



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. 31, November 2011

Annual push
moraines,
Castle Creek
Glacier, interior
British
Columbia
Photograph by
Brian Menounos.



President's Message Mot du Président

Tracy Brennand President

2011 has been a very active year for CGRG – our best yet. We have sponsored one conference (Coherent Flow Structures in Geophysical Flows at the Earth's Surface II), and 2 fieldtrips and 11 sessions at 4 national and international meetings (CANQUA, GAC-MAC, CAG, AAG). From these meetings we have awarded students with 2 Olav Slaymaker awards, 4 Jean-Claude Dionne awards, and 3 Alan S. Trenhaile awards. The participation at these sponsored events (~ 200 papers) was exceptional, and the standard of student oral and poster presentations was excellent. Both bode well for the future of Geomorphology in Canada.

Although CGRG sponsorship of sessions and meetings reached a peak in 2011, the goal of an active and engaged organization is to maintain or enhance its activity. To this end I would like to encourage any of you interested in organizing a geomorphology session at any meeting in 2012 (or beyond) to get the session onto the meetings program and then contact me (tabrenna@sfu.ca) or any member of the CGRG executive to request CGRG sponsorship. Additional details on CGRG sponsorship can be found at <http://cgrg.geog.uvic.ca/sponsor.html>. You can also use

L'année 2011 fut très remplie pour le GCRG; en fait, ce fut notre meilleure année jusqu'à présent. Nous avons organisé une conférence (Structures d'écoulement cohérentes dans les écoulements géophysiques à la surface de la Terre), deux visites sur le terrain et 11 séances dans le cadre de quatre réunions nationales et internationales (CANQUA, AGC-AMC, ACG, AAG). Lors de ces réunions, nous avons remis deux prix Olav Slaymaker, quatre prix Jean-Claude Dionne et trois prix Alan S. Trenhaile à des étudiants. La participation à ces événements parrainés (plus de 200 exposés) a été exceptionnelle, et la qualité des présentations orales et par affiches des étudiants était excellente. Ces présentations sont de bon augure pour l'avenir de la géomorphologie au Canada.

Bien que le parrainage de séances et de réunions par le GCRG ait atteint un sommet en 2011, l'objectif d'un organisme actif consiste à maintenir ou à améliorer ses activités. À cette fin, je tiens à encourager tous ceux d'entre vous qui souhaitent organiser une séance sur la morphologie lors d'une réunion en 2012 (ou plus tard) à inscrire la séance au programme des réunions et à communiquer avec moi (tabrenna@sfu.ca) ou n'importe quel membre de la direction du GCRG pour présenter une

the CGRG Newsletter and CGRG listserv to promote your event.

Our 2012 AGM will be held at the Canadian Geophysical Union-Canadian Water Resources Association (CGU-CWRA) joint meeting in Banff, June 5-8, 2012. The theme for this meeting is "Earth, Wind and Water – Elements of Life". So far several special sessions have been proposed of particular interest to geomorphologists, in the areas of: biogeomorphology, proglacial environments, earth surface processes, fluvial responses to environmental change, and tracing and fingerprinting sediment sources and transfers in watersheds. In addition, there will be general sessions at this meeting of interest to geomorphologists, and our 2011 J. Ross Mackay award winner, Michele Koppes, will receive her award and give the associated lecture at this meeting. Additional information on the meeting can be found at <http://www.elements2012.ca/>, and abstracts are due by 15 February 2012. I would like to encourage as many of you as possible to submit abstracts to this exciting meeting, and I will hope to see you at the AGM.

Finally, I would like to thank Greg Brooks for his efforts as 2010-11 CGRG President. Greg will continue to provide guidance to the CGRG Executive as Past President and will chair the adjudication committee for the 2012 J. Ross Mackay award. It is with Greg's leadership, the hard work of the CGRG Executive, and the active participation of our members that 2011 was such a stellar year for the organization. And with that I wish you all a fruitful Fall and a very happy New Year.

demande de parrainage du GCRG. Vous trouverez de plus amples détails (en anglais seulement) sur le parrainage du GCRG à la page suivante : <http://cgrg.geog.ubc.ca/sponsor.html>. Vous pouvez également utiliser le bulletin et la liste de distribution du GCRG pour promouvoir votre événement.

Notre AGA de 2012 se tiendra lors de la réunion conjointe de l'Union géophysique canadienne et de l'Association canadienne des ressources hydriques (UGC-ACRH), à Banff, du 5 au 8 juin 2012. Le thème de cette réunion est « La terre, le vent et l'eau : les éléments de la vie ». Jusqu'à présent, on a proposé plusieurs séances spéciales qui pourraient intéresser particulièrement les géomorphologues, dans les domaines suivants : la biogéomorphologie, les environnements proglaciaires, les processus de la surface terrestre, la réaction des milieux fluviaux aux changements de l'environnement, la localisation et la caractérisation des sources et des transferts de sédiments dans les bassins hydrologiques, ainsi que la gestion et la réhabilitation des rivières. De plus, à cette réunion, il y aura des séances générales à l'intention des géomorphologues, et notre récipiendaire du prix J. Ross Mackay de 2011, Michele Koppes, recevra son prix et prononcera le discours connexe. Pour obtenir de plus amples renseignements sur la réunion, consultez le site suivant (en anglais seulement) : <http://www.elements2012.ca/>. Les résumés doivent être présents au plus tard le 15 février 2012. J'encourage le plus grand nombre possible de personnes à soumettre des résumés pour cette réunion intéressante, et j'espère vous rencontrer lors de l'AGA.

Enfin, je tiens à remercier Greg Brooks pour tous les efforts qu'il a déployés à titre de président du GCRG de 2010-2011. Greg continuera de fournir des conseils à la direction du GCRG en tant qu'ancien président, et il présidera le comité de sélection pour le prix J. Ross Mackay de 2012. C'est grâce au leadership de Greg, au travail acharné de la direction du GCRG et à la participation active de nos membres que 2011 fut une année aussi excellente pour l'organisme. Sur ce, je vous souhaite un automne fructueux et une bonne et heureuse année 2012.



Little Ice Age moraine, Small River Glacier, British Columbia.
Photograph by Michele Koppes.

Meeting reports

CGRG Student Awards at the Coherent Flow Structures conference

CGRG sponsored the Coherent Flow Structures in Geophysical Flows at the Earth's Surface conference at Simon Fraser University, 2-6 August, 2011. The conference focused on turbulent fluid flow, one of the great unsolved mysteries in science. In the past 20 years, tremendous advances have been made in understanding turbulence by examining the fundamental structures (eddies or vortices) that make up flow phenomena known as coherent flow structures (CFS). The conference brought together the community of researchers working on CFS in rivers, estuaries, oceans and the lower atmosphere. The conference featured 6 keynote lectures, 50 contributed talks, 40 posters and a field trip by boat on the Fraser River led by Ray Kostaschuk, Mike Church and Jeremy Venditti. The conference included 120 participants from around the world (21 Canadian, 22 European, 56 USA, 13 from Asia). Half the participants were students. The CGRG provided awards for the top poster and top talk to the following students:

Alan Trenhaile Award (top poster): **Jessica Zinger**, MSc student, University of Illinois at Urbana-Champaign (with B. Rhoads and J. Best) for her poster entitled, *Coherent flow structure and morphodynamics of chute cutoffs on a large meandering river*.

Jean-Claude Dionne Award (top talk): **Tim Marjoribanks**, PhD student at Durham University, UK (with R.J. Hardy, D.R. Parsons and S.N. Lane) for his talk, *Characterization of vortex dynamics over rigid and flexible vegetation canopies in a fluvial environment*.

General information on the conference and program details can be found at: <http://www.sfu.ca/coherentflowstructures/index.htm>. Some of the conference organizers are working on an edited book based on the conference entitled *Coherent Flow Structures at the Earth's Surface* due out in Early 2013 from Wiley-Blackwell.

- **Jeremy Venditti**



Field trip participants at the Coherent Flow Structures conference, Burnaby, BC, August 2011.

CGRG Student Awards at GeoHydro 2011

CGRG sponsored two sessions at geoHydro 2011 in Quebec City, August 29-31, 2011: "Quaternary geology, paleoenvironments and geomorphology" and "Glacier and ice sheet hydrology: past and present". These sessions comprised 20 posters and 18 talks. General information on the conference and program details can be found at <http://geohydro2011.ca/?q=home>

The CGRG student award winners for the geoHydro 2011 conference in QC, Aug 29-31 are:

Jean-Claude Dionne award: **Andrew Perkins**, PhD student, Simon Fraser University (with T.A. Brennand and M.J. Burke) for his talk, *"The genesis of an esker-like ridge at the margins of the last Cordilleran Ice Sheet"*.

Alan Trenhaile award: **Etienne Dagenais du Fort**, Université Laval (with P. Lajeunesse and L. Fillon) for his poster, *"Dendrogeomorphologie et dynamique d'un glissement pelliculaire dans la Réserve faunique des Laurentides, Charlevoix, Québec"*.



Students receive CGRG awards from geoHydro 2011 conference organizers in Quebec City, August 2011. From left to right: Miroslav Nastev (student awards organizer), Andrew Perkins, Etienne Dagenais du Fort, Yves Michaud (conference co-chair).

Researcher Profile Dr. Johannes Koch Brandon University

Joe blames the Americas for having ended up studying earth. While he was always interested in maps and landscapes, he started to fully appreciate the science behind them when he was traveling through western Canada for half a year in 1996. He started university that same year back in Germany where he was born and raised. In 1998 he was fortunate enough to be on a fieldtrip to Patagonia, South America, where he stumbled into a Masters project. He earned his Masters from the University of Freiburg and then moved to Vancouver to pursue a Ph.D. at Simon Fraser University, which he finished by spring 2006. Since then Joe has been a visiting associate professor at The College of Wooster in Ohio, USA and at Kwantlen Polytechnic University in the Lower Mainland of British Columbia. In between he worked as an independent consultant, and as a guide for tourists on a small ship in Antarctica, along the westcoast of South America, and the North Atlantic. In January 2012 Joe will join the Department of Geography at Brandon University in Manitoba.



Joe Koch guiding cryospheric tours in Antarctica.



Joe's main research focus is the effects of climate change on the alpine environments in the western Cordillera of the Americas, specifically the glaciers in British Columbia, the Yukon, Washington State, Alaska, and Chilean and Argentine Patagonia. His research has helped to establish the history of glacier fluctuations of a small icecap in the southernmost Patagonian Andes of Chile during the Holocene, and more specifically the Little Ice Age. His Ph.D. research yielded a rich record of geomorphic and paleobotanical evidence that allowed a very detailed reconstruction of Holocene glacier fluctuations in western Canada. It furthermore provided a near-complete record of glacier behaviour during the past millennium. This data was combined with other proxy paleoenvironmental data to further enhance our understanding of environmental change in the southern Coast Mountains. He has compiled data on Holocene glacier fluctuations in mountainous areas in both the Northern and Southern hemispheres, and recognizing similar timing of global glacier behaviour throughout the Holocene, he became interested in evaluating possible forcing mechanisms of Holocene glacial fluctuations.

He looks forward to continue his research focus on the mountains of the Americas, but has already started to look for projects closer to his new Prairie home. Numerous areas that could provide well-dated Holocene glacier histories have not been investigated or properly studied. Ongoing glacier recession in most of the world's mountains have exposed new evidence for past glacier fluctuations, but this data is rapidly lost due to biological decay and weathering. In the Southern Hemisphere, glaciers generally appear to have been more extensive during the early Holocene than during the Little Ice Age. These probably older moraines have not been dated, or not adequately, but accurate dating would provide an opportunity to further compare glacier fluctuations between the Northern and Southern hemispheres in order to address fundamental questions about climate forcing. He currently is involved in projects studying the Holocene glacier histories of Mt. Baker and Rainier in Washington State, of several glaciers in British Columbia's southern Coast Mountains, and glaciers of the Cordillera Darwin as well as Monte San Lorenzo in the Patagonian Andes. Furthermore he is part of a research team in Glacier Bay, Alaska, who collect samples from fossil wood sites that could lead to a tree-ring chronology spanning most of the Holocene. This summer he started a new project looking at treeline fluctuations and tree invasion into subalpine meadows in the southern Coast Mountains.



Student Profile

Nathaniel Bergman

University of Western Ontario



Nathaniel (Nati) Bergman is a Ph.D. student in the Department of Geography at University of Western Ontario. He grew up in a suburb of Haifa, Kiryat Ata, in northwestern Israel. After serving 3 years of mandatory service in the Israeli army (IDF) and travelling and working in Yellowstone National Park in the US, he started his academic undergraduate studies at the University of Haifa with a double major in geography and political science. During the second year of this degree he started working in the Geomorphology Lab for professor Moshe Inbar on the collapse of agricultural terraces due to their abandonment and later in the last year with Dr. Lea Wittenberg on micro-scale bedforms in different types of streams. After graduation, Nati continued his masters studies at Ben Gurion University of the Negev in Beer Sheba where he worked with professors Jonathan Laronne (BGU) and Ian Reid (Loughborough University, UK) on small-scale bedload transport processes (gravel patches) during flash floods in an ephemeral stream. During this work a sophisticated bedload sampling system was improved in design in addition to discovering that gravel bars that are ordinarily dormant in perennial streams except high flows are highly active in ephemeral ones at a range of flow conditions.

After leaving academia for the private market, Nati worked for 3 consulting geo-engineering companies on various water and geotechnical issues. These jobs included seismic monitoring of sinkholes and groundwater flow in the Dead Sea, borehole drilling for various large infrastructure projects all over Israel, a variety of geotechnical soil and ground testing procedures for engineering and hazard assessment purposes. Yet, even during that time Nati knew he wants to go back to do a PhD in fluvial geomorphology and continued to work on several academic projects with Dr. Noam Greenbaum (University of Haifa) regarding the reconstruction of large floods in Mediterranean and arid areas using paleoflood hydrology and management of freshwater resources in a small wetland reserve during drought periods with Hillel Glassman (Israel Nature and Parks Authority). In addition, Nati has stayed in close connection with the research community by attending and presenting his work in international conferences. These

conference visits were always combined with academic visits especially across the US and Canada.

Currently, Nati is working with professor Peter Ashmore on a semi-alluvial channel, Medway Creek, which is just a walking distance from the university campus. Such semi-alluvial rivers are typical to formerly glaciated environment of southern Ontario in particular and the Great Lakes in general, are poorly understood in comparison to alluvial and bedrock channels. This is owing to the fact these rivers are relatively young geologic landscape features developing since the end of the Wisconsin glaciation and in addition affected by various land-use changes and altered hydrology of the European settlement during the last two centuries in North America, coupled with modern climate change and channel management and engineering practices. These rivers are typified by limited alluvial cover on the bed surface and flow over and incise into consolidated glacial till terrains of different sedimentary compositions, sources and ages. This presents a research problem of understanding how these streams spatially and temporally operate over smooth and rough beds when the till itself from the bed and banks is acting as a complex boundary layer either contributing sediment when it erodes and scours or hindering geomorphic change and creating a self-stabilizing fluvial network. Consequently, conventional analysis from alluvial and bedrock channels is inapplicable as the operating processes are a mixture from the two river types and a new scientific framework is needed to accurately classify and describe these rivers accurately. The main objectives are to analyze the hydrologic-hydraulic conditions, under which the glacial till and overlying gravel are eroded, and the rates, spatial extent and localities of its occurrence. Understandings of the fluvial processes, and prediction of their short-term morphological development, are essential to effective management and restoration of these rivers, and understanding of the fluvial geomorphology of the region.

Nati's website: <http://geography.uwo.ca/geograds/students/NatiB/index2.html>

Field school report

GeoNatHaz

- John Clague

Simon Fraser University (SFU) is the Canadian leader in an international student exchange involving three Canadian universities (SFU, Queen's, and the University of British Columbia) and four European universities (University of Torino, University of Athens, University of Bologna, and Université de Savoie (France)). The exchange program ("geoNatHaz") has four complementary objectives: (1) to improve knowledge, skills, and attitudes essential for the assessment and management of natural hazards in mountain regions, in particular those where climate plays a significant role; (2) to facilitate exchanges of Canadian and European graduate students in earth science and engineering geology, in order to both broaden student education and enhance international competence in natural hazard research; (3) to promote cross-cultural understanding and the internationalization of earth science; and (4) to support the international mobility of earth science professionals. These four objectives are accomplished through innovative summer field schools held in the mountains of Europe and Canada, and longer term stays of students in foreign participating universities. Students benefit from field training involving classic natural hazard case studies in the Canadian Cordillera and the European Alps. Exchange of faculty and technicians ensure that students' educational experiences are rich and intellectually rewarding. Work-study programs with the industry partners provide professional skills in advanced technologies applicable to hazard and risk assessments. geoNatHaz is funded through the European Education, Audiovisual and Culture Executive Agency (EACEA) and Human Resources and Skills Development Canada (HRSDC). Detailed information on the program is available on the geoNatHaz website: <http://www.geonathaz.unito.it>

The 2011 European summer school was held in the Alps during June and July. Its focus was on large-volume slope movements in the Aosta Valley and at Vajont in the Italian Alps; the Kofels, Tschirgant-Fernpass-Zugspitze landslides in the Austrian Alps, and Flims in Switzerland.

The 2011 Canadian field school was held in Yukon Territory during August and September. It focused on the geology and geologic hazards in southern and central Yukon, a large but sparsely populated (ca. 30,000 residents) area of diverse geology, physiography, and vegetation. Geologic hazards that were investigated include earthquakes, landslides, debris flows, flooding, and permafrost thaw. Students were trained in the field to evaluate these hazards using a variety of geologic and geomorphic tools within a GIS framework. The course highlighted the differences in the methods that are used to manage hazards in the Canadian Cordillera and Europe, with their extreme differences in population and therefore risk.



The 2011 geoNatHaz Canadian field school participants excavating an outcrop of the White River Tephra, Yukon.

National Technical Guidelines and Best Practices related to Landslides: a national initiative for loss reduction

The Earth Science Sector of Natural Resources Canada, through its Geoscience for Public Safety Program, has initiated the development of national technical guidelines and best practices related to landslides. With this initiative, Canada, as a world leader in the field, will actively contribute to reduce losses from landslides.

The guidelines and best practices will provide Canadian geo-professionals, geoscientists, and engineers with a document that will be the state-of-the-art related to the science and applied science of landslides and associated loss reduction. It will be compiled from contributions by many of this country's landslide specialists. The document will provide a comprehensive summary of key landslide topics and will be a valuable reference for other groups including decision-makers, property owners, land use planners and environmental agencies.

The development of the guidelines is progressing well with some chapters completed and more to come in the following months. Canadian geo-professionals interested in contributing to the guidelines and best practices are invited to contact Réjean Couture, Geological Survey of Canada, Ottawa, ON, Email: rcouture@nrcan.gc.ca; Tel: 613-943-5237. For more information: http://gsc.nrcan.gc.ca/landslides/guide_e.php

Meeting announcement

CGU-CWRA annual meeting, Banff 2012



The 2012 Annual General Meeting of the CGRG will be at the CGU-CWRA national conference in Banff, Alberta, June 5-8, 2012.

The conference theme this year is *Earth, Wind and Water – Elements of Life*. Meeting planning is currently underway. The deadline for abstracts is **15 February 2012**. More information can be found at www.elements2012.ca/program.htm.

Session proposals are currently being finalized. The following proposed sessions will be of interest to CGRG members:

Biogeomorphology: interactions between riparian ecosystems, aquatic ecosystems and stream channels

Session conveners: *P. Ashmore, B. Eaton & M. Hassan*

This session explores the interactions occurring between stream channels and either the riparian or the aquatic ecosystems associated the stream. The emphasis will be on the feedbacks that influence the channel morphodynamics, and on the ways in which morphodynamics impact the aquatic habitat.

Proglacial environments

Session conveners: *R. D. Moore, M. Koppes & J. McKenzie*

This session will focus on the evolution of environments adjacent to and downstream of glaciers and ice sheets, including changes in hydrology, climate, geomorphology, water quality, aquatic and terrestrial ecology, and natural hazards. Of particular interest are proglacial environments that have been exposed by retreating ice in the past century.

Hypothesis-driven science: linking field observations to earth surface processes

Session conveners: *B. Eaton & J. Tunncliffe*.

This session is intended to explore recent advances in numerical and conceptual modelling of hydro-, geo- and bio-systems on earth's surface that allow us to better relate field observations to the underlying processes. In particular, the session will focus on application of models to develop and refine hypotheses of drainage/landform/ecosystem evolution, or further validate inferred process rates, linkages and feedbacks interpreted from field evidence. We encourage submissions from all surface process-related disciplines: e.g. hydrology, glaciology, geomorphology or ecology

Fluvial responses to environmental change: processes and applications

Session conveners: *P. Ashmore & C. Rennie*.

Rivers are subject to increasing pressure from direct and indirect changes in flow and sediment regime from a variety of land-use changes and from impacts of flow regulation and modification. The session will discuss collective experience from engineering, hydrology and geomorphology on these issues in Canada and around the world

Tracing and fingerprinting sediment sources and transfers in watersheds

Session conveners: *P. Owens, E. Petticrew & D. Lobb*

Recent advances in tracing and fingerprinting of inorganic and organic fine sediments offer great potential for addressing watershed management issues and basic questions regarding sediment conveyance. This session invites papers from experimental, field-based, laboratory and modeling aspects of sediment tracing and fingerprinting.

Meeting announcements

IPY Montreal 2012

The International Polar Year (IPY) 2012 Conference, **From Knowledge to Action**, is scheduled for **22-27 April 2012** in Montreal, Canada. The parallel sessions for the 2012 conference are broken down into the following areas:

Session Area 1 - Science Highlights

For details on sessions in Area 1 please go to: <http://www.ipy2012montreal.ca/program/area1-2.php>.

Session Area 2 - Synthesis and Integration

For details on sessions in Area 2, please go to: <http://www.ipy2012montreal.ca/program/area1-2.php>.

Session Area 3 - From Knowledge to Action

For details on sessions in Area 3, please go to: <http://www.ipy2012montreal.ca/program/area3.php>.

For further information, please go to: <http://www.ipy2012montreal.ca>

34th Int'l Geological Congress

The 34th International Geological Congress will be held **August 5-10, 2012** in Brisbane, Australia. More information about the Congress is available for download at www.34igc.org.

The theme of the 34th Congress, **Unearthing our Past and Future - Resourcing Tomorrow**, strikes at the heart of our relationship with the earth: the very evolution of human life and the development of human cultures into the future. The United Nations Educational, Scientific & Cultural Organization (UNESCO) is proud to support this important endeavor by granting patronage to the 34th IGC. UNESCO is convinced of the critical relevance of earth sciences for society, from mitigating the risks of geohazards to planning the sustainable use of resources for energy and innovation. UNESCO and IUGS look forward to celebrating the 40th anniversary of the International Geoscience Programme (IGCP) in Brisbane, Australia.

CanGeoRef launches, bringing focus to Canada-related geoscience research



The American Geological Institute (AGI) and the Canadian Federation of Earth Sciences (CFES) are pleased to announce the launch of **CanGeoRef** on September 15, 2011. **CanGeoRef** (www.cangeoref.org) is a bibliographic database covering the Canadian geoscience literature since the early 1800's. CanGeoRef is the result of a cooperative arrangement between CFES and AGI with the intent to expand GeoRef access for smaller companies and individuals focused on Canadian geoscience.

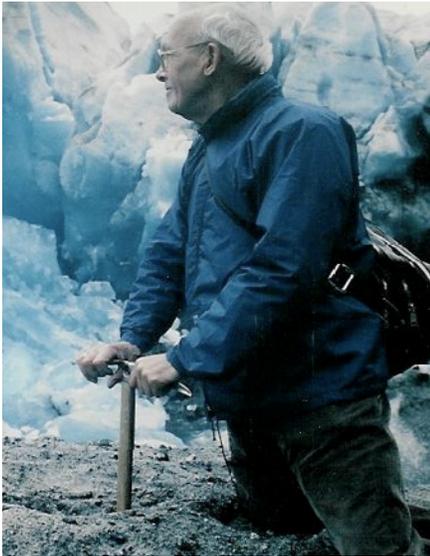
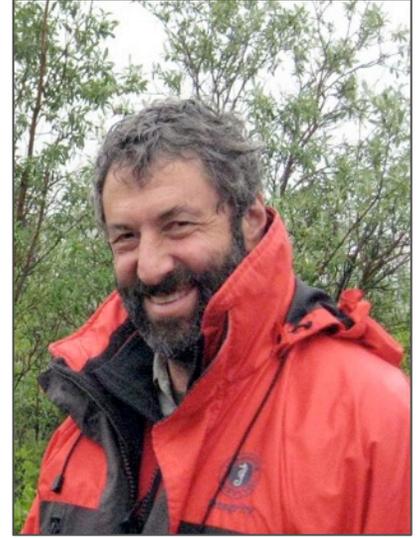
With seed money from the Committee of Provincial and Territorial Geologists (CPTG), CFES, in cooperation with the Canadian provincial and territorial geological surveys obtained publication data to be added to the existing Canadian references drawn from GeoRef, AGI's global bibliographic database for the geosciences. Data have already been added for Alberta and Manitoba and Ontario is near completion. Newfoundland/Labrador and British Columbia will follow shortly.

At launch, CanGeoRef will contain almost 200,000 bibliographic references on Canada. These will include citations to the journal literature, meeting proceedings and abstracts, books, reports, theses and maps. During Phase 1 of the project, provincial and territorial publications are being targeted for inclusion. Phase 1 of CanGeoRef is expected to be complete by 2013. Subscription rates will be discounted while data entry is completed. Phase 2 will consider the inclusion of provincial and territorial mineral assessment reports. Currently only Mineral Assessment Reports for Alberta are included in CanGeoRef.

In Memoriam

Steve M. Solomon 1950-2011

On August 20, 2011, the Canadian science community lost Steve Solomon, a valued colleague, as well as an inspired and passionate northern scientist. Steve joined the Geological Survey of Canada (GSC) in 1991 as an Arctic coastal specialist, based at the Bedford Institute of Oceanography in Dartmouth, Nova Scotia. He was the consummate field geologist, at home in a rough camp, small boat, or helicopter. In camps, whether out in the field or at a base in Inuvik, he whipped up fantastic curries, soups, and stews. Hired by the GSC to focus on hazards to development in the Mackenzie Delta region, the focus of Steve's career was in the western Arctic but he made important contributions in other areas as well. He played a key role in understanding the effects of the Rustico Inlet causeway in PEL, in contaminant clean-up at northern radar sites in the Eastern Arctic and Labrador, in bio-physical assessments of BC's Fraser Delta, and in coastal management projects in the South Pacific as part of a GSC MOU with area governments. Steve had a leading international role as the co-founder of the Arctic Coastal Dynamics (ACD) project. He also participated in such initiatives as the Coastal Working Group for the Second International Conference on Arctic Research Planning, the Arctic Climate Impact Assessment, and the State of the Arctic Coast report. Steve was a creative, inventive and innovative scientist whose perseverance and work ethic were remarkable. Above all, his honesty, integrity and generosity were fundamental to his character, and touched many. Steve Solomon will be sorely missed by his family, friends, and colleagues in the coastal science and Arctic research communities.



Aleksis Dreimanis 1914-2011

With great sadness we report the passing of Prof. Aleksis Dreimanis of the University of Western Ontario on July 8, 2011. Born in Latvia in 1914, Aleksis emigrated to Canada in 1948 and retired from Western in 1980. Dreimanis was widely considered the world's foremost Quaternary glacial geologist in the 1970's and 80's, largely due to his effective leadership on the INQUA Commission on Genesis and Lithology of Glacial Quaternary Deposits. He was instrumental in developing the Quaternary stratigraphic and climatic record of the Great Lakes region. He promoted structural analysis of glacial sediments and substrate, especially applied to mineral exploration using till (drift prospecting). Some of his other lasting contributions include: till genesis and classification; carbonate analysis of till matrix using chittick apparatus; bimodal distribution of grain sizes and development of terminal grades in subglacial tills; and mastodon extinction in eastern North America.

Aleksis Dreimanis published in eight different decades and his latest manuscript will soon be submitted by co-authors in the ninth. He never stopped working and he leaves a rich legacy of former students and postdocs.

Brian Bird 1923-2011

Brian Bird passed away suddenly on August 20th 2011, at Fitch Bay, one week before his 88th birthday. Born on August 28th 1923, Brian served as a Royal Marine from 1942 to 1945, when he was released with the rank of Captain. Brian and Beryl Briggs were married in Washington D.C. on December 31st 1949 and shortly thereafter moved to Toronto. In 1950, they moved to Montreal where Brian held a position in the Department of Geography, McGill University. Brian was chairman of the department from 1966 to 1974 and retired in 1988. Donations in Brian's memory may be made to the Montreal General Hospital Foundation.



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 listserv (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.

Name: _____

Address: _____

_____ Postal Code: _____

Phone numbers: (Home) _____ (office) _____

e-mail address: _____

Institution: _____

Annual dues: \$25 (free for student members)

New member _____; membership renewal _____ Please check one

Student _____ Academic _____ Government _____ Industry _____ Please check one

Student supervisor or Department head signature _____

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Send completed form and cheque to: Nicole Couture, Secretary-Treasurer, Geological Survey of Canada, 601 Booth Street, Ottawa, ON, K1A 0E8

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