Congratulations to:

**Petro Canada Graduate Scholarship**
Nathalie Vigouroux-Caillibot – Spring 2009

**Graduate Entrance Scholarship**
Winter Moon – Fall 2008

**NSERC**
Jolane Sorge

**President’s PhD Research**
Guillaume Mauri – Spring 2009

**Geoff Bradshaw Award**
Derek Turner

**Graduate Fellowship Recipients**
Sarah Brown – Summer 2009
Marit Heideman – Spring 2009
Kate McLaurin – Spring 2009
Eric Takam Takougang – Summer 2009

**Geoffrey Bradshaw Memorial Scholarship**
Derek Turner

**Geological Association of Canada Student Prize**
Eric Street

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**CANADIAN INSTITUTE OF MINING AND METALLURGY**

Eric Street and Rory Ritchie were awarded the CIM student book prizes in November.

Mark Van Heerden was runner up for the CIM Turnbull cup Best Photo Award.

Congratulations!

**STUDENTS**

Kirstie Medig (Derek Thorkelson)
Chad Sisulak (Shahin Dashtgard)
Jolane Sorge (Glyn Williams-Jones)
Derek Turner (Brent Ward)
Yabing Zhang (Doug Stead)
SOCCER GAME

The Earth Sciences indoor coed soccer team (called “The Rolling Stones”) finished the Fall Soccer Tournament with a very good 3rd place position. The team consisted of: Francesca, Nathalie, Helena, Jeff, Rafael, Gabe, Guillaume, Sung, Shahin and Matthieu. Good Job!

CHRISTMAS PARTY

Christmas came early for those who attended the Department Christmas Party on Friday November 28th. The event was held at the lovely Lochdale Heritage Hall in Burnaby. Thanks to all Christmas Elves who put in many weeks of preparation into making the night a success.

A slide show organized by Guillaume Mauri ran in the background during the evening showcasing photographs taken by students and faculty members of the Department.

The Undergrad Student Society (ESSU) did a masterful job of bartending, and the delicious Christmas dinner was prepared by Nedra Lodewyke and family.

If you missed this year's event be sure to mark Saturday, December 5th, 2009 on your calendar for next year's Christmas party!

BABY BOOM IN EARTH SCIENCES

Congratulations to our expectant families:

Cindy Hansen and Dave Pawlowski expect their little one to arrive the beginning of May. Cindy will be on maternity leave from May through December inclusively.

Glyn Williams-Jones' wife Isabelle is due in early June.

Shahin Dashtgard’s wife Nerissa is due in early July.

HOCKEY GAME

Our Second Annual Earth Sciences Hockey game was held at 3pm on February 27th, 2009 at Burnaby 8 Rinks. We had a great time and many thanks to all the cheering fans!

 CURLING TOURNAMENT

It is time once again for the annual Varner Cup curling tournament against the Geography Department. The tournament will be held on Sunday March 22nd, 2009 from 10 am to 5pm at the Marpole Curling Club. Players of all skill levels are welcome as we look forward to winning back the prize!
<table>
<thead>
<tr>
<th>Date</th>
<th>Room</th>
<th>Speaker</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tues. Jan. 27</td>
<td>SSB 7172</td>
<td>Laurie Neilson-Welch (PhD Candidate)</td>
<td>Water resources and hydrogeology in mountainous watersheds</td>
</tr>
<tr>
<td>Tues. Feb. 3</td>
<td>SSB 7172</td>
<td>Catherine Johnson UBC Earth and Ocean Sciences</td>
<td>TBA</td>
</tr>
<tr>
<td>Tues. Feb. 10</td>
<td>SSB 7172</td>
<td>Marc-Andre Brideau (PhD Candidate)</td>
<td>The third dimension of dip slope failures</td>
</tr>
<tr>
<td>Wed. Feb. 18</td>
<td>SSB 7172</td>
<td>Marco Giardino SFU Earth Sciences Visiting Scientist</td>
<td>Spatial and temporal dimensions of the geomorphological evolution of the Western Alps</td>
</tr>
<tr>
<td>Tues. Feb. 24</td>
<td>SSB 7172</td>
<td>Eric-Martial Takougang Takam Takougang (PhD Candidate)</td>
<td>Imaging structures of the Mamfe sedimentary basin in Cameroon with audio-frequency magnetotellurics</td>
</tr>
<tr>
<td>Tues. Mar. 3</td>
<td>SSB 7172</td>
<td>Ted Irving (with co-author Dennis Kent) Geological Survey of Canada, Sidney, BC</td>
<td>Paleo-GPS: determining the Triassic and Jurassic Paleogeographic Pole and the positions of Wrangellia, Stikinia and North America relative to it</td>
</tr>
<tr>
<td>Thur. Mar 5</td>
<td>P8445.2</td>
<td>Gabe Xue (PhD Candidate)</td>
<td>Howard’s Pass SEDEX Zn-Pb deposit: new thoughts and challenges</td>
</tr>
<tr>
<td>Tues. Mar. 10</td>
<td>SSB 7172</td>
<td>Sarah Brown (PhD Candidate)</td>
<td>New timing constraints on the motion along the Okanagan Valley Shear Zone, BC</td>
</tr>
<tr>
<td>Thur. Mar. 12</td>
<td>P8445.2</td>
<td>Terry Lukie Canadian Society of Petroleum Geologists</td>
<td>Western University Lecture Tour</td>
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<td>The Ups and Downs of Horizontal Drilling in the Alberta Foothills</td>
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<tr>
<td>Tues. Mar. 17</td>
<td>SSB 7172</td>
<td>Jim Monger SFU Earth Sciences Adjunct</td>
<td>The Coast-Cascade connection</td>
</tr>
<tr>
<td>Tues. Mar. 24</td>
<td>SSB 7172</td>
<td>Matthieu Sturzenegger (PhD Candidate)</td>
<td>Multi-scale characterization of rock mass discontinuities</td>
</tr>
<tr>
<td>Thurs. Mar. 26</td>
<td>P8445.2</td>
<td>Dr. Ron M. Clowes UBC Earth and Ocean Sciences</td>
<td>2009 CSEG Distinguished Lecturer</td>
</tr>
<tr>
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<td>A New View of the Continent Beneath Our Feet - LITHOPROBE’s Scientific, Economic and Social Contributions</td>
</tr>
<tr>
<td>Tues. Mar. 31</td>
<td>SSB 7172</td>
<td>Len Pasion or Kevin Kingdon Sky Research, Vancouver</td>
<td>TBA</td>
</tr>
<tr>
<td>Tues. Apr. 7</td>
<td>SSB 7172</td>
<td>Amir Mansour Farahbod (PhD Candidate)</td>
<td>Study of Non-Volcanic Tremors along the Cascadia Subduction Zone</td>
</tr>
<tr>
<td>Tues. Apr. 14</td>
<td>SSB 7172</td>
<td>Marta Chiarle SFU Earth Sciences Visiting Scientist</td>
<td>Natural instability in glacial and periglacial alpine areas under a changing climate</td>
</tr>
<tr>
<td>Wed. Apr. 15</td>
<td>SSB 7172</td>
<td>Dan Shugar (PhD Candidate)</td>
<td>TBA</td>
</tr>
</tbody>
</table>
GRADUATES

MASTERS OF SCIENCE DEGREES

<table>
<thead>
<tr>
<th>Student</th>
<th>Thesis Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ming Yan</td>
<td>Numerical Modeling of Brittle Fracture and Step-path Failure: From Laboratory to Rock Slope Scale</td>
</tr>
<tr>
<td>Jessica Liggett</td>
<td>Comparison of approaches for aquifer vulnerability mapping and recharge modelling at regional and local scales, Okanagan Basin, British Columbia</td>
</tr>
<tr>
<td>Christa Sluggett</td>
<td>Quaternary alkaline and calc-alkaline basalts in southern British Columbia: mixed signals from mantle sources above the southern edge of the Juan de Fuca-Pacific slab window</td>
</tr>
<tr>
<td>Derek Turner</td>
<td>Quaternary Geology of Howard's Pass and Applications to Drift Prospecting</td>
</tr>
</tbody>
</table>

DEFENSES & COLLOQUIUMS

Brett Wheler will defend his MSc thesis on "Glacier melt modeling in the Donjek Range, ST. Elias Mountains, Yukon" on Monday March 30, 2009.

Laetitia De Paoli will defend her MSc thesis on "Dynamics of a small surge-type glacier, St. Elias Mountains, Yukon Territory, Canada: Characterization of basal motion using 1-D geophysical inversion" on Wednesday March 25, 2009.

Reid Staples will defend his MSc thesis on "Thermo-tectonic evolution of the Wolverine metamorphic complex, British Columbia: limitations on the use of combined ion-exchange and net-transfer reaction geothermobarometry at upper-amphibolite facies metamorphism" on Wednesday March 25, 2009.

Jeffrey Zurek presented his MSc Colloquium on Tuesday February 24, 2009. The title is "Gravitational field analysis of active volcanic systems".

Nick Roberts presented his PhD Comprehensive on Friday February 20, 2009. The title is "Landslide hazard and risk in two Andean communities – La Paz and Yocarhyaya, Bolivia."

Eric-Martial Takam Takougang presented his PhD Comprehensive on Friday February 6, 2009. The title was "2D Waveform Inversion in the Frequency Domain of Seismic data from the Queen Charlotte Sedimentary Basin and the Mariana Island Arc".

David Van Zeyl defended his MSc thesis on "Evaluation of subaerial landslide hazards in Knight Inlet and Howe Sound, British Columbia" on Tuesday January 27, 2009.


Shannon Frey presented her MSc Colloquium on Thursday November 27, 2008. The title was "Sedimentological and Neoichnological Characterization of Mixed Sand-and Gravel-Beaches".

Cameron Thompson defended his MSc thesis on "Integrated ichnology, sedimentology and stratigraphy of the lower cretaceous Grand Rapids Formation and equivalents, east-central Alberta" on Monday, November 17, 2008

Fran Furlanetto presented her PhD oral exam on "Sedimentary provenance of the early proterozoic Wernecke supergroup, Wernecke Mountains, Yukon" on Thursday October 9th, 2008.

Alex Vyazmensky defended his PhD thesis on "Numerical modelling of surface subsidence associated with block cave mining using a finite element/discrete element approach" on Tuesday September 30th, 2008.

Chris Henry presented his MSc Colloquium on Tuesday September 9th, 2008. The title is "Characterizing groundwater recharge in a semi-arid region, southern Mali, Africa".
**SFU CO-HOSTS MASS YOUTH DIALOGUE**

On Dec. 10, SFU co-hosted an online mass dialogue with youth delegates attending the United Nations Climate Change Conference in Poznan, Poland.

Advanced teleconferencing technology in SFU’s Centre of Interdisciplinary Research in the Mathematical and Computational Sciences (IRMACS) let Burnaby campus attendees see and communicate with their peers worldwide.

"It was incredibly empowering to talk to youth at the conference and ask questions," says organizer Amber Church, a graduate student in Earth Sciences who is also a climate change action facilitator for the B.C. Ministry of the Environment.

While the number of attendees was small, due to exam week, she says those who attended left with a sense of motivation.

"It's the first time this has been done online," she says. "We were communicating with youth from around the world, including Taiwan, Malaysia, Belarusse, Canada and the U.K."

**BRITISH COLUMBIA COUNCIL ON ADMISSIONS & TRANSFER**

Congratulations to Robbie Dunlop as new council member on BCCAT. Council members are appointed by the Minister of Advanced Education and are selected from: universities, colleges, institutes, university and college faculty, post-secondary students, private post-secondary institutions, and the public secondary school system. BCCAT encourages institutions to develop policies and practices regarding the transferability of post-secondary credit courses so that credit granted at one institution can be applied toward credentials at other institutions; and examines issues pertaining to capacity, demand, and student mobility, and recommends policies and practices related to the admission process for direct entry and transfer students.

**WE'RE NO. 1 IN CANADIAN RANKINGS**

Maclean’s magazine hit newsstands Nov. 14, with the details of its 2008 university rankings. SFU was in a first-place tie with University of Victoria in the overall rankings of 11 comprehensive universities. That's up from 2nd place in 2007 and is our best standing in Maclean’s since the year 2000. (In 2006 we were #4; in 2005, #3, tied with Guelph; in 2004, #4; in 2003, #4, in 2002, #2; in 2001, #2; in 2000, #1; and in 1999, #2 tied with Waterloo.)

This year’s survey outcome looked like this: (last year’s standing in parentheses)

1. (tie) Simon Fraser (2)
2. (tie) UVic (1)
3. Waterloo (3)
4. Guelph (4)
5. (tie) Memorial (tied at #5)
6. (tie) New Brunswick (tied at #5)
7. Carleton (7)
8. Windsor (10)
9. (tie) Regina (9)
10. (tie) York (8)
11. Concordia (11)

Among the 11 comprehensives:

- SFU placed first in faculty awards, SSHRC grants, medical/science grants (NSERC plus CIHR) and in operating budget.
- We were second only to Waterloo in student awards.
- And we were third in the Maclean’s reputational survey, in percentage of budget spent on student services and in library acquisitions.

Nationally, among 48 Canadian universities, in Maclean's "national reputational ranking":

- Best overall: SFU placed 13th
- Most innovative: SFU also placed 13th
- Leaders of Tomorrow: SFU was 14th
- Highest quality: SFU was 17th
THE EARTH INSTITUTE ANNOUNCES 2008-2009 MARIE THARP FELLOWS

The Earth Institute at Columbia University is pleased to announce the 2008-2009 Marie Tharp Fellows - four women who are making noteworthy contributions to the fields of public health, glaciology, oceanography, and nanoscale science.

The 2009-2009 Marie Tharp Fellows are: Katerina Artavanis-Tsakonas, Post-Doctoral Fellow at the Whitehead Institute for Biomedical Research at MIT; Gwenn Flowers, Assistant Professor and Canada Research Chair in Glaciology at Simon Fraser University; Julie Pullen, Oceanographer and Meteorologist at the Naval Research Laboratory; and Jie Shan, Associate Professor of Physics at Case Western Reserve University.

Marie Tharp Fellowships are awarded each year to women scientists on their way to becoming the best in their fields. Each of the Marie Tharp Fellows will spend three months working at Columbia University.

Gwenn Flowers, Assistant Professor and Canada Research Chair in Glaciology, Simon Fraser University

Dr. Flowers' research focuses on glacier and ice-sheet dynamics, the hydrology of glacierized systems, and the relationship of these systems to climate. She will be working with Dr. Robin Bell at the Lamont-Doherty/Columbia University on a project that investigates the relationship between subglacial lakes and fast flow in the Recovery Glacier ice stream.
COMINGS & GOINGS

VISITING STUDENTS

On February 22, 2009, Paolo Zamparutti and Stefano Marta, grad students from the University of Torino, Italy, completed their visiting period in the Department of Earth Sciences at Simon Fraser University. They are now back in Italy, where they will work for their MSc thesis on the geomorphology of the Val Veny area, Mont Blanc, Western Alps.

Paolo and Stefano advanced their university education by participating in “Advanced Glaciology” and “Resource Geotechnics” courses, field trips of Volcanology and Quaternary Geology as well as other pedagogical activities in Fall 2008 and Spring 2009 in the Department of Earth Sciences at Simon Fraser University. They also helped students in the department, on their field activities. It was a pleasure to have Paolo and Stefano with us.

We welcome the opportunities to exchange students between Italian and Canadian universities: Stefano and Paolo “passed the baton” to Danilo Moretti, a visiting research student from the University of Bologna, Italy. The topic of his Research Thesis will be the Deep-seated Gravitational Slope Deformations in the Bridge River Valley Area (BC, Canada).

RETIRING

We regret to report that Dr. Peter Mustard will be leaving Simon Fraser University at the end of August, 2009.

Peter started at SFU in September 1995, and was a founding member of our department. He graduated with a BSc in Geology from the University of Calgary in 1981, an MSc in Geology from Carleton University in 1985, and a PhD in Earth Sciences from Carleton University in 1990. Dr. Mustard’s research has focused on the evolution and tectonic setting of sedimentary basins of the Canadian Cordillera.

Recent projects include the geology of Cretaceous sedimentary rocks of the Nanaimo Group on the islands of the Strait of Georgia and on eastern Vancouver Island, and regional mapping and sedimentology projects related to the Mesozoic Bowser, Sustut and Skeena basins of north-central British Columbia. His background as a clastic sedimentologist and experience in geologic mapping have allowed him to carry out his research with authority. Peter served on many committees but perhaps his greatest contribution was to the graduate program in Earth Sciences and the University as a whole. A masterful teacher and mentor, Peter created many of our undergraduate and graduate courses, led the way in curriculum development, and guided our program from its inception to maturity. Our success as a department is largely based on his vision, attention to detail, and energy. We owe him much gratitude for all of his efforts and their positive, lasting effects. We wish him all the best in his future pursuits.

Thank you Peter.