

## COUNCIL OF CHAIRS OF CANADIAN EARTH SCIENCE DEPARTMENTS CCCESD

Teams meeting, 12 November 2020 – Notes from Meeting

Present: Russ Pysklywec (Toronto, chair), Kathy Bethune (Regina), James Brenan (Dalhousie), Karl Butler (UNB), Alfredo Camacho (Manitoba), Patricia Corcoran (Western), Brian Cousens (Carleton), Joel Cubley (Yukon), Stan Dosso (Victoria), Bruce Eglinton (Saskatchewan), Joel Gagnon (Windsor), John Greenough (treasurer), Pete Hollings (Lakehead), Ed Hornibrook (UBC-Okanagan), Stephen Hubbard (Calgary), Stephen Johnston (Alberta), Francine McCarthy (Brock), Jeff McKenzie (McGill), Penny Morrill (MUN), Bruce Newbold (McMaster), Craig Nichol (SFU), Gwen O'Sullivan (Mt. Royal), Jeff Pollock (Mt. Royal), Rob Raeside (Acadia/CCCESD), Vicki Remenda (substituted by Peir Pufahl, then Dan Layton-Matthews, Queen's), Dave Rudolph (Waterloo), Dave Schneider (Ottawa), Gwen Sullivan (Mt Royal), René Therrien (Laval), Doug Tinkham (Laurentian), Philippe Tortell (UBC-Vancouver), Alain Tremblay (UQàMontréal), Deanne van Rooyen (CBU), Nancy Van Wagoner (Thompson Rivers), Glyn Williams-Jones (SFU).

- 1. Welcome:** Russ Pysklywec opened the meeting at 11 a.m. ET and allowed participants to introduce themselves. This year's edition of [Departmental Notes](#) is posted for reference.
- 2. Finances**  
John Greenough presented a summary of the finances. Treasurer's report attached.
- 3. Statistics**  
R Raeside reviewed the annual statistics collection (<http://cccesd.acadiu.ca/rep2019.html>). Responses were received from 30 out of 38 departments. The 2020 survey will be initiated on 1 December, with a due date of 31 January, 2021. Enrolments in our departments overall, and in the Geology-Geophysics-Geological Engineering programs subset continue to decline, and the decline in the number of graduated students has also continued.  
Data were collected from three surveys in the past year on online courses, teaching loads and thin section facilities. The results of these surveys are posted at <http://cccesd.acadiu.ca>.
- 4. Report from CFES**  
S Butler (CCCESD rep on CFES) reported that he and R Pysklywec had approved the CFES operational plan on behalf of CCCESD; incoming CFES president Rachel Newrick has posted a coffee chat at <https://www.youtube.com/embed/HChfQfeUSgU>; comments on the CFES climate change statement (provided with agenda) should be submitted by end of November on the feedback form provided.
- 5. Interactions between Canadian Earth Science departments and geoscience professional**  
Craig Nichol provided an overview of the relationship between Canadian Earth Science departments and the geoscience professional regulators (attached to agenda). He is designing a survey to seek how departments structure their communication with the regulators. CCCESD granted permission for him to use the statistics from CCCESD for the survey. The survey will be conducted around February 2021 and results presented at the CCCESD meeting next year.
- 6. Visit from Geoscientists Canada**  
Andrea Waldie (CEO) and Kevin Ansdell (U Sask, President-Elect) provided [an overview](#) of the activities of GC, referring to statistics, gender balance, resources. New resources are <https://geoscienceincanada.ca/> and <https://competencyassessment.ca/>. Increasing emphasis is being placed on assessment of competencies, gradually replacing the work experience log.

CCCESD participants expressed concern about diversity expression on the new websites – A Waldie noted that resources are limited and requested high-resolution images to include on websites and in publications (photo release form provided at <http://cccesd.acadiiau.ca>). She also requested input about virtual field schools and other new developments in departments.

#### **7. Visit from NSERC**

Dave Bowen (Interim Team Leader, Mathematical, Environmental and Physical Sciences Division), Tiffany Lancaster, Program Officer, Mathematical, Environmental and Physical Sciences Division, and Kenn Rankine (Program Officer, Mathematical, Environmental and Physical Sciences Division) attended the meeting. The presentation is available at [http://cccesd.acadiiau.ca/NSERC\\_Nov\\_2020.pdf](http://cccesd.acadiiau.ca/NSERC_Nov_2020.pdf). Emphasis was placed on the changes arising from Covid-19 issues, ECR changes, delays in research, application rates, EDI and Alliance partnerships.

#### **8. Visit from CFI**

Claire Samson (Vice-President) and Mohamad Nasser-Eddine (Interim Vice President, Programs and Performance) answered questions previously posed by CCCESD:

a) What is the next big focus?

A mid-term evaluation of the major facilities program was conducted in 2019, and it will remain in place to 2023. Three hundred applications were submitted to the Innovation Fund in 2020, and decisions will be made to the Board of Directors in mid-November, and results released immediately. The next round of JELF results will be released soon also.

The Industry-Innovation Fund is conducting business as usual. An analysis of the results will be conducted after the next round of awards.

b) Can you clarify how the Infrastructure Operating Funds are allocated for operation and maintenance?

All CFI projects are institutional and funding from CFI is always partial – institutions must secure the remaining funds themselves. Institutions are responsible for deciding how to divide the funds on a yearly basis.

c) Is there an interest in ocean research, or any other research focus?

CFI funds in all disciplines and the process is bottom-up. If institutions submit applications in these areas, they will be considered.

d) What about high-performance computing and the evolution of Compute Canada, as it is getting more and more oversubscribed compared to the available resources?

Federal dollars were provided in 2018 for a new digital research strategy and the New Digital Research Infrastructure Organization (NDRIO) will be in place from April 2022.

#### **9. Visit from the Geological Survey**

Daniel Lebel, Director General provided an overview of GSC activities. The presentation is available at [http://cccesd.acadiiau.ca/GSC\\_Nov\\_2020.ppsx](http://cccesd.acadiiau.ca/GSC_Nov_2020.ppsx).

Questions raised include:

- Status of Deep-time Digital Earth (DDE) – Canadian proposal still needs to be developed.
- TGI grants are limited to 2 years; could they be longer, capable of funding PhD research? – direct question to Geneviève Marquis, but TGI-6 is a four-year funding arrangement, and TGI projects are moving toward permanent funding status.
- What is the status of the GSC facilities in Ottawa – anticipating an announcement, but change won't be fast.

- Changes with the Canada Water Agency – recent retirements will be replaced through the normal process.

## 10. CCCESD issues

### a) Covid-19 effects:

biggest effect has been on field work and field schools. PGO (Ontario) is permitting virtual field camps, APEGA (Alberta) is not. Geoscientists Canada indicated regulators are moving more toward competency-based assessments rather than courses in programs. CCCESD will undertake a survey of departments to assess the effect on labs and fieldwork.

Is there a threat to departments that online courses could replace in-class courses? The strong feeling is that remote teaching is for extreme situations only. Learning involves other people (teachers, peers). Virtual teaching has resulted in a shift from test- and exam-based assessment to incremental assessment, but this is not optimal. Both students and professors much prefer the traditional tests and exams.

### b) EDI (Equity, Diversity, and Inclusion) issues

Reference: Nature Geoscience article, May 2018, “No progress on diversity in 40 years” circulated with agenda.

- Where do we stand? What barriers exist? Earth Science at all levels is overwhelmingly white and dominantly male in the industry, although student participation by women is increasing.
- is recruiting in Geoscience a root problem? Do our brochures over-emphasize white men and fieldwork?
- people need to see themselves in a position to be attracted that field. What do we advertise? Too much field work?
- Do BIPOC students feel unsafe in the field? Do they feel unwelcome in our “culture”?
- Does Earth Science need to rebrand?
- Is cost a problem? Can universities waive non-resident tuition? Are there scholarships for under-represented groups?
- Are visible minorities mostly urban and put off by the emphasis on field work?
- Do regulators need to develop non-field school options?

S Johnston provided further resources:

<https://massivesci.com/articles/disability-science-career-stem-field/>

[https://amp.theguardian.com/environment/2018/jul/13/hiking-african-american-racism-nature?\\_twitter\\_impression=true](https://amp.theguardian.com/environment/2018/jul/13/hiking-african-american-racism-nature?_twitter_impression=true)

<https://blogs.scientificamerican.com/voices/why-dont-the-geosciences-have-more-diversity/?sf194372288=1>

<https://speakingofgeoscience.org/2018/10/08/moving-forward-overcoming-our-ideas-about-disability-in-the-geosciences/>

<https://eos.org/opinions/ten-steps-to-protect-bipoc-scholars-in-the-field>

<https://eos.org/features/the-challenges-of-fieldwork-for-lgbtq-geoscientists>

## 11. Executive Changes

R Pysklywec will complete his term as head at U of Toronto in June and will be going on leave. A call was made for a new chair of CCCESD. Jeff McKenzie (McGill) was nominated by R Raeside and P Hollings. Jeff was acclaimed as the new chair.

## Adjournment

Meeting adjourned at 5.00 p.m. ET. Following the meeting several members zoomed in to a celebratory Beer with Russ, where various weighty matters were aired. Regretfully we have learned that the Highlander Whiskey Bar (the usual rendezvous) is no more. Was that because of our absence?

