

COUNCIL OF CHAIRS OF CANADIAN EARTH SCIENCE DEPARTMENTS CCCESD

CARLETON UNIVERSITY, Robertson Hall FRIDAY NOVEMBER 14TH, 2008

Notes from meeting

Present: Ihsan Al-Aasm (Windsor), Kevin Ansdell (Saskatchewan), Altaf Arain (McMaster), Dick Bailey (Toronto), Sandra Barr (Acadia), Hugo Beltrami (St. F.X.), John Blenkinsop (Carleton), Bruce Broster (UNB), John Cox (Mount Royal), Janis Dale (Regina), Kathy Gillis (Victoria), John Gosse (Dalhousie), John Greenough (UBC-Okanagan), Martin Head (Brock), Herb Helmstaedt (Queen's), Pierre Jutras (St. Mary's), Gerhard Pratt (Western), Michel Robin (Ottawa), Paul Smith (UBC), Michelle Spila (Calgary), John Stix (McGill), Derek Thorkelson (SFU), Barry Warner (Waterloo),

Regrets: D. Eaton (Calgary), J Hanchar (MUN), B Last (Manitoba), K Louden (Dalhousie - Oceanography), I. McDade (York), H Mumin (Brandon), M Sharp (Alberta), R Therien (Laval), L. Wilson (UNB-SJ), A. Jaouich (UQàM)

Not present: B. Hale (Guelph)

No response: D. Côté (UQAC), A. MacDonald (Laurentian), P. Fralick (Lakehead)

Visitors and Representatives: Elisabeth Kosters (CFES); David Boerner (GSC); Isabelle Blain, Norman Marcotte, Dave Bowen, Brigit Viens, Kenn Rankine, David Corrigan (NSERC)

MORNING SESSION

Introduction and welcome

Paul Smith (chair) welcomed attendees. He introduced Mark Forbes, Associate Dean, Research, Carleton University who welcomed us to campus and wished us well in grappling with common problems noted on the agenda. Paul gave an overview of the day's activities and the background for CCCESD.

News and views from the Departments – issues arising

Most departments submitted an outline in advance (published separately). Other departments reported orally and were asked to send a written statement after the meeting. Bruce Broster (UNB) reported that they have not seen the increased undergraduate enrolment that should have come with the boom cycle and lamented that geoscience is not “front and centre” in climate change issues. John Blenkinsop noted that Carleton has put a lot of effort into outreach, which seems to have been successful. A number of departments reported budget cuts and hiring freezes. Some noted that undergraduate enrollments have increased but they have inadequate resources to deal with them. Derek Thorkelson (SFU) reported that their recruitment efforts had not resulted in an increase in numbers at the undergraduate level, but the graduate program numbers are stable, and now include PhD's. The department chose to stay in the Faculty of Science rather than join the new Faculty of the Environment, because of fears that it (among other concerns) that it would result in erosion of the core geology programme. BC representatives in general are concerned about the implications of having six new universities in the province.

Some of the common themes arising during the roundtable were indirect costs, implications for planning of the removal of mandatory retirement, the possibility of pooling resources regionally and perhaps nationally, and the need to raise the profile of Earth Science to attract more high school students into the field. The difficulty of recruiting good graduate students is a common problem, and most are recruiting actively for international students (USA and Europe especially). A number of departments are spread thin as a result of introducing new courses to increase enrollments. The need to compile data about fee

structure for international students was suggested, as well as information about remuneration for heads and teaching loads of heads.

CCCESD finances (Greenough)

John Greenough reported on the budget, with a balance of \$15,828.43 and expenses of \$833.45 in the past year. Discussion ensued about the cost of membership in CCCESD – no one really knew. Paul Smith requested annual authorization to pay a membership fee to CFES of \$500. Moved by Hugo Beltrami, seconded by Kathy Gillis; carried.

Canadian Federation of Earth Sciences

Elisabeth Kusters spoke on the accomplishments and importance of CFES. She asked for volunteers to participate in a new subcommittee to alert policy makers to the threatened international status of Canadian Earth Science. She noted the move to a national student chapter program, and the national group insurance initiative. CFES has established a new Mentorship award which will be given for the first time in Toronto in May 2009. Also being developed is CanGeoRef, an Earth Science Advisory and Advocacy Panel, and a careers website. Kathy Gillis suggested that CFES has not yet been successful at making inroads into academia. Paul responded that we have a chair at the table in CFES meetings. Hugo asked why CGU and CMOS are not members of CFES. Paul and Elizabeth explained that CFES is trying – everyone agrees that CFES must encompass these groups. Elizabeth then focused her presentation on the results of the recent CFES HQP survey [presentation is available as a pdf on the CCCESD website]. She noted that the situation has changed due to the economic turndown. It is noteworthy that only a small proportion of earth science grads (maybe half) stay in the discipline for their careers. A committee has been set up to investigate this phenomenon and why. It was pointed out that just because students don't stay in the discipline doesn't mean that their degrees are not useful to them – we gain by them being in other fields. BUT we lose too many, especially females. Can we do anything to help this? Perhaps universities are too focused on bums in seats, not education.

A feeling was expressed that the mining industry does not have a commitment to mentoring students, although it was pointed out that they do it more informally – learning by osmosis. It was suggested that CFES could play a role in getting ES into the high school curriculum. A suggestion was made that rewards might be established to recognize faculty members who publish in non-academic journals or do outreach. Overall, CFES was advised to keep its umbrella large, and include as many as possible, whether they are doing conventional “earth science” or not.

Session on the HQP Crisis and Student Recruitment

Barry Warner initiated a discussion on this topic. He opened with general comments – getting students into geology is the problem and CCCESD is responsible for dealing with it. Even with the economic downturn, recruitment is an issue. We all deal with it every day. Is there anything we can do as a group? We don't need to wait for CFES to take initiatives. AGI has put up a document on their website “Geosciences for the twenty-first century”. CCCESD should form a subcommittee to feed into the CFES initiative to parallel the AGI initiative. Barry noted 3 areas: (1) Audience – high school students, parents, public at large; (2) what is our message? Viable career path; (3) Who are our partners? A national report on these themes would give us some power with administration. A powerful lobby is needed with education ministers. Message should be that ES is a legitimate science and a better way of teaching science than some others. We could pick up “Earth Week” by partnering with AGI – but this is Outreach NOT lobbying at top levels. In most places, ES courses in school cannot be used for university admission, and have a poor reputation. It was pointed out that the ES courses in BC high schools may give ES a tainted image. In Ontario, Geology graduates cannot get directly into BE programs. The point was made that law and medicine are not taught in high school but still kids do them at university. ES news in the popular press tends to be negative.

Summing up, it was agreed that the problem is huge – we need to focus on some aspect – find out what is offered in high school/grade school across the country. Aim to provide framework for lobbying. Barry Warner thinks a document is needed. Derek says a registrar's poll at SFU showed that the #1 influence on what students take is parents, #2 is counselors, and way behind at #3 are other influences (high school visits, etc.). Need a shorter term document for recruitment strategy. Barry will take the lead, aided by Kevin and Derek. Gather fundamental data and contact members of CCCESD as needed.

News from the Geological Survey of Canada

David Boerner, Director General, Central and Northern Branch of the GSC, gave a presentation on the GSC and the GEM initiative. He noted that government has put pressure on science-based departments like the GSC to show what they get for their money. Government cannot be made to value geoscience the way we do. What is the evidence that there really is a shortage in geosciences? Need statistics, not anecdotal evidence. The government has been concerned that it is not getting value from S&T. He noted that talks are underway about creating an institute in the Ottawa area involving GSC/Ottawa/Carleton – they have looked at a lot of models elsewhere but a lot don't work. The GSC has moved beyond geoscience into the realm of public policy. Exploring ways to connect with other universities in Canada, including virtual offices. They need help from the sciences and social sciences at universities. Interesting in discussions with anyone who might be interested.

GEM was announced by Harper in August. 75% of funding to be spent in the North, 25% in provinces, matched by new funding. 6 provinces have come through so far. Major focus in Arctic. Goal is to complete reconnaissance mapping in North in 10 years (for resource potential). A northern economic development program. Don't think about it as a science program. Oil/gas/minerals is what the North has to develop. So GEM is geoscience contributing to a public policy program. Need helps from universities, not only geoscience but other areas too (social sciences). Plan is to hiring lots of students to work in the north. Approved for 5 years, but hope it will last 10. The Targeted Geoscience Program is continuing to 2010 and they hope to continue beyond that – it is not science but rural economic development. Another area is sustainable offshore development. Also gas hydrates – needs an assessment of potential. Carbon capture and storage. Needs more geoscience. Geothermal energy (pumping water into batholiths). Safe environment – how development impacts environment. Water-energy nexus. Sovereignty/stewardship/safety/security. Geoscience is crucial but has to be phrased as policy. GSC need universities to help but to do so, we need to change our thinking to be more like how the GSC is thinking (public policy, not science). Discussed ways to involve aboriginal people. He concluded that the Geoscience community in Canada is not doing well. Need to change the way we do things. [power point to post on website].

AFTERNOON SESSION

Meeting with Members of NSERC

Additional participants:

Isabelle Blain, Vice-President, Research Grants and Scholarships Directorate
 Norman Marcotte, Director, Research Grants and Scholarships Directorate
 Dave Bowen, Team Leader, Research Grants and Scholarships Directorate
 Brigit Viens, Kenn Rankine, Program Officers, Research Grants and Scholarships Directorate
 David Corrigan, Chair of GSC08.

Isabelle Blain gave a powerpoint presentation (handout provided) explaining the revisions to the Discovery grants program and CREATE, as well as fielding many questions. She noted that the transformational point raised by the external review has not yet been implemented. Still looking at it. Not yet quantified. Want to encourage risk-taking research. They welcome suggestions. Increased

accelerator grants is desirable but no money yet. Nicholson and Sedra committees agreed about reduction in number of GSC's. Most changes will be implemented in 2010. Moving in direction of increased international membership in GSC's. Get 65-70% response rate from international reviewers, with slightly higher returns from Canadian reviewers but not a lot different. Lack of payment does not seem to be a huge factor. But non-Canadian reviews may not be as useful because of unfamiliarity with the granting system. Conference model is being brought in – allows flexibility but challenging to orchestrate. One of the 12 groups is geosciences. They will be using the “conference model” this year – many applications will be reviewed by only GSC08 or 09. But some will be reviewed by mixtures of 08 and 09, in some cases including members from other committees. Goal is always to have the best expertise available to review each application. Will also have written input from other disciplines for specific applications. GSC 08, 09, and 18 will be meeting at the same time to facilitate communications.

Bridging the granting councils is another issue that will be dealt with – they are talking – maybe 2011. Will be addressed to some extent by refereeing process in the shorter term. Some researchers now submit to both councils. Total money envelope is not changing. They are trying to make sure that pressures are equal, and that there is no advantage to being in one category vs another. She explained the bin system – within each bin, most people would get the same amount of money, depending on cost of their research. All 3 categories (excellence, merit, and HQP are equal). For HQP, evaluation will be career-stage appropriate. A lot more than just numbers – what have they done? Where are they now? Appropriate for the applicant, whether they have a PhD program or not, etc. Applicants can see the criteria in the application manual. Intent is not to change the success or the average grant. Fair review is the goal. How you make use of the students, how they contribute to the research program. NSERC philosophy is not going to change – still supporting individuals.

CREATE is aimed at broader perspectives. Adding breadth to the depth of training. Value added perspective. A point was made that NSERC may have too many industry-based programs, but not everyone agrees. Only 13 applications out of more than 130 CREATE came from “geosciences”. Discussion of whether support should be given to international students (given that NSERC uses taxpayers' money), even though many stay in Canada. Maybe the fact that the new Vanier scholarships are open to international students will open the door.

She noted the importance of documenting impact and output of research to MPs and ministers. Indirect cost of research is big with university presidents when they meet MP, etc. – but this is not helpful. UFA program did not work, but an alternative program might be developed in future. Needs to be re-evaluated in the future.

Executive Changes

We are in the unfortunate position that all members of the executive finish their 2 year CCCESD terms in 2008 and several people are retiring from their headships.

Chair: Paul Smith, UBC (ending term as head)

Current Regional Representatives:

Kathy Gillis (West) ending term as head

Sandy Cruden (Ontario)

John Stix (Quebec)- willing to serve again short term

Martin Gibling (Atlantic) – ended term as head, region has appointed John Hanchar

Treasurer: John Greenough (UBC-Okanagan) – willing to continue

Secretary: Rob Raeside (Acadia) – willing to continue

It was agreed that regional representatives will be chosen first and they will take care of finding the new chair. Staggering new appointments would be helpful. Dick Bailey moved and Bruce Broster seconded

that Martin Head will take over as Ontario representative. Carried. For the west, Kevin Ansdell could do it for one year until he finishes his term as head, but it was agreed that having a rep from Alberta might also be a good idea – Kathy Gillis agreed to explore the options by email.

It was agreed that maintaining connections with NSERC and the GSC make Ottawa the best venue for the meeting, and John Blenkinsop agreed to host it again next year. However, a need also exists to make better contacts with industry. Paul will contact Ian Young about having a petroleum industry representative at the meeting next year and other industries in subsequent years (mining, geotechnical, environmental). It was also agreed that the industry representative(s) should be at the meeting all day if possible, and listen to us as well as talk to us about their viewpoint and concerns. Industry can lobby on our behalf with politicians.

Paul will talk with Rob about how to acquire data about department head teaching loads and remuneration, administrative leaves, research help, etc. which members thought would be helpful. Confidentiality must be maintained. Information could be grouped according to department size.

Considerable discussion ensued about the difficulties of acquiring valid data about teaching loads generally--numbers of students (bums in seats versus majors, etc. etc.). A survey by Bob Dalrymple was mentioned as useful.

A suggestion was made that the “roundtable” might not be the best use of time at the meeting. It might be better to ask members for their “key issues” and distribute the lists ahead of time.

Meeting adjourned at 4:15 pm.

Submitted by
Sandra Barr
Acting Secretary