

THE MAIN THRUST

NEWSLETTER OF THE STRUCTURAL GEOLOGY AND TECTONICS DIVISION OF THE GEOLOGICAL ASSOCIATION OF CANADA

Fall/Winter 2006

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1. Change of Executives and Councillors

At the business meeting held in October, 2006 (at the Crowsnest Pass CTG/SGTD Workshop), Dr. Jim Ryan stepped down as the division Vice Chairman and Dr. Bruno Lafrance was elected as the new Vice Chairman. Drs. Lori Kennedy completed her term as a councillor, and Dr. Dan Gibson was elected as a new councillor. We would like to thank Drs. Ryan and Kennedy for their service to the SGTD. The current executives of the division are listed at the end of this Newsletter.

2. 2006 CTG/SGTD Workshop, Crowsnest Pass, AB

The 26th CTG meeting, co-hosted by the SGTD, was held at Crowsnest Pass, Alberta, 13-15 Oct. 2006. It was excellently organized by Willem Langenberg and Dinu Pana. Willem Langenberg, Ray Price and Glen Stockmal planned and led the field trip on the structure of the Crowsnest Pass transect. 32 delegates from coast to coast attended the meeting. Program with abstracts, the field-trip guide and a series of photos from the meeting are available on the SGTD/CTG website (www.brocku.ca/ctg).



3. SGTD Business Meetings

Two SGTD business meetings were held in 2006, at GAC-MAC 2006 in Montreal, QC and at SGTD/CTG 2006 at Crowsnest Pass, AB. Minutes of the two meetings are appended to this Newsletter.

The next business meeting will be held at GAC-MAC 2007 in Yellowknife.

4. Preview of Yellowknife 2007 GAC-MAC Joint Annual Meeting

The 2007 GAC/MAC annual meeting “For a Change of Climate” will be held in Yellowknife from May 23 through May 25, 2007. The following sessions and field trips may be of particular interest to our division members:

Special Session #3: Advances in the Precambrian geology of Laurentia.
Convenors: Wouter Bleeker, Robert Rainbird, and Marc St.-Onge

Special Session #4: Short-lived magmatic events in and around the Slave province.
Convenors: Wouter Bleeker, Richard Ernst, Ken Buchan, and Tony LeCheminant

Field Trip: Transect through southwestern Slave craton
Leader: Wouter Bleeker

Field Trip: A geological transect of Trans-Hudson orogen from the Superior craton to the Rae craton: geology of northern Quebec, Baffin Island, and western Greenland (*13 day field trip in August 2007*)

Leaders: Marc R. St-Onge and Dave J. Scott

Additional information is available on the GAC website
<http://www.nwtgeoscience.ca/yellowknife2007/>.

Abstract deadline is January 23, 2007.

5. Preview of the 2007 CTG/SGTD Fall Workshop (Shawinigan, Quebec)

The 2007 CTG/SGTD meeting will be held in the Shawinigan area, Quebec on Oct. 12-14, 2007 (dates tentative). The principal organizers will be Alain Tremblay and Normand Goulet (UQAM). Léopold Nadeau (GSC-Québec) will lead a fieldtrip into the Grenville Province, focusing on granulite dome structures surrounded by migmatites and amphibolite-grade gneisses, with spectacular outcrops for structural geology. Updates on the meeting will be posted on the SGTD/CTG's website (www.brocku.ca/ctg/).

6. Winners of the 2005 Jack Henderson Best Thesis Awards

Best Ph.D. Thesis:

Dr. Venessa Bennett of Memorial University of Newfoundland for the thesis:
"A Multidisciplinary Investigation of the Formation, Growth and Evolution of Neoproterozoic Crust, Snare River Terrane: Southwestern Slave Province"

The thesis was supervised by Dr. Toby Rivers.

Best M.Sc. Thesis:

Ms. Fionnuala Devine of Carleton University for the thesis:
"Geology of the southern Campbell Range, southeastern Yukon: Implications for the Tectonic evolution of Yukon-Tanana terrane"

The thesis was supervised by Dr. Sharon Carr and Dr. Donald Murphy

The selection committee (Jim Ryan and Andy Okulitch) also wishes to recognize the following two close runner-ups for the Best PhD Thesis Award:

Dr. Paul Glombick of the University of Alberta for the thesis:

“Mesozoic to early Tertiary tectonic evolution of the Shuswap metamorphic complex in the Vernon area, southeastern Canadian Cordillera.”

The thesis was supervised by Philippe Erdmer.

Dr. Alana Hinchey of Carleton University for the thesis:

“Thor-odin Dome: Constraints on Paleocene- Eocene Anatexis and Deformation, Leucogranite Generation and the Tectonic Evolution of the Southern Omineca Belt, Canadian Cordillera”

The thesis was supervised by Sharon Carr.

7. Winners of the 2005 Dave Elliott Best Paper Awards

Paul F. Williams (University of New Brunswick) and **Dazhi Jiang** (University of Western Ontario) for the paper:

“An investigation of lower crustal deformation: Evidence for channel flow and its implications for tectonics and structural studies”.

Published in *Journal of Structural Geology*, v. 27, p. 1486–1504

8. Call for Submissions for the 2006 Jack Henderson Best MSc Thesis Award and Best PhD Thesis Award, and Dave Elliott Best Paper Award

We are calling for submissions for the Best MSc Thesis Award and the Best PhD Thesis Award. Theses submitted to a Canadian university and *defended* in the 2006 calendar year are eligible. Submission deadline is January 31, 2007. A submission can be made by the thesis supervisor or by the student. It should include a “statement of nomination” letter from the supervisor, stating that the thesis was successfully defended in 2006 and outlining the key contributions that it makes to structural geology and tectonics. In the case that the student submits a copy of the thesis, the onus is on the student to make sure that the supervisor (or a key member of the supervisory committee in the case that the supervisor is not available) submits the nomination letter, as a form of quality control. Theses for which we receive no nomination letters will *not* be considered for an award. Please send the theses to:

Bruno Lafrance (SGTD Vice Chairman)

Department of Earth Sciences

Laurentian University

Sudbury, Ontario, P3E 2C6

Telephone: (705)675-1151 ext 2264

Fax: (705) 675-4898

E-mail: blafrance@laurentian.ca.

We are also calling for submissions for the Best Paper Award. Papers written by Canadian authors or dealing with Canadian topics and published in the 2006 calendar year are eligible. Submission deadline is also January 31, 2007. A submission should

include a nomination letter and a PDF file of the paper (if available). Submissions by the authors will also be considered. These submissions should go to:

Shoufa Lin (SGTD Chairman)
Department of Earth Sciences
University of Waterloo
200 University Avenue West
Waterloo, Ontario, N2L 3G1
Tel: +1 (519) 888-4567, ext. 36557
Fax: +1 (519) 746-7484
E-mail: shoufa@sciborg.uwaterloo.ca.

The winners will be announced at the GAC Award Luncheon at the 2007 GAC-MAC annual meeting in Yellowknife.

9. Financial Report from SGTD Treasurer Andy Okulitch

The division's finances remain in good health at \$7,405.23. A detailed report will be presented at the next business meeting at GAC-MAC'2007 in Yellowknife.

10. Seasons Greetings from All Current SGTD Executive and Councillors

We wish you a Merry Christmas and a Happy New Year!

Chairman: *Shoufa Lin*, University of Waterloo
Vice Chairman: *Bruno Lafrance*, Laurentian University
Secretary: *Jürgen Kraus*, Mortal Oil Ltd., Calgary
Treasurer: *Andy Okulitch*, GSC Vancouver
Councillors:
Dan Gibson, Simon Fraser University
Shaocheng Ji, Ecole Polytechnique de Montreal
Edith Martel, Northwest Territories Geoscience Office, Yellowknife
Joseph C. White, University of New Brunswick

Appendix A. Minutes of the SGTD Business Meeting at GAC/MAC 2006 in Montreal, QC

Chaired by Shoufa Lin
Minutes kept by Jim Ryan

19+ members in attendance

Shoufa Lin, Jim Ryan, Scott Cairns, Phil Simony, Normand Goulet, John Waldron, Sharon Carr, Joe White, Mary Sanborn-Barrie, Ray Price, Willem Langenberg, Herb

Helmstaedt, Steve Johnston, Kathy Bethune, Becky Jamieson, Toby River, Vanessa Bennett, Wouter Bleeker, Mike Easton

Update on Montreal 2006

Normand Goulet

Briefed the group on structural geology and tectonics presence at GAC-MAC Montreal 2006. He felt it was a strong showing, and that the general structural geology session was strong. He raised concern that this general session may be cut for Quebec 2008. He was promoting the idea that the SGTD should consider submitting a session titled something along the lines of “New Findings in Structural Geology and Tectonics” that is general enough to make up for the general session to be cut. We should take this under advisement.

Update on Yellowknife 2007

Scott Cairns

Looking for Sponsors for Yellowknife 2007. Program is almost set, but may entertain a new “good” idea. May have poster sessions, with 5 min oral presentations. Several field trips being considered (check pamphlet or website for updates); costs may come down:

- 1) Slave Transect with Bleeker
- 2) Pine Point MVT (~\$850)
- 3) Geoheritage with Al Donaldson (~\$50)
- 4) Gold Mineralization
- 5) Diamond Mines (~\$600)
- 6) Geological Cruise (8 days) through the Trans-Hudson Orogen with Marc St. Onge (~\$5300-6300)

- 15% discount for delegates
- 30% discount for students

Question: Will general sessions be posters only?

Answer: No, there will be the same general oral presentations

Question: Numbers of attendees expected?

Answer: 500 - 600

General Meeting

1. Adoption of minutes

Motion:

Sharon Carr moved to adopt the minutes of the Fall business meeting, seconded by John Waldron

Carried: 1 abstention

2. 2005 SGTD award winners:

Shoufa Lin

Jack Henderson Award for Best Ph.D. Thesis:

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Neoproterozoic Crust, Snare River Terrane: Southwestern Slave Province".
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Dave Elliott Award for Best Paper:

Dr. Paul F. Williams (University of New Brunswick) and Dr. Dazhi Jiang (University of
Western Ontario) for the paper:
"An investigation of lower crustal deformation: Evidence for channelflow and its
implications for tectonics and structural studies". Published in the Journal of Structural
Geology, v. 27, p. 1486-1504

3. Update on CTG 2006

Willem Landenberg

Reported on progress of the up-coming 2006 CTG Fall meeting in the Crowsnest Pass
area.

- He intends to rent a large bus, needs to know early possible numbers of attendees to decide on a 21 passenger or a 40 passenger.
- He intends to use \$2000 left over from the Orillia CTG to put towards the cost.
- Conference centre is cheap, at \$50/night
- Some may come early, so he intends to pick people up with the bus at the airport, then on to the GSC, then on to the Crowsnest Pass. Calgary people can get picked up at either location.
- Down payment of half to reserve a spot on the bus

A long discussion ensued on the topic of the CTG meeting and Liability Insurance. A general consensus was reached that the issue of insurance for field trips is only going to be more, not less, prevalent. Some universities do not want to lend vehicles any longer for such trips, as the participants will not be covered under the university insurance.

Motion: John Waldron moved, seconded by Joe White, that the SGTD should offer to the CTG to co-sponsor the 2006 CTG meeting, and that it become a “joint” event. The SGTD could help organize it. The intention would be that the meeting and field trip would then be covered under GAC liability insurance.

Carried Unanimously.

It was announced that the terms of Jim Ryan (Vice-Chair) and Lori Kennedy (councillor) are finished. SGTD will be seeking a new vice-chair at the Fall meeting in Crowsnest Pass. We are seeking nominations.

Motion:

Herb Helmstaedt moved, seconded by Mary Sanborn Barrie, that the SGTD invite the CTG to join the division in order to avoid duplication of efforts and problems that come with not being an official association.

Much discussion ensued, highlighting the historical rationale for the CTG and the fact that the CTG is simply an informal group gathering centring around a workshop and field trip, and does not really have members, rather merely in spirit.

Herb withdrew the motion.

4. Finances:

We have more than \$7000 in the bank and are looking for good ideas to fund.

5. Further update on plans for Yellowknife 2007

Plans for Yellowknife 2007:

Bleeker has suggested 2 sessions and 1 field trip.

Motion:

Becky Jamieson moved, seconded by John Waldron, to say yes to sponsoring all of the propositions.

Carried: Unanimously

6. Update on Quebec 2008

- Donna Kirkwood and Leo Nadeau are SGTD representatives on the LOC.
- Three broad topics
- Website is up and running
- Program is advanced, but new proposals are still welcome
- We should think about proposals *soon*

- Donna will provide a list of relevant titles
- No general sessions

John Waldron complained about the lack of general sessions, because they are a good place for talks that are not specialized

Re-proposed to present “Advances in Structure and Tectonics”.

We need organizers

One short course of particular relevance to us:

3D Modelling

But there are no short courses restricted to Structure and Tectonics

Kathy Bethune would like to see one on Structure and Melting.

Jim Ryan Pointed out that 4 Short Courses are already a lot.

Leo expressed interest that the LOC would like to see the 3D modelling S.C. sponsored by the SGTG, including financial support.

Jim Ryan is to get the full list of short courses and field trips from Leo Nadeau
Appended here from Leo Nadeau:

*1) Métallogénie de l'uranium (non confirmé) Organized by: Michel Cuney Sponsor : SGA
Michel.Cuney@g2r.uhp-nancy.fr*

2) Concepts de modélisation 3D géologique Organized by : D. Kirkwood (U. Laval), J. Pouliot, F. Fallara Contact : D. Kirkwood Sponsored by : GEOIDE

*3) Diamond Etiquette and Cutting
Organized by : A. Bernard, Centre canadien de valorisation du diamant A. Bernard
bernarda@cgmatane.qc.ca*

*4) Migmatites
Organized by : Ed Sawyer, UQAC
Sponsored by: MAC*

In addition, Donna and I have met all GAC Divisions and MAC lead persons in Montréal to invite additional short course and fieldtrip submission. We have indicated that we would like to receive all submissions by early fall 2006.

Besides short courses, there are a total of 8 fieldtrips presently proposed, 4 requiring significant travel (and costs) and 3 local (at minimum cost). The proposed field trips include:

*1)Voisey's Bay;
Mike Lescher leader; SEG sponsored; post-meeting*

2) *Les éléments des systèmes hydrocarbures de la Gaspésie: roche-mère, réservoirs et Pièges / Hydrocarbon systems in Gaspé Peninsula: a tour of source rocks, reservoirs and traps*

Michel Malo and Denis Lavoie leaders

3) *Métallologénie du bassin d'Athabaska / Ore genesis in the Athabasca Basin*
Michel Cuney leader; SGA sponsored

4) *Pegmatites*

Dave London leader; MAC sponsored

5) *Du Grenville à Rodinia / From the Grenville to Rodinia*

Léopold Nadeau et Louise Corriveau leaders;

6) *Québec ville fortifiée: patrimoine géologique et historique / Québec Fortified City: Geological and Historical Heritage*

Pascal Côté coordinator; this day trip could be run a number of times during the week depending on demand

7) *Une marche dans le Vieux Québec : chutes de pierres et glissement / a tour of the Old City : rock fall and landslides*

Jacques Locat and Donna Kirkwood leaders

8) *Pierre de taille de la Ville de Québec / Architectural stone of Québec City*
Robert Ledoux leader

Note that we are aiming to link all fieldtrips to symposia or special sessions.

Leo has said there is more room for field trips.

Program will be decided by mid-Fall 2006

7. Update on Nuna Meeting in 2007

- Asked Wouter Bleeker for some text about this meeting.
- June 20 Wednesday is the icebreaker
- Thur - ??
- Friday – Field strip around Sudbury
- Sat – Sun – program
- Fly out the 25th
- Then post-meeting field trip
- Not really looking for sponsorship
- 1 page flyer as a pdf
- expecting 100-150 people

Motion:

Wouter Bleeker moved, seconded by Mary Sanborn-Barrie, that the SGTD spend about \$1600 in supporting students, and the executive will decide how to spend it.

Approved in principle

Mike Easton moved to adjourn

Appendix B. Minutes of the SGTD Business Meeting at CTG/SGTD 2006,

Crowsnest Pass, AB, 14 Oct. 2006

Chaired by SGTD chairman Shoufa Lin

Minutes recorded by SGTD secretary Jürgen Kraus

24 members in attendance:

Robert Brady, Frank Fueten, Jean-Francois Gagnon, Dan Gibson, Dazhi Jiang, Elena Konstantinovskaya, Jürgen Kraus, Bruno Lafrance, Willem Langenberg, Shoufa Lin, Walter Loogman, Paula Mackinnon, Tanya Matveeva, Ray Price, Pierre-Yves Robin, Deanne van Rooyen, Christoph Schrank, Fried Schwerdtner, Philip Simony, Deborah Spratt, Glen Stockmal, John Waldron, Ken Wallace, Paul Williams. Also present was Lori Kennedy, who was not a member, however a councillor up to this meeting.

Meeting called to order at 8:45 pm

1. Special Session for GAC/MAC Quebec 2008

Lori Kennedy suggested a special session on “experimental methods in solid earth sciences” for GAC/MAC Quebec 2008. Paul Williams seconded. Fried Schwerdtner wondered whether the topic was too broad. Lori Kennedy believed that this concern was unwarranted as the structural group is relatively small. John Waldron noted the potential to receive sponsorship from other divisions. All were in favour.

2. Adoption of the minutes of the business meeting held at Montreal GAC/MAC

Moved by Frank Fueten, seconded by John Waldron. Carried unanimously.

3. Session on new findings in structural geology & tectonics at GAC/MAC Quebec 2008

Revised title suggested and convenor wanted.

Suggestions:

- (recent) advances in structural geology and tectonics (F. Schwerdtner)
- rock deformation process (B. Lafrance)
- dynamics of rocks (E. Konstantinovskaya)
- rock flow from microscopic to macroscopic scale (B. Lafrance)
- deformation in Canadian orogens (J. Waldron)

- geometry, dynamics, and kinematics of rock deformation (P.-Y. Robin)
...and the winner is:
structure, tectonics, and geodynamics of the lithosphere (Ray Price).
All were in favour of Ray's suggestion.

4. Election of new vice chairman of the SGTD

Jim Ryan's term as vice chairman had expired in May 2006. Thank you, Jim!
Paul Williams nominated Bruno Lafrance as new vice chairman and Willem Langenberg seconded it. All were in favour.

5. Election of a new SGTD councillor

Lori Kennedy's term as councillor had expired. Thanks Lori!
Paul Williams nominated Dan Gibson as new councillor, and Philip Simony seconded that. The vote was unanimously in favour. Welcome Dan!

6. Suggestion for field trip at GAC/MAC Quebec 2008

No opinions.

7. Insurance matters during joint CTG/SGTD workshops

It was explained that one advantage of co-hosting the CTG workshops with the SGTD of GAC is that GAC covers liabilities through insurance. Bruno asked why the participants had to sign liability release forms on the field trip. Ray Price mentioned that, together with signing the waver, participants on the present field trip were also briefed on safety issues and were handed out reflective safety vests, and by signing the release forms, the participants agreed to avoid unnecessary dangers. Shoufa Lin suggested continuing with joint CTG/SGTD workshops.

8. Calling for items for the forthcoming Main Thrust newsletter

No items. Any suggestions should be emailed to Shoufa Lin.

9. Other business

Philip Simony complemented the organizers on the enjoyable field trip. He also lauded their flexibility to swap talks and field trip according to weather forecast.

John Waldron proposed to adjourn meeting at 9:16 pm, Philip Simony seconded it.