

**Canadian Geoscience Education Network Annual Meeting**  
**9:30 a.m. – 4:15 p.m., May 29, 2008**  
**Institut national de la recherche scientifique**  
**Room 5413, 490 rue de la Couronne**  
**Québec**

*Present:* Charly Bank, Jennifer Bates, Laura Clinton, Pascale Côté, Mike DesRoches, Allan Donaldson, John Etches, Fran Haidl, Beth Halfkenny, Linda Ham, Lesley Hymers, Godfrey Nowlan, Dave Mate, Anne-Marie Ryan, Eileen Van der Flier-Keller, Pierre Verpaelst, Christy Vodden, Erica Williams, Ian Young

**E.R.Ward Neale**

Ward Neale, who helped found CGEN, died on May 20. He and his wife Roxie were booked to come to the GAC/MAC and CGEN meetings at Québec 2008, and their presence was sadly missed. We took a few minutes at the beginning of the meeting to pay tribute to Ward. He was a staunch supporter of CGEN, and had attended the recent regional CGEN meeting held in Calgary in April 23. A memorial service took place in Calgary on June 14. After the meeting, it was decided that an appropriate tribute would be for CGEN to fundraise with the goal of sponsoring a chapter in his memory in the popular geology book “Four Billion Years and Counting,” which is currently in development as an International Year of Planet Earth project. (I am happy to report that the fundraising was a huge success and the \$5,000 needed was raised. Thank you to all the CGEN members who contributed so generously. CV)

*Note: The reports of the President, Secretary-Treasurer, IYPE and CGEN’s core programs, and the discussion of follow-up to the Yellowknife Outreach Workshop and CGEN priorities 2008-2009 include the points covered on these items at the winter meeting, the rationale being that there is much overlap in the items from both meetings, and a single report is more comprehensive and less repetitious.*

**Approval of minutes from 2007 AGM and 2008 winter meeting** Approved with no changes.

**Report of the President** (Fran Haidl)

Fran commented that the symposium, “Our Geological Heritage” (organized by Pierre Verpaelst, Serge Perreault, Serge Gaudard and her) had been a welcome addition to the Québec 2008 technical program and that there had been about 25-40 people in attendance at all the talks. She reported that 12 people had attended the CGEN regional meeting in Calgary (and more would have, except for a blizzard that day), and that it had been an excellent opportunity to network and focus on regional issues and opportunities. She encouraged others to consider holding one in their region, noting that it is not necessary to have a member of the CGEN Executive present and that CGEN would promote the meeting through its email notices and support costs for refreshments. *Action: Anyone*

*interested in pursuing this should contact Christy Vodden.*

She commented that relations with the Canadian Federation of Earth Sciences (CFES), on which the CGEN President serves as Outreach Director, were proving very fruitful. CFES has provided strong support for the careers website. As well, hot button issues identified by CGEN, but more appropriate for action by the entire earth science community, have been flagged to CFES. As a result, CFES has developed position papers on global climate change and creationism, and these are now posted on the CFES website (<http://www.geoscience.ca/pospapers.html>). She also noted that the CGEN/CFES Outreach Liaison Committee is up and running, chaired by Ian Young. Its first teleconference took place on February 12, and it connected 16 people involved in outreach with national professional earth science associations. The second was on May 20. This is an important initiative, which is improving communication amongst these diverse groups. Teleconferences will be held quarterly.

She concluded by congratulating Christy on being selected as the Geological Association of Canada's 2008 E. R.W. Neale Medallist.

**Report of the Secretary-Treasurer** (Christy Vodden)

As of April 30, 2008, the CGEN bank balance was \$13,113.95, which comprises funding for the careers in earth science project, geoheritage and general CGEN funds. Incoming funds of \$7,100 have been received since the May 2007 meeting, representing two donations totalling \$2,000 (June 2007 and March 2008) from the Canada Prize Awards Foundation to support CGEN objectives; a \$100 (July) speaker's fee donated by Al Donaldson to support geoheritage projects; and \$5,000 (November) from the Canadian Federation of Earth Sciences (CFES) to support the careers project. Outgoing funds of \$11,135.65 are detailed in the 2007-2008 financial report, attached as Appendix 1.

The CGEN website was updated in May 2007, when the new French website went online. In April 2008, the IYPE logo was added to the splash page and to the French and English home pages. It will stay throughout 2009.

CGEN membership is 249, a gain of 45 members since the winter meeting. *Action: CGEN members are encouraged to suggest new members. Send any names to Christy.*

**CGEN Terms of Reference** (Fran Haidl/Christy Vodden)

As an action flowing from the winter meeting, we discussed the feasibility of creating a longer term of office and adding a President-Elect, which would allow a one-year mentorship period prior to becoming President. There was strong agreement that there was a need to define the roles and responsibilities of the Executive and, given the growing membership, to set up regional or provincial/territorial chapters. These chapters would foster recruitment, hold meetings and field trips, and, if set up at the provincial/territorial level, which is where the education mandates reside, they would become a focal point for monitoring and providing input to any planned curriculum

changes, or for lobbying for change as needed.

There was less clear support for a longer term of office, with some thinking that even three years, which is the maximum currently allowed, may be an intimidating commitment; and with others thinking that even longer terms (of four or five years) would provide better continuity. More discussion is necessary, as any of these changes will require an amendment to the CGEN Terms of Reference. *Action: Christy/Fran to develop a new model for review by the CGEN membership. This will include short job descriptions for each of the Executive and for the new regional/provincial/territorial reps. In the meantime, CGEN members are asked to consider what model for local chapters would work best for their environment, and to go forward with making those connections.*

### **Core projects**

***Careers in Earth Science Website*** (Fran Haidl for John Clague): Jennifer Sabeau has completed the content development phase and, as well, developed a marketing strategy as recommended at the winter meeting. There was an excellent response from CGEN members to the calls for photos and recommendations of role models, so a big thank you to everyone who contributed. Fundraising through the International Year of Planet Earth (IYPE) has been successful, and sufficient funds were donated to cover the website development, which is underway by a Calgary company, Skinny Fish. Before the site goes public, a working model will be sent out for review by a group that will include teachers. The goal is to have the website online by September 2008 in time for the school year. It will be part of a larger IYPE legacy website, which is up and already partially populated (<http://earthsciencescanada.com/>). There will be a need for long-term funding for the expansion and maintenance of the careers website.

In the ensuing discussion, guidance counsellors were suggested as a key target audience. *Action: IYPE has a database of school boards, but anyone having connections with guidance counsellors professional associations is asked to send them to me at [cgen@sympatico.ca](mailto:cgen@sympatico.ca).*

***EarthNet*** (Jennifer Bates): See report attached as Appendix 2 for an overview of EarthNet, and a detailed description of content development plans and promotion activities. The major issues facing EarthNet continue to be funding and content development. While EarthNet has, in the past, received special funding from various sources (mainly Natural Resources Canada and CGEN), it does not have the assured annual funding or dedicated staff necessary for the ongoing maintenance and development of the site. Despite efforts by the EarthNet team, it has been difficult to encourage people to submit content, with the result that some areas of the country are better represented than others. Jennifer hoped that this might be improved by promotion of EarthNet's capability to allow password-protected contributions. She reported that there are some encouraging developments concerning possible funding from Encana in

the near future, and that a volunteer is lined up to do a review of links and fix the broken ones.

Much of the ensuing discussion focused on EarthNet's connection with the IYPE's legacy site, which is going to have a section for teacher/student resource materials. Godfrey Nowlan noted that IYPE's overall goal for the legacy site is to "keep it simple," as funding for ongoing maintenance may be difficult to secure. His concern with EarthNet is that it is a complex database that needs ongoing maintenance representing significant resources and time. Jennifer noted that content building would be time consuming, even if the site were simple.

A broader-based discussion was triggered on how people research information online now, with some thinking that the trend is very much toward "googling" for it, rather than visiting large-scale databases. Others felt that databases were still a great way to go, but that they had to have the reach (through broad-scale promotion and being first on search lists) to first connect with a potential user, followed through with the credibility and usability of the site sufficient to encourage that user to bookmark it as a core reference for ongoing use.

From the discussion, it was agreed that EarthNet would work best as a link from the legacy site. It was further suggested that usage data for EarthNet be looked at and monitored closely, with a view to future development of the site, and with the reminder that there has been a longstanding action in the minutes concerning the development of a strategic plan to map out EarthNet's future. There was also some preliminary talk of developing a resource list for each province/territory (realizing that geology transcends political boundaries) and that this could be a project taken on by the proposed provincial/territorial chapters. *Action: Jennifer to submit a funding proposal to CGEN, with a special emphasis on the Virtual Field Trip section.*

**EdGEO** (Eileen Van der Flier-Keller/Laura Clinton): Laura Clinton took over leadership of the EdGEO National Committee on April 1, 2008. CGEN recognized the outstanding efforts of the Victoria team who hosted this important national program for the past six years (2002-2008), and a big thank you goes to Eileen Van der Flier-Keller, Jane Wynne, Nick Massey, Sheila Johnston, David Mate, Mike Jackson, Tania Demchuk, Miriam Vos Guenther, Leanne Pyle and Sheri Molnar. CGEN also unanimously supported a formal vote of thanks to the Canadian Society of Petroleum Geologists for their longstanding and very generous financial support of EdGEO.

Eileen reported that in 2007 there were 12 workshops held in BC, Alberta, Ontario, Nova Scotia and Saskatchewan. In total these included 287 teachers, at a cost to EdGEO of \$13,981 or ~\$49 per teacher. The numbers of workshops were down slightly from 2006 due to Drumheller, Alberta, and Field, BC, not running their workshops this year. An encouraging trend, however, is that many workshop leaders are asking for less than the \$3,000 maximum as they have found local sponsors.

Laura reported that, so far, six workshops have been delivered in 2008, with three in Saskatchewan and three in British Columbia. Additional workshops planned for 2008 include a three-day workshop at Carleton University in Ottawa (June 6-8) and a field trip of the Kamloops area hosted by the GAC's Pacific Section (October 24). Priorities for the near future are developing a standardized proposal to faculties of education, connecting with pre-service teachers and encouraging more Ontario workshops. Leaders will be encouraged to incorporate International Year of Planet Earth into all 2008 and 2009 workshops. See Appendix 3 for the full EdGEO report and the breakdown of workshops in 2007-2008.

**Geoheritage Project** (Al Donaldson): The Ottawa-Gatineau Geoheritage Project (OGGP) has been working for six years now, with a good track record both in increasing public education/awareness of local geoheritage and lobbying municipal, regional and federal authorities with responsibility in the area. See Appendix 4 for full report of activities and accomplishments.

Some good connections have resulted from the Québec 2008 meeting and its geoheritage symposium. Pierre Verpaeslt is now going to help the OGGP with the Québec side of the Ottawa River. Al commented that the symposium underscored that we are doing a good job promoting geoheritage through public education and suggested that we expand our efforts to include the preservation and protection components of geoheritage. In the ensuing discussion it became clear that there is a pressing need for legislation, at both the provincial and national levels, to protect Canada's geoheritage. Al suggested that CGEN seek representatives from each province and territory to determine the present state of affairs across the land, and then lobby for the addition of clauses to legislation that would cover geoheritage preservation. It was noted that Québec is far ahead of all other jurisdictions in this regard, and that Ontario is now considering a revision to its mining legislation, so the timing for action there is now. Links with groups with aligned goals/interests, e.g. Friends of the Pleistocene, urban planners professional associations and environmental groups, were suggested. *Action: Anyone wishing to become a provincial/territorial representative should contact Al Donaldson [donaldson6427@rogers.com](mailto:donaldson6427@rogers.com) to brainstorm.*

Al also noted that a key target audience for geoheritage awareness building, possibly through workshops, is construction workers and their supervisors, as much geological information can be captured from excavations and highway construction. Provincial/territorial geological surveys should get involved in data gathering from these sites as the opportunity arises, but connections have to be strengthened. He also reported that he had had some initial interest from CBC concerning his idea for a radio show on the Seven Geo-Wonders of Canada, and would follow up with them. *Action: Al Donaldson.*

**Geoscape** (Christy Vodden for Bob Turner): Geoscape continues to reinvent itself to

provide new, more user-friendly products with a strong community focus, and to develop interesting new partnerships for content development and distribution. An excellent example is the new Geotour Guide for Kamloops, BC, which offers a tour of the geological landscape of Kamloops, and through descriptions of 15 sites “explores how the community of Kamloops lives on, lives from, and lives with, the land.” A PDF version is downloadable at the Mineral Resources Education Program of BC website: <http://www.bcminerals.ca/pdf/Kamloops%20Geotour%20Guide%20Web.pdf>. Activities linked to its release included a well-attended public lecture and workshop for teachers, media interest and a presentation to the mayor and council. Other Geotour guides are available or in the works for Prince George, Hazelton, Terrace, Nelson, Cranbrook and Fernie, BC.

Another new initiative for BC is the Geological Landscapes Highway Map for northern BC, which was published in the fall of 2007 as an IYPE project. It is downloadable at the BC Geological Survey’s website:

<http://www.em.gov.bc.ca/Mining/Geosurv/Publications/GeoFiles/GF2007-1/toc.htm>. A companion map for southern BC is due out in 2009. These have both been based on the model developed for the very successful Saskatchewan geological highway map, which has been so popular that a second print run has recently been done. Partnerships with the tourism groups for both provinces have been very valuable in promoting and distributing these products to the public.

***What on Earth*** (Christy Vodden for Alan Morgan): The search for a new editor continues, as Alan Morgan and Peter Russell are closing down shop late this year. No one has been identified. Two more issues are planned, both of which will be available as PDFs. The idea to go completely web-based has been put forth as the most logical option as this would simplify the work of a new editor and avoid production, distribution and storage costs and related work, although there were some who felt that it would be a huge loss not to have a paper copy going out to its distribution list.

There was also some discussion of the possibility of merging the EdGEO newsletter with “What on Earth”. It was noted that there are other newsletters (e.g. Mining Matters and the newsletter of the Mineral Resources Education Program of BC) that overlap some of what “What on Earth” provides. There was also mention of a newsletter that CFES has in the works.

It was agreed that the search for a new editor must continue and that a priority for CGEN will be to ensure that the current website with the digital archive of past copies, master printing copies and any back issues of “What on Earth” are preserved and maintained as a valuable resource. It was also felt that a user survey should be developed and sent to the people on the “What on Earth” distribution list, as this could provide important insight should a new editor be found. *Action: Christy to discuss and follow up with Alan Morgan.*

### **International Year of Planet Earth** (Godfrey Nowlan)

Godfrey reviewed the Canadian National IYPE Committee's activities to date, noting that the Canadian program had made the strategic decision to focus on outreach not scientific research. Highlights include:

- Television advertising linked to CBC's "Geologic Journey" series. CGEN members are encouraged to use the ad, which is of professional quality and provides a good intro to IYPE. <http://www.earthsciencescanada.com/iype/>.
- Popular Geoscience, a series of 32 fact sheets on minerals, rocks and energy subjects. <http://www.gac.ca/PopularGeoscience/index.html>.
- The northern BC highway map (see Geoscape item for web link).
- Geo-Time Trails, Waterloo, Ontario. Virtual tour of it available at: <http://www.yearofplanetearth.org/content/downloads/canada/GeoTimeTrail.pdf>. People interested in putting together a similar project for their community may contact Alan Morgan for advice on costs, timelines, etc. Apparently there are similar projects being considered for St. John's, Halifax/Dartmouth and Calgary.

Projects underway include a student contest, the legacy website, downloadable PDF version of Mining Matters' snowmobile poster, the careers in earth science website project, the popular geology book "Four Billion Years and Counting," a collaborative project with Parks Canada to produce "GeoVistas," and the Burgess Shale Centennial. Updates and news about these projects will be sent out through CGEN emails.

Fundraising is ongoing, and as funds become available they will be allocated to the remaining projects on the list. Godfrey was pleased to report that the first regional grant went to the Manitoba Youth Encouraging Sustainability project, and he hoped that more of these small projects could be supported. IYPE is still open to considering projects to support in 2008 or 2009, and ideas should be sent to Godfrey at [gnowlan@nrcan.gc.ca](mailto:gnowlan@nrcan.gc.ca). He urged all CGEN members to use the IYPE banner and logo, available from him.

He concluded by putting Canada's effort into context internationally, noting that Canada ranks in the lower end of the top five countries in terms of what we have accomplished, but, unlike the other countries on that list, we are the only country without government funding and running on a strictly volunteer basis. Now that's pretty impressive!

### **CGEN and IYPE** (all)

It was noted that many CGEN members are involved in the IYPE effort, as is one of CGEN's core projects, the careers website. Concerning Roberta Bondar's role as the Canadian Honourary Chair, her IYPE activities have, so far, included representing Canada at the IYPE launch in Paris and a commitment to be the keynote speaker at the Nuna-Gussow Geoscience Conference on the Geoscience of Climate Change in October: <http://www.cspg.org/conventions/Gussow2008/index.cfm>. Godfrey commented that she could be invited to play a role in other IYPE events/launches, but that the approach to her should be through the national committee's chair, John Boyd ([johnb@BoydPetro.com](mailto:johnb@BoydPetro.com)).

Fundraising has been particularly successful with the energy companies, and the CNC would like to focus on the mining sector. *Action: CGEN members with connections with mining companies are asked to contact Godfrey.*

There was also a preliminary discussion about CGEN holding a fundraiser within its membership with the goal of raising \$5,000 to sponsor a chapter in “Four Billion Years and Counting.” *Action: Godfrey and Christy to follow up.*

### **2009 GAC/MAC** (all)

The 2009 conference, which will take place in Toronto, May 23-27, in addition to GAC and MAC, will include the American Geophysical Union, Canadian Geophysical Union and the Canadian chapter of the International Association of Hydrogeologists. Website: <http://www.jointassembly2009.ca>. *Action: Charly Bank, Laura Clinton, Lesley Hymers, Beth Halfkenny and John Etches agreed to brainstorm and develop a plan for public and teacher events.* Eileen Van der Flier-Keller noted that she and Christy were planning to submit a proposal for a session on Communicating Science that would also be part of the CGEN contribution. Lesley Hymers noted that the CIM “Mining in Society” conference would take place in Toronto the week before, and Mining Matters will be involved in the education programming. Website: <http://www.cim.org/toronto2009/>. Toronto is going to be a hotspot for the geoscience community next May, and both events will provide wonderful opportunities to connect with the public and educators.

### **Yellowknife outreach workshop and CGEN priorities 2008-2009** (all)

At both the winter meeting and the AGM, each person was asked to comment on follow-up to the outreach workshop (as outlined in the report published in “Geoscience Canada” <http://www.gac.ca/publications/geoscience/TOC/2007JuneGCVol34No2Summaries.pdf>, page 49) and what CGEN priorities should be for the short-term. The report was ambitious, as it was capturing all the problems facing us and presenting a vision of what outreach could be in an ideal world. The reality is that CGEN is a volunteer organization, which in its current configuration does not have the resources (dollars or human) to tackle more than it does. CGEN is, however, an excellent networking organization, and with the rapid growth in its membership and its connections in both the education and geoscience community is becoming a true focal point for education and outreach. One of its great appeals is that it is “informal and a source of encouragement.” Many pointed out that even without an overarching structure and a rich treasury, a lot is being done. There was strong support for the proposed provincial/territorial representatives and for more regional meetings/networking.

There were recurring comments on the need for money and an office with paid staff to make outreach sustainable. One suggestion was that we set up a group to try to find someone who will fund a foundation (with \$5 million identified as the necessary capital), to support what was sketched out at the workshop. This could be a follow up activity to IYPE. Another spin on this was that we aim to fundraise just the money needed to support an office and staff for two or three years, and, through its deliverables, build a

groundswell of support for the longer term. It was recommended that any such office be inserted into an existing office to keep costs down. *Action: Fran will strike a small committee to explore the idea of fundraising for a centralized outreach office.*

There was also a reminder that CGEN has an active group of core projects and the idea is for them to work together as a team, with each project either using or contributing to the others. This concept, which was enunciated in 2001 by John Clague et al. (<http://cgen.bio.ns.ca/Clague.pdf>) remains a cornerstone of CGEN, but still needs work to ensure synergy is achieved. Many comments supported the goals of the various core projects (e.g. “people learn best from what’s in their own backyard,” “one of the key ways to educate the public is by educating students, and working with teachers should be a priority as each one is a conduit to the thousands of students that he/she will teach during their career.”).

Specific issues that were flagged were:

- The lack of priority for earth science at universities (both as an entrance credit and support for the faculties) is a continuing problem.
- The urgent need for outreach in the North. Industry needs it, but does not have the necessary expertise, but could be convinced to provide funding.
- Encouraging students to consider a career in the earth sciences is rapidly becoming a top priority for many sectors.
- Outreach is uneven. For example, there is a Mining Matters, but where is the energy equivalent?
- Efficiencies could be achieved by consolidating websites and newsletters for CGEN’s core projects.
- CGEN needs more teacher representation, and we need to focus on ensuring more accurate curriculum and to be vigilant in getting a voice in curriculum reviews.
- Wedging of earth science into chemistry, biology, and physics at the high school level should be a goal, as it would be a simple way to increase the presence of earth science.

### **Reports from CGEN members**

***Atlantic Geoscience Society*** (Jennifer Bates): This is a very active group, mainly in Nova Scotia and New Brunswick, and it has produced some high profile outreach and education products that have been distributed widely. For example, the popular geology book on Atlantic Canada “The Last Billion Years” has gone well past the marker for a Canadian bestseller with 8,000 copies sold; another print run is in the works. Many members of the AGS Education Committee are taking a lead role in the development of “Four Billion Years and Counting.” Other projects include the Nova Scotia geological highway map, the publication “Nova Scotia Rocks,” public lectures, and participation in EdGEO workshops. For the full report see Appendix 5.

***B.C. Curriculum*** (Erica Williams): Erica’s “A Critical Analysis of K-10 Earth Science

in B.C.” was sent to the BC Minister of Education in January, and while she received a response from that office, it did not respond to her specific questions. She is planning further follow up. The analysis would a helpful template for anyone evaluating curriculum and she would be happy to share it. Contact: [ewilliams@sd43.bc.ca/](mailto:ewilliams@sd43.bc.ca/).

**Canadian Federation of Earth Sciences** (Ian Young): In addition to the CFES/CGEN Outreach Liaison Committee, previously mentioned, CFES continues is a strong supporter of CGEN’s work and is working actively with the IYPE National Committee in fundraising and the development of the legacy website. CFES is interested in instituting awards for excellence in teaching the earth sciences (K-12) and an earth science mentorship program – both will be on the agenda at their next meeting in June. CFES is also setting up an earth science advocacy panel, including scientists and industry people. Its goal is to connect with decision makers and raise their awareness of the role of the earth sciences in many hot button issues.

**Canadian Society of Petroleum Geologists** (Mike DesRoches): The CSPG is a longstanding sponsor of EdGEO and also has its own Outreach Program, as described by Greg Lynch, the Outreach Director, in his article in their monthly magazine “Reservoir.” This was attached to the winter meeting notes; the published version (November 2007) can be read at: <http://www.cspg.org/publications/pubs-reservoir.cfm>. The June issue also includes an outreach-focussed message from Greg, with more information about its activities and a very nice plug for EdGEO and CGEN.

**Carleton University** (Beth Halfkenny): Carleton puts on a range of activities aimed at teachers and students. These include school visits, workshops and field trips. Report attached as Appendix 6.

**Dufferin Aggregates** (Lesley Hymers): Lesley, until recently, coordinated the outreach program for this company. Highlights over the past year include 50 site visits, including 3,000 teachers and students, and four open houses at the major operating sites. They also worked with Mining Matters and other partners to put on a workshop at the PDAC conference.

**Geological Survey of Canada-Québec** (Pascale Côté): To celebrate Québec City’s 400<sup>th</sup> anniversary and the International Year of Planet Earth, GSC-Québec prepared a brochure, aimed at the public, titled “Québec, a fortified city: Geological and historical heritage,” which provides a walking tour of Old Québec, and is available in tourist and Parks Canada offices. Historical vignettes have been added to an annual field trip given to local teachers, based on Geoscape Québec poster. It is also given at conferences and special interest groups on request. Earth Day was celebrated with kiosks in a major shopping mall; this activity has been carried out for the past five years. GSC-Québec will also have a kiosk at two teachers (science and social science) conferences this fall.

**Géologie Québec** (Pierre Verpaelst): Québec Exploration 2008, November 24-27 in

Quebec City, will include an open house for the public – a first for this annual event. There will be a focus on education, with guided tours for school groups. This new component is expected to become a regular feature and to be expanded in coming years. Feedback from teachers will be important in shaping future directions. Géologie Québec has produced excellent posters on economic mineral deposits and geoheritage of Québec, with another on main geological events including a timescale at the prototype stage. These are free to teachers and at a minimal cost, to cover printing costs, for others (note: the web link and ordering directions were included in the CGEN notice of June 24, 2008). Pierre reported that Géologie Québec has put a priority on encouraging students to consider careers in the earth sciences, and has been working with provincial manpower groups, the Prospectors and Developers Association of Canada and other earth science associations. He also made the generous offer to provide help to other CGEN members in getting their educational materials translated into French. Anyone interested should discuss the project with Pierre at [Pierre.Verpaelst@mrnf.gouv.qc.ca](mailto:Pierre.Verpaelst@mrnf.gouv.qc.ca).

***Geological Association of Canada*** (Eileen Van der Flier-Keller): The GAC has approved a new teacher membership category, equivalent to the student membership fee, which is currently \$10. This low fee brings with it discounts on conference fees and publications. Funds allocated from various trusts held by the Canadian Geological Foundation include many education and outreach projects. The 2008 recipients are listed at: <http://www.canadiangeologicalfoundation.org/2008.html>.

***Geoscience Outreach in Peterborough and for Unesco*** (John Etches): John has completed two contracts at the Wadi Al-Hitan Whale Valley, in the Western Desert of Egypt, where exhibits and interpretative materials are being developed. This Unesco World Heritage site contains fossilized remains of whales, and he has been able to interject a strong earth-science angle to the storyline. John has also developed various educational programs for Canadian students including ones on alvar ecosystems and groundwater, as well as a geological mapping exercise.

***Mining Matters*** (Laura Clinton): Laura reported that the efforts of a small group of geoscientists had an influence on proposed new curriculum for Grade 4 Ontario students that included misinformation, very little Ontario content, and a strong anti-mining bias. Laura had pulled together a review team from all sectors, as soon as she learned about the problem and this was just as the curriculum was in final approval. It was a big effort, but well worth it. Mining Matters is now recalibrating its materials to match the new curriculum. They are also taking the opportunity to add First Nations perspectives. Efforts are also underway to correlate the Discovering Diamonds program to each province/territory across Canada and to take the workshops west. Connections with Sheila Stenzel, Mineral Resources Education Program of BC, have been really helpful, and good links are being developed in Manitoba. Mining Matters was involved in both the education events at the PDAC annual conference (the first time that PDAC has had a student event at its conference) and the CIMM Mining in Society convention in the spring. Both went well. Lesley Hymers will be filling in for Laura while she is on

maternity leave. More news and resources at: <http://www.pdac.ca/miningmatters/>.

**NSERC CRYSTAL Program** (Eileen Van der Flier-Keller): CRYSTAL stands for Centres for Research in Youth, Science Teaching and Learning, and five (located at the universities of Sherbrooke, Alberta, New Brunswick, Manitoba and Victoria) were funded when the program started up in 2005 (each receiving \$200,000 annually for five years). CGEN was quite active in promoting this program when the competition was running. CRYSTAL is now past its mid-point and the question is what will happen next with this program. *Action: We need to enunciate what the geoscience community would like to see if CRYSTAL is renewed and this should be communicated to NSERC via CFES. Fran Haidl and Ian Young to discuss mechanism for doing this.*

**Nunavut Outreach** (Linda Ham): Indian and Northern Affairs (INAC) supports outreach, but efforts are limited by other workload pressures – outreach represents 5% of Linda’s time. The GSC and the Canada-Nunavut Geoscience Office also provide some limited outreach, but face the same resource issues. The Government of Nunavut’s geoscience outreach programs were quite active while Claudia Riveros was on staff, but her position has not been filled since her departure. The need, however, is real as Nunavut has capacity issues in many sectors linked to geoscience and half its population is under 25. Activities include an upcoming session with Elderhostel participants at the Arctic College; a rock and mineral kit, which is in development; the Nunavut Geoscape poster, which is about to be printed; community-based Mining Week activities in September; and the translation into Inuktitut of some of the popular geoscience fact sheets.

**University of Toronto** (Charly Bank): The U of T Geology Department gets a lot done by piggybacking on broader-based science outreach projects such as “Girls Rock Science” and the city-wide “Science Rendezvous;” by inviting school groups to visit the Geology Department; and by offering workshops to teachers on their PD days. They are looking at the 2009 geoscience/mining conferences in Toronto as an important opportunity.

**Reports submitted by email:**

- **Alberta Geological Survey** (Dixon Edwards): Attached as Appendix 7.
- **Johnson GEO-CENTRE** (Paul Dean): Attached as Appendix 8.

**Timing for Next Meetings:** The winter meeting will take place on Friday, January 30, 2009, the day following the Mineral Exploration Roundup in Vancouver. The next annual general meeting will be held on Thursday, May 28, 2009, in Toronto. In the meantime, all CGEN members are encouraged to hold local meetings in their communities.

Christy Vodden  
Secretary-Treasurer  
September 11, 2008

**Canadian Geoscience Education Network  
2007-2008 FINANCIAL REPORT**

Balance at last report (as of April 30, 2007)	+ \$17,149.60
<u>Incoming funds:</u>	
Canada Prize Awards Foundation, 15/06/07	+\$1,000
Active Jewish Adults, Donaldson speaker's fee, 23/07/07	+\$100
CFES, careers project, 13/11/07	+\$5,000
Canada Prize Awards Foundation, 07/03/08	+\$1,000
Interest (May/07 – April/08)	<u>nil</u>
Total incoming:	+\$7,100
Sub-Total:	+\$24,249.60
<u>Outgoing payments:</u>	
J. Sabean, Careers project, 30/05/07	-\$400
AGM catering, Secretariat expenses, 01/06/07	-\$724.31
J. Sabean, Careers project, 08/06/07	-\$800
J. Smith, French website and general update, 11/06/07	-\$375
J. Sabean, Careers project, 03/07/07	-\$1,000
J. Sabean, Careers project, 25/07/07	-\$400
J. Sabean, Careers project, 01/08/07	-\$600
J. Sabean, Careers project, 21/09/07	-\$400
J. Sabean, Careers project, 11/10/07	-\$616
J. Sabean, Careers project, 15/11/07	-\$636
J. Sabean, Careers project, 02/01/08	-\$636
J. Sabean, Careers project, 11/01/07	-\$668.87
2007-2008 allocation to EdGEO, 21/02/08	-\$3,000
Winter meeting catering (paid to S. Stenzel), 27/02/08	-\$149.47
J. Sabean, Careers project, 10/03/08	-\$630
J. Smith, website update, 08/04/08	<u>-\$100</u>
Total outgoing:	\$11,135.65
<b>BALANCE (as of April 30, 2008)</b>	<b>\$13,113.95</b>
CGEN portion:	\$9,435.44
Careers portion:	\$3,578.51*
Geoheritage portion:	\$100.00

\* An additional \$945 is committed.

Christy Vodden  
Secretary-Treasurer

May 27, 2007

## **Annual EarthNet Report to the Canadian Geoscience Education Network**

GAC 2008, Quebec City, Quebec  
29 May 2008

### **Overview**

EarthNet ([www.earthnet-geonet.ca](http://www.earthnet-geonet.ca)) is one of CGEN's principal activities. The website is a source of earth science information for educators, students and members of the public interested in learning more about earth science. The geology of Canada provides the examples. Users can access and download reliable information at no cost. Since the site's inception in the mid 1990s, a digital infrastructure has been designed to ease content additions, retrieval of the site's content, and topic searches. This development is in progress but is not complete. To date, an Oracle database forms the foundation of the Learning Resources and Glossary sections. The Geological Survey of Canada (Atlantic) continues to provide server space and for the site.

Great strides were made several years ago with ResSources GSC funding (\$25-30K each year for three years). It allowed for graphic design, substantial content development, creation of a searchable database and online forms that make for easier input and updating, and promotion to educators across Canada. It is unfortunate that this level of support has not continued. Technical web advancement is important but ensuring current and nation-wide content is the most challenging aspect of the site's growth. At the moment, development operates on a volunteer basis and financial support is perhaps two or three thousand dollars a year from successful proposals. If EarthNet was to receive annual funding equivalent to a full-time staff person, the site could work toward completion of the digital infrastructure development plan, timely posting of current content and a comprehensive resource for all regions of Canada. EarthNet would be well on its way of reaching its goal of a truly national site.

Products developed under the IYPE (International Year of Planet Earth) banner may be possible candidates for partnerships. The digital aspect of the Geology of Canada book project is one obvious choice. Because EarthNet is well on its way to delivering reliable geoscience information to educators and the public, collaboration with this proposed digital project may benefit both parties.

### **Content development**

Postings and on-going and planned development:

- input of new resources via the online form will start in June 2008 (contract with grant funds)
- checking of links will start in June 2008 (volunteer and GSC in-kind support)
- Fact sheets on Canada's mineral and energy resources posted  
(<http://www.earthnet-geonet.ca/communities/>)
- Virtual Field Trips:
  - ~ 100 geological vignettes for locations across Canada including images from Parks Canada
  - variety of locations in the Ottawa area based on a set of teachers workshops (spring

2008)

- Geology of Communities: Mastodons of the Maritimes (in progress - the Atlantic Geoscience Society)
- Animation of geological processes to supplement various sections of the site including Glossary, Virtual Field Trip and Exploring Our Dynamic Earth. Seeking person with animation skills. NSCAD student a possibility. Former student another possibility.

The IYPE logo (with link to the Canadian IYPE website) was added to the home page to acknowledge this international event.

CGEN members are asked to contribute to EarthNet. Field trip guides, images, and information on new resources or activities are encouraged. All contributions to EarthNet are acknowledged on content pages and in the Contributors section.

### **Promotion**

EarthNet continues to be promoted by various means:

- Ottawa University teacher workshops
- Science Teachers of Ontario Association conference
- Atlantic Geoscience Society events (annual Colloquium, booths at local conferences and public events such as public talks and the annual rock and mineral show in Parrsboro)
- annual Nova Scotia EdGEO workshop
- science and social studies teacher conferences in Nova Scotia
- web links on various education and geoscience sites
- EarthNet promotion cards distributed to outreach geologists in various parts of Canada for workshops and classroom presentations
- Geological Survey of Canada (Atlantic) information and teacher packages
- Bedford Institute of Oceanography teacher packages and public tours

Promotion of education materials is best accomplished by local groups and individuals. CGEN members play an important role in informing educators about available resources. Please request EarthNet promotion cards to add to your education packages from Jennifer Bates ([jbates@nrcan.gc.ca](mailto:jbates@nrcan.gc.ca)) or Nelly Koziel ([nkoziel@nrcan.gc.ca](mailto:nkoziel@nrcan.gc.ca)).

### **Requests for Funding**

A request for funding was submitted to the Atlantic office of EnCana Corporation at the encouragement of their Community Relations Advisor who recommended an energy focus for the proposal. This request is presently under consideration by EnCana.

As a core project of the Canadian Geoscience Education Network, EarthNet must continue to add current content to meet its goal of cross- Canada representation. On behalf of the EarthNet Development Committee, I will ask CGEN to consider a funding request (\$3000) for content development with specific emphasis on the Virtual Field Trip section. The details of this proposed development will be provided in a separate document.

Jennifer Bates  
Chair, EarthNet Development Committee

May 29, 2008

**EdGEO Report to CGEN**

L. Clinton

**2008 Workshops**

So far six workshops have been delivered in 2008. A detailed table of 2008 EdGEO workshops is attached. There have been three workshops in Saskatchewan and three in British Columbia. Additional workshops planned for 2008 include a three-day workshop at Carleton University in Ottawa (June 6, 7 and 8, 2008) and a field trip of the Kamloops area hosted by PAC-GAC (October 24, 2008).

**Finances**

Many thanks to our sponsors again this year.

CSPG	\$12,500
CGEN	\$3000

A request for support from CFES (\$5,000) will be submitted before the end of July.

To date, the EdGEO commitment of workshop support amounts to \$14,389.00. As of March 31, total assets for EdGEO are \$31,549.32.

**Future**

A meeting with the Executive Director of the **Association of Professional Geoscientists of Ontario** revealed that Ontario geologists working towards receiving their professional designation gain credit for outreach. EdGEO looks forward to building a relationship with this group to promote EdGEO with the intent of expand outreach efforts in this province.

**EdGEO Evaluation Committee**

Laura Clinton  
Dixon Edwards  
Toon Pronk  
Jane Wynne

**EdGEO Regional Committee**

Laura Clinton  
Beth Halfkenny  
Stella Heenan  
Lesley Hymers  
Amy Nishio

2007	Grant Recipients	Focus/Highlights	Comments
Prince George BC/02	The Exploration Place	<ul style="list-style-type: none"> <li>Prince George Geoscape</li> <li>Half day field and hands-on activity based workshop</li> </ul>	<ul style="list-style-type: none"> <li><b>\$1410</b></li> <li>9 teachers</li> </ul>
Calgary AB/02	Calgary Science Network	<ul style="list-style-type: none"> <li>Planet Earth (Unit E) Alberta Curriculum</li> <li>Grade 7</li> </ul>	<ul style="list-style-type: none"> <li><b>\$500</b></li> <li>19 teachers</li> </ul>
Victoria BC/02	Supported by CRYSTAL Pacific	<ul style="list-style-type: none"> <li>2 workshops presented at 'Learning Odyssey 2007' - Saanich Teacher Professional Development Conference</li> <li>"Rocks, Fossils and Earth History" and "Plate Tectonics, Earthquakes and Volcanoes"</li> </ul>	<ul style="list-style-type: none"> <li>No funds requested</li> <li>11 teachers</li> </ul>
Vancouver BC/02	CCGE (BC and Yukon Branch)	<ul style="list-style-type: none"> <li>One day workshop – three sessions, Glaciation, Plate tectonics and GSC resources</li> </ul>	<ul style="list-style-type: none"> <li><b>\$1500</b></li> <li>23 teachers</li> </ul>
Regina SK/04	Saskatchewan Geological Society	<ul style="list-style-type: none"> <li>Two workshops for third year Education students at University of Regina</li> <li>"Science for Elementary Teachers" class</li> </ul>	<ul style="list-style-type: none"> <li><b>\$425</b></li> <li>48 student teachers</li> </ul>
Port Coquitlam BC/04	Cordilleran Section - GAC	<ul style="list-style-type: none"> <li>Grade 7 and 10 Earth Science and Socials curriculum-linked workshop</li> </ul>	<ul style="list-style-type: none"> <li>\$2860 -238.71</li> <li><b>\$2621.29</b></li> <li>33 teachers</li> </ul>
Greater Toronto Ont/05	PDAC	<ul style="list-style-type: none"> <li>Geoscape Toronto Fieldtrip</li> <li>One day, three locations – Milton, Brampton and Caledon</li> </ul>	<ul style="list-style-type: none"> <li><b>\$3000</b></li> <li>27 teachers</li> </ul>
Ottawa Ont/05	Dept. of Earth Sciences, Carleton University	<ul style="list-style-type: none"> <li>Three day workshop</li> <li>Grade 12 Earth Science Curriculum</li> </ul>	<ul style="list-style-type: none"> <li>\$2000 - 859.50</li> <li><b>\$1140.50</b></li> <li>10 teachers</li> </ul>
Wolfville NS/08	Nova Scotia EdGEO Workshop Committee	<ul style="list-style-type: none"> <li>Two day fieldtrip "How Earth history controls the human environment.."</li> <li>Teachers Grades 4-12</li> </ul>	<ul style="list-style-type: none"> <li>\$1497.95 - \$1440</li> <li><b>\$57.95</b></li> <li>22 teachers</li> </ul>
Victoria BC/09	Pacific Section GAC	<ul style="list-style-type: none"> <li>Two workshops for Education students at the University of Victoria</li> <li>In collaboration with CETUS (Centre of Excellence in Teaching and Understanding Science)</li> </ul>	<ul style="list-style-type: none"> <li><b>\$1547.94</b></li> <li>40 student teachers</li> </ul>
Calgary AB/10	Calgary Science Network	<ul style="list-style-type: none"> <li>Rocks and Minerals Alberta Curriculum Unit</li> <li>Grade 3</li> </ul>	<ul style="list-style-type: none"> <li><b>\$1000</b></li> <li>25 teachers</li> </ul>
Victoria BC/09-11	Pacific Section GAC	<ul style="list-style-type: none"> <li>Education Lab in EOS 120, University of Victoria</li> </ul>	<ul style="list-style-type: none"> <li>\$779.19</li> <li>20 students</li> </ul>

<b>2007</b>	<b>Grant Recipients</b>	<b>Focus/Highlights</b>	<b>Comments</b>
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Victoria BC/02	Supported by CRYSTAL Pacific	<ul style="list-style-type: none"> <li>• 2 workshops presented at 'Learning Odyssey 2007' - Saanich Teacher Professional Development Conference</li> <li>• "Rocks, Fossils and Earth History" and "Plate Tectonics, Earthquakes and Volcanoes"</li> </ul>	<ul style="list-style-type: none"> <li>• No funds requested</li> <li>• 11 teachers</li> </ul>
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Wolfville NS/08	Nova Scotia EdGEO Workshop Committee	<ul style="list-style-type: none"> <li>• Two day fieldtrip "How Earth history controls the human environment.."</li> <li>• Teachers Grades 4-12</li> </ul>	<ul style="list-style-type: none"> <li>• \$1497.95 - \$1440</li> <li>• <b>\$57.95</b></li> <li>• 22 teachers</li> </ul>
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## Appendix 4

### **Report for Canadian Geoscience Education Network Meeting, Quebec City, May 29, 2008**

#### **Ottawa-Gatineau Geoheritage Project** (Submitted by Al Donaldson)

Two new members have joined the Ottawa-Gatineau Geoheritage Committee: Beth Halfkenny (Carleton University) and Simone Dumas (University of Ottawa), bringing our total to 15.

The OGGP book on Building Stones and Monuments of Ottawa, prepared by Quentin Gall, has passed the critical reading stage with GAC, and should be published this year.

During 2007, committee members of the Ottawa-Gatineau Geoheritage Project continued their well-established program in the National Capital Region, presenting displays during Ottawa Heritage Day, Pinhey's Point Summer Festival, Canadian Rivers Day, and the two-day Ottawa Gem and Mineral Show. Members also presented 12 lectures at service-group, church group and public meetings, and guided five field trips (two with more than 50 participants). In addition, OGGP provided Geoscape and Geoheritage poster displays, brochures and handouts for Petrie Island Park and the Billings Estate in Ottawa. Volunteer guides at the latter site requested and were given a training session in local geology, to enhance their own local tours and summer programs for children.

A request to preserve large rock specimens containing rare and distinctive primary structures (stromatolites and biofilm roll-ups in Cambro-Ordovician quartz arenite) from an outcrop of Nepean Formation, scheduled for removal during highway construction in 2008, won agreement from Ontario Ministry of Highways. Work will be adjusted to allow removal of up to 10 large blocks from areas designated by OGGP, rather than following the usual procedure of obliterating the outcrop by blasting.

Concurrently, two members (Al Donaldson and Neil Carleton) of the Almonte Geoheritage Project (ancillary group of OGGP) won unanimous endorsement from Councillors for creation of a Geopark in Almonte, a village of 4400 within the jurisdiction of Mississippi Mills, 50 km west of Ottawa. One or more Nepean blocks will form part of this outdoor display. The other Nepean blocks will go to museums and universities.

In April, an OGGP brief was presented to board members of the National Capital Commission, outlining ways in which aspects of geoheritage could be incorporated into their programs for the public. The brief was well received, and follow-up sessions have resulted in addition of geological information to the NCC website (including addition of a link to Geoscape)\*, and acceptance of revised

wording for display panels in preparation for Lusk Cave. Our committee will be working during 2008 to build on this relationship established with the National Capital Commission. Some possibilities include:

- Creation of a brochure detailing fossils in the slabs of limestone used for paving blocks around the NCC Visitor Centre at the east side of Gatineau Park
- Creation of a brochure about geofeatures along the pedestrian and cycling path
- Addition of signage describing geological features within NCC jurisdiction
- Possible creation of a Geopark involving assembly of large blocks of representative rocks from all provinces and territories, either in the present Rockcliffe Park, or within the recently acquired land on the island at Chaudière Falls. A Geological Museum is another possibility

\* [http://www.canadacapital.gc.ca/bins/ncc\\_web\\_content\\_page.asp?cid=16297-16299-10170-49685-49688-49707-53967&lang=1](http://www.canadacapital.gc.ca/bins/ncc_web_content_page.asp?cid=16297-16299-10170-49685-49688-49707-53967&lang=1)

### **Two Suggestions for CGEN action:**

1. As demonstrated by the SY 1 Symposium at the Quebec GAC/MAC Annual Meeting, we are doing very well on promoting geoheritage through public education. Let's now expand our efforts to include the preservation and protection components of geoheritage. There is a pressing need for legislation -- provincial and national - to protect geological treasures across Canada. As a start, let's seek CGEN representatives from each Province and Territory to determine the present state of affairs across the land, and then identify potentially supportive politicians to achieve action. It appears that Quebec is far ahead of all other jurisdictions in this regard.

2. Let's investigate ways to capture geological information from excavations and highway construction –

- encourage provincial geological surveys to get involved in such data gathering from ephemeral exposures
- educate construction workers and their supervisors to recognize relationships worth reporting, and encourage them to contact geoscientists to gather the information

**ATLANTIC GEOSCIENCE SOCIETY  
EDUCATION COMMITTEE  
ANNUAL REPORT FOR 2007**

*Nova Scotia Branch*

You may think that the Nova Scotia Branch of the AGS Education Committee was less active this year. But it is an optical illusion. Or perhaps they have been side-tracked. There are many in the geoscience community contributing in one way or another to the development of the geology of Canada book. The task of producing and publishing “Four Billion Years and Counting: Canada’s Geological Heritage” (FBY) is tremendous and overwhelming at times. But it is worthwhile, as it will deliver a book that all of us are anxious to see and read. The editorial board includes Aicha Achab, John Clague, David Corrigan, Rob Fensome, Jim Monger, Godfrey Nowlan and Graham Williams. And there are many AGS members who are contributing to this project by providing content (text, graphic images, photographs), co-ordinating various aspects of the development and production, sitting on committees, and reviewing drafts. A flyer outlining the project and the book’s content is included in the Colloquium registration package. Additional copies may be obtained at the AGS booth.

The FBY book is a cornerstone of the Canada’s efforts to celebrate the International Year of Planet Earth (IYPE). Other planned projects include a competition for high school students, Geo-time Trails, a careers website, fact sheets, and various types of education resources and activities. Please visit the IYPE website <http://www.iypecanada.org/> for updates on the projects and activities happening across Canada throughout 2008-09.

The sixth season of the *Beyond “The Last Billion Years”* public talk series was held at the Bedford Institute of Oceanography (BIO) in Dartmouth. Five talks were held throughout 2006-07 but the new venue did not draw the large crowds as in previous years at the NS Museum of Natural History (NSMNH). The latter has a dedicated audience that seems to regularly attend such events. The sixth talk on Canada’s geological role in Law of the Sea could not be scheduled but is expected to be part of the 2008-09 line-up. The Open House held at BIO absorbed much of the Committee’s time in the fall of 2007. Three talks are planned for spring 2008 and they will be at the NSMNH. A promotional flyer listing the speakers and their talk titles is provided in the Colloquium registration package.

AGS is now a member society of the Halifax Young Naturalist Club. The Education Committee has agreed to organize one month’s program each year. In 2007, Graham Williams gave a talk on climate warming from a geological perspective at the Nova Scotia Museum on the third Saturday of November. On the following Sunday, he ran a field trip for twenty-two participants to York Redoubt, which was really the field exercise developed by fellow member Patrick Potter. A number of possibilities have been suggested for 2008: Mike Parsons on local environmental geology issues, Andrew MacRae to run a lab at St. Mary’s, and an Ice Age trip by an unknown presenter.

The Fundy Basin paintings on display at the Fundy Geological Museum have caught the eye of some people. Museum staff are interested in developing postcards of the paintings. Copyright permission and production costs are as yet undetermined. Developers of the new centre in Tatamagouche where the Brule Fossil Centre will likely relocate are possibly interested in a similar kind of painting. This visual concept that started with Randy Miller at the New Brunswick Museum, will hopefully continue to proliferate. A first draft of the text for a booklet to

accompany the Fundy Basin paintings will remain in the review stage until the geology of Canada book is completed.

Collaboration of the AGS with the Photographic Guild of Nova Scotia (PGNS) continues. This year the same person photographer (Rob Fensome can provide his name, if you are interested) won both the *Atlantic Geoscience Society Award* (best geological photograph) and the "*The Last Billion Years*" Award (best Atlantic Canada geological photograph). AGS may use the entered photographs for education purposes. A field trip was not held in 2007 but there is a rumour that the 2008 excursion could be to Kejimikujik's Seaside Adjunct.

With the dwindling number of copies of the 2004 publication *Nova Scotia Rocks* (which remains very popular), the Brochure Committee needs to consider what it needs to do to keep this kind of information available for the public. Andy Henry, chair of the Brochure Committee, recently gathered the members to discuss possibilities. Funding from the original source is not likely but other means of generating a similar product, as hardcopy and/or digital, are being investigated. Andy will have an update at the Education Committee meeting on February 1 as part of the Colloquium. Posting of the pdf version of the pamphlet to the AGS website is not favoured at this time. However, many of the vignettes do reside on the EarthNet education website (URL below).

Interest in *The Last Billion Years* popular geology book remains steady. Purchases are regularly made from Nimbus Publishing and are sold to fill orders or requests for visitors and provide resources for educators. As a reminder, there have been five print runs that correspond to a little more than 8000 copies. Negotiations in 2005 between AGS and Nimbus Publishing led to an agreement whereby the retail price will remain at \$35 and AGS will receive a 5% royalty. This agreement will apply to the next print run. AGS continues to receive a 50% purchase discount regardless of number of copies purchased.

Continuing progress of the EarthNet website ([www.earthnet-geonet.ca](http://www.earthnet-geonet.ca)) was slow this year. The Geological Survey of Canada (GSC) does continue to provide a home for the site and we are most grateful for this in kind support. Development continues on a volunteer basis. Ongoing work on contributions from Parks Canada and the University of Ottawa will produce a Virtual Field Trip section that is more representative of the varied geology of Canada. A website developer is ready to create a section on the mastodons of the Maritimes. Funds from the Canadian Geological Foundation will be used to create animation(s?) of geological processes that will enhance several sections of the website. The EarthNet postcard has been given to various education groups and teachers in Canada.

The above-mentioned activities and programs are only made possible by the generous members of the Nova Scotia Branch of the AGS Education Committee: Ken Adams, Dottie Alt, Sandra Barr, Paul Batson, Sally Camus, Carol Corbett, Garth Demont, Howard Donohoe, Warren Ervine, Gordon Fader, Rob Fensome, David Frobel, Martha Grantham, Bob Grantham, Richard Haworth, Andrew Henry, Fenton Isenor, Chris Jauer, Heather Johnson, George Jordan, Elisabeth Kusters, Andrew MacRae, Henrietta Mann, Chris Mansky, Brian Matthews, Ann Miller, Murray Metherall, Brendan Murphy, Roger Outhouse, Patrick Potter, Pat Ryall, Anne Marie Ryan, John Shimeld, Deborah Skilliter, Brad Tucker, Peter Wallace, Pat Welton, Dustin Whalen, Hans Wielens, Sonya Woods, Graham Williams and Marcos Zentilli.

#### *New Brunswick Branch*

A number of the New Brunswick members were active throughout 2007. Toon Pronk continues to make regular school visits, including field trips, to grade 4 classes. He also contributes to a

Department of Education effort entitled "Community schools" which tries to incorporate local knowledge and/or business and/or natural features into school life. As a busy outreach person, Toon is also part of the NSERC CRYSTAL Atlantic working group at UNB that is investigating the variables that influence children's interest in science education. With this group, Toon will give three workshops to three different middle school groups in later February. The focus will be Ecoaction Research Zones. These are natural or park areas close to the school that can be a kind of outdoor classroom.

Since the success of the 2005 EdGEO workshop at UNB, there has been talk of a follow-up program. Adrian Park at UNB will discuss the possibility with Science East in Fredericton. It would be wonderful to see another long term presence of EdGEO in the region.

Dave Lentz has stepped down from his position as Chair of NSERC CRYSTAL Atlantic but continues to be active with National Science and Technology Week in the fall at Science East with support from NSERC Atlantic's office. Dave also reports that UNB hopes to have support from their administration to engage a graduate student in visiting schools.

The New Brunswick Branch of the AGS Education Committee includes: Toon Pronk (chair), Dave Lentz, Gwen Martin, Malcolm McLeod, Randy Miller, Mike Parkhill, Jim Walker and Reg Wilson. Welcome to Adrian Park (UNB), a new member who will attend his first meeting of the Committee at the 2008 Colloquium.

#### *Internal and External Collaboration*

AGS members are involved in or leading the development of education resources under the auspices of other like-minded groups. Representatives have given reports at meetings: Garth Demont on community interactions; John Calder on designation of Joggins as a World Heritage site; and, Rob Fensome on the Geology of Canada book. Members of the Education Committee also provide feedback on draft versions of resources. Members also provide updates on activities at their respective workplaces particularly museums and centres that offer public education programs such as the Fundy Geological Museum and the Discovery Centre in Halifax. Education activities in Newfoundland and Labrador are organized under the Newfoundland and Labrador section of the Geological Association of Canada. Michelle Miskell is the current chair and has agreed to provide periodic updates on activities on The Rock.

To optimize good internal communications, the Chair of the Education Committee (or designate) is now an ex officio member of AGS Council and reports to Council as requested. Also, the AGS President is an ex officio member of the Committee, receives copies of all meeting minutes and may attend meetings. At present, five members of the Education Committee are members of Council; this also helps to foster communication between the two groups.

The AGS Education Committee is very active and we try to keep AGS members informed of our activities other than through the annual report. Convening an education session at the annual AGS Colloquium is one way. We do attempt to regularly submit articles for the AGS Newsletter. Contributions to GEOLOG, What on Earth, National EdGEO, and science education newsletters are other excellent communication tools. The Education Committee page on the AGS website desperately needs an update. We could do better if we had a volunteer to co-ordinate communications. Meanwhile, please periodically check the AGS newsletter and website for updates and announcements.

### *Finances*

A financial report for 2007 has been prepared by Treasurer Graham Williams. This report will be made available to AGS members at the Annual General Meeting on 2 February 2008. The Committee's account continues to operate "in the black".

### *Promotion*

Promotion is organized by each sub-committee for its event or product. At some AGS events (eg. EdGEO work-shops, public talks, teacher conferences, Parrsboro Rock and Gem Show, AGS booth at annual Colloquium), selected education events/products are promoted and/or available for purchase. A modest amount of sales are made at these public events except at the rock and gem show where sales could be moderately high. Bottom line: We could do better but we need a volunteer to lead this function. We plan to steal away the volunteer who co-ordinates this activity for the AGS Video Committee

I would like to thank Committee members who contributed updates for this report.

Submitted by Jennifer Bates  
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Department of Earth Sciences, Carleton University  
Report of Outreach Activities, 2007/2008  
Beth Halfkenny

The Department of Earth Sciences at Carleton University has an active Outreach Program administered by its enthusiastic Faculty, Students and Staff. It is designed to increase awareness of the Earth Sciences and support educators seeking to bring Earth Sciences into the classroom.

We generally target High School teachers and students, however we continue to encourage our growing connection with elementary and middle school teachers, as well as the community at large.

Ongoing commitments include:

OCDSB High School Science Teachers PD Day Workshop – presentation; Earth Science Teaching Resources and Support – held in early February

Enrichment Mini-course Program run at Carleton University, University of Ottawa and Cite Collegiale each May – we present two week-long courses, “School of Rock”, and “Disasters” for 40 grade 8 to 12 students <http://www.emcp-pmce.org/>

Discovering Earth Sciences Workshop – a 3-day Interactive Workshop for High School Teachers – consisting of instruction, hands-on activities and field trips to support teaching of Earth Sciences Curriculum – will be held in June this coming year

- *History and background: This will be our 4th year offering this workshop, and have 8-10 participants each year. Participants include secondary, middle school and preservice teachers; this course has also been attended by an educator from CMN, several language teachers from Nunavut, and an industry executive. We have been able to acquire funding through EdGEO each year to support field trip transportation and to augment materials included in the Earth Sciences Teaching Resource Kit that participants receive. The kit includes a CD of course materials and activities; a basic collection of rock, mineral and fossil specimens; Mineral, Fossil and Pebble Identification Field Guides; geological maps; Mineral Identification tools; hand lens; various resource guides; posters; flyers; and any other materials we can collect from government agencies and industry, as well as information on how to find/access other resources.*

Junior Naturalist Club at Pinhey’s Point – give presentation about local geology, rocks and minerals to elementary school age children and their parents and have donated some local rocks and minerals for use at the site– July

Riverfest, Pinhey’s Point - Geotours of the site and display table for ourselves and Friends of Geoheritage – August

Carleton University Experience Day – grade 10 students from local area visiting Carleton - Recreating Geohistory activity

Additionally this past year we have:

- hosted Grade 12 Earth and Space Science class for a day long visit, where students participated in lectures and activities

- visited Grade 12 Earth and Space Science class with Volcanic Hazard lecture and Activity
- visited 2 grade 7 classes for Mineral and Rock Identification activities
- visited 1 grade 7/8 class for Recreating Geohistory activity
- visited 2 grade 4 classes for Mineral and Rock Identification activities
- loaned material to presenters for 3 grade 4 classes for Mineral and Rock Identification activities
- met Al Donaldson at Petrie Island to greet and discuss shore rocks with canoe trip group – will be donating local rocks specimens for the nature exhibits at Petrie Island
- loaned rocks to LTS presenters for various school visits
- participated in presenting a workshop for PDAC Mining Matters for Grade 12 students from Sudbury at this year's PDAC convention – Mapping activity based on John Etches mapping activity
- met grade 7/8 students at local outcrop for field trip
- led field trip at local outcrop for 30 students and chaperones for Cognos Hands-On Science; part of Canada Wide Science Fair held in Ottawa in May.

We are also preparing to receive a block of Nepean Sandstone that will be rescued by Al Donaldson's Georescue operation and the first stone for a local geology garden at Carleton University

## Appendix 7

The Alberta Geological Survey engages in a limited number of formal educational outreach activities each fiscal year. Last year the AGS provided technical assistance in the major redevelopment of the Frank Slide Interpretive Centre including access to the monitoring technology installed on Turtle Mountain and helped the Canadian Petroleum Discovery Centre develop a geological display including rock specimens and enhanced the material used in the CPDC learning laboratory. This year the AGS started an initiative to coordinate development and placement of geological road signs at turnouts across the province.

Some AGS technical projects are providing material for the public: R. Eccles (Kimberlite Project) presentation 'Volcanoes: Can't Live With Them - Can't Live Without Them' at Telus World of Science and D. Edwards (Aggregate Project) a 'Fieldguide to Pebbles in the Edmonton Area'. Outreach materials including Geoscape Edmonton were distributed through the AGS booth at conferences (Calgary Mining Forum, CSPG, CIM-Edmonton) and the AGS supports the initiatives of other organizations such as the Geoscience Garden at the University of Alberta.

Dixon Edwards 2008-05-23

**Johnson GEO CENTRE.**

We are taking a lead role in IYPE activities in Newfoundland and Labrador in cooperation with Memorial University, our Geological Survey, GAC, Parks Canada and others.

We kicked off IYPE with a new (for Us) travelling exhibit "From Crystal to Gems" which comes to us from the Canadian Museum of Nature. It opened in January and will be with us until July 1. We have supplemented the exhibit with crystals, mineral and gems from our own province and additional educational material for school children. It is very popular and a good attraction.

In February, we had a public viewing of the Canadian Shield episode of "Geological Journey" with a discussion period hosted by Derek Wilton, whose research in Labrador is prominently featured in this episode. The Johnson GEO CENTRE has also purchased viewing rights to the entire series and we show it regularly for public viewing. The interviews with the featured scientists are also shown and are of great interest also.

In March, Hank Williams gave a public lecture on Newfoundland- The Eighth Wonder of the World. This was a very entertaining and educational evening of plate tectonics, geological wonders and scenic outhouses where inspirational geological ideas were sparked.

In April, the GEO CENTRE celebrated Earth Day with an open house and a full day of programming on the wonders and mysteries of our Planet. About 500 people visited during the day.

On June 3, we will host a public lecture on Icebergs, by Steven Bruneau, a local expert from Memorial's Engineering faculty. We are having an amazing year for icebergs in Eastern Newfoundland with many spectacular bergs off Signal Hill. This subject is of great interest to tourists and residents and we expect a large crowd. We will also try to record a DVD of this event.

During the summer, we will be doing tours of GEO PARK, our newest addition, as well as geological tours of Signal Hill and area. In the fall, there will be some field excursions for the public and more evening lectures on popular and obscure geological topics. I will try to keep you informed on all our IYPE activities.

Paul Dean