

Canadian Geoscience Education Network Annual Meeting
9:30 a.m. – 4:00 p.m., May 18, 2006
Université de Montréal à Québec

Present: Jan Aylsworth, Jennifer Bates, Allan Donaldson, Jean Dougherty, H el ene Gaonac'h, Linda Ham, Stella Heenan (and baby Arianne), Susannah Lydon, Chris King, Alan Morgan, Ward Neale, Godfrey Nowlan, Jeanne Paquette, Donna Schreiner, Ann Therriault, Pierrette Tremblay, Eileen Van der Flier-Keller, Christy Vodden, Erica Williams. Thank you to everyone who sent in regrets.

Approval of minutes from 2005 AGM Approved with no changes.

Report of the Secretary-Treasurer (Christy Vodden)

The financial report for 2005-2006 is attached as Appendix 1. At the end of April, the CGEN bank balance was \$17,180.60, of which \$16,815.22 is general CGEN funds and includes the Canadian Geoscience Council (CGC) allocation of \$5,000 for 2004-2005. All Geoscape Ontario and Geoheritage funds have been spent, and there is just under \$400 left in the Careers in Earth Science project account. A \$3,000 allocation to EdGEO for 2005-2006 was approved and made at the winter meeting. As a result of the fundraiser, 42 trilobite tee-shirts were sold, representing a contribution of \$210 to CGEN from the artist, Christine Koch.

CGEN membership has tripled over the past five years, and there are now over 176 members (an increase of 26 members since last May). *Action: All CGEN members are encouraged to suggest or solicit new members. Wouldn't it be nice to break 200 by the next meeting?* The website <http://cgen.bio.ns.ca/> will be updated later this year. *Action: suggestions and comments are welcomed; they can be sent to me at cgen@sympatico.ca.*

All agreed that we need to increase CGEN's bilingualism as a long-term goal. As a first step, \$1,000 was allocated for translation of the website. *Action: Christy to coordinate translation and review of text, aiming for completion by the winter meeting.*

CGEN Executive (2006-2008) (Alan Morgan)

The CGEN executive for 2006-2008 is confirmed as:

President: Fran Haidl

Vice-President: Jennifer Bates

Secretary-Treasurer: Christy Vodden

Past President: Alan Morgan

Issues facing Earth science education (all)

Stella Heenan summarized the results of the education survey that was sent out to CGEN in October 2005. It was adapted from a survey sent out by the International Union of Geological Sciences' new Commission on Geoscience Education --- as background, Chris King explained that the goals of that survey were to identify pilot locations around the world to test geoscience initiatives and to find good initiatives that could be adapted

for different countries. Stella, Alan Morgan and Eileen Van der Flier-Keller had revised the survey to make it more relevant to the Canadian education environment.

The survey was originally circulated to a core group of teachers, with little response. The subsequent distribution through CGEN netted 26 responses from all parts of Canada except New Brunswick, Newfoundland and Prince Edward Island (thank you to everyone who responded or sent it along to teachers in their area). Stella considered this to be a reasonable sampling, given that the survey was seeking facts, not opinions, and it was good to keep it small at this time.

Erica Williams noted that the survey took a lot of time to fill out, and this probably was the reason for the low response. In terms of issues facing Earth science education, she emphasized the need to clearly differentiate between Earth science “being in the curriculum” and actually being taught in the classroom – the former does not assure the latter. She also warned that while resources may be in schools, it is imperative that their quality be confirmed. There is also a need to confirm the pedagogical appropriateness of curriculum (i.e. whether certain topics were being introduced at the right grade levels).

Stella confirmed that these were important issues that came through in the survey results. Others include the need expressed by teachers for professional development to assist them in teaching Earth science. One surprising result was that teachers considered Earth science resources for the classroom to be plentiful.

The next step will be to prepare a synthesis of the results, which will be circulated to CGEN and the teachers who contributed. *Action: Stella and Alan.*

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

Alan Morgan led the discussion on the ambitious draft policy document that had been put forward to the CGC last fall. It outlines six target areas that CGEN could 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. Alan noted his appreciation for the many, substantive comments received from CGEN members across the country. His next step is to rework the document to reflect these comments.

Ward Neale supported the targets, but felt the financing was probably “lowballed”. He noted that an accurate assessment of future needs for Earth scientists was going to be tricky – in a similar exercise in the early 1980s, assessments of future labour needs were way too optimistic. Alan concurred, noting that there is currently a huge discrepancy between professional association assessments and government figures (StatsCan) that needs to be looked into.

Eileen Van der Flier-Keller raised the issue of succession planning in view of the looming retirement demographics, and the urgent need for us to actively recruit and mentor the next generation of outreach activists. She noted that lack of recognition and

support by home organizations worked against people taking on outreach activities. All agreed that CGEN could be useful in this regard by writing letters of commendation to home organizations, noting the value of the outreach activities of an individual. *Action: Recipients should be drawn to the attention of the new President, Fran Haidl.*

Alan volunteered, as Past-President, to work on a questionnaire that would build on the initial education survey and fill in the blanks about the state of Earth science education in Canada. The goal is to develop this baseline “snapshot” as a CGC report. It was agreed that a good incentive to encourage a better response level would be to give out resources to those who complete the questionnaire. Godfrey and Stella commented that PowerPoint presentations are really popular with teachers, and that if Geoscape resources were used as the basis there would be the win-win situation of promoting Geoscape through the questionnaire distribution. *Action: Alan to prepare a notice to CGEN members asking for other ideas of suitable resources to be sent out, and to develop an approach for the next questionnaire for discussion at the winter meeting.*

Chris King pointed out that the questionnaire afforded an excellent opportunity for us to address the question of why Earth science should be accorded higher profile – his “in a nutshell” rationale was excellent: Earth science provides a springboard for teaching spatial awareness and time that is not available through other subjects, plus the fieldwork experience is unique for students. Others commented on the social relevance of the Earth sciences (safety, economy, quality of life, etc.).

Hands-On Demonstrations

Education specialists Chris King and Susannah Lydon of Keele University’s Earth Science Education Unit led us through two components of their “Teaching the Dynamic Earth” program: “The Dynamic Rock Cycle” and “Plate Tectonics Interactive”. Both were fabulous, fun and inspiring. Both, as well as many others, can be downloaded as PDFs from the website <http://www.earthscienceeducation.com/workshops/index.htm> (click on “Workshops in England and Wales”).

Core project reports and issues

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 – thanks to everyone who took the time to do so. An application for PromoScience funding of \$60,000 was submitted, but not successful. The next step is to set up a fundraising committee. *Action: John will chair the committee, but needs volunteers and ideas. Contact him at jclague@sfu.ca*

EarthNet (Jennifer Bates)

EarthNet continues to tick along nicely. The current pressing need is for content and images for the virtual field trips. *Action: Jennifer will draft a list of specific needs and specifications to be sent out to all CGEN members.*

EdGEO (Eileen Van der Flier-Keller)

There was a record-breaking 22 workshops in 2005, reaching 322 teachers. To date, there are 16 planned for 2006, with seven already completed. The EdGEO technical session and workshop held at GAC/MAC 2006 were a great success. Eileen noted that there are excellent EdGEO materials available in French from Pierrette Tremblay and Louise Corriveau. In terms of issues facing EdGEO, the good news is that, generally, workshops are tending to require less funding – their organizers are finding own sources, and/or outside groups are seeing the value of being aligned as sponsors). The bad news is that not enough assured annual funding is coming in (long-term consistent sponsors include the Canadian Society of Petroleum Geologists, CGC/CGEN, and the Mineralogical Association of Canada, and their commitment is very much appreciated). EdGEO has, in the past, been saved by special one-off allocations like the \$10,000 from GeoSciEd IV and grants from groups such as the Canadian Geological Foundation. Fundraising remains an ongoing and difficult challenge. The EdGEO leadership will be handed over March 31, 2007, and negotiations are currently underway as to its new home. The latest newsletter (May 2006) was released in time for the meeting. Eileen offered a big thank you to David Mate for his work as editor, to Sheila Johnston for keeping the EdGEO finances in order, and to all the teachers who help lead, coordinate and participate in the workshops.

Geoheritage Project (Allan Donaldson)

The Geoheritage Project remains mainly focused in the Ottawa-Gatineau area, but there are many groups working on aligned projects across the country. The goal is to pull these groups into a loose network, much along the model of CGEN, for the purpose of information exchange and sharing of ideas and resources. There was some discussion as to whether setting up a GAC geoheritage division might be a positive step in this direction. GAC is agreeable, but has expressed concerns about diluting the CGEN linkage and the difficulties of getting people who would like to join a division. It was agreed that geoheritage group will remain part of CGEN and it will set up special sessions at the GAC meeting in Yellowknife. There was unanimous agreement with Al's suggestion to set up an official Friends of Canadian Geoheritage and actively promote it across Canada. *Action: Al to develop a framework for presentation at the winter meeting.*

Geoscape (Godfrey Nowlan for Bob Turner)

The latest Geoscape releases are Bow River and northern Saskatchewan, with Nunavut coming soon. The Geological Survey of Canada has ended its northern geoscience program, which had a strong outreach component that funded some Geoscape projects. Unfortunately, any unfinished outreach projects, no longer have any funding attached to them and will have to be shelved. The demise of the program has derailed Dawson Geoscape and ones on energy (well advanced) and on diamonds (in planning stages). A mini-Geoscape, a community-driven concept that focuses on questions such as 'where do our resources come from' and 'where does our waste go', was completed for Watson Lake – there are some concerns, though, that the template is only available as CorelDraw and that it would be better as a PowerPoint. The problem is where would it stored. Another project in jeopardy is the northern BC geological map. It is hoped that the BC geoscience community will take it over.

What on Earth (Alan Morgan)

“What on Earth” will need a new editor and a new home at the end of 2007 or 2008. Alan and Peter Russell started up this national newsletter at the University of Waterloo in 1987, and they plan to retire as editors sometime after they have completed the 20th anniversary issue. The work involves producing two issues a year and maintaining the website (<http://www.whatonearth.org/>). The print run of 2,000 costs about \$3,000 per issue. There are 1,000 paid subscriptions that cover some of the costs, with the university covering the cost of distribution. *Action: Anyone interested in becoming the new editor, please contact Alan at avmorgan@uwaterloo.ca.* In the meantime, content is needed for the remaining issues that Alan and Peter will edit. Contributions can be sent in anytime to Alan, but the deadline for the next issue is the end of September. The latest issue is posted on the website.

Reports from CGEN member groups

Latest curriculum changes in BC (Erica Williams)

Erica expressed concerns about some geoscience topics being placed in the wrong grade levels and the fact that hazards have disappeared from the curriculum. She will consult with Alan and Fran about the need for CGEN or CGC to send a letter of concern to Minister of Education. On a related note, Stella Heenan clarified that the Pan-Canadian science curriculum is really a framework and a consultation document. There is no compunction for provincial/territorial groups to follow it, or even look at it. It was put together ten years ago -- a long time in education terms.

"Volcans et crème glacée à l'italienne, s'il vous plaît!" (Hélène Gaonac'h)

Hélène is the author of this recently published children's book about volcanoes. It is available from Editions MultiMondes, and Hélène is seeking recommendations for English publishers. The website provides lots of good resources about volcanoes <http://www.vickivolka.uqam.ca>. *Action: Anyone with suggestions for an English language publisher should contact Hélène at gaonach.helene@uqam.ca.*

Opportunities and new initiatives

2007 GAC/MAC (Donna Schreiner)

There will be lots of education and outreach activities at the Yellowknife meeting. In addition to an outreach session and workshop that Donna and Godfrey Nowlan are co-hosting, there will be a geoheritage field trip, and Mining Week will run at the same time. The outreach session will include presentations and posters highlighting the achievements of Canadian geoscience education and outreach programs, partnerships, products and future plans. The 1 1/2 day workshop will focus on the state of geoscience education in Canada and is intended to encourage discussion of future priorities. There will be a concerted effort at encouraging the public and teachers to participate in all of these activities.

Nominations for GAC medals (Christy Vodden)

Both the E.R. Neale Medal for Public Awareness of Science and the Yves O. Fortier Earth Science Journalism Award provide CGEN members with a wonderful opportunity to, in the case of the Neale Award, bring well-deserved recognition to a colleague's outreach and education work, and, with the Fortier award, to reward and encourage a journalist for covering an Earth science story in a Canadian newspaper. The nominating information for both awards and applications can be found at:

<http://www.esd.mun.ca/~gac/MEDALS/medal>. *Action: All CGEN members are urged to make nominations to these awards.*

International Reports and liaison (Alan Morgan)

GeoSciEd V will take place, September 17-22, in Bayreuth, Germany. Details are at: <http://www.bgi.uni-bayreuth.de/~geosciEd5/>. Alan Morgan will represent CGEN at the meeting. Unfortunately the dates of GeoSciEd V are in direct conflict with another major international conference of interest to CGEN: the second Unesco World GeoParks conference in Belfast. Details at: <http://82.195.130.20/geo/asp/>.

The International Year of Planet Earth (IYPE) is now finally set for 2008. This puts it into a potentially difficult competition with the International Polar Year (IPY), which runs from March 2007 to March 2008 and which is well advanced in planning. The Government of Canada has put \$150M into IPY, and there are doubts that it will be able to provide the same level of support for IYPE. The Canadian IYPE committee is not yet set up, but should be shortly. CGEN members are encouraged to flag any projects that they have underway in 2008 as an IYPE contribution – this would be as simple as using the logo. Stay tuned. The IYPE website is at <http://www.yearofplanetearth.org/>.

Timing for winter meeting

It was agreed to continue the tradition of holding a meeting the day after the Cordilleran Roundup in Vancouver. The 2007 Roundup runs January 29-February 1, so the CGEN meeting will be held on February 2. As well, as the opportunity arises, we will hold “satellite” CGEN meetings in cities to which members of the CGEN executive travel during the year.

Christy Vodden
Secretary-Treasurer,
Canadian Geoscience Education Network

August 15, 2006

Appendix 1

**Canadian Geoscience Education Network
2005-2006 FINANCIAL REPORT**

Balance at last report (as of April 28, 2006) +\$46,936.85

Incoming funds:

CGEN, 2004-2005 CGC contribution, 24/06/04 +\$5,000

CGEN, interest (May/05 – April/06) +10.64

Total incoming: +\$5,010.64

Outgoing payments:

Geoheritage, Q. Gall expenses, 16/05/05 -\$34.50

CGEN, Aramack, AGM meeting catering, 25/05/04 -\$254.06

Careers, J. Clague, meeting with web designer, 22/06/05 -\$34.62

Geoscape Grand River, UWO, printing, 31/08/05 -\$10,132.43

Geoscape Grand River, A. Morgan, expenses, 02/09/05 -\$1705.97

Geoheritage, A. Donaldson expenses, 09/09/05 -\$695.54

Geoscape Ottawa, NRCan translation, 16/09/05 -\$7,676

Geoscape Grand River, A. Morgan, web page, 21/09/05 -\$2,500

CGEN, A. Morgan, conference call, 26/09/05 -\$105.13

Geoscape Grand River, UWO, What on Earth, 27/09/05 -\$3,000

Geoscape Grand River, A. Morgan, expenses, 27/09/05 -432.01

Careers in Earth Science, J. Smith, website, 27/09/05 -\$600

Geoscape Grand River, A. Morgan, expenses, 03/10/05 -383.81

Geoscape Toronto, Pangaea Education, 20/10/05 -\$3,736.19

CGEN, C. Vodden, expenses, 03/02/06 -\$169.75

EdGEO, 2005-2006 allocation from CGEN, 09/02/06 -\$3,000

CGEN, SFU, winter meeting catering, 21/02/06 -\$306.88

Total outgoing: \$34,766.89

BALANCE: \$17,180.60

CGEN portion: \$16,815.22

Careers portion: \$365.38

Geoscape portion*: \$0

Geoheritage portion: \$0

Christy Vodden
Secretary-Treasurer
May 16, 2006