

NEWSLETTER OF THE CANADIAN GEOMORPHOLOGY RESEARCH GROUP

BULLETIN DU GROUPE CANADIEN DE RECHERCHE EN GEOMORPHOLOGIE

Number 16 March 2003

PRESIDENT'S MESSAGE - MOT DU PRÉSIDENT

Once again, the latest NSERC Reallocations Exercise led to a net loss for Earth Sciences in Canada. Of the approximately \$2 million (10% of the budget for Discovery Grants) that the Solid and Environmental Earth Sciences Committees contributed to the NSERC reallocation pool, they will receive back \$1.3 m, for a net loss of \$0.7 m or 3.7% of its total budget (37% loss of the amount put in the reallocation pot). Discovery Grants allocated in 2003 and in the years to come will reflect this decrease.

In the exercise as a whole, the big winners were Chemistry (+\$1.5 m or 4.8% of total budget), Condensed Matter Physics (+\$0.6 m or 7.4%), Sub-atomic Physics (+\$0.5 m or 3.3%), Electrical and Computer Engineering (+\$1.0 m or 5.0%) and Computing and Information Sciences (\$1.1 m or 5.2%). According to the Reallocations Committee Report http://www.nserc.ca/programs/real2000/feedbac k e.htm), "The most convincing submissions were those that demonstrated the quality and impact of the discipline as well as its importance to Canada, and clearly laid out feasible proposals that would achieve the vision."

The Earth Science community was not alone in giving up more than it received and it was far from the worst off: all the biology committees, and all the engineering committees except Electrical and Computer Engineering experienced net losses (e.g. Evolution and Ecology gave up \$1.1 m or 6.9%).

Encore une fois, le dernier exercice de réaffectation des fonds du CRSNG (2003-2006) a produit une perte nette pour les Sciences de la terre au Canada. Des 2 millions \$ (10% du budget pour les subventions à la découverte) que les deux comités de Sciences de la terre (Solide et Environnementale) a remis au CRSNG, 1,3 million \$ ont été redonnés, soit une perte nette de 0,7 million \$, ce qui équivaut à une diminution de 3,7% du budget total (37% du montant mis dans l'exercice de réaffectation). Les fonds de recherche disponibles de 2003 à 2006 refléteront cette diminution.

Les gagnants de cet exercice de réaffectation sont Chimie (+1,5 million \$ ou 4,8% de son budget total), Physique de la matière condensée (+0,6 million \$ ou 7,4%), Physique subatomique (+0,5 million \$ ou 3,3%), Génie électrique et informatique (+ 1,0 million \$ ou 5,0%) et Informatique (+1,1 million \$ ou 5,2%). Le rapport du comité de réaffectation des fonds (voir

http://www.crsng.ca/programs/real2000/feedbackf.htm) indique: «Les énoncés les plus convaincants ont été ceux qui soulignaient la qualité et l'impact de la discipline ainsi que son importance pour le Canada, et qui présentaient des propositions claires pour réaliser la vision.»

La communauté de chercheurs en Science de la terre n'était pas la seule à remettre plus qu'elle ne reçoit, certains ayant écopé davantage: tous les comités de Biologie et tous les comités de Génie, sauf pour Génie électrique et informatique, ont subi du pertes nettes (par exemple, Évolution et écologie a perdu 1,1 million \$ ou 6.9%).

Not all members of CGRG are academics, so not all of you will be affected directly by the results of the reallocation exercise. It is also true that NSERC is no longer the only major source of funding available for public university researchers. But for many academics in the broad area of environmental earth science, NSERC funding represents the base budget used for long-term programs, while other sources are used for short-term projects. Consequently, I believe that all of us will eventually be detrimentally affected by the slow withdrawal of research funds: less money for research translates into lower levels of support for graduate students and ultimately into fewer graduate students being attracted into our programs and being available for employment by industry or government. Moreover, lower funding may lead to a reduction in the quality of graduate students as the most able are attracted to better-funded disciplines. Within universities, total departmental external funding is often used as an index of research quality, so lower funding means less weight when internal resources are being allocated. These linkages suggest that a long-term reduction in funding levels will be significant on many fronts.

In the latest Reallocation Exercise, the preparation of the submission was undertaken by dedicated and experienced members of the earth science community following extensive consultation. Despite this investment of time and effort and even though the Reallocations Committee "...felt that the Canadian Earth Sciences community is one that excels at the international level", our field again lost ground.

What then is the problem? Is our science really not as worthy as that undertaken by chemists or physicists? Or is the problem one of tactics and strategy? A clue to one of the perceived problems was given in the Reallocations Committee feedback for Committees 08 and 09 (http://www.nserc.ca/programs/real2000/feedback/gsc08_09_e.htm):

Les membres de GRGC ne sont pas tous des universitaires, donc certains d'entre vous n'êtes pas affectés directement par le résultat de cette réaffectation des fonds. Aussi, le CRSNG n'est grande organisation seule subventionne les chercheurs universitaires, notamment pour des projets spécifiques et à courte terme. Mais, pour plusieurs chercheurs dans le domaine de Sciences de la terre environnementales, le CRSNG accorde des fonds de base pour les programmes à long terme. En conséquence, je crois que tous les membres de la communauté seront affectés par la diminution progressive des fonds de recherche. Moins d'argent pour la recherche se traduira par des niveaux d'appui financier plus bas pour les étudiants de 2e et 3e cycles. À la limite, le nombre d'étudiants diplômés dans programmes diminuera et peu de diplômés seront disponibles pour répondre aux besoins de l'industrie et du gouvernement. De plus, à l'intérieur des universités, le total des fonds de recherche externe est souvent utilisé comme un indice de la qualité de la recherche; une diminution peut donc également causer une perte de ressources internes. Ces liens suggèrent qu'une diminution à long terme du niveau des subventions sera significative sur plus d'un aspect.

La préparation du document de réaffectation a été réalisé par des membres reconnu de la communauté, dévoués à leur discipline, après beaucoup de consultation. Malgré l'investissement en temps et les efforts consacrés, et même si le Comité de réaffectation «...a jugé que la communauté canadienne des Sciences de la terre excelle au niveau international», notre champs de recherche a encore perdu des ressources.

Alors, quel est le problème? Est-ce que notre secteur est moins importante que celui des chimistes ou des physiciens? Ou s'agit-il d'un problème de tactique, de stratégie? Dans ses commentaires, le comité de réaffectation indique peut-être la source du problème (http://www.nserc.ca/programs/real2000/feedbac k/gsc08 09 f.htm):

"Despite the quality of the Canadian community, the Reallocations Committee considered that the submission did not convey a sense of where the discipline is currently heading....There may have been an overemphasis on trying to find a theme that was all encompassing."

In my view, this is *the* major problem: Canadian earth science research as a whole is too broad to sell in a single report. In the environmental earth sciences, global environmental change and climate warming is the obvious focus and therefore constituted one of the three fields in the submission. We can have a coherent voice in this area and demonstrate the importance and excellence of Canadian research. We can differentiate ourselves from the rest of the world in terms of our geography, our approaches and our skills.

At the time of the latest submission preparation, I (perhaps like many other earth scientists) was equivocal about combined vs. separate submissions for NSERC Committees 08 and 09. Now I think that we have no alternative: for the next reallocation exercise, we must make individual submissions. The splitting of the submission into two will allow both groups to focus more easily on the real stars that we have in Canada and on the genuinely ground-breaking work (bad pun) that we do.

What have we got to lose?

Note: The views expressed are my own. CGRG has not taken a formal position on this issue. If you have any comments on this or other issues, send them me vou alewkowi@uottawa.ca or share them with all members of the CGRG list by posting them to cangeorg@uvvm.uvic.ca. If you are not a cangeorg subscriber and wish to post messages, you can request being added to the listserv following the directions at: http://cgrg.geog.uvic.ca/cangeorg.htm.

«Malgré la qualité de la communauté canadienne, le Comité a jugé que l'énoncé n'a pas permis de savoir dans quelle voie la discipline est engagée... Peut-être a-t-on trop essayé de trouver un thème englobant.»

À mon avis, c'est LE problème majeur: les Sciences de la terre canadiennes ratissent trop large, ce qui est difficile à vendre dans un seul rapport. Pour les Sciences de la terre environnementales, les changements globaux et le rechauffement global sont les sujets centraux. Pour cette raison, ils avaient constitué un des trois champs dans le rapport soumis. Or, nous pouvons avoir une voix cohérente dans ces champs et nous pouvons démontrer l'importance et l'excellence de la recherche au Canada dans Nous pouvons aussi nous ces domaines. distinguer du reste du monde en ce qui concerne notre géographie, nos approches et nos habiletés.

Durant la dernière période de soumission, j'avais des sentiments ambigus concernant la soumission d'un seul rapport au CRSNG, comparativement à deux de la part des comités 08 et 09. Maintenant, je crois que nous n'avons pas d'autre choix: pour le prochain exercice, nous devons soumettre deux rapports. La division de ce rapport permettra aux deux groupes de faire valoir les vedettes canadiennes et les recherches de très grande qualité.

Qu'avons-nous à perdre?

Notez: Ce texte exprime mes opinions personnelles. Le GRCG n'a pas pris de position formelle en relation à cette question. Si vous avez des commentaires, vous pouvez me rejoindre à <u>alewkowi@uottawa.ca</u> ou vous pouvez les partager avec d'autres membres du GRCG par les envover cangeorg@uvvm.uvic.ca. Si vous n'êtes pas membre du GRCG et que vous voulez afficher des messages, vous pouvez demander d'être ajouté au listserv en suivant les directives à http://cgrg.geog.uvic.ca/cangeorg.htm.

Antoni Lewkowicz

SECRETARY-TREASURER'S REPORT

Membership is sitting around 160 right now, with the bulk of the dues coming through the GAC and the CAG. While the majority of our members come from academia, we have strong representation from government organisations and industry. Total revenues for 2002 were \$1445.04 and total expenses were \$1388.90. Membership dues paid through the GAC and CAG for 2002 are expected shortly. Our largest expenses last year were for our IAG membership (\$534) and student awards (\$500). The CGRG's finances are in good shape and this has allowed

us to fund the upgrade to the CGRG server being operated by Dan Smith out of the University of Victoria.

How to reach us: You are encouraged to contact any of the executive about newsletter items at the addresses shown at the end of the newsletter, or by Email. Newsletter items should ultimately be sent to Kevin Driscoll or Yves Michaud.

Kevin Driscoll

THE J. ROSS MACKAY AWARD

The CGRG Executive is delighted to announce that Dr. John Gosse, Canada Research Chair in the Department of Earth Sciences, Dalhousie University, is the recipient of the 2003 Mackay Award. The Mackay award is given annually by the CGRG in recognition of a significant achievement by a young geomorphologist within Canada. The purpose of the award is to foster the development of geomorphology in Canada and to provide recognition of young scientists in this field. The four previous winners are Scott Lamoureux (2001), Steven Wolfe (2000), Cheryl McKenna-Neuman (1999), and Tracey Brenand (1998). No award was made in 2002.

John Gosse was nominated for his paper, "Terrestrial *in situ* cosmogenic nuclides: Theory and application" co-authored with F.M. Phillips, which appeared in Quaternary Science Reviews

in 2001. The Mackay award selection committee (André Roy (Past-President CGRG and Chair), Brian Greenwood, Scott Lamoureux and Andrée Bolduc), in recommending the award, noted the excellence not only the paper itself, which stands out as an exceptional and major contribution, but also of the impact of the Dr. Gosse on the field at the national and international levels.

Dr. John Gosse will give the Mackay lecture entitled, "Cosmogenic nuclide exposure dating in Canada: New strategies, old landscapes, new questions" at the CANQUA-CGRG Meeting in Halifax in June. CGRG members can look forward to hearing an exciting presentation on this subject with a strong focus on the Canadian context.

NOTE FROM NEW BRUNSWICK

At the end of 1999, the "Engineering and Geoscience Professions Act" was proclaimed in New Brunswick. Under this act, geoscience means "studies or investigations within any of the disciplines of the geological sciences which deal with the origin, history, structure, composition, properties or conditions of the earth, as well as with geological processes operating now or in the past". CGRG members conducting commercial activities in NB that

involve geoscience should be aware of this development. It may be that you will be required to register with the Association of Professional Engineers and Geoscientists of New Brunswick (APEGNB). For more information, visit the APEGNB web site at:

http://www.apegnb.com/

Jeff Ollerhead

THE SLAYMAKER AWARDS

The first Slaymaker awards were given out at the GAC/MAC meeting in summer 2002. These awards, for the best student oral paper and best student poster presented at the CGRG Annual Meeting, are named after Olav Slaymaker, one of Canada's most distinguished geomorphologists. Each winner receives a cheque for \$250, a certificate, and the opportunity to list the honour in their resumé. The winners in 2002 were:

Best Student Paper:

John F. Orwin, Department of Geography, University of Western Ontario: "Short-term spatial and temporal patterns of proglacial suspended sediment transfer, Small River Glacier, British Columbia" (co-authored with C. Smart).

The citation read: The Adjudicating Committee was impressed by the originality of the project and the high quality of the experimental design which permitted real conclusions to be drawn concerning spatial and temporal variability in sediment transport within the proglacial zone. In addition, committee members were conscious of the numerous challenges that were met in order to realize this project, including the

development of new instrumentation and of living in a difficult environment.

Best Student Poster.

Robert N. Armstrong, Department of Geography, University of Saskatchewan: "Scale effects and appropriate DEM scales for regional hydrologic applications" (co-authored with L. Martz).

The citation read: The Adjudicating Committee found the topic to be well-defined and the conclusions well-supported by the analyses. The poster itself was superior: attractive, uncluttered, and easy-to-read. The author had an excellent understanding of the problem and responded to questions clearly and precisely.

Congratulations to these two winners. We look forward to awarding the second pair of Slaymaker awards at the joint CANQUA-CGRG meeting in Halifax in June.

Antoni Lewkowicz

NEW CGRG SERVER

Members of the CGRG listserv will have already heard that the server used to host the *CGRG Bibliography of Canadian Geomorphology* has been replaced by a new computer. While a major expense for an organization the size of the CGRG, the increasing pace of deterioration of our old server and the burgeoning size of the bibliography made this a high priority item. The end result has been a dramatic increase in the return rate of bibliographic searches.

The number of entries archived in the *CGRG Bibliography of Canadian Geomorphology* continues to build. When the bibliography was first put online in 1995, it contained a meagre

500 records. Continued archiving of the weekly contents of the almost 300 postings of the *Recent Publications in Canadian Geomorphology* distributed over the CGRG listserver have allowed the holdings of the bibliography to expand to the current 16,500 entries, of which ca. 50% have an abstract entry.

Use of the bibliography is extensive. Over the initial two months of operation of the new server (Dec. 19/02 to Feb. 16/03), some 16,565 users (average of 676 per day) undertook 82,664 searches. While the number of requests peak on both Monday and Thursdays, users access the site on a 24 hours basis. Weekly server statistics

can be viewed by accessing a link off the CGRG homepage:

http://cgrg.geog.uvic.ca/statistics.htm

A review of the IP addresses accessing the bibliography over the last two months shows that users come from around the globe. In rank order, the majority of users over that time period originated in either the United States, Canada, UK, France, Germany, Netherlands, Italy, Saudi Arabia, Japan or Australia. Nevertheless, a complete listing of the origin of all users indicates that bibliographic searchers were undertaken by users from some 83 countries: Argentina. Australia. Austria. Belgium. Bermuda, Brazil, Bulgaria, Canada, Cayman Islands, Chile, Colombia, Costa Rica, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, Estonia, Faroe Islands, Finland, France, Georgia,

Germany, Greece, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kenya, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Macedonia, Mauritius, Malaysia, Malta, Mexico, Netherlands, New Zealand, Nicaragua, Norway, Pakistan, Peru, Philippines, Poland, Portugal, Romania, Russia, Saudi Arabia, Senegal, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sri Lanka, Sweden, Switzerland, Taiwan, Thailand, Trinidad and Tobago, Turkey, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Venezuela, Yugoslavia, Zambia

Dan Smith

UPCOMING MEETINGS

CANQUA/CGRG 2003 JOINT MEETING JUNE 8–12, 2003, HALIFAX, NOVA SCOTIA.

NOTE: APRIL 15 DEADLINE FOR ABSTRACTS AND PRE-REGISTRATION

The Canadian Quaternary Association and the Canadian Geomorphology Research Group will host a joint meeting in Halifax, Nova Scotia from June 8 - 12, 2003. Special sessions include 1) From traditional to 3D glacial mapping: onshore, offshore, and subsurface, 2) Tracing meltwater and Lake Agassiz floods to the Atlantic Ocean, 3) Prospecting in glaciated terrain & 4) Geoarchaeology and applied dating methods. The Mackay lecture will be given and there will be a general geomorphology session as well as other general sessions. Pre- and Postconference field trips: Glaciation and sea level changes in Nova Scotia. Halifax Harbour cruise. For more information contact Ralph Stea, 902-902-424-7735 424-2528 (ph), rrstea@gov.ns.ca. or visit the website at: http://www.gov.ns.ca/natr/meb/canqua/Canqua.h

Ian Spooner

LAND-SEA CORRELATIONS IN THE CENOZOIC

Palynologists and micropalaeontologists working in all geologic eras are invited to participate in a Symposium to be held at the Joint AASP/CAP/NAMS Meeting, Niagara, Canada, October 5-8, 2003

The symposium is entitled "Land-Sea Correlations in the Cenozoic".

Sponsored by the Canadian Association of Palynologists (CAP), this Symposium explores the linkages between terrestrial and marine records of Cenozoic environmental change. The Cenozoic has seen profound climatic and environmental changes, and terrestrial and marine realms have responded to these changes different Palynological in ways. and offer micropalaeontological indicators opportunities to correlate long terrestrial and marine records, explore the congruence between events on land and sea, and extract potentially continuous and high resolution signals of environmental fluctuations.

The Symposium is being co-convened by Alwynne Beaudoin (Provincial Museum of Alberta, Edmonton, e-mail: abeaudoi@gpu.srv.ualberta.ca) and Martin J. Head (University of Cambridge, UK, e-mail: mh300@cam.ac.uk). Anyone interested in participating is invited to contact either of the convenors.

Further details about the meeting, abstract submission, deadlines, registration etc., may be found at the conference web-site at http://www.palynology.org/meet_AASP36.html

Additional information about the Canadian Association of Palynologists can be found at http://www.scirpus.ca/cap/cap.shtml.

Alwynne B. Beaudoin PhD, Provincial Museum of Alberta 12845-102nd Avenue, Edmonton, Alberta, T5N 0M6, Canada abeaudoi@gpu.srv.ualberta.ca http://www.pma.edmonton.ab.ca/ http://www.scirpus.ca/index.shtml 53rd annual meeting of the Canadian Association of Geographers (CAG 2003) May 27 to 31, 2003 hosted by the Department of Geography, University of Victoria in beautiful coastal Victoria BC. General details on the conference and Victoria can be found at www.geog.uvic.ca/ontheedge2003/index.html

Session ID # 10 (Ian J. Walker, Dept. of Geography, Uvic ijwalker@uvic.ca)

Fluid flow & sediment transport processes in geomorphology: innovations, new insights & Advances in measurement

Session ID# 11 (Alberto Reyes, SFU, avreyes@sfu.ca):

"Holocene glaciation in the Canadian Cordillera"

Session ID# 32 (Johannes Koch, SFU, jkoch@sfu.ca):

"Environmental change in the alpine zones of the Canadian Cordillera and Pacific Northwest during the 20th century"

Session ID# 39 (Lauren Walker, SFU, lawalker@sfu.ca):

"Natural disturbances and their ecological impact during the Holocene"

Session ID# 54 (Dan Smith; UVic, smith@uvvm.uvic.ca):

"Reconstruction of Cordilleran climates during the last millennium"

Ian J. Walker

CALENDAR

2003

Eighth International Conference on Permafrost Zurich, Switzerland, July 21-25, 2003 http://www.geo.unizh.ch:8080/icop/main.jsp

XVI INQUA Congress "Shaping the Earth: A Quaternary Perspective.", July 23 - 31, 2003 Reno Hilton Resort & Conference Center Reno, Nevada USA

Information: Ms. M. Jones Division of Hydrologic Sciences Desert Research Institute

Email: <u>inqua03@dri.edu</u>

Third International Conference on Debris-Flow Hazards Mitigation: Mechanics, Prediction, and Assessment, Davos, Switzerland.

September 10-12,

Information: Dieter Rickenmann, Swiss Federal

Research

DFC3 Inf@wsl.ch

CSG and CNC-IAH Joint meeting Winnipeg, Manitoba, October, 2003

GSA Annual Meeting, Seattle, Washington. November 2–5, 2003

Information: GSA Meetings, (303) 447-2020.

3rd International Limnogeology Congress, Presidio Plaza Hotel, Tucson, AZ, USA Mar 29-Apr 02, 2003 Information: Andrew Cohen, acohen@geo.arizona.edu

2004

AQQUA and CGRG meeting Quebec City, Québec Information: Michel Allard, Michel.allard@cen.ulaval.ca

CSG and CNC-IAH Joint meeting Quebec City, Québec, October, 2004

LINKS TO WEBSITES

2001 FRIENDS OF THE PLEISTOCENE FIELD TRIPS (see AMQUA website for up-to-date information on Friends trips: http://vishnu.glg.nau.edu/amqua/)

American Geophysical Union http://earth.agu.org/kosmos/homepage.html

Association of American Geographers http://www.aag.org

British Geomorphological Research Group http://boris.qub.ac.uk/bgrg

European Union of Geosciences http://eost.u-strasbg.fr/EUG

Geological Society of America http://www.geosociety.org

Geomorphology Speciality Group Homepage http://www.cla.sc.edu/geog/gsgdocs

International Association of Geomorphologists http://www.homepage.montana.edu/~ueswl/geomorphlist/index.htm

International Association of Sedimentologists http://www.blackwell-science.com/uk/society/ias

International Union for Quaternary Research http://inqua.nlh.no

NSF – Geography and Regional Science http://www.nsf.gov/sbe/bcs/geograph/start.htm

Quaternary Geology and Geomorphology Division – Geological Society of America http://www.ocean.odu.edu

CONTRIBUTIONS TO FUTURE CGRG NEWSLETTERS

The CGRG newsletter is published twice annually. As with all such newsletters, its success is directly dependent on the contributions that we receive. CGRG welcomes contributions to future newsletters from any of our members. These should be of interest to the Canadian geomorphology community and could include discussions, commentaries, reviews of regional or national meetings and field trips, summaries of issues pertinent to geomorphology, and announcements of future meetings and workshops. Please forward your contributions to:

ymichaud@nrcan.gc.ca or kevin.driscoll@nserc.ca



WHERE IS THIS??? Send your thoughts to kevin.driscoll@nserc.ca

CGRG was established in 1993 at the International Association of Geomorphology Congress in Hamilton, Ontario. It provides a strong voice for geomorphology in Canada. Its objectives are to advance the science of geomorphology in Canada by 1) organizing and sponsoring technical sessions, workshops, and field trips, 2) publishing newsletters twice a year, 3) operating a listserver (CANGEORG) which maintains a comprehensive bibliography of Canadian geomorphological, Quaternary, and environmental geoscience publications, 4) supporting publication of technical reports and field guides, 5) presenting the J. Ross Mackay Award in recognition of a significant achievement by a young geomorphologist in Canada, and 6) cooperating with related earth science associations within Canada (GAC, AQQUA, CAG, CANQUA). We encourage all earth scientists with an interest in geomorphology to join CGRG

CGRG EXECUTIVE 2002-2003

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