culshaw).

Thesis Award: The CIM First Prize in Geology was awarded to Ricardo Boric for his Ph.D. thesis "Geology, Mineral Zoning, and Lithochemistry of the El Soldado Manto Type Copper Deposit, Chile" (supervisor Marcos Zentilli).

The President's Graduate Teaching Assistant Award was awarded to Earth Sciences Ph.D. student Mike Rygel, for his expert assistance to undergraduate students. Mike was especially involved in the Dalhousie Integrated Science Program (DISP), which provides a comprehensive first-year programme in science and mathematics, with an emphasis on problem solving and interdisciplinary

experience.

Society of Economic Geologists Art Show

In February, the graduate and undergraduate student chapter of SEG sponsored our annual art show and auction, in support of student field excursions of economic interest. Many department members donated arts and crafts which were auctioned to the highest bidders. Other department members displayed their musical talents to encourage wild spending. Altogether an artistic and enjoyable evening.

Research Events

Lab Warming Ceremony, Cosmogenic Nuclide Exposure Facility: After a prolonged period of construction, the CNEF, under its Director John Gosse, had its official opening on April 17, with a suite of dignitaries in attendance, including university President Tom Traves, who cut the ribbon, and two Vice Presidents. Excellent cake was on hand. Although this was the formal opening, the lab has now been operating for some time. Among its most recent activities was the use of cosmogenic isotopes extracted from large granitic erratics near Peggy's Cove to date ice-marginal retreat. The analyses yielded an age of 16.4 ± 2.8 ka, implying that the ice was gone before the Younger Dryas (Fiona MacDonald, B.Sc. thesis).

U/Th-He Equipment: An NSERC Equipment Proposal by Peter Reynolds, John Gosse, Marcos Zentilli and Paul Sylvester (MUN) was funded (\$145,000.) during the most recent competition. This equipment will enable the thermochronology group to investigate subtle aspects of crustal thermal history, and provides a welcome avenue of development.

AGS – NE GSA: The last AGS Newsletter contained a detailed account of the conference. Co-chairs Marcos Zentilli and Dave Scott would like to thank many earth scientists from across the Atlantic region and

beyond who contributed so willingly to making the conference a success.

New Microprobe Technician: We welcome Patricia Stoffyn as the new technologist for the Electron Microprobe (Regional Facility), replacing Bob MacKay who is moving into retirement. Patricia brings many years of technical experience to the position, and we look forward to working closely with her as the new probe (recently funded by NSERC) continues its important operations.

UNB

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We have had three Ph.D. graduates thus far this year. Alain Murphy defended his thesis, entitled *Geological setting of the Whistle - Parkin Offset, Sudbury*, which was supervised by John Spray. Chris Beaumont-Smith (presently with the Manitoba Geological Survey) completed his thesis (*Structural and Metamorphic History of the Back River Volcanic Complex, Nunavut*). Chris was supervised by Paul Williams. Paul's most recent graduate was Pinglan Dong, who was co-supervised by Brigitte Leblon (UNB), a noted Remote Sensing expert. Dr. Dong's thesis focused on remote sensing aspects to mapping an area in California.

In early March, we hosted a "Meet and Greet" at the Royal York Hotel in Toronto, in conjunction with the PDAC annual meeting. Bruce Broster and David Lentz and three undergraduate students hosted this successful event, which was sponsored by the Geology Department and the UNB Geo-alumni.

At the CIM Annual General Meeting in Montreal in early May, David Lentz began a one year term as President of the CIM Geological Society. The Society has over 1,300 members and is growing. Seven presentations from the UNB ORE Group were made at the conference. One student (Sean McClenaghan) received a CIM Best

Thesis award for work that he completed at the University of Ottawa under supervision by Wayne Goodfellow (GSC) and David Lentz.

Since its launch in the spring of 2002, the Geoarchaeological Research Group, organized by Bruce Broster and David Black (Department of Anthropology, UNB), has been busy spreading the word about on-going research and educational programs in geoarchaeology. Student members of the group participated in the 36th annual conference of the Canadian Archaeological Association in Hamilton, Ontario. Pamela Dickinson (PhD candidate, Geology, UNB) presented a paper, co-authored with Brent D. Suttie (MA candidate, Anthropology, UNB), Sandy Glidden-Hachey (MA candidate, Anthropology, UNB) and Alyson Mercer (BA candidate, Anthropology, UNB) entitled *A Summary of Geoarchaeological Education and Research at the University of New Brunswick* in the plenary session. That session ended with an open discussion between the audience and a panel of speakers representing universities now developing or operating programs in geoarchaeology. The theme of the discussion was "The future of archaeological research in Canada".

Pamela Dickinson participated in the panel discussion, representing UNB's interests in this topic. David Black (Anthropology, UNB) presented a paper, co-authored with Susan Blair (Anthropology, UNB) and Brent Suttie (MA candidate, Anthropology, UNB) entitled *Geological Sources and Archaeological Distributions of Translucent Chert in New Brunswick*.

Dr. Black, Susan Blair and Pam Dickinson organized a special weekend workshop for the New Brunswick Nature Trust on April 30 and 31. This event was sponsored by the Nature Trust of New Brunswick and given by the University of New Brunswick's Geoarchaeological Research Group. It included lectures and field trips, with attendance restricted to 20 participants.

Pam Dickinson organized and co-chaired two sessions on Geoarchaeology and Applied Dating Methods at the CANQUA - CGRG meeting in Halifax. Members of the UNB Geoarchaeology Research Group presented four papers in the geoarchaeology sessions. Presenters included Susan Blair (*Changing Settlement and Technology during the Mid to Late Holocene of the Lower Saint John, South-Central New Brunswick, Canada*), Jason Jeandron (*X-Ray Vision for Archaeologists: The Application of Geophysics to Archaeology*), Brent Suttie and Xueming Yang (*Non-Destructive Lithic-Sourcing of Granite Artifacts from Southwestern New Brunswick*), and David Black, Susan Blair, Pam Dickinson, Sandy Glidden-Hachey, Jason Jeandron, Kevin Leonard, Brent MacEachern, Brent D. Suttie and Lucy A. Wilson (*Distinguishing and Sourcing Variegated Chert Toolstones in the Canadian Maritimes*).

Bruce Broster organized and co-chaired a session on drift prospecting at the CANQUA meeting. Bruce co-authored two presentations to that session with members of the Quaternary and Environmental Studies Group, including *Influence of sub-glacial topography on the spatial variation of till composition* with Toon Pronk and *Wisconsinan ice flow trajectories and till geochemistry: southwestern New Brunswick* with S. Allard, Toon Pronk, and R. Boldon (NBDNR).

The week-long activities at the CANQUA – CGRG conference culminated with a meeting of archaeologists, geologists and representatives of Mi'kmawey Debert to discuss recent initiatives to develop and interpret the Paleoamerican archaeological site at Debert, NS. An informal field trip to the Debert site followed.

Karl Butler, our geophysicist, has agreed to become Director of the prestigious Geological Engineering program at UNB. The program began in the early 1980's under the directorship of Prof. Ernie Hale and has

grown under several directors, including Bruce Broster in the late 1980's. Karl is highly respected by the Geological Engineering students, has supervised numerous geological engineering projects, and has been on the evaluation committee for many engineering graduate students. Overall, this complements Karl's collaborative research program with the UNB Groundwater Studies Group.

Several changes in staff have occurred recently. Jaan Vahtra retired at the end of 2002, after many years as our analytical technician. The position was filled in April by Dr. Suporn Boonsue. Paul Williams retires on July 1st, but will remain as an emeritus professor. Paul will continue his active research program and his supervision of an impressive group of Ph.D. candidates. Murray Gingras is leaving UNB to join the faculty at the University of Alberta. Murray will be sorely missed as he had a very active research program, with numerous graduate students, and an excellent publishing record. He'll be missed more because of his equally impressive persona. In his short time at UNB, he became revered by all who knew him.

Lastly, the Forestry and Geology Building is presently getting a face lift. The building is boarded up at the moment, but inside is busier than it has ever been !

OTHER NEWS

New Brunswick Museum

Randy Miller
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In January, the New Brunswick Museum announced two recipients of the 2003 G.F. Matthew Research Grants in Geology. They are Dr. Robert Wagner, Jardín Botánico de Córdoba, Spain, and Dr. James Hagadorn, Amherst College, Massachusetts. Dr. Wagner continues to receive support for his work on the Upper Carboniferous plants from the Lancaster Formation at Fern Ledges. Dr. Hagadorn

will be examining the Cambrian, King Square Formation, [jellyfish] site in Saint John.

Dr. Sue Turner from the Queensland Museum and Monash University, Australia has been appointed a Research Associate at the New Brunswick Museum. Dr. Turner is a previous recipient of the Matthew Grant. Dr. Turner and our colleague Dr. Richard Cloutier, Université du Québec à Rimouski, are continuing to work with the Museum to describe a specimen of the oldest articulated shark fossil from the Campbellton Formation. We are slowly pulling together all the information about the Campbellton vertebrates and invertebrates to revise our understanding of this interesting part of New Brunswick palaeontology.

Our traveling exhibition, [Fossil Hunter-Will Matthew and the Giant Trilobite] is currently available for loan to institutions that can meet exhibition requirements. Anyone interested can contact Randy Miller. Although we are not traveling any geology exhibitions at the moment, we continue to be involved in other various projects to promote geoscience. One recent project involved a group of students from Harry Miller Middle School. The students visited the Museum as part of an experimental outreach project that let the on-site student team examine the collections and interview the palaeontologist (me), while connecting in real time to the classroom in Rothesay. Students back in the class were able to ask questions and tour the collections via a video camera and an internet link. The student's web site can be seen at <http://www.histori.ca/students/default.do>.

Recent Publications

Miller, R.F. and W. H. Forbes, W.H. 2001. An Upper Carboniferous trigonotarbid, *Aphantomartus pustulatus* (Scudder 1884) from the Maritimes Basin (Euramerican Coal Province), New Brunswick, Canada. *Atlantic Geology*, v. 37, p. 191-196.

Miller, R.F. 2003. George Frederic Matthew's contribution to Precambrian paleobiology; *Geoscience Canada*, v. 30, p. 1-8.

Nova Scotia Museum of Natural History

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Mesozoic Reptile Named

George Hrynewich, Research Associate of the Nova Scotia Museum, now has a fossil named after him. *Teraterpeton hrynewichorum* is an archosauromorph reptile from the Upper Triassic Wolfville Formation. The skull was discovered by George and his son, Sandy, in 1999. The skull was skillfully prepared by staff at the Royal Ontario Museum and studied by Hans Dieter Sues. The paper appears in the *Canadian Journal of Earth Sciences* (Sues, H-D. 2003. An unusual new archosauromorph reptile from the Upper Triassic Wolfville Formation of Nova Scotia. *Canadian Journal of Earth Sciences*, v. 40, p. 635-649).

The name *Teraterpeton hrynewichorum* means "wonderful creeping lizard." The specimen, which is a holotype, now resides in the Palaeontology Collections at the Nova Scotia Museum of Natural History.

Dendrerpeton returns

If you have visited the Museum galleries lately, you may have noticed an imposter in the *Dendrerpeton* case. The real fossil has been temporarily replaced with a plaster cast. The fully articulated fossilized skeleton of *Dendrerpeton acadianum* (an amphibian) has just been safely returned to the Museum following a trip to London, England and Austin, Texas. Dr. Per Ahlberg from the Department of Palaeontology at The Natural History Museum in London borrowed the specimen to complete a study on the middle ear structures of early tetrapods.

Busy Summer

This summer is shaping up to be very exciting. Some of the highlights include:

World Circus, a traveling exhibition produced by the Canadian Children's Museum, Canadian Museum of Civilization. There will also be circus performances at various times throughout summer.

The Terrarium, an interactive installation by Nova Scotian artist Holly Carr.

The Butterfly Pavilion will return to the Museum this summer. The butterflies will be back from late June to September.

There will also be children's palaeontology workshops, guided geology walks, and more. See the Museum Events listings at <http://museum.gov.ns.ca/> for more details.

Fundy Geological Museum

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As we embark on our tenth summer season, the Fundy Geological Museum is preparing to welcome its 225,000th visitor.

Laboratory

Work in the laboratory continues to focus on the preparation of the prosauropod dinosaur material recovered from Wasson Bluff in 2000. This activity can be followed on the Project Prosauropod portion of the Museum's web site at <http://fundygeo.museum.gov.ns.ca>. An assistant preparator, Colleen Collins, was hired to work with Kathy Goodwin, through NSERC's Promo-Science program. Three student positions have received support through the Canadian Museum Association's Young Canada Works in Heritage Institutions and Human

Resource Development Canada's student employment programs.

Tim Fedak has been active in raising funds for the laboratory and financial assistance has been received from Exxon - Mobile Petroleum and Duke Energy (Maritimes and Northeast Pipeline). He spent the month of May doing field work at the dinosaur site and will be coming back on a weekly basis during the summer to do research. Scotsburn Dairy will be a major sponsor this summer – information promoting Project Prosauropod will appear on approximately 385,000 milk cartons being distributed in Nova Scotia and New Brunswick during July and August.

School Programming

The Museum's public and school programs continue to be well received, with more than 33 school, girl guide and cub scout groups arriving during April, May and June, including 19 overnight packages. The "overnighters" are the most effective way for many school groups to organize their trips. School groups are now booking dates for their 2004 visits. Funding has been received this year from HRDC and the Department of Economic Development to hire two students to work with Marilyn Smith, our Education Officer. Three adult interpreters were again employed to assist with the school programs. Two of these interpreters are job sharing.

In 2001, Parrsboro area children in grades primary to six were presented with a complimentary coupon admitting the student and one parent to the Museum. More than 2,000 coupons will be distributed this year to the students in Parrsboro, Advocate, Five Islands, River Hebert, Bass River, Great Village, Amherst, Springhill, Oxford, Pugwash - Wallace, Lorneville and Truro, with their final report cards. Two of our local partners, the Ottawa House By The Sea Museum and Age of Sail Heritage Centre, also took part in this year's promotion.

Public Programs for 2003

The group tour market has been a difficult one to crack, with World Wide Country Tours landing 13 buses last year. The company had initially booked 15 tours this summer. Fears over SARS, the American economy, mad cow disease and the war in Iraq may have prompted the cancellation of 7 of these trips. The Moncton Geology Camp will be returning for its sixth summer of activities, with nine day trips planned, again an increase. The Dartmouth SportsPlex has booked two day trips, with 80 children participating in each visit.

The Museum will again host three Elderhostel programs in 2003. The Fundy North Nova Heritage Elderhostel, July 20 - 26, is sponsored in partnership with five community museums throughout Cumberland and Colchester Counties. Twelve participants have already confirmed their attendance for this session.

Two Elderhostel Geological Safari Programs are available, September 14 - 20 and October 5 - 11. Participants will visit a number of geological sites along the Bay of Fundy, take part in classroom activities, and sample local hospitality and cuisine. For information on registration, please contact Elderhostel at 1 - 877 - 426 - 8056 or www.eldhostel.org. The EdGeo Workshop will be held at the Museum August 25 and 26.

We invite visitors to join us for Dino Daze activities on July 20th, for hands-on activities, painting dinosaurs, scavenger hunt, and face painting. Throughout July and August, Mineral and Fossil Day packages are offered Tuesday through Sunday, and include guided tours of the Museum, hands-on activities and beach tours. The Nova Scotia Gem and Mineral Show activities will be held August 15 - 17 at the Lion's Arena in Parrsboro.

The Museum is also participating in NSDNR's 2003 "Parks are for People" program with curatorial walks on Saturdays in July and August. The

season begins July 5th with a walk from Red Rocks to McGahey Brook. Participants must provide their own transportation and are invited to meet the Director/Curator, Ken Adams, at the Museum at 9.30 am. Most of the geological sites of interest to be visited are a 1 to 1 hour drive from the Museum. Bring a lunch, sturdy walking boots, layered clothing, a hat, sunscreen and a camera. The following walks are planned:

July 5: Red Rocks - McGahey Brook, Cape Chignecto Provincial Park.
July 12: Economy Falls.
July 19: Joggins Fossil Cliffs.
July 26: Wards Falls.
August 2: Clark Head.
August 9: Thomas Cove, Economy Point.
August 15 — 17: Nova Scotia Mineral and Gem Show at Lions Arena, guided tours of a number of local sites
August 23: Spicers Cove, Cape Chignecto Provincial Park.
August 30: Five Islands Provincial Park.

Museum Shop

The Museum's gift shop is a major contributor to the site's earned income. Product development continues to focus on items bearing the Museum's name, logo and images related to our theme. A new image has been created to promote Parrsboro's prosauropod dinosaur and Project Prosauropod. This will appear on golf shirts, hoodies, rain and wind jackets, fleece tops, mugs and pins. Sales of the Atlantic Geoscience Society's *"The Last Billion Years"* continue to suggest that there are opportunities to develop upscale product for sale in the shop.

Economic Impact

Support for the Museum, at a variety of levels, is linked to how successful we are in drawing visitors to the area and holding them. Data from last year indicate that:

- Nova Scotians accounted for 45%

of visits versus 49% the previous year.

- 1,724 visitors arrived from New Brunswick, representing 8% of visits, compared with 6% in 2001-02.
- 60% of visitors learned about the Museum through Doers and Dreamers, word of mouth, or a visitor information centre. 14% of respondents learned about us from our rack cards, and 5% found our Web site.
- During the summer season, the average visitor stays at least 2 days in the Parrsboro area.
- The average group size is at least 4 persons (2 adults + 2 children, 2 couples).
- The museum is the primary reason for 24% of the respondents traveling to Parrsboro.
- 76% of the respondents used accommodations in the Parrsboro area. Average use of accommodations was 2.9 nights.
- 49% of the groups ate at a local restaurant, 19 % ate takeout and 16% ate at a café.
- Each tourist spends a minimum of \$50.00 per day.
- The museum, local attractions and businesses are responsible for bringing from 1 to 3 million dollars into the local area.

Ongoing Development

Two years ago the Board of Directors of the Cumberland Geological Society embarked on a process to ensure that the Museum would continue to be a key educational resource and tourist attraction. The development and promotion of Cape Chignecto Provincial Park, the Bay of Fundy Tourism Partnership and pursuit of the UNESCO World Heritage Site designation for the Joggins Fossil Cliffs continue to bring attention to our region as an international tourist destination.

Based on the past nine years of operation, the existing facility appears to have an annual carrying capacity of 23,000. Any significant increase in visits will impact on the quality of the

services offered. Potential changes to the Museum were identified by the Board and staff that would maximize the benefits of increased site usage and the economic impact on the local community and region. Last August, the Board invited a number of partners to the Museum determine the level of interest in and financial support for the expansion plans. It was decided that a feasibility assessment should be undertaken to determine if the expansion of the Museum, as a Bay of Fundy Discovery Centre, is viable.

Terms of Reference for the first phase of the Museum expansion, which would include a feasibility study, development of a concept plan, preliminary graphics and floor plan and a business plan, have been drafted over the past winter. A consultant will be sought to carry out this work. The concept must be complimentary to other attractions in the immediate region of Parrsboro and the Fundy Shore and opportunities for partnership and key linkages will also be identified.

The feasibility study, concept plan development, preliminary graphics and business plan components of the Museum expansion are intended to provide a viable foundation for future phases of development activity including refinement and enhancement of architectural design and initiation of relevant engineering studies, development and implementation of fund raising, design of new exhibits, programs and related amenities, future marketing and promotion strategies.

Canadian Institute of Mining and Metallurgy Field Trip

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In early May, the Canadian Institute of Mining and Metallurgy (CIM), together with staff from NBDNR, GSC, UNB and Freewest Resources hosted a field trip to the various important gold systems in southwestern New Brunswick.

The trip was led by Kathleen Thorne

(NBDNR) and had approximately 30 participants. The Clarence Stream main and AD zones were visited, as well as McDougall Brook, Lake George and Springfield occurrences. Drill core from those properties was also available, including the Poplar Mountain and Kedron gold-bearing systems.

The field trip was preceded by an Intrusion - related Gold Special Session at the CIM annual general meeting in Montreal, chaired by Don Hoy (Freewest Resources), with presentations by Ms. Thorne, Malcolm McLeod (NBDNRE), Adrian Park (UNB), Xueming Yang (UNB), and David Lentz (UNB).

CANQUA – CGRG 2003

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The CANQUA – CGRG conference held in June at Dalhousie University and the Bedford Institute of Oceanography was lively and stimulating, with 130 scientists from Canada, the United States, Europe and Asia in attendance.

Two sessions on applied Quaternary geology got the conference off to a great start on June 9. The first session, organized by Andrée Bolduc and Serge Paradis (GSC), featured new advances in computer-aided 3-D mapping with some amazing fly-throughs of digital terrain models, superimposed surficial geology and the interpreted retreat of ice sheets. The afternoon session featured techniques and case histories of mineral exploration using glacial drift as a medium, and was chaired by Bruce Broster (UNB) and Cliff Stanley and Ian Spooner (Acadia). During this session, delegates were treated to exciting papers on the “how tos” of drift prospecting using new mapping techniques and concepts of palimpsest glacial terrains applied to exploration of commodities like diamonds.

The conference program was high-

lighted by special sessions in honour of two recently deceased former GSC researchers, Douglas Grant and Lewis H. King. The Lewis H. King Memorial Session, organized by Brian Todd and Gordon Fader and held at BIO on the morning of June 10, featured papers on marine geology. Presentations included the results of new multibeam and seismic mapping offshore from southwest Nova Scotia and the Scotian Slope.

The afternoon session, organized by Mike Lewis, Bob Mott (GSC) and Jim Teller (University of Manitoba) and also held at BIO, was devoted to a series of papers on North American meltwater and floods to the Atlantic Ocean. Thought-provoking presentations centred around the intriguing questions of meltwater routing from under and around former ice sheets and the effects on climate. A summary volume on the meltwater session is "in the works".

The conference returned to Dalhousie for the Doug Grant Memorial Session, organized by Ralph Stea (NSDNR) and John Shaw (GSC) and held on the morning of June 11. This session featured papers on the glacial history of Atlantic Canada and dealt with empirical evidence for ice flows and theoretical models of ice stream development and glacier inception. A nexus of theory and data is in the offing under the auspices of the Atlantic Canada Ice Dynamics Workshop (ACID), led by John Gosse (Dalhousie).

The afternoon session on June 11 focused on general themes and was chaired by Dave Sauchyn (University of Regina) and Ann Miller (Acadia). Papers included tree-ring dating in Nova Scotia, glaciation in British Columbia and carbon dioxide sequestration in the western Pacific.

The rest of the afternoon and the session on June 12 were devoted to geoarchaeology and attracted a range of excellent presentations. These sessions were organized by Dorothy Godfrey-Smith (Dalhousie), Robert

Ferguson (Parks Canada) and Pam Dickinson (UNB). Presentations included the stratigraphy and paleoecology of archaeological sites and new and exciting methods of age dating, including optical and thermal luminescence and cosmogenic nuclides. Phillip Giles (Saint Mary's) and Antoni Lewkowicz (University of Ottawa) ran an excellent session on geomorphology, which included the J. Ross MacKay lecture, given by John Gosse and entitled "Cosmo-genic nuclide exposure dating in Canada: new strategies, old landscapes, new questions."

The conference organizers experimented with a poster mini-talk format, whereby presenters were given 5 minutes, 5 slides and 5 megabytes to get their message across and entice delegates to their posters. The consensus was that this was a success, albeit with a need for stricter controls on timing.

The pre- and post-conference field trips, organized by Ralph Stea and John Shaw, covered much of northern mainland Nova Scotia and Cape Breton Island. The organizers, aided by Bob Mott, showcased the illuminating Quaternary sections of Nova Scotia that could not be dimmed by occasional showers. The Halifax Harbour Boat Tour was run by Gordon Fader, who regaled delegates with geological and historical tales of the Harbour while they quenched a mighty thirst and were tossed about in the boat. Social events included the Irish Pub Night, and a conference banquet at the Saint Mary's Boat Club. Both events were memorable experiences, thanks to lively Celtic entertainment, including renowned local musicians Dave MacIssac and Louis Benoit, and great food and drink. At the banquet, the CANQUA Johnston medal was awarded to Claude Hillaire-Marcel for a lifetime of achievement in Quaternary science.

Student participation in the conference was excellent. Jennifer Smith (Memorial) won the CGRG Slaymaker award for the best student presentation in geomorphology. Kim Wahl

(Acadia) was awarded the CGRG best poster award for geomorphology. Alan Gontz (University of Maine) and Thian Hundert (Dalhousie) were named first place winners of the Proudfoot award for best student oral presentation. Jessie Vincent (UNB) was the second place winner. The Lortie awards for best student poster presentations (first through third, respectfully) were Sophie Baker (Dalhousie), Andrea Nurse (University of Maine) and John Rayburn (Binghamton University).

CONGRATULATIONS

Congratulations to the following AGS members for recognition of their talents, skills, achievements and commitments to geoscience:

Graham Williams, who received the Atlantic Provinces Council on the Sciences/Canpolar Science Communication Award. This award is made to a scientist who best communicates sciences and technology principles and research to the general public. The person must work and reside in the Atlantic Provinces, and have made a "successful and sustained effort to encourage public interest in and understanding of science and technology, working beyond the formal education system". The award was presented to Graham by Dr. Roger Gordon, Dean of Science at the University of Prince Edward Island. Although Graham noted that he was glad of his beard to hide the blushes that he experienced as a result of Dr. Gordon's glowing remarks, we in the Atlantic Geoscience Society know that, his modesty aside, Graham surely deserved the award more than anyone else.

Dan Kontak and Jarda Dostal, who were awarded the Mineralogical Association of Canada's Hawley Medal at the recent GAC – MAC – SEG meeting in Vancouver, with co-authors Kurt Keyser and Douglas Archibald. The Hawley Medal is awarded by the MAC to the authors of the best paper to appear in The

Canadian Mineralogist in a given year. This marks the second time that Dan has received this recognition.

The winning paper is titled "A petrological, geochemical, isotopic and fluid-inclusion study of the 370 Ma pegmatite-aplite sheets, Peggy's Cove, Nova Scotia, Canada".

Sandra Barr, who accepted the position of incoming Vice President of the Geological Association of Canada at the Vancouver meeting. This is a three year commitment on Sandra's part, as she will continue as President in 2005 and Past-President in 2006.

Ralph Stea, who was named incoming Vice President of CANQUA at the recent CANQUA – CGRG meeting in Halifax.

Jennifer Bates, who was elected to a three year term on GAC Council, at the Vancouver meeting.

Coming Events

Nova Scotia Gem and Mineral Show. Lions Arena, Parrsboro, Nova Scotia, August 15 – 17, 2003. For information, contact Ken Adams at (902)-254-3814.

Annual Review of Activities, Geological Survey of Newfoundland and Labrador and CIM Newfoundland Section Annual Meeting. Delta Hotel, St. John's, NF; October 29 – November 1, 2003. For information, contact Norm Mercer at (709)-729-6193.

28th Annual Review of Activities, Minerals and Energy Branch, New Brunswick Department of Natural Resources and Energy. Sheraton Hotel, Fredericton, NB; November 3 – 5, 2003. For information, contact Don Carroll at (506)-453-6642.

Mining Matters for Nova Scotia 2003. Westin Nova Scotian Hotel, Halifax, NS: November 19 – 20, 2003. For information, contact Paul Smith at (902)-424-2526.