

**Canadian Geoscience Education Network Meeting
Winter Meeting, January 27, 2006
Vancouver, B.C.**

Summary Notes and Member Reports

Present: Diane Baldwin, Jennifer Bates, Laura Clinton, Ron Clowes, Fran Haidl, Linda Ham, Alan Morgan, Godfrey Nowlan, Marianne Quat, Charlie Roots, Eileen Van der Flier-Keller, Christy Vodden, Erica Williams.

President's Report (Alan Morgan)

All major news to be covered under other agenda items.

Report of the Secretary-Treasurer (Christy Vodden)

At the end of December, the CGEN bank balance was \$20,655, of which \$20,247.86 is general CGEN funds and includes the CGC allocation of \$5,000 for 2004-2005. All Geoscape Ontario and Geoheritage funds have been spent, and there is \$400 left in the Careers in Earth Science project account. A \$3,000 allocation to EdGEO for 2005-2006 was approved. The trilobite teeshirt fundraiser has resulted so far in the sale of 18, with \$5 from each coming to CGEN; the final deadline is February 28. CGEN membership is now 169, an increase of 19 members since the May meeting. The goal is 200 by end of the year! *Action: all CGEN members are encouraged to suggest or solicit new members.* The next update of the CGEN website (<http://cgen.bio.ns.ca/>) will be after the May meeting. *Action: any suggestions or comments about the website should be sent to cgen@sympatico.ca.* There are some good funding opportunities, with imminent deadlines. *Action: Christy to send out this information to CGEN (sent 15/02/06).*

Issues facing earth science education (Eileen Van der Flier-Keller)

Eileen provided an update on action that she had taken since the May meeting: her statistical report on B.C. high school science courses and science entry requirements for the three B.C. universities is attached as Appendix 1. She noted that, "Although Geology 12 is an acceptable science 12 course for entry into university, most students are advised to take Physics and Chemistry to keep their options open. Whereas Geology 12 is not a prerequisite for any first year university course, Physics 12 is a prerequisite for Basic Physics (needed to go on in any science except Biology) and Chemistry 12 for Fundamentals of Chemistry (also required for any science program)."

As well, pass rates are lower in geoscience, and the number of schools teaching it is going down, as is the number of students. This is an issue of particular concern, as education ministry officials look closely at these types of stats. Added to this gloomy picture is the fact that geoscience has a low cachet in high school (i.e., the "rocks for jock's cliché: those who can't get into "real" science, take geology). Possible approaches would be not to even bother teaching geoscience at the high school level, or that we work to get some geology into chemistry and physics courses at senior high school level. Several commented on the proven value of geoscience as the best possible grounding for teaching the diversity of science. There was agreement that it was essential to teach

geoscience at the higher grades, otherwise students arrive at university with no awareness of the geosciences as an education/career option.

The need to collaborate with student teachers and faculties of education (and the excellent benefits of doing so) were discussed in detail. Good recent examples are the EdGEO-sponsored workshop done with the University of Victoria Faculty of Education. It was a rigorous session, but the satisfaction levels were very high. If an entire workshop is not possible, another alternative would be for EdGEO to try to get at least a session in the science methods courses. PDAC Mining Matters has been giving free 2 1/2 hour workshops to student teachers, and the demand for them has been increasing incredibly through word of mouth; they are up to 50 this year (2000 student teachers!).

As a next step, CGEN will start to compile statistics that provide a national snapshot of the state of earth sciences, with a view to producing a document that provides current baselines (initiative described in detail in next item). *Action: Alan Morgan.* The discussion will continue at the May meeting.

Future directions: CGEN policy document and the next five years (Alan Morgan)

Alan reviewed an ambitious draft proposal that he had presented to the Canadian Geoscience Council (CGC) at a meeting held in Ottawa last October (document is attached as a separate file). It outlines six target areas that CGEN should examine over the next five years, including the status of earth science in the education system and ways to better integrate it into the curriculum from kindergarten to university; improving awareness of earth science, with a primary focus on politicians; and preparing an accurate assessment of future earth scientist needs by the job market. The work involved is large-scale and large budget.

CGC, which ranks outreach and education among its key issues, has expressed support for the document's broad, general direction, and will allocate \$5000 to CGEN for preliminary work on one of the basic building blocks needed, namely a snapshot of the state and status of earth sciences education in Canada in 2006. Discussion focussed on the value of such a report if it were given a high-profile launch and strategically distributed to politicians, university heads, boards of education, etc.

The amount of work represented in the proposal is immense, and many thought it to be beyond the capability of CGEN as it is currently configured (i.e. as a loosely knit network for information exchange and collaboration). There is a need to clarify what CGEN's role, responsibilities and resources will be in the future. Many at the meeting felt that this work would have to be contracted out, given that there are few current CGEN members who could contribute more time than they already do. Input and endorsement from the CGEN membership is required. *Action: All CGEN members are asked to review the document and send comments to Alan Morgan at avmorgan@uwaterloo.ca, with a copy to Fran Haidl at FHaidl@ir.gov.sk.ca.*

Other groups are now undertaking aligned initiatives. The Mining Industry Human Resources Council (MITAC) has released a comprehensive report, "Prospecting the

Future,” on looming human resource shortfalls in the mining sector, and a \$5 million program is being set up to address its recommendations (the report is downloadable at www.mitac.ca). It was suggested that CGEN develop links with the human resource councils for earth science-related professions. *Action: Alan will contact appropriate councils inviting them/making contact (he will need addresses).*

Other issues facing CGEN were tabled for future discussion/action:

- CGEN’s lack of bilingualism and resulting limited connection with French Canada.
- The need for strengthened connections with other associations working on similar issues, with a view to getting a better exchange of information. Some ideas included putting on information presentations to key groups, setting up mini CGEN meetings at key events and having CGEN local chapters. *Action: Alan agreed to put together a Powerpoint about CGEN, with input from others.*

Demos: Geological Time

Eileen Van der Flier-Keller, Fran Haidl, Linda Ham, Laura Clinton, Erika Williams, Alan Morgan and Jennifer Bates put on wonderful demos of activities that they had used in the classroom to illustrate geological time. *Action: All presenters are to forward their demos to Jennifer Bates for posting or linking to EarthNet.*

Core project reports and issues

EarthNet (Jennifer Bates)

EarthNet (<http://www.earthnet-geonet.ca>) continues to develop. In-kind and financial support from the Geological Survey of Canada (GSC) is critical to its viability, but funding from the GSC is uncertain after March 2006. Also important are the many contributors across Canada who donate activities, images, field trip materials, and recommend resources and local information sources. EarthNet’s Development Committee, operating at GSC Atlantic, is concentrating on two main goals: content development for comprehensive national coverage and top-level topic/region search capability. Progress toward a bilingual website is ongoing. Promotional materials for EarthNet are available from Jennifer (jbates@nrcan.gc.ca). There was discussion about moving EarthNet from the Government of Canada website, which is becoming increasingly restrictive, making it difficult to maintain EarthNet. *Action: Jennifer and Godfrey to provide recommendations and cost estimates for transfer of EarthNet.*

EdGEO (Eileen Van der Flier-Keller)

The EdGEO report is attached as Appendix 2. In 2005, there were 22 workshops, involving 322 teacher participants, in every part of Canada except PEI, Newfoundland and Manitoba – the EdGEO committee is working to develop contacts in these provinces. There will be an exciting EdGEO Workshop at the 2006 GAC/MAC meeting in Montreal “Learning Styles and Teaching Strategies: Getting Earth Science to Stick”, with lots of interactive presentations and some great talks showcasing strategies to engage students in earth science in Canada. There was discussion about CGEN sponsoring a workshop by Chris King of Keele University, an innovator in earth science education. The next

EdGEO newsletter will be available at the May meeting. *Action: Anyone wishing to submit articles should get them to David Mate by April 24 (dmate@NRCan.gc.ca).*

Geoscape (Bob Turner)

The Bow River Basin Waterscape poster has just been released. Teachers were involved from the inception and directed some of the content in terms of curriculum; this has strengthened local ownership and usage of the posters. Other projects currently in progress: northern Saskatchewan is with the GSC publishing group; content for the Nunavut poster will be finalized by the end of March; the Dawson poster is at the design stage. Geoscape Ontario has been completed, and the \$90,000 from the Ontario Government's Youth Science & Technology Outreach Program (YSTOP) spent. The project has been a great success with all three sub-projects receiving excellent feedback from teachers and other users: Geoscape Toronto received excellent media coverage and two awards from urban planning groups; Geoscape Ottawa has had a high profile at local education, public and municipal events; and Geoscape Grand River project, which has just completed, has adopted an innovative new format (five smaller scale posters) as a result of recommendations from local teachers.

What on Earth (Alan Morgan)

The latest "What on Earth" is a special issue on Geoscape Grand River, funded by YSTOP. The PromoScience grant has ended, and funding is uncertain. Another longer-term issue is the need to find new editor. Alan and Peter Russell, who co-edit the publication, plan to step down following the publication of the 20th anniversary issue in 2007. *Action: Anyone interested in taking on "What on Earth" should contact Alan at avmorgan@uwaterloo.ca.*

Careers in Earth Science initiative (Christy Vodden for John Clague)

A prototype of the new website was sent out to CGEN for review in September, and many good comments were received. An application for PromoScience funding of \$60,000 was submitted, but not successful, so a fundraising strategy will have to be developed with input from CGEN. *Action: Any ideas should be sent to John (jclague@sfu.ca) and Christy (cvodden@sympatico.ca) before the May meeting; Fran will follow up with contacts in the professional geoscientist associations to see if they have any advice or whether they could approach their members.*

Geoheritage Project (Christy Vodden for Al Donaldson)

Report attached as Appendix 3. The Friends of Canadian Geoheritage project is mainly focussed in the Ottawa-Gatineau area, but it is hoped that this group will provide a model for other communities to follow. The Ottawa-Gatineau Geoheritage Project (OGGP) continues to be very active in providing public talks and geotours, as well as taking part in a variety of community events. It has good links with heritage groups (municipal, provincial and national), naturalist clubs, mineral clubs and river keepers. Two items of particular note are: the manuscript for a book by Quentin Gall on "Building Stone and Monuments of Ottawa" was completed, and a meeting was held in November 2005 with ten city planners to hear presentations on geoheritage preservation in Ottawa. A

geoheritage field trip for non-geologists will be part of the 2007 GAC/MAC meeting in Yellowknife.

Reports from CGEN member groups

There are great things going on across the country! Take a look at the attached reports.

Geoscience Outreach in GSC (Godfrey Nowlan): Appendix 4

Saskatchewan Geological Society (Fran Haidl): Appendix 5

Atlantic Geoscience Society (Jennifer Bates): Appendix 6

PDAC Mining Matters (Laura Clinton): Appendix 7

Edmonton Outreach (Dixon Edwards): Appendix 8

Yukon Geology Program (Charlie Roots): Appendix 9

Lithoprobe (Ron Clowes)

Key Porter is going to publish a lower-priced paperback version of the children's book "Dancing Elephants & Floating Continents - The story of Canada beneath your feet." They would appreciate CGEN's assistance in determining the demand. *Action: Fran and Diane agreed to provide advice and contacts; they recommended that it be promoted through the provincial and territorial science consultants with a view to having it added to teachers' resource lists.* Key Porter is also producing a version targeted at the non-technical adult reader. Ron and the children's book author are working on this, and have produced the outline and some draft chapters. It should be published by late 2007. As discussed at the May 2005 meeting, the Lithoprobe Secretariat has a good supply of a brochure on Lithoprobe that could be supplemented with regional insets resulting in a good educational tool, however, this has had to be treated as a lower priority because of financial and time restraints. Work is going forward, however, on reconstructing the technical poster, "Trans-Canada Crustal Cross-Section," as an educational resource.

NWT Outreach (Diane Baldwin)

Lots of activity is underway in NWT. An EdGEO workshop is planned for February; a series of prospecting courses will be held in various locations over the next few months; and the Department of Education, Culture and Employment is developing new experiential science courses for Grades 10, 11 and 12. The NWT Mining Heritage Group sponsored a popular show at the Prince of Wales Heritage Centre of George Hunter's photographs of NWT mines; the show catalogue, "Not only for Gold", is available for \$20 from the NWT Chamber of Mines <http://www.miningnorth.com/>. Two new public awareness products are available: popularized guides to the geology of the Frame Lake Trail in Yellowknife, and of the Snare River, a popular canoe route.

News from Nunavut (Linda Ham)

Linda (DIAND) and Claudia Riveros (Government of Nunavut) represent the main geoscience outreach effort in Nunavut. The main activity is Mining Week, which has a strong career focus – it is very encouraging to note that Inuit participation is increasing. Resource kits go out to all Nunavut schools, but with challenges linked to translation (everything has to go out in three languages: English, French and one of the two Inuit languages). A recent highlight was a science camp, which had a rocks and minerals

theme; it was held in September near Baker Lake and included elders, educators and scientists. The Nunavut Mining Forum (in late March) is going to have an educators/outreach component as a standard feature, and Linda will try to fit in a presentation on CGEN.

Curriculum revision in B.C. (Erica Williams)

Erica has developed an interesting approach to teaching about natural hazards using local archival photos, and is getting strong interest from smaller communities. The revision of B.C. curriculum to align it with the Pan-Canadian curriculum is continuing to be problematic – there are major errors in a new Grade 7 textbook. It was suggested that CGEN could provide external reviewers. *Action: Erica to send materials for review to Alan Morgan as appropriate.*

International liaison (Alan Morgan)

International Geoscience Education Organization (IGEO)

GeoSciEd V will be held in Bayreuth, Germany, September 18-21; all details are at <http://www.geosciEd5.org/>. It would be nice to have a strong Canadian component, given that the last GeoSciEd was held in Calgary. Alan and Erica Williams and are planning to go. *Action: Anyone else planning to go should let Alan know avmorgan@uwaterloo.ca. He would be happy to represent other Canadian education groups.* Also of interest to CGEN, the World Geoparks conference will be held about the same time in Northern Ireland, and Godfrey Nowlan will be attending; the conference website is at <http://82.195.130.20/geo/asp/>.

Commission on Education, Training and Technology Transfer (COGE)

COGE is part of the International Union of Geological Sciences (IUGS) and was established in 2004 “to examine and develop programs to assist developed and developing countries to maintain, expand or introduce better earth science education, outreach and technology transfer within their country”. Alan represents Canada. COGE is currently developing its business plan/strategy, and is waiting for its second round of funding, which will be used primarily to send delegates to GeoSciEd V.

Opportunities

International Year of Planet Earth (IYPE)

On December 22, 2005, the United Nations proclaimed 2008 to be International Year of Planet Earth, but the science and outreach programs will run from 2007 to 2009. A full status report on IYPE, prepared in February, can be downloaded at <http://www.iugs.org/>. The new website for IYPE is www.yearofplanetearth.org. An international steering committee has been set up, and any funding it gets is to be split between science and outreach. Some suggestions for Canadian flagship projects were: the “Geology of Canada” book (given that it is well along in the planning process and just needs funds to go ahead), and a revamp of EarthNet.

International Polar Year

A Call for Proposals was issued on December 19, with a deadline of March 10, 2006. (Update: deadline was extended to March 31). No news on when the funding decisions will be announced. (<http://www.api-ipy.gc.ca/>)

GAC/MAC 2007 (Godfrey Nowlan)

The GAC/MAC meeting will be in Yellowknife in 2007. Godfrey and Donna Schreiner are heading up the outreach program, which will have a one-day session of talks and posters, and will include local teachers and community leaders. Titled “Geoscience Skills Development for Canadian Communities”, the session will highlight some achievements of Canadian geoscience education and outreach programs, with a focus on partnerships, products, usage by communities, and future plans. This will be followed by a 1 1/2 day workshop “Towards an Integrated Future in Geoscience Education and Outreach”, which will focus on the state of geoscience education in Canada at all levels in the formal education system and on the principal programs of geoscience skills development and outreach for Canadian communities. The workshop will also include a short fieldtrip and a social event. No EdGEO workshop is planned.

CGEN Executive: 2006-2008 (Christy Vodden)

The current Executive ends its term following the May meeting. CGEN appoints its Executive by asking potential candidates to self identify or for other CGEN members to make nominations. The following people have volunteered: President: Fran Haidl; Vice-President: Jennifer Bates; Secretary-Treasurer: Christy Vodden; Past President: Alan Morgan. *Action: Christy will send a notice to all CGEN inviting further volunteers and nominations.* (Update: Done. The above slate was confirmed as the next Executive).

Timing for next meeting:

The AGM will be held in Montreal on May 18.

Christy Vodden
Secretary-Treasurer
April 5, 2006

Earth Science in the Schools: BC situation**January 2006****EvdFK****Entry into Science at the University level** Required courses

UVic English 11/12

Chem 11

Physics 11

Math 11/12

2 approved Science 12 courses

[Biology 12, Chem 12, Phys 12, Geog 12, Geol 12]

SFU English 11

Chem 11

Physics 11

Math 11/12

2 of [Biol 12, Chem 12, Geog 12, Geol 12, Phys 12]

UBC English 12

Math 12

2 of [Biol 12, Chem 12, Geol 12, Phys 12]

Although Geology 12 is an acceptable science 12 course for entry into university, most students are advised to take Physics and Chemistry to keep their options open. Whereas Geology 12 is not a prerequisite for any first year university course, Physics 12 is a prerequisite for Basic Physics (needed to go on in any science except Biology) and Chem 12 for Fundamental of Chemistry (also required for any science program). The Physics course that's OK for Biology students only requires Phys11 (at UVic). If a student doesn't have Physics 12 they need to take an EXTRA 3 unit course to catch up and if missing Chem12 they have a one term EXTRA tutorial.

Grade 12 BC Exam results

Numbers of students

	Geol 12	Biol 12	Chem 12	Phys 12
00 01	1659	17427	13422	8319
01 02	1769	18732	13504	9498
02 03	1819	19877	14287	8497
03 04	1395	18767	13812	8251
04 05	1520	19387	14125	8144
Pass Rates	79%	83%	90%	90%
04 05				
Mean Scores	62%	68%	71%	72%
04 05				

Number of students registered in **Earth Science 11** in BC in 2004/05 **2553** at **274** schools.

EdGEO Report to CGEN
E. Van der Flier-Keller

January 27th 2006

2005 Workshops

22 EdGEO workshops delivered across Canada

	# of workshops	# of teachers	EdGEO cost/ teacher
Nunavut	3	40	125.83/teacher
Yukon*	1	19	0
Nova Scotia	2	35	76.71/teacher
New Brunswick	1	10	50.00/teacher
Quebec**	1	8	37.50/teacher
Ontario	1	10	290.70/teacher
Saskatchewan	1	15	52.11/teacher
Alberta*	5	78	71.63/teacher
BC*	7	107	107.87/teacher

Total # of teachers 322 Total EdGEO contribution \$29,336.46 ***

Notes:

* Includes workshops (four in total) for which no direct EdGEO funds were requested, but which used activities and/or resources developed for previous EdGEO workshops.

** This workshop consisted of student groups and their teachers touring the labs and museums of the Department, and being exposed to geology and meteorites

*** \$2977.23 for the U. of Victoria Education workshop will be reimbursed from CGF. Their grant of \$5000 will cover both this and the Montreal 2006 workshop.

Action items

1. *We need to work on EdGEO contacts in PEI and encourage our contacts in Newfoundland, Manitoba*

2006 Workshops

Seven workshops are already funded (Burgess Shale Yoho, Burgess Shale Whistler, Tyrrell Museum, Calgary, Dixon Edwards x 2, AQUEST GAC MAC Montreal)

Several more are 'in the works' – Vancouver, Victoria, Nova Scotia, Manitoba ...!

EdGEO Sponsored Education Session at GAC MAC 2006 Montreal

“Learning Styles and Teaching Strategies: Getting Earth Science to Stick”

Make sure you come – we will have some 40-minute interactive presentations (e.g. Chris King, Keele University “Engaging pupils – and teachers – in Earth science education: the window; the practical discussion; the world”, and D. Blades on “Using the EDU model to Construct Knowledge in Science Education”) and some great talks showcasing strategies to engage students in earth science in Canada.

Chris King has also offered to do some “Earth Science out of Doors” –20 minutes to an hour and/or he and Susannah Lydon could offer one or more of ESEU’s workshops either for delegates or teachers. He is great and ESEU are real leaders in teacher continuing education – we should make the most of this. Could CGEN sponsor/host an ESEU workshop during our CGEN meeting? We could also approach the Montreal EdGEO team. He has also offered to do a ‘geomagic’ evening presentation.

Finances

Total assets are \$9,216.24 at end December.

CSPG and CGEN have both approved their grants to EdGEO as of this week and we have received a grant of \$1000 from the PAC-GAC (early Jan).

A successful grant application to CGF for \$5,000 will see the costs of the UVic workshop (2005) and the Montreal GAC-MAC workshop (2006) covered by CGF.

Net profit for 2005 FY to date is \$1,898.81 (FY end is March 31)

Newsletter

Please submit any articles or news items to David Mate (dmate@NRCan.gc.ca) or myself (fkeller@uvic.ca) as soon as possible, for the May 2006 EdGEO newsletter.

Many thanks!

Friends of Canadian Geoheritage and Ottawa-Gatineau Geoheritage Project

Eight talks on Geoheritage were presented to local groups, several weekend tours of the Champlain Bridge stromatolite locality continued to attract visitors, and displays were presented for one day at the Ottawa Heritage Day Celebration, for two days at each of these events: Ottawa Gem and Mineral Show; Riverfest at Pinhey's Point west of Ottawa.

The manuscript for a book on "Building Stone and Monuments of Ottawa" was completed by Quentin Gall and is now being reviewed. The hope is to have this published in 2006.

A chapter on the geological setting of the Ottawa River was prepared by Al Donaldson for the Ottawa Heritage River Designation Document, to be submitted for Parks Canada consideration in 2006.

Mississippi Mills Council has approved creation of a geological component for Metcalfe Park within the village of Almonte, Ontario. This will involve moving up to 20 multi-ton glacial erratics and blocks of rock representative of the regional geology into the park. Four blocks are now in place. Brochures and two pamphlets outlining self-guided geotours prepared by the Ottawa-Gatineau Geoheritage Committee are now available in the Almonte Visitors Centre; signage in Metcalfe Park is planned in the future.

A meeting was held in November 2005 with ten City Planners and an equal number of guests to hear presentations on Geoheritage Preservation in Ottawa. Talks by Jan Aylsworth, Quentin Gall and Al Donaldson were well received, and should lead to better appreciation of the need to preserve significant geological features. Even though there are protocols in place in Ontario requiring the protection of sites provincially designated as "Areas of Natural Scientific Interest" (ANSI sites), these protocols lack backing in law, and until this is remedied, we have to rely on establishing a geopreservation ethic among those responsible for approving plans for development. We have made a start, and urge others to become involved in such approaches at both municipal and provincial levels.

Geotourism is an area complementary to talks to professional and service groups that provides a way to expand geoheritage outreach to the general public. In this regard, two full-day bus tours in Ontario and Quebec were run in September 2005 through the Learning and Retirement program, Carleton University. At the national level, ecotour groups have been approached to encourage inclusion of geological components in their programs. The President of a Canadian company that runs arctic cruises was recently contacted, and responded positively to the possibility of running some cruises that focus on geology, possibly as early as 2007.

A suggestion to run a Geoheritage field trip for non-geologists as part of the 2007 GAC/MAC Annual Meeting in Yellowknife has been accepted.

GEOSCIENCE OUTREACH IN GSC

Earth Science Sector Workshop, September 2005

A workshop on public outreach in the Earth Science Sector was held on 26, 27 September 2005, attended by 35 people from many different parts of the sector. The workshop provided a forum for presentation on significant public outreach taking place in the sector and for discussion of how it could be done better. Participants identified both strengths and shortcomings in the conduct of public outreach in the sector. A significant development was the identification of two types of outreach in the sector: program-related outreach and sector outreach. Program-related outreach is unevenly developed, poorly interconnected between programs, and of short duration. As a result there are risks of duplication, poor quality, and ultimately, loss of products. Sector outreach has no home in the sector and products of general and national scope that have already been produced and used by a wide spectrum of outreach workers, are in danger of disappearing. New national products (like the proposal for a new popular book and web site on the Geology of Canada) cannot find support in the program structure. This combination of findings led the participants to propose two interconnected organizations for the sector: 1, A Sector Outreach Network, which is an informal alliance of outreach workers in the sector that will provide a “community” for sharing outreach knowledge, expertise and information and provide a bridge to the development and management of the second, funded organization; 2, an Office of Public Outreach to act as a coordinating unit for public outreach in the sector. It will act as a resource for program based outreach and will be the home for sector outreach. It will also assist in the development and marketing of outreach products and will be guided by an Advisory Committee. The ultimate outcome of this proposal is intended to be a situation where all Canadians are aware of, trust and use, ESS outreach products to improve their knowledge and decision making with respect to the Earth resources and processes.

Geoscience Experience for Northern Communities (GENCOM)

The program of which this project is a part, the Northern Resources Development Program, has been gated (stopped for assessment) and a new northern program is being developed. It began in 2003-04 and was supposed to conclude in March 2007, so it has been stopped a year short of its goal. This means that there is considerable uncertainty about the future of the project and that ongoing parts of the project may be terminated. A new project may well be started but its direction and content are unknown at this time.

The project works closely with other projects in the NRD Program and is the catalyst through which outreach occurs in each of those projects. We work cooperatively with existing programs in the north being delivered by government or other agencies. Current developments under this project are:

- **Funding the revitalization of the web site EarthNet.** This is being accomplished by providing some of the human resources required to get this

done. A longer-term goal is to put EarthNet on a more solid footing from the human resources point of view. We hope have contracted Stephanie Douma to work on EarthNet in 2005-06 in order to build on the reconstruction effort and gain more content.

- **Preparation of Fact Sheets.** These sheets are colour, double sided pages on a variety of northern geoscience stories. A total of about thirty sheets were originally planned with the long-term goal of converting them in 2006-07 to a web site dealing with northern resources. Twelve are now complete in English, French and Inuktitut but they have been gated from publication because all items of outreach have been placed within the purview of ESS Communications and these sheets do not meet the specifications that they laid down recently. This dispute remains to be cleared up. Completed and translated into French and Inuktitut are: Aggregate, Metals from Beneath the Crust, Canol Pipeline, Carving Stones, Diamonds, Labradorite, Oil Sands, Pine Point, Polaris, Tyndall Stone, Metals from the Sea Floor, and Gold.

Additional completed sheets that are awaiting a resolution of the design conflict before being translated are: Klondike Gold, Coal, Fossil Fuels, Gemstones, Emeralds (Blue Beryl), Sapphires/Rubies, Energy, Minerals, and Oil and Gas.

An additional suite of sheets is still in preparation: Uranium, Geothermal Energy, Northern Oil, Jade, Beaufort Mackenzie Gas, Gas Hydrates, and Industrial Minerals.

- **Snowmobile Poster.** This has been delayed because of problems with availability of suitable staff for drafting the poster. The background research is complete and has been transferred to a basic graphical environment. No funds are available for transformation into a good graphic design.
- **Dawson Geoscape.** Charlie Roots (GSC Whitehorse) is the lead on this. The panels are in an advanced state of preparation and Richard Franklin is working on the diagrams with a view to completion before the end of March.
- **Northern British Columbia Geoscape Guides.** Bob Turner is leading this aspect of the project. The concept is a compact poster answering questions as to where the community gets its resources (water, minerals, food, goods and energy) and where the wastes (sewage, garbage and exhaust gases) go. The guides for Prince George, Terrace, Smithers and the Hazeltons are complete.
- **Northern British Columbia Energy.** Bob Turner is also leading this part of the project. It was conducted jointly with The Exploration Place in Prince George and is now in place as a program run by the Exploration Place. It is a school program presented for grades 5, 8 and 11 and it was first run in October 2005. Ten programs were offered initially. Within 24 hours of posting, 27 schools had made requests. It has been successful because it is targeted directly to learning outcomes, it is in area that teachers have identified as difficult to teach, and it deals with local issues.
- **Northern Alberta Outreach.** Rod Smith is running this part of the project. Earth Science resources have been delivered to all schools in the Fort Vermillion district

and a workshop for teachers on Grade 3 Rocks and Mineral was given in September 2005 as a follow-up to the Grade 7 Planet Earth component that was delivered in September 2004.

- **Northern Saskatchewan Geoscape.** Stephanie Douma has completed this project. It is currently in the productions stage and will be available in English, French, Cree and Dene. Some problems with fonts for the aboriginal languages have delayed production. **Nunavut Geoscape.** Stephanie Douma is completing this project under GENCOM since David Corrigan's project on the Trans-Hudson Orogen ended last year.
- **NWT Geoscape.** A meeting to scope content was held in Yellowknife in December 2004 and this is proceeding under the leadership of Donna Schreiner at the NT Geoscience Office. She will be working on it soon.
- **Video on the Mining Cycle.** This video, aimed at the aboriginal community, describes the mining cycle from early exploration, to advanced exploration, to mine development, to clean up. It features voices from the geological surveys of Ontario and Canada, but mostly aboriginal voices. It is a 6-part DVD available in English, French, Cree, Oji-Cree and Ojibway and is due for final release in early 2006.

Godfrey Nowlan, Calgary
19 January 2006

2005 SGS School Liaison Committee Report
submitted to
Annual Report of the Saskatchewan Geological Society

The SGS School Liaison Committee continues to provide opportunities to Saskatchewan students to enhance their awareness of Earth, of its geological processes, and of how modern society is built upon its mineral and energy resources.

This year at the 18th SGS Annual School Lecture, Dr. Steve Ruff, Faculty Research Associate from the Department of Geological Sciences Mars Space Flight Facility at Arizona State University, delivered a presentation entitled “*The Dogs of Mars: How Two Rovers are Changing Our Views of the Red Planet*” to over 750 students in both the Public and Separate school systems. His presentation focussed on new and striking evidence for the presence of water on Mars throughout its geologic history. He also discussed the challenges and successes of exploring the red planet as well as provided an insider’s view of the rover mission, which was accompanied by video and the latest images. The feedback to the Committee from the respective school boards was highly positive.

Dr. Ruff also spoke to the general public at the Royal Saskatchewan Museum where well over 250 people attended. Judging by the number of questions during the question and answer period as well as the number of people pressing to talk to Steve after the formal part of the evening, this was a timely and very well received lecture.

The School Liaison Committee has had another busy year preparing and presenting teacher workshops. A two-part *Rock and Mineral Identification* workshop co-sponsored by the SGS, EdGEO and local Regina school divisions was presented to teachers in late January. The Geoscape Southern Saskatchewan Sub-committee also presented teacher workshops at the Middle Years “Spring into the Middle” Conference in Saskatoon, the APEGGS Annual General Meeting in Regina, and the SHEA Conference in Swift Current. Teacher participants received free copies of the *Geoscape Southern Saskatchewan* poster, poster-related lesson plans and the Saskatchewan Geological Highway Map, as well as materials available from other organizations. A total of 53 educators attended these workshops and the response from all participants was very positive.

Teacher-geoscientist teams organized by the Geoscape Southern Saskatchewan Sub-committee continue to develop curriculum-related lesson plans based on Geoscape poster panels. During the summer, six teachers participated in a two-day *Teachers Writing Workshop* at the Regina Public School Board where nine lesson plans were developed. Lesson plans will be posted on the *Geoscape Southern Saskatchewan* website (www.geoscapesask.ca) as they are finalized. A consultant with extensive teaching experience and expertise in website technology has been contracted to assist with website postings and design, beginning in January 2006. Funding for development of lesson plans and the website is provided by generous contributions from sponsors (www.geoscapesask.ca/sponsors.php).

We continue to promote our educational materials to the geoscience community. The Geoscape Southern Saskatchewan project was highlighted in oral and poster presentations at the Williston Basin Petroleum Conference in Regina in April, the GAC/MAC conference in Halifax in May, and the SIR Open House in Saskatoon in November. The SGS Saskatchewan Geological Highway Map was a popular give-away item at these conferences.

Once again, our thanks go out to all members of the School Liaison Committee and to the network of dedicated teachers, science consultants and geoscientists that help to ensure geoscience is alive and well in our schools.

Respectfully submitted,

Andrew Nimegeers and Melinda Yurkowski (School Liaison Co-Chairs)
Fran Haidl and Mary Ferguson (Geoscape Committee Co-Chairs)

**ATLANTIC GEOSCIENCE SOCIETY
EDUCATION COMMITTEE
ANNUAL REPORT FOR 2005**

Throughout 2005, the Atlantic Geoscience Society (AGS) Education Committee actively promoted geoscience to various public and education audiences. Development of a range of education products continued. Ideas for new products and activities were discussed and furthered. Toon Pronk, chair of the New Brunswick Branch, and David Lentz resurrected the EdGEO workshop program in that province. The Nova Scotia Branch gathered a few new members to help with their busy itinerary. Many of the Committee's current activities will be highlighted in the 2006 Colloquium session *Education Outreach: A Required Element of the Geoscience Community*. You are encouraged to attend to learn about the outreach happening in the AGS.

Nova Scotia Branch

The Nova Scotia Branch of the Committee has expanded its ranks to include these new members: Dottie Alt (retired teacher, Tatamagouche); Heather Johnson (Halifax Independent School, Halifax); Fenton Isenor (University College of Cape Breton); Brendan Murphy (Saint Francis Xavier University); Brad Tucker (Discovery Centre, Halifax); Ken Adams, Carol Corbett and Pat Welton (Fundy Geological Museum); and, Chris Mansky and Sonya Woods (Blue Beach Fossil Museum). The Committee has broadened its representation of geologists, educators, and museum interpreters and program organizers and this can only help to continue the development of useful activities and products. Already, a sub-committee (led by Deborah Skilliter) will draw on this new expertise to discuss what educational resources are required to optimally explain and demonstrate the challenging topic of evolution.

AGS members actively organized and ensured the success of the action-packed outreach program at *Halifax 2005*: the GAC-MAC-CSPG-CSSS meeting held in May at Dalhousie University. The program included a one-day workshop, two special sessions (*Geology of Canada* and *EdGEO and Beyond*), two evening public talks and an MAC-organized display of a part of the Pinch mineral collection.

In 2005, the Nova Scotia EdGEO Workshop Committee (a sub-committee of the Education Committee) celebrated its 12th year of existence by working even harder than usual. Two workshops were offered: one as part of the outreach program of Halifax 2005 conference (mentioned above) and another in August at the Fundy Geological Museum in Parrsboro.

The May workshop at Dalhousie University attracted about twenty participants from all regions of Canada; they included teachers, Parks Canada interpreters, CBC *Nature of Things* television production staff, and museum interpreters. Attendees experienced a whirlwind of activities and were led on a campus geological tour by Becky Jamieson of Dalhousie University.

The August workshop was a 3-day event covering topics from rocks and minerals to the natural resources of our local sedimentary rocks. The participants were treated to a one-day session on fossils and time, which included a field trip to the Joggins cliffs with a stop at the Joggins Fossil Centre. The Fundy Geological Museum provided the workshop space and assistance with workshop preparations.

Financial support for both workshops was generously provided by the National EdGEO Committee. For details, see the annual report of the NS EdGEO Committee, which is also included in the 2006 AGS Colloquium Program.

A steady interest in *The Last Billion Years* popular geology book remains. To date, there have been five printings corresponding to more than 8000 copies. Negotiations in the summer between AGS and Nimbus Publishing led to an agreement whereby the retail price will remain at \$35 and AGS will receive a 5% royalty. AGS will continue to receive a 50% purchase discount regardless of number of copies purchased. AGS was represented by Graham Williams, Rob Fensome and Jennifer Bates (all members of the original Book Committee) and by Council executive Ken Howells (Treasurer). Dave Keighley (President) was unable to attend due to other obligations.

The popularity of the 2004 publication *Nova Scotia Rocks* continues. Andy Henry, chair of the Brochure Committee, reports copies were distributed to each teacher who attended the October province-wide conference of the NS Association of Science Teachers. Since, teachers have requested an additional 150 brochures for use in the classroom. Copies were purchased by local organizing committees for *Halifax 2005* and the *Core Conference*. As inventory is getting low, any requests for bulk quantities of the brochures will be discussed by the Education Committee. Plans are underway to post the pdf file to the AGS website.

The Fundy Basin paintings have been framed; they will likely be on display at the 2006 Colloquium. The paintings will move to their permanent on-loan location (Fundy Geological Museum) in the late spring. New Brunswick artist, Judi Pennanen, is the artist of the five, 18" by 24", watercolours. Four of the paintings highlight life and landscapes in the time of the Wolfville (1), Blomidon (2), North Mountain (3) and McCoy Brook (4) formations. The fifth stars a prosauropod family. A first draft of the accompanying brochure has been written and is in the review stage.

EarthNet (<http://www.earthnet-geonet.ca>) continues to develop. In-kind and financial support from the Geological Survey of Canada (GSC) is critical to its viability. Also important are the many contributors across Canada who donate activities, images, field trip materials, and images and recommend resources and local information sources. The Development Committee, operating at GSC Atlantic, is concentrating on two main goals: content development for comprehensive national coverage and top-level topic/region search capability. Progress toward a bilingual (English/French) website is ongoing. A National EarthNet Committee is chaired by Godfrey Nowlan of GSC Calgary. AGS is well represented on the Development and National committees.

The AGS with the Photographic Guild of Nova Scotia (PGNS) now offers two annual awards to deserving photographers: the *Atlantic Geoscience Society Award* is for the best geological photograph and "*The Last Billion Years*" Award is for the best Atlantic Canada geological photograph. AGS is the real winner as it may use entered photographs for educational purposes. For the 5th year, Rob Fensome organized a field trip, this time to Blue Beach. Several AGS members and about fifteen PGNS members attended the September trip. The 2006 trip might be to Tancook Island.

The evening public talk series *Beyond "The Last Billion Years"* continues to bring in a good crowd. This series is hosted by the Nova Scotia Museum of Natural History. The attendance numbers are slightly reduced but remain steady; there are surprisingly few AGS members in the audience, which is not necessarily a good thing. The 2005-06 season is a little shorter than usual (4 talks) but includes a major event - the unveiling of the new AGS video *Halifax Harbour: A Geological Journey* in March. There are rumblings of a sixth season and it could include some interesting talks on the current hot topic - evolution.

The UNB-SFX proposal to NSERC CRYSTAL was accepted as one of the five successful across Canada and it is now underway. AGS has been very active in outreach for many years and could make a strong contribution to the outreach component of this project. Brendan Murphy is the outreach representative at SFX. The Nova Scotia Branch of the AGS Education Committee is an outreach partner in the SFX component. One goal of the CRYSTAL project is to analyze the effectiveness of outreach in the community. An initial meeting with the SFX team indicated the long-running Nova Scotia EdGEO program could become a valuable source of data for this research. The group will receive some funding (\$2000-3000 each year for five years) to support its annual workshop program but it must also help to address a research objective.

The many activities and programs described above have been accomplished largely through the dedication of the Nova Scotia Branch of the AGS Education Committee. Members are: Ken Adams, Dottie Alt, Sandra Barr, Paul Batson, Jennifer Bates, Sally Camus, Carol Corbett, Howard Donohoe, Warren Ervine, Gordon Fader, Rob Fensome, David Frobel, Martha Grantham, Bob Grantham, Richard Haworth, Andrew Henry, Fenton Isenor, Chris Jauer, Heather Johnson, Elisabeth Kusters, Andrew MacRae, Henrietta Mann, Chris Mansky, Ann Miller, Murray Metherall, Brendan Murphy, Roger Outhouse, Patrick Potter, Pat Ryall, John Shimeld, Deborah Skilliter, Brad Tucker, Peter Wallace, Pat Welton, Hans Wielens, Sonya Wood, and Graham Williams.

New Brunswick Branch

In New Brunswick, David Lentz with the help of Toon Pronk, co-ordinated a three-day EdGEO workshop in the Fredericton area - the first in 15 years. Entitled *An Introduction to Geoscience for Educators*, the workshop was held July 18-20 at UNB. Presenters concentrated on classroom presentation for two days and then wrapped up the workshop with one full day in the field. Science East helped to organize the event. The ten attendees were provided with AGS education resources to use in their lesson planning. Financial

support came from the Canadian Geological Foundation, EdGEO National Program, Association of Professional Engineering and Geoscientists of New Brunswick, and AGS. A report by David Lentz appeared in the October 2005 issue of the AGS Newsletter. http://ags.earthsciences.dal.ca/news/Vol34_No4_Oct05.pdf. Dave and his team are planning a workshop for 2006 and it will likely follow the three-day format.

AGS members at UNB are part of the five year NSERC CRYSTAL research program involving the departments of education at UNB, Saint Francis Xavier, Universite de Moncton, and New Brunswick Community College. The prime objective of the UNB component is to test the impact of outreach effects in the community, including those in geoscience. As well, there will be indirect support of Science East and development of geoscience-related outreach materials. The Department of Geology is a strong player in the program. David Lentz is a co-director. John Spray and Lucy Wilson are also members of the team.

Over the year, AGS members in New Brunswick have given a number of public talks and school presentations. The most popular requests were for talks on earthquakes and tsunamis in light of the recent geological catastrophes in Asia.

The New Brunswick Branch of the AGS Education Committee include: Toon Pronk (chair), Serge Allard, Jeff Carroll, Dave Lentz, Gwen Martin, Malcolm McLeod, Randy Miller, Mike Parkhill, Alice Walker, Jim Walker and Reg Wilson.

Associated or affiliated activities

Many geoscience or science organizations are represented on the Nova Scotia Branch of the Education Committee. This keeps the door open for easy collaboration. Examples include: hosting of EdGEO workshops and participation in local workshops at the Fundy Geological Museum; hosting and co-ordination of the *Beyond "The Last Billion Years"* evening talk series at the NS Museum of Natural History; co-ordination of the *Geology of Canada* popular geology book under the leadership of Rob Fensome; and, development of a fossil book series for young readers.

The AGS Video Committee will soon release its current video - *Halifax Harbour: A Geological Journey*. This video will quickly become a key resource for educators. A sneak preview of the video will be shown in the Education Session at the 2006 Colloquium. It will also be the focus of an AGS-NSMNH evening talk in March. An official launch (sponsored by Encana) is rumoured to be happening at Bedford Institute of Oceanography.

AGS members are involved in or leading the development of education resources under the auspices of other like-minded groups: John Calder & others - public education materials associated with designation of Joggins as a World Heritage site; John Shimeld and Patrick Potter - educational card game (and accompanying teachers guide) that explains the detailed and interesting makings of oil and gas deposits; Fenton Isenor -

Cape Breton rock kit for teachers. The Education Committee has proved feedback on draft versions of some of these resources.

Finances and Communications

A financial report for 2005 was prepared and submitted by Treasurer Graham Williams. This report will be made available to AGS members at the Annual Business Lunch held at noon on Saturday February 4 at the Annual Colloquium meeting in Wolfville, NS. Most important, we're "in the black".

As you've read, the Education Committee is a very active group. We're realizing the need to keep AGS members informed of our activities. The Committee is in the process of finding a volunteer to co-ordinate communications. Suggested actions include: regular articles in the AGS Newsletter; annual contributions to *GEOLOG*, *What on Earth*, the National EdGEO newsletter, and equivalent science education newsletters; posting of minutes to the AGS website; and convening of an education session at the annual AGS Colloquium. You may want to periodically check out these media for updates.

To ensure communication with AGS Council, the AGS President is an ex-officio member of the Committee. The President receives notices of the meetings and the minutes of these meetings. At present, two Committee members also sit on Council. While this is purely coincidental, it does help to foster communication between the two groups.

The activities and products of the Committee were displayed and promoted at a number of education events that took place in 2005: *Halifax 2005* (Dalhousie University in May - a big thank you to Nelly Koziel at GSC Atlantic for co-ordinating and staffing the booth); Atlantic Canada Association of Science Educators (SFX in July); and, annual conference of the NS Association of Science Teachers (Halifax West High School in October). Sales were made and interest in programs was generated. Considering the amount of activity by Committee members, it is important to continue this communication effort.

Note from the New Chair

In the middle of 2005, Graham Williams decided to step down from the position of chair of the AGS Education Committee. Graham had taken the Committee to new heights - the future was uncertain. With AGS Council support, I agreed to chair the Committee knowing I had big shoes to fill. Today, the shoes are still rather loose but somehow I am managing to walk with the help of others. I would like to thank Council for its support and all the members of the Education Committee for their relentless dedication and enthusiasm.

Jennifer Bates
Chair, AGS Education Committee
jbates@nrca.gc.ca

Prospectors and Developers Association of Canada Mining Matters Recent Accomplishments 2005-2006

Kit Production and Distribution

- Approximately 70 workshops have been booked between September 2005 and May 2006.
- Approximately 50 of these workshops are with pre-service teachers at Faculties of Education (typically 30 students per session).
- 4 of these workshops are in First Nations schools

Discovering Diamonds: New Canada-Wide Curriculum Resource

- New unit extends our reach to secondary schools nation-wide
- Topics include: Diamond formation, tectonic and surficial processes that affect diamond deposits, the science of exploration, the mining cycle and industry practices.
- Written by Stella Heenan, vetted by teachers and industry
- 500 copies over the next three years

Outreach to Aboriginal Communities

- Last year delivered workshops at Slate Falls, North Caribou Lake, Cat Lake
- This year workshops are booked at Wikwemikong, Long Lac, Oneida and New Credit
- Inquiries from Webequie and Kasibonika

Mining New Opportunities

- Collaboration with the OMA efforts to improve understanding of the minerals industry in First Nations Communities
- Video/DVD in five languages to illustrate modern mine practices and promote employment and entrepreneurial opportunities
- Developed a corresponding teacher's resource and speaker's guide containing learning activities to support teachers.
- Video: <http://www.oma.on.ca/education/miningvideo.asp>
- Teacher's Resource and Speaker's Guide: <http://www.oma.on.ca/education/teachersguide.asp>

Nunavut

- Partnership with Government of Nunavut (Claudia Riveros and Linda Ham)
- Developed and delivered customized teacher workshops and hands-on classroom resources for more than 60 teachers who came from across the territory to attend the teacher's conference in Iqaluit

Rock ON – Multi-media career awareness

- Collaboration with Laurentian Media
- Full-colour bilingual magazine and companion Web site to promote careers in mining
- Targets youth – portrays mining careers as interesting, challenging and rewarding
- Created five learning activities to assist students and teachers using the content of the magazine and Web site
- www.rock-on.ca

Geoscape Toronto

- Colourful poster that investigates Earth processes that have shaped the geological landscape (www.toronto.geoscape.nrcan.gc.ca)
- Developed 20 curriculum-correlated learning activities for the poster (Niagara Escarpment, Rivers and Valleys, Understanding your Place in the Geoscape, Plains, Oak Ridges Moraine, Aggregates)
- Glaciers, Geological Time and Lakeshores will be complete by the end of the year
- Won The Canadian Institute of Planners 2005 Award of Excellence and The Ontario Professional Planners Institute 2005 Excellence in Planning Award
- Featured in Toronto Star in June (<http://www.pdac.ca/miningmatters/program/media-ts-050611a.html>) and (<http://www.pdac.ca/miningmatters/program/media-ts-050611b.html>)

Earth and Space Week at the Ontario Science Centre

- Annual participation
- “Mining’s a Blast” was delivered to 180 Grades 4 and 7 students to showcase the importance of mining, minerals and metals in everyday life

Mining Week - Sudbury

- Delivered teacher workshops as part of this special event in collaboration with Nicole Tardif of Laurentian University

Educator Support Network

- Educator’s Newsletter (<http://www.pdac.ca/miningmatters/teachers/newsletters.htm>)
- Distributed the second week of October to approximately 4,000 teachers, curriculum coordinators and principals in far north schools
- A second educator’s newsletter will be produced in the spring.

Junior Miner Competition

- The format of this competition has been maintained from last year
- 2004/2005 winners are profiled in the educators’ newsletter (http://www.pdac.ca/miningmatters/teachers/news_0510.htm#A_Compensation_That_Rocks!)
- Distribution for this year’s competition will occur through workshops and in October/March with the mailing of our newsletter

Conferences

2004/2005

- Ontario Association of Geography and Environmental Educators (Sudbury)
- Science Teachers Association of Ontario (Toronto)
- Science and Technology Awareness Network (Toronto)
- IDEAS Conference – intermediate teachers and science consultants of eastern Ontario (Kingston)
- Ontario Society for Environmental Education (Lindsay)
- PDAC Convention (Toronto)
- CIM 2005 (Toronto) - Mining in Society – Planned several workshops for over 700 students (treasure hunt, cookie mining, fossils, mineral discovery). Focus for 2006 is Careers in Mining (Vancouver)

Edmonton Outreach

Edmonton Geological Society

- A PowerPoint presentation 'Louise McKinney Park: Earth Resources, History & Society' was submitted by Dixon Edwards for the attention of Edmonton City Council and their proposed renovations to Louise McKinney Park, an area of historical and geoheritage interest.
- Willem Langenberg gave a 'layman geology of Turtle Mountain' presentation at the Alberta Government Volunteers Conference in September. It was very well received.
- Willem Langenberg, Reg Olson and Tanya Matveeva acted as a rock and fossil interpreters at the yearly APEGGA Rock and Fossil Clinic in October, to the delight of many youngsters. The event was written up in the Edmonton Journal.
- Dixon Edwards provided a rock walk as part of the Grant McEwen Minerva Program (courses for seniors) in May 2005.

Alberta Geological Survey

- Dixon Edwards prepared a virtual fieldtrip PowerPoint presentation for Edmonton. This is being reviewed by AGS Management before submission to EarthNet.
- Willem Langenberg gave a public presentation at the Frank Slide Interpretive Centre in September on Turtle Mountain Monitoring. Willem received many positive comments from people on being better informed about this activity.
- Dixon Edwards gave a rocks and minerals presentation to a Science 20 (grade 11) class at Bev Facey High School in Sherwood Park on September 21 and then lead them and their teacher Mr. Brent Skene on a downtown Edmonton 'rock walk' (building stone tour) on September 22. Mr. Skene was given a rock and mineral kit.
- Glen Prior, Andrew Beaton and Roy Eccles visited two grade 3 classrooms at Campbelltown School in Sherwood Park. The kids brought their rock collections to school to share and asked some genuinely intuitive questions.
- Dixon Edwards lead seven rock walks in Calgary for about one hundred Energy and Utilities Board staff in April and August.
- Dixon Edwards is giving an EdGEO workshop on January 21 for the Edmonton Science Outreach Network at the U of A as part of 'Science Immersion Workshops for Teachers'. It is aimed at Elementary Teachers and preservice teachers from the Science Math Education Students Assoc.
- Dixon Edwards will be giving two EdGEO Rock Walks to delegates as part of the program for the North Central Teachers' Convention in Edmonton on Feb. 10.
- Karsten Michael and Maja Buschkuehle answered questions and explained CO2 activities in Alberta at the 2005 CSPG Honorary Address 'Climate Change? Past and Present' (Bob McDonald and Kirk Johnson) on November 7. The event was attended by more than 800 persons, mainly families with various backgrounds and was a great time to introduce the people, family and friends to earth science.

Outreach in Yukon
Report to
Canadian Geoscience Education Network
Meeting in Vancouver, 27 January, 2006

Geological information to the public is delivered by the Yukon Geological Survey (YGS) as requested by schools and special interest groups, and in periodic presentations through the Beringia Centre and Yukon Science Institute. New educational products (brochures, booklets, posters and maps) are spearheaded by two geologists on a half-time basis (Karen Pelletier from YGS and Charlie Roots from GSC).

An EdGeo workshop for high school teachers of earth science was held April 21, 2005 in Whitehorse. Godfrey Nowlan supplied the instruction, with most of the materials from GSC and surplus from previous EdGeo workshops. Through a local teacher (Jane Londero) the Yukon Teacher's Association supported the training by paying for substitute teachers (to cover the classes of the 19 who took the course), participants' travel and other expenses.

During Mining and Geology Week (May 20-27, 2005) the YGS organized large booth at a trade and craft show in Dawson City where kids young and old carved small keepsakes from gypsum ('soapstone'), inspected a mock field camp and were exposed to the geology of the region. Concurrently the Klondike Placer Miners Association ran a scavenger hunt. In Whitehorse, posters in the lobby of the federal government building displayed current research, with a booth staffed by the Yukon Chamber of Mines. Field trips to local attractions (Miles Canyon and the former Whitehorse Copperbelt) and a talk on the Tagish Lake fireball/meteorite rounded out the week.

We feel that geology instruction has the greatest impact out-of-doors and make the most of our brief summer season. In June the grade 10 science class at Watson Lake spent several days investigating water and energy use, as well as rocks and minerals around their community. On Labour Day weekend interpreters at Tombstone Provincial Park near Dawson arranged daily walks and an evening talk on the rock formations and tectonics of the area. Sunshine and crimson foliage greeted 30 keen hikers rambling on the mountainsides. Just before the first snow in Whitehorse a grade 9 experiential science class compiled a basic geological map from their own traverses across an overgrown copper skarn, using GPS receivers and translucent graph paper. YGS aims to annually repeat these kinds of activities; ideally encouraging and inspiring the teachers and interpreters to run them themselves.

As an Outreach initiative in 2006 the YGS will focus upon creating a geology highway map and road- and trail-guides. An updated guide to the Dempster Highway is in preparation by Lianne Pyle (GSC Calgary and UVic). The "Geological Landscapes of northern British Columbia highway map" by Bob Turner and colleagues (in prep.) covers a portion of the Alaska Highway. We aim to springboard from these initiatives.

Please visit the 'General Info' of our website: www.geology.gov.yk.ca.
Then come up and see what Yukon rocks have to offer!

~ *Charlie Roots*