



The Canadian Geomorphology Research Group
Le Groupe Canadien de Recherche en Géomorphologie

BULLETIN DU GROUPE CANADIEN DE RECHERCHE EN GEOMORPHOLOGIE LE PAYSAGE CANADIEN THE CANADIAN LANDSCAPE

THE NEWSLETTER OF THE CANADIAN GEOMORPHOLOGY RESEARCH GROUP

No. 29, November 2010

Breached
landslide dam
at Meager
Creek,
southwestern
British
Columbia
Photograph by
David Steers.



President's Message Mot du Président

Greg Brooks, CGRG President

For anyone with an interest in geomorphology, the summer of 2010 was certainly interesting. To mention only several of the more notable events, severe flooding occurred during June in southern Alberta and Saskatchewan, in marked contrast to the regional drought conditions experienced in this region over the past few years. Eastern Canada experienced a M5.0 earthquake with an epicenter about 60 km northeast of Ottawa. While fortunately causing only minor damage, the shaking unquestionably reminded people living in the large urban centers of Ontario and Quebec that they live with a significant earthquake hazard. The earthquake also triggered several Leda clay landslides within 22 km of the earthquake epicenter, one of which consumed roughly six hectares of rural land. In early August, a massive failure occurred at Capricorn Peak, Mount Meager Volcanic Complex (see cover photo), which triggered a large-scale landslide that was reportedly 40 million m³ in size. This is the largest landslide in British Columbia since the 1964 Hope Slide and one of the largest in Canada over the past couple of centuries. Our landscape clearly is doing its part in

Pour toute personne qui s'intéresse à la géomorphologie, l'été 2010 a certainement retenu l'attention. Pour ne rappeler que quelques-uns des événements les plus notables, mentionnons d'abord la grave inondation survenue en juin dans le sud de l'Alberta et de la Saskatchewan, un événement qui contraste grandement avec les conditions de sécheresse qui ont sévi dans cette région au cours des dernières années. En outre, l'Est du Canada a été frappé par un séisme de magnitude 5,0 dont l'épicentre se situait à environ 60 km au nord-est d'Ottawa. Heureusement, les secousses n'ont causé que des dommages mineurs, mais elles ont sans doute rappelé aux habitants des grands centres urbains de l'Ontario et du Québec que la menace d'un séisme important est omniprésente. Le séisme a également déclenché plusieurs glissements de terrain dans de l'argile à Leda dans un rayon de 22 km de l'épicentre. L'un de ces glissements a entraîné la perte d'approximativement six hectares de terres agricoles. Au début du mois d'août, un important glissement survenu au pic Capricorn, dans le Complexe volcanique de Meager Mountain (voir la photo en couverture), a déclenché un glissement de terrain de grande ampleur, emportant

providing subject matter and opportunities of relevance to the Canadian geomorphology community.

There was also action on the political front. In early September, CGRG members may have noticed an urgent appeal from the Canadian Meteorological and Oceanographic Society to write to the Attorney General of Ontario to protest a proposed amendment to the definition of the “practice of professional engineering” in the Ontario Professional Engineers Act contained within Bill 68. This amendment would have removed an exemption for the natural sciences, potentially making it impossible for many scientists, including geomorphologists, to practice their professions in the Province of Ontario. The appeal, however, was very much in the eleventh hour, as the Bill was soon to be given a Third Reading. Nevertheless, over 600 letters expressing concern were received by the Ontario Attorney General's Office, including letters from the CGRG President and (at least) several prominent Ontario geomorphology professors. I am pleased to report that the Professional Engineers of Ontario organization has since agreed to embed an exemption for natural scientists into the Regulations of the Professional Engineers Act of Ontario. There are two important messages from this episode: organizations like CGRG need to be vigilant about potential changes to engineering acts that can be detrimental to their members, and, very encouragingly, legislation like Bill 68 can be influenced by a strong letter-writing campaign. Clearly, responding to appeals such as this one, even if at the apparent last minute, is not a ‘waste of time’. Democracy can work!

The 2011 Annual General Meeting (AGM) of CGRG will be at the GAC/MAC conference in Ottawa, Ontario, on May 25-27, 2011. The conference web address is <http://www.gacmacottawa2011.ca/welcome.html>. In addition, CGRG will be sponsoring three special sessions and two field trips at this conference. More information on these sessions and field trips can be found elsewhere in this newsletter. The deadline for abstract submission has not yet been announced, but usually occurs in January. This should be an excellent meeting. I hope to see you at the AGM.

As part of its mandate to promote Canadian geomorphology, CGRG sponsors geomorphology special

au bas mot 40 millions de mètres cubes de matériel. Il s'agit du plus grand glissement de terrain en Colombie-Britannique depuis le glissement de Hope en 1964 et l'un des plus importants glissements à survenir au Canada au cours des derniers siècles. Notre paysage fait certainement sa part pour fournir des occasions pertinentes de faire appel à l'expertise de la communauté des géomorphologues canadiens.

Il y a également eu de l'activité sur le front politique. Au début de septembre, en tant que membre du Groupe canadien de recherche en géomorphologie (GCRG), vous avez peut-être pris connaissance d'un appel urgent de la Société canadienne de météorologie et d'océanographie vous incitant à écrire au procureur général de l'Ontario. Le but de cet appel était de protester contre une proposition visant à modifier la définition de « l'exercice de la profession d'ingénieur » dans la Loi sur les ingénieurs de l'Ontario, contenue dans le projet de loi 68. Cet amendement aurait supprimé une exception pour les sciences naturelles, mettant éventuellement de nombreux scientifiques, notamment des géomorphologues, dans l'impossibilité d'exercer leur profession en Ontario. Cependant, l'appel a été lancé à la dernière minute, puisque le projet de loi devait bientôt passer en troisième lecture. Néanmoins, plus de 600 lettres exprimant des préoccupations ont été reçues au Bureau du procureur général de l'Ontario, y compris des lettres du président du GCRG et, à tout le moins, de plusieurs éminents professeurs de géomorphologie de l'Ontario. J'ai le plaisir d'annoncer que l'Ordre des ingénieurs de l'Ontario a depuis consenti à inclure une exception pour les spécialistes en sciences naturelles dans la réglementation de la Loi sur les ingénieurs de l'Ontario. On peut tirer deux importantes leçons de cet épisode. D'abord, des organisations comme le GCRG doivent rester vigilantes quant à de possibles modifications des lois sur les ingénieurs, susceptibles d'être au détriment de leurs membres. Aussi, sur une note très encourageante, il est possible d'avoir un effet sur des mesures législatives telles que le projet de loi 68 grâce à une vigoureuse campagne épistolaire. Manifestement, une réponse à un appel de cette nature, même s'il semble à la dernière minute, n'est pas une « perte de temps ». La démocratie peut fonctionner!



Landslide near Notre-Dame-de-la-Salette, QC triggered by June 23, 2010 earthquake.
Photograph by Charles O'Dale.

sessions and field trips, and underwrites student awards at regional and national meetings. The CGRG Executive is closely involved with the organization of a special session(s) and field trip(s) at at least one annual national meeting (e.g., GAC/MAC 2011 and CANQUA 2011, as mentioned above and elsewhere in the newsletter). The Executive, of course, does not have the capacity to organize geomorphology-related activities at every conference in Canada. Individuals within the geomorphology community itself have a critical role in contributing to these other conferences. If you are interested in organizing a geomorphology session or field trip at an upcoming conference, there are a number of upcoming opportunities including the 2011 meetings of the Canadian Association of Geographers (CAG) in Calgary, various regional associations of the CAG, the Canadian Geophysical Union in Banff, and the Canadian Quaternary Association in Quebec City. To do this, check the website of the parent organization and contact the conference organizing committee to get your session/field trip into their program. If you are interested in obtaining CGRG sponsorship and CGRG student awards, then contact CGRG Secretary-Treasurer, Nicole Couture (ncouture@nrcan.gc.ca) or CGRG President, Greg Brooks (gbrooks@nrcan.gc.ca) for information on how to do this. We also invite you to make use of the CGRG newsletter and CGRG listserver for promoting your session and/or field trip. We hope to hear from you!

On behalf of the CGRG membership, I thank Duane Froese for his efforts as CGRG President over the last year. Among his contributions is putting CGRG on a sound financial footing after many years of operating in the red. In the coming year, Duane will continue being a member of the CGRG Executive in the role of Past President, and will handle the nomination process for the J. Ross Mackay Award given annually by CGRG to a young geomorphologist in Canada in recognition of a significant achievement. See elsewhere in this newsletter for more information if you are interested in nominating a candidate.



L'Assemblée générale annuelle (AGA) 2011 du GCRG sera tenue lors de la conférence de l'Association géologique du Canada/Association minéralogique du Canada (AGC-AMC) à Ottawa (Ontario), du 25 au 27 mai 2011. La page Web de la conférence se trouve à l'adresse : <http://www.gacmacottawa2011.ca/welcome.html>. En outre, le GCRG parrainera trois séances spéciales et deux excursions sur le terrain lors de cette conférence. De plus amples renseignements sur ces séances et sur les excursions sont disponibles ailleurs dans le bulletin d'information. La date limite pour la présentation de résumés n'a pas encore été annoncée, mais elle est habituellement prévue pour janvier. La réunion devrait être excellente. J'espère pouvoir compter sur votre participation à l'AGA.

Dans le cadre de son mandat pour la promotion de la géomorphologie au Canada, le GCRG parraine des séances spéciales et des excursions, et offre des bourses d'études lors de réunions régionales et nationales. Le comité de direction du GCRG collabore étroitement à l'organisation de séances spéciales et d'excursions, ainsi qu'à au moins une rencontre nationale annuelle (par ex., AGC-AMC 2011 et CANQUA 2011, mentionnées précédemment et ailleurs dans le bulletin d'information). Bien entendu, le comité de direction n'est pas en mesure d'organiser des activités reliées à la géomorphologie à chacune des conférences au Canada. Les personnes qui font partie de la communauté des géomorphologues jouent un rôle essentiel en participant à ces autres conférences. Si vous êtes intéressé(e) à organiser une séance ou une excursion portant sur la géomorphologie lors d'une conférence à venir, un certain nombre d'occasions s'offrent à vous, notamment les réunions de 2011 de l'Association canadienne des géographes (ACG) à Calgary, de diverses associations régionales de l'ACG, de l'Union géophysique canadienne (UGC) à Banff et de l'Association canadienne pour l'étude du Quaternaire (CANQUA) dans la ville de Québec. Pour ce faire, consultez le site Web de l'organisme parrain pour inclure votre séance/excursion dans leur programmation. Si vous désirez obtenir un parrainage du GCRG ainsi que des bourses d'études du GCRG, veuillez communiquer avec la secrétaire-trésorière du GCRG, Nicole Couture (ncouture@nrcan.gc.ca) ou avec le président du GCRG, Greg Brooks (gbrooks@nrcan.gc.ca) pour obtenir de l'information sur la façon de procéder. Nous vous invitons également à vous servir du bulletin d'information et du serveur de liste du GCRG pour promouvoir votre séance et/ou excursion. Nous espérons avoir de vos nouvelles!

Au nom des membres du GCRG, je tiens à remercier Duane Froese pour sa contribution à titre de président du GCRG au cours de la dernière année. Parmi ses réalisations, il a assuré au GCRG des bases financières solides, après plusieurs années de déficit. Au cours de l'année prochaine, Duane continuera à siéger au comité de direction du GCRG en qualité d'ancien président, et sera chargé du processus de nomination pour le prix J. Ross Mackay décerné chaque année par le GCRG à un jeune géomorphologue, en reconnaissance d'une réalisation exceptionnelle. Si vous souhaitez proposer un candidat, vous trouverez d'autres renseignements dans le présent bulletin d'information.

Researcher Profile

Dr. Ken Munyikwa

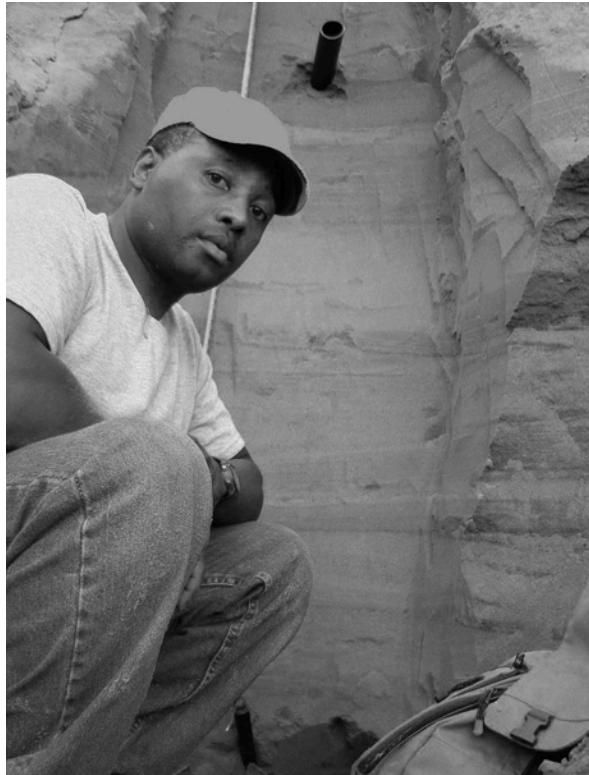
Athabasca University

Ken holds an M.Sc. and a Ph.D. in Quaternary geology from the Free University of Brussels, Belgium. The project for his dissertation was on the luminescence dating of eolian deposits from the Kalahari region of southern Africa as part of efforts to reconstruct Late Quaternary environmental changes in the region. Following his studies, Ken took up a postdoctoral position at the University of Illinois at Chicago where he worked on the luminescence dating of loess deposits from the Mississippi Valley. After Chicago, Ken had a three year visiting appointment at Seoul National University in South Korea. There, his research activities were focused on reconstructing Holocene evolutionary trends of coastal landforms along the southwestern coast of the Korean peninsula. A key component of these studies was the use of luminescence dating on coastal dunes to provide a temporal scale to changes along the coast. Subsequently, Ken relocated to Canada where he joined Athabasca University in Alberta as an assistant professor in Jan 2006.

At Athabasca University, Ken's efforts have been focused on building up a lab capable of carrying out basic sedimentological characterization of Quaternary deposits. In addition to



Collecting samples for luminescence dating near Hondo, Alberta



Ken inspects a profile cut into a fossil parabolic dune in central Alberta.

outfitting the lab with essential equipment, recent procurements include a portable optically stimulated luminescence (OSL) reader from the Scottish Universities Environmental Research Centre which should allow rapid luminescence profiling of sedimentary sequences in the field. Such profiling facilitates sample collection for OSL dating. Future additions to the lab include the impending acquisition of a portable gamma ray detector that will, when used together with the portable OSL reader, permit the quick calculation of absolute age estimates of Late Quaternary clastic sediments.

Ken's research interests are broad but they can be classed under the collective banner of reconstructing Quaternary paleoenvironments using geological proxy records. As is evident from the above, luminescence dating has played a central theme in most of his studies. At present, Ken is working on an NSERC funded project that is reconstructing postglacial environmental change in northern and central Alberta using records from eolian deposits from the region. A second project uses luminescence dating to provide an absolute chronology to sedimentary sequences at an archaeological site in southeastern Alberta. The locality is

believed to be the largest pre-contact site in western Canada and archaeologists working there have reported several levels of human occupation embedded in eolian deposits. By determining the chronology of eolian deposition and comparing it to the timing of human occupation, the study aims to ascertain if the human settlement was controlled by climate variations.

Ken is also working on a project that applies luminescence dating on sediments recovered from structures believed to be Late Wisconsinan tunnel valleys in central Alberta to see if their depositional chronologies accord with the hypothesis of a subglacial genesis. Samples from the valley floor, sides and distal fan are being dated as a test of some of the concepts espoused in the megaflood hypothesis for the generation of subglacial landforms. Results of the studies will be used to demonstrate that absolute dating aids the recognition of tunnel valleys, which could lead to a better understanding of the dynamics involved in their genesis.

Ken's future plans include continuing to apply luminescence dating methods on Late Quaternary sediments and landforms to produce higher resolution reconstructions of environmental change in western Canada.



Student Profile Dominique St-Hilaire, Memorial University

Dominique is a Ph.D. student in Geography at Memorial University, co-supervised by Drs. Trevor Bell and Don Forbes (GSC Atlantic). Dominique's interest in the geomorphology of cold environments was triggered during her undergraduate years at Laval University, through courses on periglacial geomorphology taught by the passionate Dr. Daniel Fortier, now at Université de Montréal. Dr. Michel Allard gave Dominique her first taste of the North when he hired her as an NSERC Undergraduate Summer Research Award (USRA) recipient to work on permafrost stability of airports in Nunavik. Another USRA award in 2005 allowed her to travel to Banks Island, NWT, where she worked on coastal-related issues under the supervision of Drs. Bell and Forbes.

Following completion of her B.Sc., she started an M.Sc. program at Memorial University to investigate the morphology and sedimentology of raised-beach sequences as a proxy indicator of past sea-ice conditions. The results were recently published in the journal *Arctic*. In 2007, Dominique transferred to the Ph.D. program and expanded her research focus to include the effects of changing relative sea-level and environmental forcing on Arctic beaches.

As part of her research program Dominique is investigating the morphological behaviour of arctic beaches at different timescales - from single storm events to millennium-long intervals - in an attempt to define Arctic coastal sensitivity and

response to changing environmental forcing in the broader context of anticipated climate change. Her research also contributes to an improved understanding of coastal hazards and climate-change impacts in the coastal zone and will inform decision-making for community and government adaptation strategies to climate change.

Being primarily field-based in remote areas of the central and eastern Canadian Arctic Archipelago, Dominique's research is made possible thanks to funding and logistical support from ArcticNet, NSERC, the Polar Continental Shelf Project, the George Hobson Award, and NSTP. She is also grateful for scholarship support from the Garfield Weston Foundation, NSERC and Memorial University.

Publications

- St-Hilaire-Gravel, D., Bell, T., and Forbes, D.L. 2010. Raised gravel beaches as proxy indicators of past sea-ice and wave conditions, Lowther Island, Canadian Arctic Archipelago. *Arctic*, 63:213-226.
- Ford, J.D., Bell, T., and St-Hilaire-Gravel, D. 2010. Vulnerability of community infrastructure to climate change in Nunavut: A case study from Arctic Bay. In *CAVIAR – Community Adaptation and Vulnerability in Arctic Regions*. Edited by Grete K. Hovelsrud and Barry Smit, Springer, 107-130.



Meeting announcement Eau et terre dans le Vieux Québec

L'Association canadienne pour l'étude du Quaternaire (CANQUA) et la section canadienne de l'Association internationale des hydrogéologues (AIH-CNC) vous invitent à assister à leur premier congrès conjoint organisé par la Commission géologique du Canada et l'Institut national de la recherche scientifique – Eau Terre Environnement. Le congrès aura lieu du 28 au 31 août 2011 à Québec à l'hôtel Château Laurier, dans le Vieux Québec.

Sous le thème « Eau et terre : La jonction des géosciences du Quaternaire et de l'hydrogéologie », le comité organisateur souhaite favoriser de précieux échanges entre les hydrogéologues et les spécialistes du Quaternaire de tous horizons lors de cet événement. Le congrès comprendra des sessions thématiques générales couvrant un vaste éventail de sujets et lancées par des conférenciers de renommée internationale ainsi que de sessions thématiques plus spécialisées. En plus du programme de conférences, la rencontre inclura des cours intensifs ainsi que des excursions sur le terrain avant et après le congrès.

Le comité a planifié 17 séances thématiques (présentées dessous), dont quatre présentent des thèmes d'intérêt pour les deux organisations, et sept séances dont les thèmes sont plus généraux. Les présentations peuvent être faites oralement ou sous forme d'affiche.

Date limite pour envoyer les résumés : 15 décembre 2010

Pour plus d'informations, visitez notre site web : www.GeoHydro2011.com

Séances communes

Changements climatiques : impacts sur le paysage et l'eau souterraine au Canada

De la géomodélisation 3D à la modélisation des eaux souterraines : défis actuels et succès

Architecture stratigraphique quaternaire et modèles hydrostratigraphiques : de la géomorphologie et sédimentologie aux techniques géophysiques

Écohydrologie des tourbières

Dynamique des inlandis et modèles glaciaires régionaux

Les longues séquences sédimentaires continentales et marines comme enregistrements paléoclimatiques quaternaires

Protéger et gérer les ressources en eaux souterraines : méthodes, données et perspectives

La télédétection et ses applications aux géosciences du Quaternaire et à l'hydrogéologie

Indicateurs du développement durable et ressources en eau souterraine

Caractérisation régionale des aquifères : la perspective canadienne

Séances thématiques

Les conditions climatiques du dernier millénaire révélées par les archives naturelles

Sites contaminés et technologies de restauration des nappes Hydrologie des glaciers et des inlandis : milieux anciens et modernes (**Commandité par le GCRC**)

Interactions entre les eaux de surface et souterraine

Qualité des eaux souterraines et vulnérabilité des aquifères

Ressources en eau souterraine et hydrocarbures

Hydrogéophysique : Élargir notre vision des phénomènes souterrains

Séances générales

Hydrogéologie générale et études de cas

Méthodes de caractérisation

Hydrogéologie des contaminants

Géologie du Quaternaire

Paléoenvironnements quaternaires

Géomorphologie

Pergélisol and études arctiques



Meeting announcement Water and Earth to meet in Quebec City

The Canadian Quaternary Association (CANQUA) and the Canadian Chapter of the International Association of Hydrogeologists (IAH-CNC) invite you to attend their first joint meeting, organized by the Geological Survey of Canada and the Institut national de la recherche scientifique – Eau, Terre et Environnement (INRS-ETE). The conference will be held August 28-31, 2011 at hotel Château Laurier, in historic Quebec City.

Under the theme “Water and Earth: The junction of Quaternary geoscience and hydrogeology”, the organizing committee wishes to promote valuable exchanges between hydrogeologists and Quaternary scientists of all persuasions. The conference will consist of broad-scoped thematic sessions led by keynote speakers of international stature as well as a series of more specialized thematic sessions. In addition to the conference program, the meeting will include short courses as well as pre- and post-meeting field trips.

The committee has planned 17 thematic sessions (listed below), of which four are special sessions of interest to both organizations, and seven general sessions. Presentations may be given orally or as posters.

Abstract submission deadline: December 15th, 2010.

For more information visit our website: www.GeoHydro2011.com.

Special sessions

Climate change : landscape and groundwater impacts in Canada

From 3D geomodelling to groundwater modelling : Current challenges and successes

Quaternary stratigraphic architecture and hydrostratigraphic models : From geomorphology and sedimentology to geophysical techniques

Peatland ecohydrology

Hydrogeophysics : Expanding our view about the subsurface
Ice sheet dynamics and regional glacial patterns

Long continental and marine sedimentary sequences as
Quaternary paleoclimatic records

Protecting and managing groundwater resources: methods,
data and perspectives

Remote sensing applications to Quaternary geosciences and
hydrogeology

Regional aquifer characterization: A Canadian perspective
Sustainable development indicators and groundwater
resources

Thematic sessions

Climate conditions of the last millennium revealed by natural
archive systems

Contaminated sites and remediation technology

Glacier and ice sheet hydrology: past and present (**CGRG**
sponsored session)

Groundwater / surface water interactions

Groundwater quality and aquifer vulnerability

Hydrocarbons and groundwater resources

General sessions

General hydrogeology and case studies

Groundwater characterization methods

Contaminant hydrogeology

Quaternary geology

Quaternary paleoenvironments

Geomorphology

Permafrost and arctic studies

Meeting announcement

GeoHazards 5

The Canadian Geotechnical Society (CGS) is pleased to invite you to the 5th Canadian Conference on Geotechnique and Natural Hazards (GeoHazards 5). GeoHazards are more relevant every day as population growth and exploitation of natural resources increases interactions between the earth and human activities. Indeed, the earth itself is being affected by environmental changes induced by human activities.

The GeoHazards conferences are the premiere forum in Canada for the sharing and dissemination of scientific and engineering knowledge related to geohazards. GeoHazards 5 will be held May 15-17, 2011 at the University of British Columbia's Okanagan campus in beautiful Kelowna, British Columbia!

Kelowna is the gateway to the Okanagan. It is a modern city nestled amongst stunning mountains, picturesque lakes, lush wineries and sumptuous orchards. Kelowna's spectacular setting will be the backdrop to what promises to be another fantastic technical conference. Great talks, great food, great wine and great friends; we look forward to seeing you in 2011.

The technical program for the conference will consist of 4 invited lectures, a technical session of approximately 40 oral presentations and a technical poster session in the following topic areas/themes: approximately 40 oral presentations and a technical poster session in the following topic areas/themes:



5th Canadian Conference
on Geotechnique and
Natural Hazards

May 15-17, 2011
Kelowna, BC, Canada

Seismic hazards

Flooding and natural dams

Landslides

Quantitative risk assessment

Snow and rock avalanches

Technology and geohazards

Geohazards in a changing climate

Tsunamis

Early warning & response

Urban hazards

Volcanoes

Dr. Dwayne Tannant
Chair, Organizing Committee

Conference Website: www.geohazards5.ca

Meeting announcement

CAG Calgary 2011

The University of Calgary Department of Geography is hosting the next Canadian Association of Geographers' Annual Meeting on May 31 to June 4, 2011.

The conference webpage will be up and submissions will be accepted online starting **November 1, 2010** at <http://geog.ucalgary.ca/cag2011>.

For more information, contact Mryka Hall-Beyer (mhallbey@ucalgary.ca).

Meeting announcement GAC/MAC Ottawa 2011

The 2011 meeting of GAC/MAC will be held in Ottawa, Ontario on May 25 to 27, 2011. In addition to holding its AGM at this venue, CGRG will have a strong presence at the meeting through its sponsorship of three special sessions and two field trips (see list below). Please check the GAC/MAC 2011 conference website (<http://www.gacmacottawa2011.ca/welcome.html>) for more information on this conference and these special sessions and field trips.



Special Sessions

Integration of process based glacial understanding in Mineral Exploration Studies

Organizers: H. Russell, D.R. Sharpe and D. Cummings (Geological Survey of Canada)

Arctic landscape evolution: large scale geomorphic response to regional climatic, oceanographic, and geodynamic processes

Organizers: D. Froese (University of Alberta) and J. Gosse (Dalhousie University)

Living in naturally hazardous places

Organizers: G.R. Brooks and R. Couture (Geological Survey of Canada)

Field Trips

Deglacial history of the Champlain Sea basin and implications for urbanization

Leaders: H. Russell, G.R. Brooks and D. Cummings (Geological Survey of Canada)

Subglacial hydrology: Implication of the Cantley Meltwater site

Leader: D.R. Sharpe (Geological Survey of Canada)

GeoHydro 2011 session Glacier and Ice Sheet hydrology

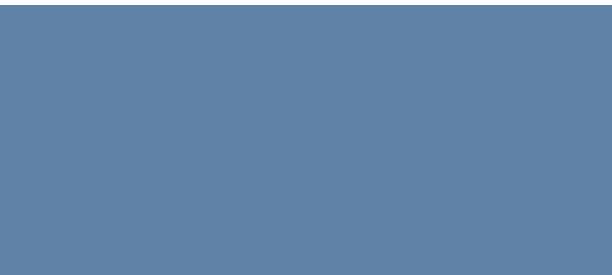
Meltwater is an important part of the glacier system controlling both the flow dynamics and stability of glaciers and ice sheets. Yet the spatial and temporal variability of glacier plumbing systems and their necessary links to glacier behavior and dynamics are not fully understood. This session will bring together researchers of both contemporary and past glacial environments, who have focused efforts on describing and quantifying glacier and ice sheet hydrology at a range of scales. We hope this session will facilitate the integration of knowledge from paleo and contemporary glacier settings, and to this end welcome papers relating to any aspect of glacier hydrology. This may include, but is not restricted to: i) meltwater routing over, through and beneath glaciers; ii) meltwater storage and outburst floods; iii) numerical modeling of the hydrological system; and iv) glaciofluvial geomorphology/sedimentology.

The deadline for abstract submission for oral or poster presentations is December 15, 2010. Authors will be informed of abstract acceptance by March 1, 2011. Upon acceptance, authors will be asked to submit a 4 to 8-page paper for the conference proceedings volume by May 31, 2011, along with registration of at least one of the authors. You can find further details at <http://geohydro2011.ca/>.

We particularly encourage students to submit papers to this session. As a CGRG sponsored session awards will be adjudicated for the best student talk (Jean-Claude Dionne award) and poster (Alan Trenhaile award).

Session conveners:

Tracy Brennand, Simon Fraser University, Vancouver (tabrenna@sfu.ca)
Matthew J. Burke, Simon Fraser University, Vancouver (mjburke@sfu.ca)



Submissions are open 2010 J. Ross Mackay Award

The Canadian Geomorphology Research Group gives the J. Ross Mackay Award to a young geomorphologist in Canada in recognition of a significant achievement. The purpose of the award is to foster the development of geomorphology in Canada and to provide recognition of young scientists in this field.

CRITERIA

The award is to be given for a significant contribution to geomorphology. It may constitute either a single publication appearing within a five-year period previous to the nomination, or a body of work. The candidate's contribution(s) may include a synthesis or regional study, a new concept, a significant advance in a subfield of geomorphology, or the development of a technique. In the case of contributions with multiple authors, the candidate must have assumed a lead role in the development of the work, and this role must be clearly explained in the nomination letter.

Recipients of the award must be:

- a CGRG member or a member of one of the supporting societies;
- either a Canadian citizen or resident and working in Canada;
- within 10 years of graduation from a PhD or Masters or undergraduate program, exclusive of periods relating to parental or medical leaves. The award can be made to an individual or research team, providing that the principal investigators fulfill these criteria.

NOMINATION

Nominations should be made by two CGRG members in a letter to the Chair of the Award Committee and must be accompanied by an up-to-date CV for the nominee. Letters of support by the Proposer and Seconder should clearly outline the basis for the nomination (see criteria above). The Proposer and Seconder may not have acted as supervisors (or directors) of the nominee's research; however, additional supporting letters may be included with the nomination.

The Awards Committee will maintain a file on each nominee which will remain active for two years or until the nominee is no longer eligible. The file may be updated by the nominators in subsequent years.

Nominations should be sent by **November 15, 2010** to:

Dr. Duane Froese
duane.froese@ualberta.ca
 Department of Earth and Atmospheric Science
 University of Alberta
 Edmonton AB
 T6G 2E3
 780.492.1968



Guides méthodologiques et bonnes pratiques en matière de glissement de terrain : Une initiative nationale pour la réduction des pertes dues aux aléas naturels.

Le Secteur des sciences de la terre de Ressources naturelles Canada a entamé, par le truchement de son programme intitulé la Géoscience pour la sécurité publique, le développement de guides méthodologiques et de meilleures pratiques en matière de glissement de terrain. Comme chef de file mondial, le Canada contribue activement à la réduction des pertes liées aux glissements de terrain; soit un apport au développement durable.

Ces guides méthodologiques offriront aux géoscientifiques canadiens un ouvrage complet faisant état de la connaissance actuelle, de la science, et les techniques en matière de réduction des impacts liés aux glissements de terrain. Ces guides méthodologiques, auxquels contribuent de nombreux experts canadiens, fournissent une source commune et détaillée de l'expertise technique canadienne sur des sujets clés liés aux glissements de terrain comme l'identification, la cartographie, l'investigation, l'analyse, l'évaluation de l'aléa et du risque, et les mesures d'atténuation.



Débris du glissement du ruisseau Legate bloquant la route 16 le 28 mai 2007 à 39 km à l'est de Terrace, C.-B. (Courtoisie de BC Ministry of Forests).

En plus de fournir des conseils et des indications sur la bonne pratique, ces documents serviront également d'outils de référence pour des décideurs, des propriétaires d'infrastructures nationales, des gestionnaires de territoires, et des agences d'évaluation environnementales. L'amélioration de la sécurité des canadiens est assurée par les bénéfices qu'apporteront ces guides méthodologiques.



Étalement latéral survenu le 10 mai 2010 dans les dépôts argileux de la Mer Champlain près de St-Jude, Qc (Photographie SST-2010-165)

Cette initiative peut compter sur un appui solide venant d'agences gouvernementales canadiennes, de sociétés professionnelles et savantes, du milieu universitaire et des géo-professionnels de l'industrie. Une consultation pancanadienne tenue en 2010 auprès d'utilisateurs et de collaborateurs potentiels a permis de structurer la portée et le contenu de ces guides. Les premiers chapitres de ces guides devraient être publiés dès 2010, alors que les guides complets seraient disponibles en 2012.

Les géoscientifiques canadiens intéressés à collaborer à ces guides méthodologiques et de bonnes pratiques sont invités à contacter Réjean Couture à la Commission géologique du Canada, Ottawa (ON), Courriel : rcouture@nrcan.gc.ca; Tél : 613-943-5237.

Join the Canadian Geomorphology Research Group

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) co-operating with related earth science associations within Canada (GAC, AQQUA, CAG, CANQUA, CGU).

We encourage all earth scientists with an interest in geomorphology to join CGRG.

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