

**Canadian Geoscience Education Network  
Annual Meeting: May 13, 2004  
St. Catharines, Ontario**

***THE REALLY EXCITING BITS***

1. Peter Russell is the 2004 recipient of the Ward Neale Medal for Public Awareness.
2. Godfrey Nowlan presented CGEN with \$10,000 on behalf of GeoSciEd IV, to be used to support EdGEO.
3. EarthNet is having an extreme makeover. Check out the development site <http://earthnetdev.bio.ns.ca> (log in: nrg; password: enet).
4. The International Year of Planet Earth is coming soon, and bringing lots of opportunities to those with imagination and enthusiasm (sounds like CGEN).
5. Friends of Canadian Geoheritage is looking for dynamic people to set up groups in communities across Canada.
6. CGEN is looking to participate in any of the new CRYSTALs to be funded by NSERC.
7. Finally, if you're looking for cash, go straight to Appendix 2. Don't forget to apply to the Canadian Geological Foundation next year (apparently applications were slim this year)!

***KEY POINTS, ACTIONS, DECISIONS***

In attendance: Jennifer Bates, Doug Boyce, John Clague, Laura Clinton, Al Donaldson, Jean Dougherty, Dixon Edwards, Mark Fenton, Stella Heenan, Steve Johnston, Alan Morgan, Brendan Murphy, Ward Neale, Godfrey Nowlan, Dave Rudkin, Peter Russell, Ken Steele, Harvey Thorleifson, Cam Tsujita, Christy Vodden, Graham Young. Thanks to all of you who sent along your regrets.

**Approval of minutes of last annual meeting**

Approved with no changes.

**Canadian Geoscience Council: Connections and new directions** (Alan Morgan)

Alan will present a report on CGEN activities at a meeting of the CGC Executive and Council of Presidents in late May. As discussed previously, the CGC is undergoing a period of change and assessment. CGEN is considered one of the CGC's success stories, and there is strong support and appreciation for it and its programs. All CGEN members were asked to provide Alan with any updates about their programs (other than those discussed at today's meeting) and visuals as soon as possible.

**Financial report and fundraising ideas** (Christy Vodden)

The CGEN account at the end of 2003-2004 had a balance of \$43,348.96, of which \$12,570.38 is for CGEN activities; \$3,000 (representing a grant from the Geological Survey of Canada/NRCan) is for the Careers in Earth Science project; and \$27,778.58 remains of the Year Two allocation from the Ontario Ministry of Economic Development

and Trade for the Geoscape Ontario projects -- Year Three funding of \$30,000 has been approved and is expected shortly. Of particular note, the GeoSciEd IV organizers repaid the \$3,000 seed monies from CGEN, and donated an additional \$10,000 to be passed along to EdGEO. CGEN also provided its annual allocation of \$3,000 to EdGEO.

CGEN continues to assist various projects with cash management via the CGEN bank account. The Friends of Canadian Geoheritage project is the latest addition to this service, following receipt of a grant of \$1,500 from GSC/NRCan.

The full financial report is attached as Appendix 1. An updated funding sources list, with deadlines and details, is attached as Appendix 2.

#### **EarthNet** (Jennifer Bates)

EarthNet has gone through a period of revitalization in the last few months. Godfrey Nowlan is chairing a new, improved national committee. One of its tasks will be to create content development teams in all provinces and territories. CGEN members will be kept up to date on these committees and invited to take part in them. **Action:** In the meantime, CGEN members are asked to send any content ideas and website links directly to Jennifer Bates (jbates@nrcan.gc.ca).

Another committee has been set up at GSC Atlantic (includes teachers and people from universities and associations) for the technical development of the website. **Action:** CGEN members are invited to review the development site <http://earthnetdev.bio.ns.ca> (log in: nrg: password: enet). The new site will be released in June.

For the future, EarthNet will aim to have annual working meetings in different parts of Canada, with the first one possibly linked to the CGEN winter meeting in Vancouver.

The EarthNet report is attached as Appendix 3.

#### **EdGEO** (Steve Johnston for Eileen Van der Flier-Keller)

EdGEO supported 11 workshops in 2003 (in Nova Scotia, Alberta, Nunavut, NWT and BC), with grants averaging \$2500. Over 200 teachers took part, at an average cost of \$91.10/teacher. To date, eight workshop applications have been approved for 2004. Dixon Edwards, who runs the Edmonton workshop has had good success with local fundraising to supplement the EdGEO funding. The latest EdGEO newsletter should be available at the website (<http://www.edgeo.org>) shortly. **Action:** CGEN members were reminded to submit articles to the newsletter (c/o Dave Mate: [dmate@nrcan.gc.ca](mailto:dmate@nrcan.gc.ca)), and to encourage workshops in their communities -- the website includes information on how to run one and the application form for funding.

The EdGEO report is attached as Appendix 4.

#### **GeoSciEd IV** (Godfrey Nowlan)

Godfrey Nowlan presented a cheque for \$10,000 to CGEN to be used to support EdGEO. The GeoSciEd IV Organizing Committee, in consultation with the CGEN Executive,

thought that a contribution to EdGEO would be a particularly appropriate legacy for GeoSciEd IV as the EdGEO program closely mirrors the GeoSciEd goal of bringing geoscientists and teachers together. A big thank you to the GeoSciEd IV organizers for putting on such an excellent conference, and for putting in place a truly fitting legacy!

**Geoscape** (Christy Vodden for Bob Turner)

In the past twelve months, Geoscape posters were published for Edmonton, southern Saskatchewan and Ottawa-Gatineau -- the latter two were launched on Earth Day (April 22) at successful public events in Regina and Ottawa respectively, involving students, educators and politicians. The Geoscape Canada poster was also released.

Some exciting new directions are being explored with the new national Waterscape series, which explain water issues to Canadians from an earth science perspective, and the Geoscape Community Guides project, which is developing a template that students can follow to develop a Geoscape for their own community – for more information about these projects, see the latest EdGEO newsletter (website above). Funding for the Geoscape projects comes from Natural Resources Canada (Geological Survey of Canada), the Ontario Ministry of Economic Development and Trade (three-year funding of \$90,000 for Geoscape Toronto, Ottawa and Grand River), and the Saskatchewan Geological Society (to purchase 9000 copies of Geoscape southern Saskatchewan for distribution to teachers). Check out the Geoscape website at [www.geoscape.nrcan.gc.ca](http://www.geoscape.nrcan.gc.ca).

The Geoscape report, attached as Appendix 5, contains a list of all the Geoscape and Waterscape projects that are in the works.

**What on Earth** (Alan Morgan)

This national newsletter for educators continues to benefit from funding from NSERC's Promoscience. The website has the current issue and back issues <http://www.whatonearth.org/>. Requests for hard copies and subscriptions should be directed to Alan Morgan ([avmorgan@uwaterloo.ca](mailto:avmorgan@uwaterloo.ca)). **Action:** CGEN members are invited to submit articles to "What on Earth" c/o Alan Morgan; the next issue will look at geological time and diamonds.

**Careers in Earth Science initiative** (John Clague)

A Simon Fraser student, Jenn Sabeau, has been hired to work on the planned update of CGC careers-related information, with a focus on the web-based materials. She will work with a web designer and possibly an educator to create a template that can be reviewed by CGEN members and other interested parties, with a view to using the final version to gather input. Funding has been received from the Canadian Geological Foundation (\$2500) and from the GSC/NRCan (\$3000). John hopes to have the draft template ready for circulation to CGEN within the next three months. The concept for this project is attached as Appendix 6, for reference.

**Geoheritage Project** (Al Donaldson)

Friends of Canadian Geoheritage, which aims to preserve and promote awareness about local geology, continues to build momentum, and has been accepted as a CGEN core

program. Under Al's enthusiastic leadership, the goal of a national network of groups working in communities across Canada is moving forward at a good clip. The poster at the GAC/MAC meeting has generated much interest, with people signing up to create groups in their communities using the Ottawa project as a model. Some of the key features of the Ottawa project are connections with municipal government (a member of the Ottawa Geoheritage Committee sits on the municipal Heritage Committee), parks (park wardens in the surrounding region are particularly keen to get geology-based interpretive materials), other aligned groups (Ottawa Riverkeepers, Ottawa Gem and Mineral Club), and universities (Geotours are being offered through Carleton). In Ottawa, the connection between the Ottawa-Gatineau Geoscape project is particularly strong, with many joint promotion activities underway. Geotours and other interpretive materials in development will provide good content for both EarthNet and EdGEO. Alan Morgan mentioned the geological time walking trail near Waterloo as another interesting example of a geoheritage initiative. **Action:** Anyone interested in starting up a geoheritage group in their community should contact Al Donaldson at [jadonald@ccs.carleton.ca](mailto:jadonald@ccs.carleton.ca).

Check out the website at: <http://www.carleton.ca/%7Ejadonald/friends.html>.

### **International Year of Planet Earth** (Alan Morgan)

The International Union of Geological Sciences (IUGS) is spearheading this major global initiative, which will be officially proclaimed by the United Nations later this summer. The International Year of Planet Earth (2005-2007) will support research projects and outreach under several broad themes, including groundwater, hazards, health, climate, resources, and megacities. Running costs have largely been covered by IUGS, with contributions from UNESCO and Shell. Further financial support is expected from China, international associations, industry and financial institutions, with a budget for the three-year period estimated at about \$(US) 20 million. The website is at <http://www.esfs.org/towards.htm>.

The International Year will provide an excellent opportunity to bring public profile to the earth sciences in Canada. CGEN expects to have strong links to the initiative (especially through Alan Morgan and IGEO, and Godfrey Nowlan and the IUGS Publications Committee) and to help disseminate information nationally. **Challenge to CGEN:** Come up with big, but simple and fun, national activity that will create buzz and be of interest to wide audience. An excellent example from the biologists can be viewed at <http://www.ladbrokes.com/bigbirdrace/>.

### **NSERC CRYSTAL initiative** (Alan Morgan/Stella Heenan)

On April 2, NSERC announced a new program called CRYSTAL (Centres for Research in Youth, Science Teaching and Learning). Through it, NSERC will provide up to \$200,000 a year over five years to up to six research centres, which will be established in collaboration with education, science, and engineering faculties, and will be charged with developing new links with agencies, governments and individuals active in Canada's education and science promotion communities. CRYSTAL, with its strictly education

focus, represents something completely new and different for NSERC, and is a pilot program at this point, with no guarantees of continued opportunities in future years. CGEN is well situated to stimulate a coordinated, national approach, with the strengths of its members as subject specialists, as connectors in the geoscience community, and with their good links into the education community. Discussion centred upon the various known proposals underway (Ottawa, Halifax, Toronto) and strategies to ensure that the earth sciences are represented. At a minimum, CGEN can offer its expertise, education links, projects and network to any of the CRYSTALS that go ahead. Alan and Stella agreed to take the lead on this. The deadline for letters of intent is May 29, so this is an extremely urgent matter. **Action:** CGEN members linked to a university should find out what is going on at their home institutions and advise Alan and Stella pronto ([avmorgan@uwaterloo.ca](mailto:avmorgan@uwaterloo.ca) [sheenansympatico.ca](mailto:sheenansympatico.ca)). Alan will communicate with the Canadian Council of Earth Science Department Chairs.

### **New Canadian earth science education products/activities**

#### POLARIS consortium (Stella Heenan)

Stella, on behalf of POLARIS, which is short for Portable Observatories for Lithospheric Analysis and Research Investigating Seismicity, has received funding from NSERC's Promoscience to create education materials. She will be adapting US earthquake materials over the next three years.

#### Earth: An Introduction to Physical Geology (Cam Tsujita)

Cam has revised the original text by Tarbuck and Lutgens to incorporate Canadian material and to promote understanding of Canada's geological history. A virtual tour of the book is offered at:

[http://www.pearsoned.ca/highered/divisions/virtual\\_tours/tarbuck/](http://www.pearsoned.ca/highered/divisions/virtual_tours/tarbuck/).

### **Reports from CGEN members**

#### Atlantic Geoscience Society Education Committee (Jennifer Bates)

The AGS has had immense success with their book "The Last Billion Years", which has sold enough copies to be ranked as a Canadian best seller, and which has been recommended by The Globe & Mail as a "top science read"; spin-offs such as public talks have had record-breaking attendance. The AGS is also a long-time supporter of EdGEO, and they are offering their 11<sup>th</sup> EdGEO "Geology Rocks" workshop in August. They will also be heavily involved in the education component at next year's GAC/MAC in Halifax -- there will be two education sessions offered: one on the geology of Canada (the hope is that it will be the basis for a book similar to Last Billion Years; there has already been unsolicited publishing interest from the National Research Council); the other will be an EdGEO-like workshop (what works with teachers, what doesn't).

#### Geological Association of Canada (Jennifer Bates)

Congratulations to Peter Russell for winning the 2004 Ward Neale Medal! Another award of interest to CGEN is the Y.O. Fortier Journalism Award, which is given out annually by the GAC at the Canadian Science Writers Association meeting. CGEN

members are encouraged to make nominations ([www.gac.ca/MEDALS/YFESJAform](http://www.gac.ca/MEDALS/YFESJAform)). The GAC Publications Committee welcomes ideas for publishing projects. GAC also offers distribution assistance for existing publications. Jennifer is the contact on all these items ([jbates@nrcan.gc.ca](mailto:jbates@nrcan.gc.ca))

#### Prospectors and Developers Assoc. Mining Matters (PDACMM) (Laura Clinton)

PDACMM is a charitable organization that provides teachers with earth science resource materials that meet Ontario curriculum requirements. These are in the form of kits on a variety of topics, and involve a preliminary workshop on how to use them. To date, 6000 kits for use in Grades 4 and 7 have been placed, with 400 in 2003-2004. Other activities include a newsletter, outreach into the far North with delivery of workshops and materials, fundraising (with a target of \$75K for this year), an annual Junior Miner of Ontario competition, training of student teachers, collaboration to produce education materials (Geoscape Toronto), and a kit for mining industry professionals going into classrooms. Visit the website for more details [www.pdac.ca/miningmatters](http://www.pdac.ca/miningmatters). The newsletter, which can be accessed through the "Teacher Info – Educators' update" link, is, like all newsletters, always looking for good stories c/o Laura Clinton (email: [pdacmm.pdac.ca](mailto:pdacmm.pdac.ca)).

#### OGREnet (Cam Tsujita)

OGReNet (Ontario Geoscience Resource Network) led by the University of Western Ontario in partnership with other Ontario universities, aims to provide earth science resources for educators and to serve as a liaison between teachers and the Ontario geoscience community. It is funded by NSERC's PromoScience and the Ontario Ministry of Economic Development and Trade. Key features, now in development, are an interactive map of Ontario's geology and an online teaching resource bank. Check the website for more information [www.ontariogeoscience.net](http://www.ontariogeoscience.net).

#### Royal Ontario Museum (Dave Rudkin)

ROM is undergoing a major renovation and expansion program (Renaissance ROM) that will see the creation of three new earth science galleries, the first to be opened in 2005. Follow the developments at [www.rom.on.ca](http://www.rom.on.ca). One item of interest that I noted was a media release, dated May 15, announcing that ROM "had received \$7 million in gifts from Loblaw Companies Limited and its friends and suppliers to support education at the Museum, through the Renaissance ROM Campaign initiative *Help Feed The Minds of Canada's Children*. This amount exceeds the initiative's original target of \$5 million and brings the amount raised to date for the overall Renaissance ROM Campaign to \$156 of its \$200 million goal".

#### Dancing Elephants and Floating Continents (Stella Heenan)

Stella is working with Ron Clowes to develop a free downloadable/CD teachers' guide of this popular book on Lithoprobe. The goal is to demonstrate to teachers how to use the book in active lessons, and by doing so increase the impact of the book and get Lithoprobe information to a broader audience. The guide will be ready in the fall.

Science Teachers Association of Ontario (Stella Heenan)

The annual STAO conference in Toronto attracts about 2,000 teachers. This year there will be an increased focus on the earth sciences with 16 sessions planned (as compared to previous years where two or three sessions were the norm). The dates are November 11-13; complete details are on the website <http://www.stao.ca/stao-conference/2004/2004-conference.htm>

Science at Guelph Experience (Gillian Joseph by email)

The S@GE program at the University of Guelph is a not-for-profit three-day residential program for grade 7 & 8 classes and their teachers from all over Ontario. It is run during May and June each year, when schools traditionally look for activities in support of learning outside the classroom. S@GE augments the Ontario Science Curriculum, and has received several awards in recent years. Each school that attends receives a Teaching Resource Package that includes videos, overheads, computer software, posters etc. to assist in teaching science to this age group. S@GE is always looking for innovative objects, equipment, software etc. to add to this package and invites CGEN members to share their resources and suggestions. Visit the web page [www.open.uoguelph.ca/sage](http://www.open.uoguelph.ca/sage) for more information.

**Next meeting**

The next CGEN meeting will be linked with the Mineral Exploration Roundup in Vancouver in late January.

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May 28, 2004

**Canadian Geoscience Education Network  
2003-2004 FINANCIAL REPORT**

CGEN funds are in a TD Canada Trust (Ottawa) business account designed for non-profit organizations (opened February 2000).

**Summary of Activity**

Balance at last report (as of April 30, 2003)	+\$34,682.32
Ontario Govt. funding for Geoscape, Year 2, 25/06/03	+\$25,000
Geoscape Toronto, E. Smith, 10/07/03	- \$824.06
Geoscape Toronto, E. Smith, 28/07/03	- \$472.80
CGEN luncheon for winter meeting 11/08/03	- \$334.25
Geoscape Toronto, E. Smith, 13/08/03	- \$666.00
Geoscape Toronto, E. Smith, 28/08/03	- \$672.00
Geoscape Grand River, A. Morgan, 03/09/03	- \$1,729.29
CGEN, Actua conference 26/09/03	- \$35.00
Geoscape Toronto, Map IT, 01/10/03	- \$3,210.00
GeoSciEd IV, refund to CGEN, 18/11/03	+\$3,000.00
Geoscape Toronto, E. Smith, 24/11/03	- \$468.00
CGEN website, J. Smith, 15/12/03	- \$198.00
Geoscape Toronto, PDAC/MM, 17/12/03	- \$1,388.19
Geoscape Grand River, A. Morgan, 18/12/03	- \$51.19
Geoscape Ottawa, R. Franklin, 23/12/03	- \$1,824.00
EdGEO annual allocation, 03/03/04	- \$3,000.00
Geoscape Toronto, Pangaea Education, **	- \$653.90
Geoscape Toronto, Map IT, **	- \$3,825.25
Interest (May 03 – March 04)	+\$18.57

<b>BALANCE:</b>	<b>\$43,348.96</b>
CGEN portion:	\$12,570.38
Careers portion:	\$3,000.00
Geoscape portion*:	\$27,778.58

\*Current breakdown for Ontario funding of Geoscape projects: Grand River Y1: 20K, Y2: \$5K; Ottawa Y1: 5K; Y2: \$15K; Toronto Y1: 10K; Y2: \$5K. Year 3 allocation (\$30K - \$15K each for Grand River and Toronto) due late June 04.

\*\* Cheques not yet cashed

Note: The bank must be notified, in writing, of any changes to the CGEN Executive (latest update provided 20/01/04).

Christy Vodden  
Secretary-Treasurer  
April 30, 2004



## **Funding Sources: Update for CGEN**

**NSERC Promoscience:** Updated guidelines and application procedures for the 2004 PromoScience competition will be posted on the NSERC website by the end of June 2004 ([www.nserc.gc.ca/promoscience/](http://www.nserc.gc.ca/promoscience/)). The annual deadline for PromoScience applications is September 15. Promoscience gave out about \$2.5 million in the 2003 competition – grant recipients can be found on website. Funding is often multi-year, and some grants are in the \$500,000 range. Check out the 2003 recipients for some good connections, eg, the Centre d'interprétation de la géologie du Grenville, Montobello, Quebec, received \$75K over three years for geoscience programming; the Fraser-Fort George Regional Museum, B.C., got about \$60K over three years for a broad-based science program based on exploring the Canadian landscape.

**Canadian Geological Foundation:** Disperses up to about \$50,000 annually through its Trust Fund and the Jerome H. Remick III Endowment, with grants in the \$1,000 – \$4,000 range. Website has all the details <http://www.canadiangeologicalfoundation.org>. Deadline for applications is March 31, with recipients announced in June. Website lists past recipients. <http://www.canadiangeologicalfoundation.org/GACRef.html>. Note: the new **Geological Association of Canada Endowment Trust** is part of CGF (it has not given out funds yet, but looks as if it will next year). It has a strong public awareness component and will provide support to CGEN projects. Details are on the website at <http://www.canadiangeologicalfoundation.org/GACRef.html>. Its deadlines will be the same as for the other CGF trusts.

**Geological Survey of Canada grants and contributions:** Contact for information and application forms is Dan Richardson ([darichar@nrcan.gc.ca](mailto:darichar@nrcan.gc.ca)). Grants for outreach activities are in the \$500 - \$2,500 range. Applications can be sent in at anytime.

**Canadian Centre for Philanthropy:** The CCP publishes a directory of all Canada's foundations and granting bodies. (~ 1700) The print version is available in public libraries, or can be purchased for \$350, or for \$450 annually one gets access to the online version, which is searchable by keyword database and is updated constantly. The website (<http://www.ccp.ca>) contains all the details, as well as a wealth of articles on fundraising, etc. The CCP Resource Centre, in Toronto, is open to the public, by appointment.

**TD Friends of the Environment Foundation** (<http://www.td.com/fef/index.jsp>) has both a youth and public awareness focus. **Ontario Trillium Foundation** ([www.trilliumfoundation.org/](http://www.trilliumfoundation.org/)), is an example of a provincial foundation with an environment/science awareness angle. Applicants for both must be a not-for profit organization, with a charitable registration number.

Christy Vodden  
Secretary-Treasurer, CGEN  
May 4, 2004

## EarthNet Report

. A National EarthNet Committee is being established by its chair Godfrey Nowlan. This Committee will be tasked with encouraging the creation of development teams in all provinces and territories in Canada. Several people have agreed to sit on the Committee [Bob Turner (BC), Pascale Cote (QC), Pierrette Tremblay (QC), Randy Miller (NB), Reg Wilson (NB), Linda Ham (NU), Jean Dougherty (ON), Andy Moore (ON), Sonya Dehler (NS), Debora Skilliter (NS).

. The EarthNet Development Committee has been established. It is located at the GSC Atlantic office in Dartmouth, NS. The Committee is responsible for the technical development of the site. Jennifer Bates is the chair of this Committee and she co-ordinates the daily activities. This Committee is also responsible for the development of content for Nova Scotia (who needs another committee!). The Chair of the Development Committee sits on the National Committee.

. The Nova Scotia Local Development Committee has held four meetings since its inception December 2003. Members include geoscientists from GSC Atlantic and other geo-entities in the local area plus high school teachers. Invitations to people at the provincial geological survey, universities and teachers representing other grade levels have yet to be sent.

. Funding from two GSC programs (Nowlan, Williamson) covered the cost of a co-op student, Mark Jamieson, over the winter term. Mark was part of a 3-student web team and the positive dynamics and synergy was very exciting and productive. With funding support from the GSC (G. Nowlan), Mark will be hired to work part-time over the summer.

. Now is prime time for people to contribute to the site content. The goal is to provide online forms for contributors to add glossary terms, activities, virtual field trip, etc. Some of these have been built. The others will be built by Mark. We will release the available forms when the new site is released in June.

. Content will be actively sought from various areas of Canada with the help of the members of the National Committee. In-person sessions are planned over the next ½ year with National Committee members to demonstrate the online submission forms. There could be formal session at GAC 2005 in Halifax.

. Contributions will be sought from active outreach groups. Already Fran Haidl and Godfrey Nowlan have contributed a field guide and workshop manuals, respectively.

***Would EdGEO workshop co-ordinators be willing to contribute activities, field trip guides? Do CGEN member know of websites to which EarthNet can link? What links need to be built between What on Earth and EarthNet?***

. All new development and revitalization is happening on the GSC Atlantic internal server. ***You can access the development site at <http://earthnetdev.bio.ns.ca> (login-nrg; password - enet).***

. Eventually, we want to add a search capability so users (and contributors - especially those answering Geology in the Classroom questions) can search EarthNet on particular topics (eg. What does EarthNet have on earthquakes?) or regions (eg. What does EarthNet have on the geology of Nunavut?). For users, it would be a drop-down menu of pre-selected topics and areas. These two lists would form the basis of how we might sort and display content in many of the sections. The lists would consider the Pan Canadian curriculum and the topic list being generated by ESS for websites and databases.

. Activities: we are adding activities used in the current the NS EdGEO program; the teachers on the Committee are reviewing all the activities and making several suggestions to improve them. At the last Development Committee meeting, one teacher mentioned she would like to apply for an educational leave to work at GSCA for 1-2 weeks to write activities for EarthNet. We all encouraged her to do so. One or two other teachers are considering the same.

. Glossary: users can now search by alphabet or by topic (eg. fossil, rock, water, etc.); we'd like to create online input form (password-protected) to make additions easy; a quality assurance procedure would be required; the purpose of the Glossary is to support the site not to generate another AGI "Glossary of Geology"

. Hot Spots: a list of reputable sites; list according to topic

. Virtual Field Trip: Two field trip guides from the NS EdGEO program have been added plus all the sites from the new GeoSites brochure. The latter is an excellent and easy way for people to contribute to EarthNet. An online submission form will be developed. Words will be hyperlinked to Glossary definitions

. Geology in the Classroom: The Q&As will be organized according to an updated topic list; some words will be hyperlinked to Glossary definitions. Several online forms and interfaces are under development. They will make easy contributions, searching and editing Q&As.

. Teaching Resources: Review of all resources entries has begun.

. Geology of Communities: Several links have been made to the Geoscape posters.

There is so much potential! Please consider contributing to this virtual resource for teachers ... and maybe even for yourself to use in outreach activities.

Jennifer Bates  
Chair, EarthNet Development Committee

# EdGEO Report 2003 CGEN Annual Meeting May 13, 2004 GAC-MAC St Catherines

## Submitted by

Eileen Van der Flier-Keller  
Chair EdGEO

Presented by Stephen Johnston

### 1. 2003 Workshops

Eleven workshops were held in 2003; one in Nova Scotia, four in Alberta, three in Nunavut, one in the Northwest Territories and two in British Columbia.

The teacher participants expressed overwhelming enthusiasm and appreciation for the workshops as shown by the selected quotes from 2003 workshop evaluation forms below;

*“This course gave me some really great ideas and things to do since I have no science background. Thank you”, “The take-home info is great”, “My thanks for encapsulating the unit. I feel I have a picture of the whole. Will be able to bring to students an enlightened overview: show how it all fits into their learning: why it is important to learn about the earth and how they can have fun learning”, “Lots of useful information. Some wonderful experiments and hands-on activities. Thank you” Calgary Feb 2003*

*“The single best in-service I have ever attended”, “Best bang for the buck around”, “Wow! Can't wait to play with my resource materials and use them in the classroom” Nova Scotia Aug 2003*

*“An inspiration to the upcoming teacher year”, “It was just a top notch workshop with so much to take home to our students”, “The sponsors are to be thanked for this opportunity to educate educators” Drumheller July 2003*

*“Hands-on simple explanations followed by ‘hands-on’ examples. Lots of experienced people to answer all questions. Rock samples with explanations will be great for educational purposes when teaching in the future” Edmonton Jun 2003*

*“Excellent demonstration ideas that have been classroom tested. Hands-on practice made content relevant. Wonderful ‘goody-bag’ that is immediately applicable”, “Passionate speakers! Contagious”, “Please keep offering these types of workshop for teachers”, “Good lesson ideas – usable and efficient – also cost effective (classrooms are expensive places)” Vancouver GAC/MAC May 2003*

*“I enjoyed the workshop, especially all the hands-on practical ideas. Well done”  
“Looking forward to trying these activities with my students, great hands-on for kids of all ages” “Very good approach to the presentation. I liked the use of activities to demonstrate how to reach outcomes” Resolute, Nunavut Mar 2003*

*“Very exciting and interactive. Presenters did a fantastic job” Iqualuit , Nunavut Mar 2003*

*“The package of resources will be well used”, “Many possible lessons can be created from the information passed onto us ... very good treatment and atmosphere” Cambridge Bay, Feb Nunavut 2003*

*“Excellent and informative handouts; wonderful rock and mineral kits to take back to the classroom” Edmonton Dec 2003*

*“I was blown away! The timing was fantastic as was the knowledge base of the experts. The resource package is the best I ever received”, “I enjoyed the hands-on approach of viewing formations up close on the fieldtrip, rather than in pictures”, “The sponsors are to be thanked for this opportunity to educate educators”. Yoho Burgess Shale August 2003*

### 2003 Workshops

Workshop Location	EdGEO Grant	Refund	Continued....		
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Calgary	2300.00	242.28	Drumheller	3000.00	
Nunavut	2341.70	726.76	Field	3000.00	
Nunavut	2341.70	726.76	Parrsboro	2045.00	511.00
Nunavut	2341.70	726.76	Yellowknife		
Vancouver	2591.59	433.32	Edmonton	1250.00	
Edmonton	558.80				
Total EdGEO grants (- refunds)		\$18403.61			
Total number of teachers		202			
Cost per teacher		\$ 91.10			

EdGEO funds were approved for 4 additional workshops; MABC (Vancouver), Royal Tyrrell Museum (Drumheller), Baker Lake (Nunavut), and AGS New Brunswick (Fredricton). These workshops did not run because of too few registrants, some caused by conflicts with other professional development events.

The following table gives details of each of the 2003 EdGEO workshops. Many thanks to all of the workshop organizers and presenters.

<b>2003</b>	<b>Grant Recipients</b>	<b>Focus/Highlights</b>	<b># Participants</b>
Calgary AB/02	Calgary Science Network	<ul style="list-style-type: none"> <li>• Grade 7 Curriculum</li> <li>• Planet Earth</li> </ul>	31
Cambridge Bay Nunavut /02	Dept of Sustainable Development Government of Nunavut	<ul style="list-style-type: none"> <li>• Grades 4-6 teachers</li> <li>• Rocks, minerals and erosion</li> </ul>	12
Resolute Nunavut /03	Dept. of Sustainable Development Government of Nunavut	<ul style="list-style-type: none"> <li>• Grades 4-6 teachers</li> <li>• Rocks, minerals and erosion</li> </ul>	7
Iqaluit Nunavut /03	Dept. of Sustainable Development Government of Nunavut	<ul style="list-style-type: none"> <li>• Grades 4-6 teachers</li> <li>• Rocks, minerals and erosion</li> </ul>	6
Vancouver BC/05 (GAC/MAC 2003)	EdGEO National Committee	<ul style="list-style-type: none"> <li>• Grades, 7, 8 and 10</li> <li>• Geological time, plate tectonics, volcanoes, earthquakes, rocks and minerals</li> </ul>	37
Edmonton AB/06	Dixon Edwards	<ul style="list-style-type: none"> <li>• Rocks and geologists</li> <li>• Rock Walk in downtown Edmonton</li> </ul>	12
Drumheller AB/08	Royal Tyrrell Museum	<ul style="list-style-type: none"> <li>• Field studies in palaeontology and geology</li> <li>• five day workshop including three days of fieldtrips</li> </ul>	12
Field BC/08	The Yoho-Burgess Shale Foundation	<ul style="list-style-type: none"> <li>• Three day workshop</li> <li>• Transect of the Rockies fieldtrip</li> <li>• History of life, Rocks and mountain building, Climate change, geohazards and UNESCO sites</li> </ul>	21
Parrsboro NS/08	Nova Scotia EdGEO Workshop Committee	<ul style="list-style-type: none"> <li>• “Geology Rocks” a two day workshop centred on rocks, minerals, fossils and time</li> <li>• two half day fieldtrips</li> <li>• extensive teacher resources</li> </ul>	28
Yellowknife NWT/11	No direct funding requested	<ul style="list-style-type: none"> <li>• Yellowknife Educators Conference</li> <li>• Planet Earth</li> <li>• Funded by NRCan and NWT Govt.</li> </ul>	16
Edmonton AB/12	Dixon Edwards	<ul style="list-style-type: none"> <li>• Grade 3 teachers</li> <li>• 2 hour rocks and minerals workshop to supplement curriculum</li> </ul>	20

## 2. 2004 Workshops

Eight workshop applications have been approved so far this year;

PAC-GAC	Victoria	February 20 <sup>th</sup> 2004
The Exploration Place	Prince George	March 5 <sup>th</sup> 2004
Calgary Science Network	Calgary	March 13 <sup>th</sup> 2004
Calgary Science Network	Calgary	March 27 <sup>th</sup> 2004
GAC MAC 2004	St. Catherines	May 15/16 <sup>th</sup> 2004
Atlantic Geology Society	Fredricton	July 12/13 <sup>th</sup> 2004
Royal Tyrrell Museum	Drumheller	July 19-23 2004
The Yoho Burgess Shale Foundation	Field	August 27-29 <sup>th</sup> 2004

I am delighted that Astride Silis and her group have put together an EdGEO workshop to run in conjunction with the Annual GAC-MAC meeting here in St Catherines. It is great to see EdGEO represented in this way at our annual meetings (Vancouver, Saskatoon).

New EdGEO groups are forming and being revived across the country. We hope to see workshops in all of these locations in 2004.

Newfoundland	Robert Grantham
NW Ontario	Terry Needham
SW Ontario	Alan Morgan
Ottawa	Tony Fowler

## 3. Financial

This is the first report from our new treasurer Sheila Dale Johnson. She is to be commended for all her excellent work so far.

Thanks to our sponsors in 2003 – CSPG, CGC, MAC and GAC. They keep the program going and we are very grateful to them and all the people they represent.

## 4. Other news

The EdGEO 2004 newsletter is out. Many thanks to all who contributed and to Dave Mate for putting it together.

The EdGEO web site has been updated. In particular, our sponsors are more clearly highlighted, and new teacher comments have been added.

## Appendix 5

### **Report to CGEN on Geoscape Canada initiative, May 2003-May 2004**

By Bob Turner, Geological Survey of Canada, Vancouver bturner@nrcan.gc.ca

#### **Geoscape Posters published in 2003/04**

Geoscape Edmonton (published by Alberta Geological Survey) (contact: Dixon Edwards, AGS)

Geoscape Southern Saskatchewan (March 2004) (contact: Fran Haidl, Sask. Energy Mines)

Geoscape Ottawa/Gatineau (March 2004) (contact: Jan Aylsworth, GSC Ottawa)

#### **Advanced draft posters** (planned release date) (see CGEN newsletter for more on Waterscape)

Geoscape Nanaimo (summer 2004) (contact: Maggie McColl, Malaspina University College)

Waterscape Bowen Island (summer 2004) (contact: Bob Turner, GSC Vancouver)

Waterscape Gulf Islands (summer 2004) (contact: Bob Turner, GSC Vancouver)

#### **Geoscape Posters in progress**

Grand River (contact: Alan Morgan and others, U Waterloo)

Halifax (contact: Gordon Fader, Dave Mosher, Jennifer Bates, and others, GSC Halifax)

Nunavut (idle at the moment)

St. John's (under consideration: Dave Liverman, Nfld Energy Mines)

#### **Geoscape Guides in progress** (see CGEN newsletter for background on Geoscape Guides)

Northern BC (draft versions for Prince George, Mackenzie complete, 3 more planned for northern BC communities (contacts: Bob Turner, GSC, Vancouver; Godfrey Nowlan, GSC Calgary).

Dawson City, Yukon (contact: Charlie Roots, GSC, Whitehorse)

#### **Publication of Web sites (at [www.geoscape.nrcan.gc.ca](http://www.geoscape.nrcan.gc.ca))**

Geoscape Whitehorse (June 2003)

Geoscape Canada map (and interactive map) (Nov 2003)

Waterscape Bowen Island ([www.bowenland.info/waterscapes](http://www.bowenland.info/waterscapes)) (draft version, Sept 2003)

Waterscape Gulf Islands ([www.bowenland.info/waterscapes](http://www.bowenland.info/waterscapes)) (draft version, Dec 2004)

Geoscape Southern Saskatchewan (April 2004)

Geoscape Ottawa/Gatineau (April 2004)

#### **Geoscape activities (promotion, distribution) - completed**

- 1) Geoscape Canada map: distribution at national meetings (GAC/MAC, Canadian Association Geographers, GEOSCIED); distribution to all members of Parliament
- 2) Geoscape Whitehorse: creation of Geoscape pamphlet for local walking tour (June 2003).

#### **Geoscape Poster 2004 Launches**

- 1) Geoscape Ottawa/Gatineau, April 22, 2004, Notre Dame High School, Ottawa. Presentations by Jan Aylsworth and Jean Dougherty, NRCan.
- 2) Geoscape Southern Saskatchewan, April 22, 2004. Regina High School. Address by Minister Cline, Saskatchewan Industry and Resources. Presentation by Chris Gilboy, Sask Energy and Mines.

#### **Geoscape activities (promotion, distribution) - planned**

- 1) Geoscape Toronto. Distribution of posters to Greater Toronto Schools along with release of Geoscape Toronto teacher lesson plans on internet (2004)
- 2) Geoscape Southern Saskatchewan. Distribution to Saskatchewan MP's (2004) by NRCan and Sask Energy and Mines. Possible distribution to Sask schools in 2004 by Sask Geological Society (8500 English, 500 French ordered)



***Funding 2003/ 2004***

NRCan, Geological Survey of Canada.

- 1) Consolidating Canadian Geoscience Knowledge Program (Funding for Ottawa, S. Sask, Nanaimo posters)
- 2) Northern Program (GENCOM project: Godfrey Nowlan; Geoscape Dawson); (funding for Geoscape Northern BC)
- 3) Groundwater Program (Funding for Waterscape posters)

Ontario Ministry of Education Science and Technology

Major ongoing funding for Geoscape Toronto, Ottawa, Grand River

Sask Geological Society.

Printed 9000 Geoscape Southern Saskatchewan posters for distribution in Saskatchewan

## **Careers in Earth Sciences: Update for Today's Students**

### **Background**

"Careers in Geoscience" has been a key educational product of the Canadian Geoscience Council (CGC) for over 15 years. It originated as a 32-page booklet, and in the mid-1990s was updated as a website [www.science.uwaterloo.ca/earth/geoscience/careers](http://www.science.uwaterloo.ca/earth/geoscience/careers). The booklet and website were produced by Alan Morgan for CGC and were targeted at a senior high school level. Both products have been strong successes, with over 54,000 copies of the brochure distributed through groups with large-scale education networks (e.g. Geological Survey of Canada, Prospectors and Developers Association of Canada, Mining Association of B.C.), and with some 3,000 hits annually on the website.

In response to pressures faced by today's students to make important career decisions earlier in their schooling, CGC's education arm, the Canadian Geoscience Education Network (CGEN), has chosen the updating of these careers materials as a priority project. The new project title will be "Careers in Earth Sciences" to reflect the broader spectrum of specialization now embraced by the CGC.

A working group, including educators, coordinators of national earth science education programs, and communicators, met in May 2001 to discuss this project. The group agreed that the end product should be web-based, with some form of supporting paper material. There was also realization that more information was required to confirm the grade level at which students need career information and to identify what types of information the students most need and precisely what formats will be of most value to them. A student focus group was held in Ottawa in December 2001, and a questionnaire was distributed to teachers and guidance counsellors. While not a large sampling, the results of both surveys (available upon request from Christy Vodden: [cvodden@nrcan.gc.ca](mailto:cvodden@nrcan.gc.ca)) provided a useful base for discussion by CGEN at their January 2002 meeting.

### **Concept**

The new Careers in Earth Sciences will be a bilingual website aimed at the Grade 9 level. It will contain basic introductory information about the earth sciences, supplemented by more detailed information about the various sub-disciplines. The website will be navigable in several student-friendly ways: e.g. by the student's interests and skills (for example, computers, the environment, mathematics, biology, chemistry, and the outdoors). Because of production costs, warehousing issues, and concerns about effectiveness, no paper version will be produced. Instead, all website material will be available in PDF format for those wishing to print the information. A printed promotional fanfold brochure will be widely distributed to schools and students to advertise the website.

### **Objectives**

1. To encourage students to consider the earth sciences as a career option.
2. To provide basic information about qualifications, employment opportunities, and

salary expectations for different levels of work and areas of specialization within the earth sciences.

### **Website: Guiding Principles**

Emphasis will be placed on displaying the adventure and travel aspects of the work, the satisfaction that comes with a career in geosciences, and in linking the earth sciences with students' broader interests/skills/hobbies. The website will be light on text, relying instead on photos and video clips of young earth scientists (mid 20s, including women) at work and talking about their work.

The website's navigational system, look, and content will be tested with students and educators throughout the development phase of the project. This feedback will shape the final product.

The website will be linked to other core CGEN projects, including EarthNet (<http://agc.bio.ns.ca/EarthNet>) and EdGEO (<http://edgeo.org>) to maximize the success of the project. It will be housed on EarthNet to take advantage of that website's strong existing visibility with Canadian educators and students, and will be promoted through the EdGEO teachers' workshop program. CGEN hopes to launch the website at GeoSciEd IV, the fourth conference of the International Geoscience Education Organization (IGEO), in Calgary in August 2003.

The website will be upgraded regularly to ensure that it remains a dynamic and credible source of information.

### **Publicity and Promotion**

Broad, national publicity of the website will be critical to its success and impact. A key promotional tool will be a fanfold brochure that can be used as a poster in schools. Its two main elements will be one or more spectacular images of earth scientists at work and the website address. A notice about the website will be sent to all teachers' newsletters across Canada. Distribution and continuing promotion will involve all geoscience groups with education networks and programs. A three-year promotional strategy will be developed to ensure that the website has an ongoing presence.

#### **Budget**

##### Year 1 (2002-2003)

Website development\*: \$35,000

Publicity poster - artwork: \$3,000

##### Year 2 (2003-2004) expected launch = August 2003

Publicity poster - printing (10,000 copies): \$5,500

News release/distribution: \$1,000 (?)

##### Year 3 (2004-2005)

Continuing publicity: \$1,000 (?)

Website maintenance: \$5,000 (?)

*\*Includes artwork and web design and construction.*

### **Next Steps**

Many geoscience groups have an interest in this project. As a major first step, the project will be promoted widely to them, with the goal of securing funding, commitment to prepare web pages for their area of specialization, and their long-term support of website publicity and maintenance.

The Canadian Society of Petroleum Geologists has been discussing the development of an occupational profile for the sub-discipline of “petroleum geologist” and has offered to prepare this as a possible template for other sub-disciplines. This template could be used for testing with students and educators, and for subsequent review by the CGEN working group and other interested participants.

External funding sources will be explored and applications for funds submitted. Those identified for immediate contact by the CGEN Executive are the Canadian Geological Foundation and the GSC Grants and Contributions Fund.

For more information, contact:

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