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The Canadian Geomorphology Research Group
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Little Ice Age trimline and modern terminus of Eqip Sermia, west Greenland Photograph by Michele Koppes.

President's Message
Mot du Président

Ian Walker, CGRG President

A sea change in Canadian geomorphology: trends, challenges and opportunities facing the CGRG.

In 1993, the CGRG was founded at the International Association of Geomorphology (IAG) Congress held in Hamilton, Ontario. Coincidentally, in that same year, while an undergraduate at the University of Toronto and following a field course with Joe Desloges, I decided that I wanted to pursue a career in geomorphology. In 2013 we celebrated the 20th anniversary of the CGRG and in honour of this milestone a special session was held at GAC/MAC 2014 in May at UNB in Fredericton, New Brunswick organized by founding member, Dr. Olav Slaymaker, and myself. We were pleased to host a variety of talks and posters spanning the realm of geomorphology, including invited talks by other founding member, Paul Egginton, and this year's J. Ross Mackay Award winner, Dr. Thomas Lakeman.

In addition to planning the AGM, I have been working with the Executive this year on a variety of tasks mainly concerned with improving the visibility and profile of the CGRG. This, in response to some new challenges and new opportunities. In various discussions with the membership, CGRG Executive, and past CAG, CANQUA, and CGU Presidents I distilled that the main challenges facing CGRG are poor cohesion amongst geomorphologists generally in Canada, limited visibility of CGRG in the Canadian Earth Sciences community, and declining CGRG membership.

Poor cohesion within, and limited visibility of, the Canadian geomorphology community are perhaps the most concerning issues and prompted me to revisit a piece I published in 2010 in The Canadian Geographer 54(3): 261-276, entitled "Changing views in Canadian geomorphology: are we seeing the landscape for the processes?" In the paper I suggested that geomorphology in Canada, as elsewhere, had evolved following the Quantitative Revolution of the 1950s into an essentially bipartite discipline with those who examine broader (i.e., Quaternary) landscape dynamics and those who focus on smaller scale, process-response morphodynamics. I posited that an increasing focus on process-oriented research, methodological 'fashions', and a growing reliance on instrumentation and computational technologies, may be at the expense of seeing the bigger (landscape) picture. Admittedly, this was not my brainchild as this perspective has been espoused in many recent articles and texts, including Trudgill & Roy's (2003) "Contemporary Meanings in Physical Geography: From What to Why?" (Oxford University Press: ISBN-13 9781444144666). This was an invited piece for an 'early stage' researcher series and I chose to be self-reflective and present my perspective from a scholar with training and experience in both process and Quaternary geomorphology. I suggested that a shift was occurring, driven by new funding opportunities and programs, back toward broader

interdisciplinary issues and research pursuits. In other words, many geomorphologists seemed to be shifting gaze back to the landscape from the processes, perhaps by necessity (i.e., in response to funding), and with more of us operating increasingly from both process-oriented and broader Quaternary perspectives. I also cautioned, however, that these same opportunities may occur at the expense of fundamental science. Despite this apparent shift, I do not believe that cohesion within our community or visibility of our discipline in the eyes of our national funding agencies has improved much.

To assess how we as Canadian geomorphologists had been performing leading in to these recent changes, I conducted a fairly basic survey of peer-reviewed works published by Canadian-based researchers using the GeoRef database, which provided a content analysis for geomorphology publications for the previous 20 years (1988-2007). Despite the limitations of such databases, what I found was that, following a slump in the early 1990s, publication trends by Canadian researchers had increased notably. I associated this partly to new research initiatives and funding strategies (e.g., CRC and other research chair investments, CFI infusions to improve research infrastructure, new partnership funding programs) that helped stimulate research capacity and productivity appreciably into the early 2000s.

Over the past decade, and since 2008 in particular, Earth sciences research in Canada has experienced a sea change in broader institutional and funding landscapes. Today, our research is undermined by drastic changes in traditional (tri-council) funding programs, major agenda shifts in government science agencies, and expansion of targeted research programs that require direct industry links and/or marketable outcomes. Concurrently, and largely in response to the recent economic recession, most universities have experienced significant budget cutbacks and, in some cases, reduced research capacity in geomorphology and Physical Geography generally through retirement attrition and/or recruitment of faculty whose research is perceived as more integrated, societally relevant, and/or technical.

Ian Walker, CGRG President, exploring the backcountry on Calvert Island, BC in search of paleoshorelines and dunes on a project sponsored by the Hakai Beach Institute and NSERC.

For this column, I wanted to revisit the analysis in light of these more recent (post-2008) changes in the research and institutional landscapes. So, I conducted the same search in GeoRef (using EBSCO Host) for geomorphology articles (keyword, KW = geomorph*) from January 2008 to June 2014 published by Canadian-based authors (affiliation, AF = Canada) in academic journals only. As the database has been upgraded and expanded since my initial search, I repeated the 1988 to 2007 search as well. As a disclaimer, this should still be considered a first order assessment as these searches are neither exhaustive (some articles may be overlooked), nor exclusive (multiple key words associated with a single article). Results show that, in the past 6.5 years alone, Canadian researchers published 860 journal articles, which is ~29% of that published in the previous 20 years (n=2984). Expressed as publication rates, this translates to a recent rate of ~132 papers/yr, which is down slightly from ~149/yr for the 1988-2007 interval. I suspect this slight decline is not significant (i.e., within the deviation of the longer term record) and, if it were, it would be near impossible to ascribe cause. However, this may not matter to funding agencies or others who assess our contributions based on simple metrics (like publication rates) in this new era of accountability. I think the stronger message to send is that Canadian geomorphologists continue to produce impressive amounts of high-quality research in leading venues that spans virtually all environments and addresses broader, societally-relevant issues such as climatic change and land use impacts (although this latter point is somewhat speculative and would require deeper analysis). As such, we continue to make a very active and significant contribution to global Earth science research, despite new constraints and challenges in the research environment.

This performance assessment does not address the concern of poor cohesion within our community and perhaps some might not see relevance in exploring that. I would remind them, however, that funding agencies have moved increasingly toward supporting more collaborative and integrated (multi-disciplinary) research and certain associations (e.g., CGU) make concerted efforts to liaise with NSERC, for example. With NSERC we have seen the erosion of virtually all programs, except the Discovery Grants, that support 'fundamental' science and a shift toward more industrial partnerships and economically- or societally-relevant outcomes. As such, having a more collective voice and stronger cohesion is critical, in my opinion, for ensuring that our science is recognized and supported nationally.

Following discussions with various CAG, CANQUA, and CGU Presidents and Executive members, I have sensed there is a genuine interest in providing this stronger, collective voice or 'critical mass' of geomorphologists in Canada, yet some think that CGRG does not offer this, for a variety of reasons. The first reason suggested by many is that we are spread thin across 4 parent or partner organizations (GAC, CAG, CANQUA, CGU), which is reflected in variable attendance at our AGMs and in declines in CGRG membership of approximately 38% over the past 5 years (2007 vs. 2013). This, despite increasing student engagement and consistently large membership from our larger parent organizations (GAC and CAG). As our constitution requires that we meet in regular succession with these organizations, we end up bouncing between venues to host our AGMs,

which inevitably alienates some portion of our membership who do not associate with that particular parent or partner organization.

Another related reason for poor cohesion amongst our community, is what I call 'multiple membership fatigue syndrome' (I'll resist the acronymitis that typically follows). Increasingly, it seems, we are expected to maintain membership with multiple organizations. Although many larger organizations now offer associate memberships with national or international partner organizations (e.g., AAG-CAG, AGU-CGU), the fact remains that many members either choose or are required to maintain memberships with multiple organizations and affiliated study groups or sections. This sees members putting their funds and attending AGMs where they can get the best value for their interests. This said, it is dead simple to tick CGRG via CAG, GAC, and now CGU membership renewals and the cost ($25) is a fraction of the main organization fees. So, why the declines in membership and poor cohesion in our community? My best guess is that many of our colleagues simply do not see value in paying even modest funds to belong to yet another, small national group vs. membership with a larger association that gives them better international exposure and 'bang for the buck'. This is not unlike our decisions on where to publish, when you think about it.

So, what can we do to improve the situation and ensure that CGRG remains a viable and relevant organization? Some would have us disband from all but one parent organization and focus our efforts. Unfortunately, there are four key challenges here. First, our membership is broad with thematic interests that span geographical, geological, and geophysical realms and from process to Quaternary perspectives. Second, consider that CGRG is often the only entity that represents geomorphology in these broader geographical or geological associations. Thus, affiliation with these diverse organizations is important.

Third, today, unlike 5 years ago, 99% of our membership comes directly from these larger organizations (e.g., 59% from GAC, 40% from CAG in 2013) and so severing ties with any of them could mean significant losses in membership. In my time on the CGRG Executive, the belief has been held that maintaining this diversity was important and that CGRG was the means to bring together our diverse membership synergistically between these larger entities. Current trends suggest, however, that we may be falling between the cracks. Related, the fourth reason is that we also benefit appreciably from these formal associations by way of fiscal returns (e.g., conference &/or membership fund kickbacks), legal benefits (e.g., field trip liability insurance), tax reporting, and conference facilitation/organization support. So, although we may be falling between the cracks in some respects, there are benefits from being in this awkward position.

2014 brings with it a new opportunity for CGRG by way of a more formalized relationship with CGU and a direct membership enrolment process. As a result of collaborative efforts by Brett Eaton (UBC), Brian Branfireun (UWO and President of CGU), and myself, a new section of the CGU has emerged (Earth Surface Processes, ESP) that will bring together CGRG members with those on the existing Erosion and Sedimentation Committee that formerly resided within the Hydrology Section of CGU. This new section will serve as a natural connection for a wide range of Earth scientists, including those studying glaciology, geomorphology, landscape evolution, ecological restoration, etc. and will also play an active role in communicating with NSERC about the importance of our research. The first AGM of the ESP section will be held at the 2015 Joint Assembly of AGU-CGU-GAC in Montreal next May. On behalf of CGRG, I welcome this opportunity to work with incoming President Peter Ashmore (UWO), VP Chris Hugenholtz (Calgary), Secretary Jaclyn Cockburn (Guelph), and Brett Eaton, who becomes incoming CGU VP.

Finally, I would like to recognize a few other intiatives that the Executive have been working on to improve our visibility and collective situation. Thanks are extended to Graduate Student Observer, Jordan Eamer, and Member at Large, Dan Shugar, for their work on creating a new CGRG website (cgrg.geog.uvic.ca) and improving our web presence via Facebook and Twitter social media sites. The sites have proven successful particularly for engaging student members and others who previously were not aware of our presence. We have also made a concerted effort to engage our professional colleagues and welcomed Paul Villard, Director of GEO Morphix Ltd. in Milton, ON as a Member at Large. Paul has a BSc and MSc in fluvial geomorphology from Guelph, a PhD in coastal geomorphology from U. Auckland, NZ, and has been practicing P.Geo since 2003. Paul has been tasked with providing the practitioners perspective to the Executive and formulating ways we can make more effective links with, and improve membership from, our professional colleagues. Past President, Brian Menounos, has also made strides in challenging recent curriculum decisions by APEG, which you can read about in his column.

In closing, the first twenty years of the CGRG have been increasingly momentous for creating a productive geomorphology community in Canada, however, recent years have seen a sea change in broader funding, institutional, and political realms that have altered how we operate and associate. Key challenges facing CGRG, and geomorphologists more generally, include erosion of fundamental funding bases, declining CGRG membership, poor cohesion within our community, and limited political visibility. These challenges are largely the result of broader political, economic, and institutional forces and occur despite continued high-calibre productivity by Canadian geomorphologists on the international stage. Nationally, we are pulled in too many directions, albeit for valid reasons that stem from the diversity of our interests and partnerships. As a result, some suggest that CGRG is falling between the cracks and our membership has been declining. It is my hope that new opportunities, namely formal association with CGU via the new Earth Surface Processes Section, will rejuvenate our membership, improve our cohesion as a community, strengthen our national voice to funding agencies and politicians, and boost our international profile commensurate with our caliber of contributions.

It has been a pleasure serving as CGRG President this past year and I look forward to working with incoming President, Chris Hugenholtz, and the new executive as we head into this new era.

Past President's Message

Brian Menounos, Past President

Welcome to the summer edition of the CGRG newsletter. As Past President, I would like to highlight a few of the activities of the CGRG during my term as President. The year 2013 was an exciting year for the CGRG. Canadian geomorphology had a strong presence at national and international meetings; these meetings included the Canadian Geophysical Union in Banff, the Canadian Association of Geographer's annual meeting at Memorial University (St. John), the CGRG annual meeting in Edmonton, the Eighth International Conference on Geomorphology in Paris, France and the American Geophysical Union (San Francisco).

The year 2013 was also notable for several Canadian geomorphologists who were nationally and internationally recognized. In June, Dr. Brett Eaton (UBC Geography) received the Canadian Geophysical Union's Young Scientist Award; Brett also received the JR Mackay Award from the CGRG at the CGRG/Canqua meeting in August. In October, Drs. Olav Slaymaker and Michael Church (Emeriti Professors of UBC Geography) became Fellows of the British Society for Geomorphology (formerly BGRG). On behalf of the CGRG, I congratulate these individuals for their scholarly achievements.

As many of us know, accreditation is an important step in professional development for many of our members. The Association of Professional Engineers and Geoscientists (APEG) for a given province or territory regulates and licenses individuals who apply for professional membership. Most geomorphologists who practice environmental consulting choose to become licensed as an environmental Geoscientist (PGeo) as this academic stream is typically most similar to university curricula taken by these individuals. The Engineer's Act of most provinces and territories requires individuals who practice as engineers or geoscientists to be licensed. For universities, curricula are often modified so that university students can simultaneously meet APEG standards and those required for an academic degree.

As a university professor, I fully support professional accreditation as it helps to train university students for careers where they can work as geomorphologists. Geoscience Canada (http://www.ccpg.ca/) and their Canadian Geoscience Standards Board (CGSB) provide advice on academic standards to the Association of Professional Engineers and Geoscientists organizations for the provinces and territories. In an attempt to streamline academic requirements across Canada, the CGSB has suggested a suite of University courses (http://www.ccpg.ca/pgeoreg/en/Documents/Geoscience%20Knowledge%20Requirements%20Booklet.Rev%20March%202012_E_Web.pdf)

that fulfill minimum academic requirements for APEG members. While I commend the CGSB for their work in facilitating APEG membership in Canada, I am troubled by some changes in required courses for licensing. In particular, an introductory course in geomorphology is no longer a compulsory course. An applicant can instead choose to take either Geomorphology or an alternative course (soil science, glacial geology, or remote sensing). A course in physical hydrology is also no longer required but is now listed as an elective. Compulsory courses for all geoscience streams (geology, environmental geoscience, or geophysics) include: i) Field techniques; mineralogy/petrology; and sedimentation/stratigraphy. An individual could become a PGeo and practice as a professional geoscientist in Canada with never having a formal courses in geomorphology and hydrology. These academic changes deeply worry me. Most geomorphologists who practice as environmental consultants require foundational courses in geomorphology and hydrology. I would argue that these two courses are more important to practice environmental geoscience than a course in petrology/mineralogy.

I am soliciting your feedback. If you too feel that the current APEG curriculum needs revision, I encourage you to contact me, the CGSB, or the various APEG organizations and voice your concerns. My intention is to collate our concerns and present our views to CGSB to help steer future academic course planning for professional status in Canada.

Glacial polish and a meltwater channel carved into oolitic limestone, Small River Glacier, BC.
Photograph by Michele Koppes

Meeting reports

20th anniversary of CGRG celebrated at the 2014 GAC/MAC Annual Meeting

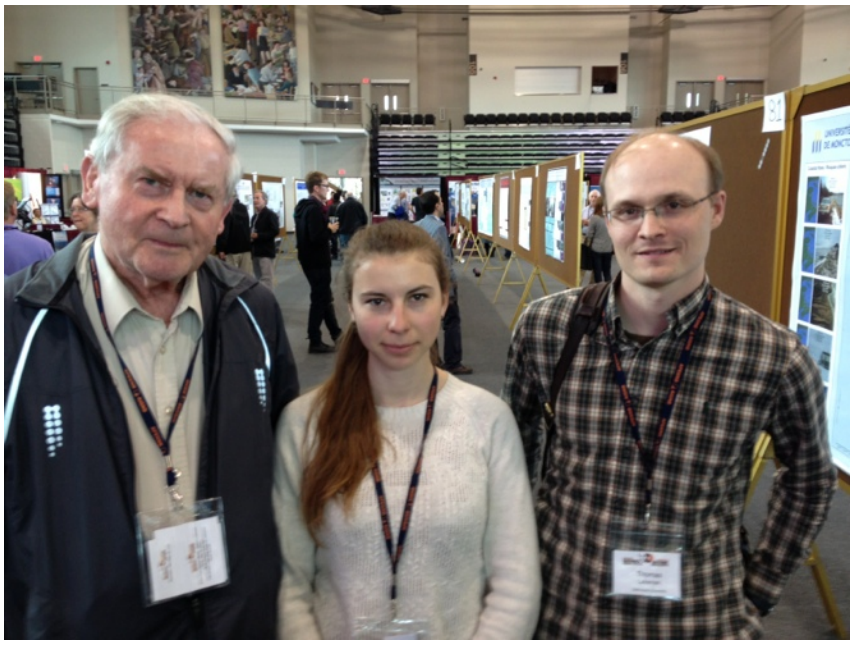
Ian Walker, President and 2014 AGM organizer

2013 marked the 20th anniversary of the CGRG, which was founded in 1993 at the International Association of Geomorphology (IAG) Congress in Hamilton, Ontario. In honour of this milestone, CGRG President Ian Walker (UVic) and founding member, Olav Slaymaker (UBC emeritus) organized a special session at GAC/MAC 2014 at UNB in Fredericton, New Brunswick in May 2014. The session hosted a variety of talks and posters and included a historical review of progress and challenges in Canadian geomorphology over the past 25 years by Slaymaker as well as an invited talk by another founding member, Paul Egginton (NRCan Ottawa, retired) on the interactions between forestry activities, watershed dynamics, and geomorphic responses. The session culminated with a plenary talk by the 2013 J. Ross MacKay Award winner, Dr. Thomas Lakeman (see profile and award announcement following).

The Olav Slaymaker Awards are presented for the best student oral paper and best student poster presented at the CGRG Annual Meeting. The 2014 winner of the Slaymaker award was Lea Braschi of Dalhousie University for her presentation entitled:

Braschi, L.C., Lakeman, T., Rybczynski, N., Yang, G., and Gosse, J.C.. ***New developments in the chronostratigraphy, paleoenvironment, and significance of the Pliocene Beaufort Formation and associated sediments, western and high Canadian Arctic.***

The 2015 CGRG Annual General Meeting will be held at the joint CGU-AGU-GAC-MAC annual meeting in Montreal, Quebec. Stay tuned for CGRG sponsored sessions in Montreal next May!



Lea Braschi (centre), winner of the 2014 Slaymaker Award, with Olav Slaymaker (left) and co-author Thomas Lakeman (right), the 2013 J. Ross Mackay award recipient, at a special session celebrating the 20th anniversary of the CGRG in Fredericton, NB.

Meeting reports

2013 CANQUA-CGRG Bi-annual Meeting

Sarah Finkelstein, CANQUA President

The 2013 CANQUA Annual meeting was held jointly with the CGRG in August 2013 at the University of Alberta. On behalf of the CANQUA executive, we extend a very sincere thank you to Duane Froese and his team for an exceptional job organizing and hosting the meeting. Attendance at the meeting was outstandingly high, including a very strong showing of students.
It is my great pleasure to announce the winners of the joint 2013 CANQUA / CGRG student research awards for posters and talks at the Edmonton meeting.

David Proudfoot Awards for best student talks
1st prize: *Matt Mahony* A 50,000 year record of meteoric water isotopes from central Yukon permafrost
2nd prize: *Derek Turner* Do glacial extents in Yukon and eastern Alaska reflect either pervasive tectonic or sea level influence?
3rd prize: *Andrew Perkins* Esker types and meltwater routing on the southern Fraser Plateau near the margins of the last CIS: implications for modelling ice sheet hydrology

Guy Lortie Awards for best student posters
1st prize: *Derek Turner* Pleistocene stratigraphy, chronology and landscape evolution of Silver Creek, Southwest Yukon
2nd prize: *Joel Pumple* Radiocarbon and stable isotope evidence of a middle Holocene cold stage recorded by ice wedge development in central Yukon: a response to the 4.2 ka event?
3rd prize: *Nicolle Bellissimo* Origins of stable isotope variations in late Pleistocene horse enamel and bone from Alberta

The quality of student presentations at the meeting was very high. We congratulate these students for presentations with outstanding scientific content, and for highly effective communication of their research results. It is very exciting to see such depth and breadth among our student researchers!

We also congratulate Professor John England of the University of Alberta for winning the W.A. Johnston Medal, our highest honour for lifetime achievement in Quaternary research, and Jessica Slomka from McMaster University for winning the Aleksis Dreimanis Doctoral Scholarship.

For additional information about the origin of these awards, and the winners, please see our website:
http://www.canqua.com/awards/student

Finally, I am thrilled to announce that Newfoundland and Labrador Geological Survey and Memorial University of Newfoundland will jointly host the next CANQUA meeting in 2015. Dates and details will be provided in the coming months.

Submitted by Sarah Finkelstein, Department of Earth Sciences, University of Toronto and President of CANQUA (2013-2015).
Email: finkelstein@es.utoronto.ca

CGRG is now on the web!

From Dan Smith
guardian of the CGRG (CANGEORG) listserve

Please visit our new homepage at: http://cgrg.geog.uvic.ca/
The new homepage contains links to our membership forms, listserve contacts, awards and award recipients, and past meetings.

The creation of the new CGRG homepage and migration to a new server means that the *CGRG Bibliography of Canadian Geomorphology* has necessarily been relocated to an alternative address. Members may now access the bibliography at:
http://cdrg.geog.uvic.ca/cgi-bin/search.cgi

Student Profile

Derek Turner
Simon Fraser University

Derek Turner is a Ph.D. student in the Department of Earth Sciences at Simon Fraser University (SFU). He is currently working with Drs. Brent Ward (SFU) and Duane Froese (University of Alberta) on the Quaternary geology of southwest Yukon. Derek's interest in paleogeography was sparked working with the B. C. Ministry of Energy and Mines on the surficial geology of northeast B.C., a project that culminated in a publication on using petrophysical logs to map paleovalleys and drift thicknesses.

Following completion of his B.Sc. from the University of Victoria, Derek started his M.Sc. program at SFU examining the glacial history of Howard's Pass, an area of intense mineral exploration on the border between Yukon and Northwest Territories. This interest in the Quaternary history of Yukon led Derek to start a Ph.D. project on the glacial limits of southwest Yukon.

Derek's Ph.D. research focuses on using the stratigraphy at two field sites, Silver Creek and White River, to determine the timing of the glaciations that advanced from the St. Elias and Coast Mountains during the Pleistocene. Differences between this record and other limits across northwestern North America can indicate how climatic forcing mechanisms varied regionally. These two field sites contain interbedded glacial deposits, separated by thick accumulations of loess, lake sediment, peat and tephra beds. These tephras not only allow Derek to date the glacial sediment, but also to directly compare environmental conditions at different sites across Alaska and Yukon. The well-preserved paleoecological data at the White River site provide a rich record of climate change over the past 200,000 years. This includes two periods that are potential analogues for a future, warmer arctic.

During his time as a Ph.D. candidate, Derek has twice been a sessional instructor, at SFU and at the University of the Fraser Valley. He has also worked as a consultant applying his knowledge of geomorphology to different geotechnical and environmental projects.

The interdisciplinary nature of Derek's research is what drives his passion for understanding landscape evolution. He is grateful for all the excellent collaborators he has worked with and remote field locations his research has taken him to, from Patagonia to the Arctic Archipelago.

Turner, D.G., Ward, B.C., Bond, J.D., Jensen, B.J.L., Froese, D.G., Telka, A.M., Zazula, G.D., Bigelow, N.H., 2013. Middle to Late Pleistocene ice extents, tephrochronology and paleoenvironments of the White River area, southwest Yukon. Quaternary Science Reviews, 75, 59-77.

John Shaw makes photos of glacial erosional and depositional features available

John Shaw (University of Alberta) is compiling sets of images from his field studies. Two sets have been completed: erosional marks (s-forms) and Edmonton area tills. A set on drumlins is in preparation. If you would like these sets for teaching, research, or plain curiosity contact him:
john.shaw@ualberta.ca

There is no charge.

Dr. Thomas Lakeman

2014 J. Ross Mackay Award winner

Brian Menounos, CGRG Past President

The J. Ross MacKay award is presented each year 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. This year, the Selection Committee recommended that Dr. Thomas Lakeman be chosen as the 2014 J. Ross Mackay awardee. Tom is currently a W. Garfield Weston Postdoctoral Fellow at Dalhousie University. He received his MSc from Simon Fraser in 2006, and in 2012 Tom received his PhD from the University of Alberta. Tom's research is devoted toward an understanding of Quaternary environmental change in the Canadian Arctic. He has published ten articles about his research in top earth science journals.

Scientists nominated Tom to receive the J Ross Mackay award based on three papers first-authored by the awardee that best highlight his ability to solve Quaternary problems by integrating basic fundamentals of field geology and chronological methods (14C, OSL, and cosmogenic nuclide dating):

1.Lakeman, T. R. and England, J. H. (2012). Paleoglaciological insights from the age and morphology of the Jesse moraine belt, western Canadian Arctic. Quaternary Science Reviews 47, 82-100

2.Lakeman, T. R. and England, J. H. (2013). Late Wisconsinan glaciation and postglacial relative sea-level change on western Banks Island, Canadian Arctic Archipelago. Quaternary Research 80, 99-120

3.Lakeman, T.R. and England, J.H. (in press). Facies and stratigraphic analyses of glacial and interglacial sediments at Morgan Bluffs, Banks Island, Canadian Arctic Archipelago. Boreas.

These three papers demonstrate Tom's careful landform mapping, rigorous description and interpretation of Quaternary stratigraphy, and a clear understanding of the relevance of this work to other research and applied science in the region. In particular, his research on the Quaternary geomorphology, stratigraphy, and sea level history of a vast area from Prince of Wales Strait in the east to Beaufort Sea in the west, and to M'Clure Strait in the north has been fundamental to a major revision of thinking about the extent of the Laurentide Ice Sheet in the western Arctic during Marine Isotope Stage 2. Tom's research provides fresh, new perspectives on Laurentide glacial dynamics; his research has revised the chronology of events in this region. Dr. Lakeman's findings have significant implications for western Arctic climate change, hypotheses of biological refugia in Arctic Canada, and for the transport of ice and sediment to the Arctic seafloor.

The 2014 J. Ross Mackay awardeeTom Lakeman received his bottle of single malt scotch from CGRG President Ian Walker at the GAC-MAC Meeting, May 2014.

The J. Ross Mackay Award is a plaque and a bottle of single malt scotch. Dr. Lakeman received his award at the 20th Anniversary celebrations of the CGRG at the GAC-MAC meeting in May 2014.

Dr. Brett Eaton

2013 J. Ross Mackay Award winner

Brian Menounos, CGRG Past President

The 2013 J. Ross Mackay awardee Brett Eaton received his plaque and bottle of single malt scotch at the CANQUA-CGRG biannual meeting in Edmonton in August 2013.

The 2013 recipient of the J. Ross Mackay Award was Dr. Brett Eaton, of the Department of Geography, University of British Columbia.

Dr. Eaton's nomination was based on a body of work in fluvial geomorphology addressing channel bank strength and morphodynamics. His research integrates experiments, field measurements, modelling and prediction, and applies the insights gained toward understanding the effect of environmental change on rivers. The three papers supporting his nomination are:

Eaton B.C. and Church, M. 2007. Predicting downstream hydraulic geometry: A test of rational regime theory. Journal of Geophysical Research - Earth Surface 112(F03025): doi: 10.1029/2006JF000734.

Eaton B.C. and Church M. 2009. Channel stability in bedload dominated streams with non-erodible banks: inferences from experiments in a sinuous flume. ournal of Geophysical Research - Earth Surface 109(F03011): doi: 10.1029/2007JF000902.

Eaton B.C. and Giles T.R.2009. Assessing the effect of vegetation-related bank strength on channel morphology and stability in gravel bed streams using numerical models. controls and ecosystem implications. Earth Surface Processes and Landforms 34:712-724. doi: 10.1002/esp. 1768.

These papers focus on the physical principles and variables controlling stream channel morphodynamics, and on how best to apply these principles to understand the manner by which rivers respond to land use and environmental change. The award committee was particularly impressed by the breadth of approaches taken, the insight gained and the relevance of the themes to Canadian Geomorphology.

Dr. Eaton received his Ph.D. in Geography in 2004 from the University of British Columbia and was appointed an Assistant Professor there in the same year. His numerous accomplishments include being awarded in 2005 the Wiley Award for Best Paper in Earth Surface Processes and Landscapes, and in 2010 the UBC Killam Teaching Prize. He has also assumed a leading role in HYDRONET, a major national project to understand the impact of hydroelectric power dams on the downstream aquatic environment.

Nominations are currently being sought for the 2015 J. Ross Mackay Award. Information regarding the nomination process can be found at *http://cgrg.geog.uvic.ca/Mackayaward.pdf*.
Nominations must be received (preferably by e-mail) no later than *November 15, 2014.*

Upcoming meetings

2014 Geological Society of America Meeting

The 2014 GSA Annual Meeting will be held 19-22 October 2014 in Vancouver, BC at the Vancouver Convention Centre.

CGRG will be sponsoring a few sessions at the meeting. For more information about the conference, please visit: http://community.geosociety.org/gsa2014/home/

The abstract deadline is 29 July 2014
The registration deadline is 15 September 2014

GSA 2014
19-22 October | Vancouver, BC, Canada

THE GEOLOGICAL SOCIETY OF AMERICA®

2015 IAG/AIG Geomorphometry workshop

GEOMORPHOLOGY
GEOMORPHOLOGIE

The International Association of Geomorphologists (IAG/AIG) Working Group on Landform Assessment for Geodiversity will be hosting the GEOMORPHOMETRY conference and workshops in Poznan, Poland on June 22-26, 2015. The theme of the conference is: *Geomorphometry for natural hazards geomodelling*.

Changes in appearance of land surface are either incremental or more abrupt if caused by catastrophic processes such as floods, earthquakes, tornadoes, etc. Historically, geomorphological modelling had focused on secular processes but catastrophic processes or natural hazards receiving less attention. Geomorphometry as the science of quantitative land surface analysis can help to constrain models of surface change due to natural hazards. Quantified change in a character of the Earth surface can serve to understand mechanisms of natural hazard events. Quantitative description of geomorphic change requires increased monitoring of Earth's surfaces and frequent acquisition of high-resolution DEMs or LiDAR data to collect the data before and after a catastrophic event has occurred. In addition, new kind of geomorphometric tools capable of handling, analyzing, and visualizing large quantities of topographic data in real-time are needed. Contributions to Geomorphometry 2015 that address these issues are especially welcomed, including methods for monitoring and acquisition of topographic data at times and space where hazards occur, and fast computational methods for near real-time analysis of big topographic data.

The main topics are:
Acquisition of high resolution elevation data
New algorithms and software for automated interpretation of digital elevation data
Modelling extreme processes on the Earth surface
Multi-scale automated mapping Earth surface changes
Working with continental-scale high resolution data
Simulating changes of the Earth surface relief
3D and 4D dynamics of Earth surface in selected areas

More detailed information can be found on the conference website:
http://geomorphometry.org/2015

In Memoriam

Maynard Malcolm Miller (1921-2014)

Maynard Malcolm Miller, explorer, committed educator and noted scientist whose glaciological research was among the first to identify hard evidence of global climate change as a result of human industrial activity, died on January 26 at his home in Moscow, Idaho. He was 93.

Dr. Miller was Emeritus Professor at the University of Idaho where he previously served as Dean of the College of Mines and Earth Resources, and Director of the Glaciological and Arctic Sciences Institute. The Institute, along with the Juneau Icefield Research Program, founded in 1946 and developed in partnership with his late wife Joan Walsh Miller, inspired more than 4000 students through hands on involvement in scientific research in remote mountain environments in Alaska and around the world (www.juneauicefield.com.) Many of his students have become integral members of the geomorphology and glaciology communities in Canada.

In recognition of this sustained impact in mountain science education, Maynard and Joan Miller were presented 1996 AAG Distinguished Teaching Honors.

As a scientist and climber on America's first Mt. Everest Expedition in 1963, Miller conducted research on atmospheric pollution and other contributors to climate change. On that historic expedition, as the West Ridge climbers returned from the summit, Miller sacrificed his precious scientific water samples, laboriously collected from the Khumbu Icefall, in order to rehydrate the exhausted climbers.

Although a deeply spiritual person, Maynard Miller did not believe in any God of organized religion; instead, he found inspiration in the magnificence and wonder of nature. He also believed that through the challenge of rugged mountain expeditions, where teamwork is essential to achieve a common goal, the best in each individual may be revealed. His great joy was to share and provide these experiences for others.

Derald Smith (1939-2014)

Derald Smith passed away June 18th on his 75th birthday.

Derald's half-century career included 35 years of teaching at the University of Calgary prior to his 2006 retirement. Born in Polson, Montana, Derald completed BA and MA degrees at the University of Montana at Missoula (1965 and 1966) before becoming a faculty member at Southern Colorado University, Pueblo (1966-67). He then moved on to graduate studies at at McGill University (1967-68) and Johns Hopkins University (1968-71) leading to a PhD degree from Johns Hopkins University in 1973.

Derald earned an international reputation as the leading authority on anastomosing rivers – a distinct type of multi-channeled and stable river pattern found in low-gradient conditions such as deltas, but also for his pioneering work on ground-penetrating radar. His research has had a wide-ranging impact on a number of fields including ecology, biology, water management, engineering, geophysics and environmental protection. But perhaps his biggest influence has been on new generations of geo-literate citizens, because in every paper, project, lesson, and field trip, Smith emphasized the geographic imperative and spatial perspective that have allowed them to see the "the Big Picture."

Derald Smith was awarded the Royal Canadian Geographical Society's 2014 Massey Medal by Alberta Lieutenant-Governor Donald Ethell. Established in 1959 by the Massey Foundation, the Massey Medal is awarded annually by the Society. Its purpose is to recognize outstanding career achievement in the exploration, development or description of the geography of Canada.

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 a homepage and newsletters, 3) operating a listserve (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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