Acadia Geology Alumni/ae Newsletter

Issue 22 December, 2010

Department of Earth and Environmental Science, Acadia University, Wolfville, Nova Scotia, B4P 2R6
ees@acadiau.ca

VIEW FROM ACADIA

"*Out of the frying pan, into the fire*" is a phrase I used to hear often as a child, when someone got into trouble in one place, then changed their circumstances only to find that the new arrangement was even worse. I am not sure it is completely appropriate, but there are several elements of this adage that suit in the Department of Earth and Environmental Science this year.

Personally, having spent 3.5 years acting as Dean of Science, my return to the department was a bit of a pan-to-fire experience and probably a test for us all! Instead of delegating out the work, now I had to do a lot of it, and instead of reviewing budgets, now I had to spend them (never easy for a Scot!) Since I had kept most of my teaching responsibilities, there was less of a change there, but now I could legitimately concentrate on getting those new lectures in Structural Geology or Tectonics right (apologies to the class of 2009, who had to suffer through my first pass at teaching Structural Geology!)

Probably the biggest difficulty of moving from the dean's office to the head's office was simply knowing too much. While we pride ourselves in the university environment that our governing system is open and collegial, the fact is there are all sorts of privacy issues that must be adhered to. The dean gets to meet the exceptional students (using all meanings of 'exceptional') – those with the top marks, those with the poorest marks, those with the most persistent parents, those with the most difficult personal situations. Many times I was awed by the circumstances that some of our students have overcome in order to succeed at university.

The department to which I returned has grown substantially since my departure to the dean's office. Physically, it still occupies the third floor of Huggins, and bits of the basement, but since the Environmental Science program merged with the former Geology Department into the new Dept. of Earth and Environmental Science, we also have space in the KC Irving Environmental Science Centre. Even more significantly, the student population has doubled, with over 50 students in each of the Geology and Environmental Science programs, a few in the Environmental Geoscience program, and a dozen or so graduate students, both in the Masters program in Geology and in Applied Geomatics. All these bits make for a lot of juggling when it comes to class allocations, course advising, and teaching responsibilities, not to mention actually delivering appropriate course content and student research experiences.

Not only has the department grown in number of programs and number of students, it has also increased in diversity. Over the past four years, we have taught students who have significant connections in Angola, Bahamas, Barbados, Bermuda, Brazil, China, Colombia, Eritrea, Germany, India, Malaysia, Nigeria, Peru, Sri Lanka, Sudan, Tanzania, USA, Zambia, and every Canadian province and territory. On top of that, this past year has seen research projects being undertaken by students in Australia, Chile, China, Eritrea, Namibia, Peru, and Thailand, as well as North America. It makes for interesting asides in lectures when you have in class a student who has done field work on the Tibetan Plateau or the Amazon Basin ! It also emphasises that education is not a solo venture – so much is learned from sharing our common experiences.

Of course, you, our graduates, have always had a habit of dispersing to the far corners of the planet, and we appreciate hearing what you have been doing wherever you are. We also always look forward to your continuing to return to visit the department – it may have a different name, but we hope that it still retains much of the spirit you provided to it. The Fletcher Geology Club is still very active, this past year hosting a highly successful Atlantic Universities Geoscience Conference (AUGC), and annually organizing the blood donor clinic, social events and field trips, and participating in the Atlantic Geoscience Society conferences. The club even shares a new and improved (larger) club room, comprising a lounge and kitchen on the third floor of Huggins. If you are in the area, please drop by and see us again!

Rob Raeside

HAPPENINGS

This year in February the department hosted the AGS annual meeting, once again using the Old Orchard Inn as the conference venue. As a result a large group Acadia students (practically all the senior and graduate classes) participated in one way or another, giving papers, posters, staffing the projecting computers, or generally looking busy. As seems to have become a tradition, Acadia students cleaned up on the Graham Williams Best Poster Award – Harun Alrashid was the winner, and the two honourable mentions were both Acadia students, Chancy Cheng and Alex Kaul.

At the conference, Rob Raeside was also honoured with the Laing Ferguson Distinguished Service Award, in recognition of his service as secretary for several years (more than anyone who was counting!) and at one time president of the Society.

During the February mid-term break, Luke Marshall, a fourth year student in Geology, participated in a field course investigating the geology and petroleum industry of Trinidad organized by Dr. Grant Wach of Dalhousie University. Much appreciated financial support was provided by the Department of Energy to allow students from Nova Scotian universities to participate in energy-related training opportunities outside of the province. Luke has posted his photos and comments at http://ees.acadiau.ca/trinidad.html.

Through the winter term we were pleased to host several visiting speakers: Michael Caldwell (Univ. Alberta) provided insights on the origins of marine lizards and snakes, alumnus Patrick McGinn (NRC) reviewed the outlook for production of renewable energy products from microalgae, Noel James (Queen's U) gave two talks, discussing the evolution of the modern reef ecosystem, and the geological record of cool water carbonates, Lee Groat (UBC) introduced us to the research being done on Canadian aquamarine, emerald, sapphire and ruby occurrences, and Dan Marshall (Simon Fraser U) reviewed gem occurrences and exploration models within the Canadian Cordillera, as part of the GAC H.S. Robinson Distinguished Lecture Tour.

The annual end-of-year Acadia Earth and Environmental Science Department banquet was held in the Clark Commons at Acadia University. Both the Fletcher Geology Club and the ESSO (Environmental Science Students Organization) participated in the celebration and following a delicious turkey dinner, we were treated to a retrospect review of the year with scores of pictures of budding environmental scientists and geologists in action, in all sorts of ways. The year-before-our-eyes review was accompanied by live music from Leah Chiste, Alex Kaul, Chancy Cheng and Janine Bardwell. Professors also received "award" certificates for mainly their less admirable achievements over the year.

Acadia's Spring Convocation was held on 17th May. Nineteen students received degrees in Geology, including six honours degrees. In addition, seven students graduated with Environmental Science degrees, including four with honours. We wish all of our graduating students the best of luck and good fortune in their future endeavours, and hope that they will keep in contact with us, as so many of their predecessors have done.

The GeoCanada conference in Calgary was coincident with Convocation, so our participation was somewhat reduced as a result. However, several members of the E&ES department attended the GeoCanada 2010 conference in Calgary in May. Sandra Barr presented posters on acritarchs in Cape Breton Island and basalt geochemistry in Thailand. Cole Edwards presented findings from his MSc thesis on the fossil microbial communities in the Labrador Trough, Trevor Brisco discussed the Bloody Creek impact structure, and Alex Kaul presented results from his BSc honours thesis on REE-rich carbonatite in Namibia. Alex and 3rd-year student Leah Chiste were winners of the CSEG Challenge Bowl at the 2009 AUGC, the prize for which is participating in the national finals in Calgary. In that event, Alex and Leah came in second place, losing out to a team composed of a PhD student in Geophysics and an MSc student in Sedimentology from the University of Western Ontario. Quite an achievement, especially since only one of them had actually taken a Geophysics course!

Over the summer, the department was pleased to host five students from Cambridge University (UK) who undertook their mapping project in the folded rocks of the Halifax Slate, White Rock Quartzite and Kentville Slate, just outside Wolfville, familiar to many of you. Among the slates a-plenty they identified the interbedded quartzite marker horizons, folded into a plunging anticline, intruded and contact metamorphosed by the South Mountain Granite and overlain by the Triassic sandstones. In two groups, they conquered the wilderness (so many trees!), battled the aggressive wildlife (horseflies were their worst enemy) and intrigued the local population as

they appeared out of ditches, looking for that one critical outcrop.

Fifteen students accompanied Sandra Barr and Rob Raeside on a geological tour of Cape Breton Island on the second weekend of the Fall term. In spite of a drive through heavy rain to get there, they enjoyed perfect weather for the investigation of terrane relationships in the Appalachians, including a drive down a subduction zone as they climbed into the Highlands, a two-minute traverse of the Canadian Shield (Blair River Inlier), and spectacular columnar jointing in rhyolite, cross-bedding in sandstone, and waves at Louisbourg. All still seemed to be smiling (and learning!) even at stop 25!

Probably the biggest event of the year was in late October when the Fletcher Geology Club hosted the 60th Annual Atlantic Universities Geological Conference (AUGC). The conference was attended by approximately 85 students from Acadia, Dalhousie, Memorial, Saint Mary's, Saint Francis Xavier, and UNB. In addition to social events, the conference included three different field trips led by Acadia professors on Friday and student presentations on Saturday, including 18 oral presentations - the most ever at an AUGC - and seven posters. At the closing banquet on Saturday evening, Acadia honours geology student Nor Afiqah Mohamad Radzi was awarded the Imperial Oil best poster prize for her poster on her honours thesis research entitled "Petrography of stratigraphic units in the subsurface in the Phetchabun Basin, Thailand", supervised by Dr. Sandra Barr. You can read a more complete report on the conference at http://ees.acadiau.ca/augcreport2010.html.

Fall term speakers included alumnus Brent Murphy, who discussed the KSM gold deposits in BC and the environmental issues surrounding their development, and Brian Bornhold (U Victoria) showed us the Neptune Canada project, the world's first multi-disciplinary, cabled, ocean observatory, being constructed on the Pacific coast.

The end of term was marked by a departmental Christmas party, hosted by Peir and Christa Pufahl. Upwards of fifty students, staff, faculty, and friends enjoyed an evening of conviviality, great food, and fun, a welcome lull before the onset of the Christmas exams.

FACULTY AND STAFF NEWS

Sandra Barr enjoyed 2010 much more than 2009, from both personal and professional points of view. Everyone in her family stayed healthy, and grandson #3 (Kevin Li Macdonald) arrived in February, to join his older cousins Kai and Go Yamamoto Macdonald. Teaching, combined with graduate and honours student supervision, continue to occupy most of her time during the week, with research filling the weekends. Changes in the undergraduate program in the department have been challenging to accommodate in the igneous and tectonics courses, but so far, everyone seems to be adapting, including the professor. In mid-March, Sandra travelled to Baltimore, Maryland, for scientifically exceptional combined meeting of the northeastern and southeastern section of the Geological Society of America. She authored or co-authored five presentations at the meeting as well as co-chairing a session on "Laurentian-Gondwanan Interactions in the Paleozoic". She was also busy at the GeoCanada 2010 meeting in May in Calgary, where in addition to her scientific presentations and duties with the Geological Association of Canada as presidential advisor, she also had the pleasure of spending time with numerous former Acadia students, hearing about their work and their growing families. In July, Sandra was honoured to participate as a flag-bearer at the impressive opening ceremonies of the IAAF World Junior Track and Field Championships in Moncton, NB – no doubt the "last hurrah" of her long-ago athletic career. In September, she led a group of about 20 international experts on the origin and evolution of granitic rocks on a 3-day geological tour of Cape Breton Island, a very rewarding and educational experience, and a good warm-up for the trans-island student field trip later in the month. With the help of her graduate students and many collaborators, Sandra continues with her wide-ranging research interests – with so many new techniques available, surely the many unanswered questions about Appalachian geological history can finally be resolved?

Lynn Graves continues at the helm in the department office, and relishes her long weekends at the shore in Big Island, and trips to visit her daughters (and grandchildren), all of whom now live in Winnipeg.

Linda Lusby is now completing her final term teaching as she plans to retire in June. That doesn't mean she is slowing down, though, as she has large classes in "Legal Issues" and "Human Activity and the Environment", two honours students, and planning to embark on a consulting career for the next stage.

David McMullin continues to teach several courses (or parts thereof). In the winter, in addition to Earth History (1023), David taught the labs for the newly designed Techniques in Petrology and Stratigraphy course, which blends elements of the original optics course involving the identification of minerals and rocks in thin section with the use of basic stratigraphic principles (correlation). In addition David once again took on Metamorphic Geology, his area of specialization. The course continues to grow and change as David makes it his own. The spring saw his usual involvement with Field Methods, which in the coming year becomes a credit course. David then taught Natural Disasters in the spring intersession. In the fall he continued his involvement in the intro labs (1013) and because Ian was on Sabbatical in the Fall, David taught Natural Disasters without Ian's usual individualistic flair. David continues to find it difficult to make this large class interactive and interesting.

On the research front, David finally completed a paper on the metamorphism of Southeastern Cape Breton Island in February. This project, undertaken with both Sandra and Rob, took David more than a decade to complete. It's good to have it done.

Nelson O'Driscoll (Canada Research Chair in Environmental Biogeochemistry) had a busy year with the establishment of the Centre for Analytical Research on the Environment (CARE) at Acadia, teaching 3 courses, coordinating the ENVS field school, and supervising several graduate and undergraduate projects. He spent some of his summer working on the mercury-contaminated salt marshes in Lisbon, Portugal with a stop in Seville, Spain for the SETAC Europe annual conference to chair a session and make several presentations. His group this year graduated Stephanie Rogers (MSc in applied geomatics- now pursuing a PhD in Switzerland) and Jillian Hanmore (BSc Hons ENVS). Sam Edmonds (MSc candidate) took the top presentation award at SETAC North America this year and saw his MSc research on mercury in rusty blackbirds published in the *Condor*. New graduate and undergraduate students are joining Dr O'Driscoll's group in 2011 funded through a recent collaborative NSERC CREATE grant for ~$1.7M to train students in climate change impacts and adaptation. Other new collaborations and funding include mercury work with the British Geological Survey and Environment Canada CORAL NET.

Don Osburn is still very busy making thin sections and generally looking after our rocks. He now manufactures material for external clients, and is doing his bit to keep the university financially afloat.

Peir Pufahl spent time last summer with his new M.Sc. student, Sara Akin, down-under studying Paleoproterozoic sedimentary rocks with colleagues from the Geological Survey of Western Australia. Sara comes from the University of Wisconsin-Oshkosh. Although "from-away" she loves the Maritimes. Cole Edwards, another of Peir's M.Sc. students, defended his thesis last April and has since started a Ph.D. at Ohio State University. His thesis was nominated for a Governor General's Gold Medal. Congratulations Cole! Peir also travelled to Ouro Preto Brazil to give a keynote address on economic phosphorite and teach a two-day short course on sedimentary phosphates. In addition to his travels he's been busy as chair of the Canadian Sedimentology Research Group and as an Associate Editor for the journals Sedimentary Geology and Marine and Petroleum Geology. Peir also maintains a strong collaborative relationship with colleagues from Queen's University where he is an adjunct Associate Professor and co-supervises Estelle Ricard, a new postdoctoral fellow. Peir looks forward to leading his short course on modern and Pleistocene carbonate sediments of Bermuda this May. The short course is aimed at understanding the development of hydrocarbon reservoirs in limestone. He's bringing a great group of students this year and can't wait for the warm weather!

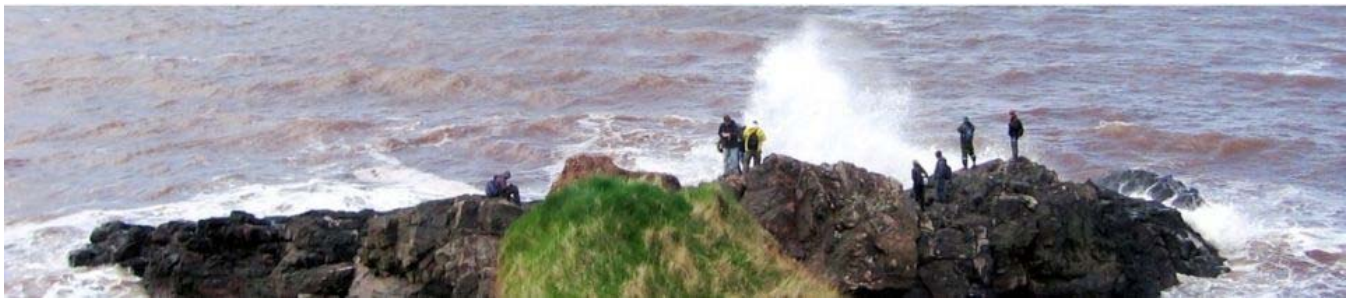
Rob Raeside was pleased to return to the department after 3.5 years as acting Dean of Science. The adjustment was not as difficult as he expected, although he still struggles with spending money – but maybe that's genetic! As the dean's office is currently on the third floor of Huggins, the move was "just around the corner", to the north side of the building. He misses the "sunny south side" most of the time (although not in July and August!), and is still close enough to check up on the activities of the new dean, Dr. Peter Williams (a Physics professor).

Rob's travels this year were primarily administrative, with trips to Toronto and Ottawa to attend meetings of the heads of Environmental Science programs and Earth Science programs, respectively. In his spare time at Acadia, a couple of the major efforts were the rebuilding of the departmental web page (see http://ees.acadiau.ca) and

the preparation of a self study for the review of the Environmental Science program, both internally and for national accreditation.

Ian Spooner had the opportunity at last to take (much deferred) sabbatical leave in the fall term and used it to further his work on Bloody Creek impact site south of Bridgetown, NS, and glacial events in northern BC and Newfoundland. Weekends found him in a different icy environment, however, as both his children are heavily involved in hockey clubs, and regularly play in rinks from Sydney to Yarmouth.

After being on sabbatical from July through December last year, and spending a couple of months in Santiago, Chile working with Dr. Brian Townley at the Universidad de Chile, **Cliff Stanley** returned to Acadia in January 2010 and taught Economic Geology and Geochemistry last winter followed by Mineralogy, Geophysics, and Geochemical Material Transfer this past fall. From a research standpoint, Dr. Stanley has been active developing a lithogeochemical classification procedure for igneous rocks that employs conventional Streckeisen-type diagrams, and determining how many measurements are enough to obtain sufficiently reliable estimates of statistics commonly used in mineral resource estimation. Additionally, he returned to South America in July with honours student Leah Chiste to collect soil samples for partial digestion geochemical investigations over a recently discovered porphyry Cu deposit near the giant Chuquicamata Cu deposit outside of Calama, Chile. Then, after exams in December, he travelled with graduate student Ronald Massawe to Eritrea to collect drill core for lithogeochemical study of the Bisha volcanic hosted massive sulphide deposit. He will be returning to Eritrea in April to commence a study of the supergene enrichment processes that have affected that deposit, and are responsible for a ten-fold oxide-zone Au enrichment in a supergene lead zone. All of these field-based initiatives are supported by industry grants from major mining companies. Lastly, he has been supervising the effort of graduate student Biniam Bisrat, who has made substantial progress this past year investigating what chemical changes take place during the partial digestion of soil samples. Results of this study will likely be presented at the International Applied Geochemistry Symposium in Rovaniemi, Finland, in August.



On the “Whales Tail” basalt outcrop, at the end of McAras Brook, second-year field school.

GRADUATE STUDENTS

Graduate student enrolment is at record levels with 12 students registered for the thesis program. This includes a couple who are nearly finished and will defend in January, but even without them, finding spaces for students to lay out rocks, review maps, or just write up results is a challenge. Students who finished their graduate studies in 2010 included **Cole Edwards**, who successfully defended his thesis on " The paleoecology of Paleoproterozoic microbial communities in the Ferriman Group, Labrador Trough, Canada", supervised by Peir Pufahl and Eric Hiatt (U. Wisconsin). Cole is currently pursuing a PhD degree at Ohio State University. Two students working with Sandra Barr also defended their theses: **Edwin Escarraga** investigated "Field relationships, petrology, age, and tectonic setting of previously inferred Devonian-Carboniferous granitic plutons in the Antigonish Highlands, Nova Scotia" and is now working as a geologist in northern Ontario. **David Swanton** completed a study on "Field relationships, petrology, tectonic setting and economic potential of metamorphic and igneous rocks in the Whycocomagh Mountain-Aberdeen Ridge area, Cape Breton Island, Nova Scotia" and now working in Yukon. Cliff Stanley also had one student complete her work, **Tamara Moss**, who investigated the “Petrography and lithogeochemistry of the Quebrada Blanca copper-molybdenum deposit, Region I, Chile.”

Continuing graduate students and their projects are:

Sara Akin: Chemical sedimentology of Paleoproterozoic iron formation, Western Australia; *supervisor: P. Pufahl*

Donnelly Archibald: Alkaline/peralkaline plutonic rocks in the central Antigonish Highlands, Nova Scotia; *supervisors: S. Barr, JB Murphy (St. FX)*

Biniam Bisrat: Monitoring leaching conditions during partial digestion geochemistry; *supervisor: C. Stanley*.

Ronald Massawe Lithogeochemistry of the Bisha Volcanic-Hosted Massive Sulphide Deposit, Eritrea; *supervisor: C. Stanley.*

Pizye Nankamba: Metallogeny and environmental geochemistry of heavy metal mineralization in the Horton Group, Windsor, Nova Scotia; *supervisor: C. Stanley*

Jean-Luc Pilote: Petrology, petrogenesis, tectonic implications and economic potential of the Landry Brook and Dickie Brook plutons, northern New Brunswick, Canada; *supervisor: S. Barr.*

Raya Puchalski: Petrology of the Trafalgar Plutonic suite, northern Meguma terrane, Nova Scotia; *supervisor: S. Barr.*

Fesaha Tesfai: Petrology and Ti-P-V potential of the Lower Coverdale Plutonic Suite, southeastern New Brunswick; *supervisor: S. Barr.*

Robert Treat: A structural and petrological study of the Partridge Island block and adjacent areas, southern New Brunswick; *supervisor: S. Barr.*

Matthew Tucker: Geology and mineralization in the Faribault Brook area, western Cape Breton Island, Nova Scotia; *supervisor S. Barr*

Hilary White: Limnology of freshwater lakes in the Tantramar Marsh Region, Nova Scotia; *supervisor: I. Spooner.*

HONOURS STUDENTS

Six graduating students submitted their honours theses in geology in the spring of 2010. **Annas Abdul Aziz**, working with Peir Pufahl, completed his thesis entitled "*Carbonate sedimentology of enigmatic limestone beds in the Pennsylvanian Joggins Formation, Nova Scotia*". **Harun Alrashid Mohamad,** working with Cliff Stanley, finished his thesis on "*Anomalous Zn Concentrations in the West Barney's River area, Antigonish Highlands, Nova Scotia*". Both Annas and Harun were supported by PetroNas, the national oil company of Malaysia, and in spite of the diversity of their theses, both have returned to work in Kuala Lumpur. **Trevor Brisco**, working with Ian Spooner, completed his thesis on "*A low angle multiple impact hypothesis for Bloody Creek, Nova Scotia*". Three students worked with Sandra Barr: **Vince Doucette** investigated the "*Petrology of the Hemlock Hill gneiss, Meguma Terrane, Nova Scotia*", and is now continuing his career in the Canadian military, no doubt glad to have escaped from academia. **Alex Kaul** did "*A petrological study of REE-rich carbonatite intrusions from the Lofdal Farm, Namibia*" and is now doing a MSc at Memorial University. **Chris Stevens** examined the "*Petrology and tectonic setting of mafic dykes in the Boisdale Hills, Cape Breton Island, Nova Scotia*", and has gone on to MSc work at Carleton University.

In addition, Cliff co-supervised a Physics honours student **Emma Murowinski** who researched *"Ground magnetic patterns over the Bloody Creek Meteorite Impact Crater, Bridgetown, Nova Scotia"*, and a project for Environmental Science student **Miranda Saroli** entitled *"Avian and mammalian geophagy in the Peruvian Amazon*." In case you wonder, geophagy is the habit some parrots have of eating clay in the riverbanks, and Miranda attempted to determine what the parrots needed in the clay.

B.Sc. Honours theses this year are listed below in alphabetical order by student name:

Leah Chiste: Partial digestion geochemistry of pediment over the Inca de Oro porphyry Cu deposit, Chile (IP11). *Supervisor:* C Stanley

Jon Gates: Petrology and tectonic implications of mafic dykes in the Kellys Mountain area, Cape Breton Island, Nova Scotia. *Supervisor:* S. Barr

Luke Marshall: Sedimentology in the Torbrook Formation ironstone, Nova Scotia (IP13). *Supervisor:* P. Pufahl

Nor Afiqah Mohamad Radzi: Petrography of stratigraphic units in the subsurface in the Phetchabun basin, Thailand *Supervisor:* S. Barr

WHERE ARE THEY NOW?

Maylia (Kempt) Parker

Each year we ask a graduate to write an article on his/her past and current activities since leaving Acadia. This year we feature Maylia (Kempt) Parker, who studied at Acadia from 1992-1996 as a BSc (Honours) student.

Can it really be 15 years since I graduated from Acadia University? It doesn't seem possible….I still feel like that 20-something year old, and yet, when I look at where life has taken me, I soon realize that it must be so. But then again, 15 years doesn't seem like much when you're used to thinking in terms of the geologic timescale. It's just another benefit of a geology degree - it helps you put life in perspective. It gives you a little of the "don't sweat the small stuff" mentality.

Like many geology grads, I didn't start out in geology. In fact, it wasn't until my third year that I settled on a major! Looking back, it makes sense that I ended up in geology, as I always had a fascination with dinosaurs and fossils and had an extensive rock collection as a child. I am very glad that I did as I gained an excellent education through the geology department. I appreciated the one-on-one time possible in such small classes and the way that you could really get to know your professors and everyone in your class. Doing my honours thesis under Ian Spooner with a focus on groundwater quality laid the foundation for my future career as environmental consultant. But it wasn't as straightforward as all that…life rarely is!

After graduation in May 1996, I moved in with some friends in Halifax and worked in the sedimentology lab at the Bedford Institute of Oceanography (BIO), where I had worked the previous two summers. My supervisor was the head of Curation. We were responsible for maintaining the sediment cores gathered during ocean drilling programs, and all of the documents that went with them. At the time, BIO received the equivalent of 2 km of sediment cores each year and 30,000 lineal metres of paper records! I really learned the value of, "A place for everything and everything in its place". In addition to learning about everything from procurement to database management, I also assisted scientists in the lab. When the ship would dock and the sediment cores came in, I would split them, photograph them, describe/log them and assist with testing. It was fascinating to see cores from the ocean floor and to rub shoulders with outstanding scientists.

However, the work at BIO was on three-month contracts. There was a waiting time between contracts when I wasn't sure if I had work or not. Waiting has never been my strong point! During the waiting period in early November 1996, I took a course to be an instructor in English as a Second Language (ESL). By the end of November I was on my way to South Korea to teach English in Songnam City, just south of Seoul.

My year in South Korea is one that I wouldn't trade for anything. Although I had traveled quite a bit, spending a year in a foreign country was definitely a new and challenging experience. I learned many lessons during that year, but perhaps the most important was an appreciation for what it is like to live as a visible minority – this is a life lesson from which everyone would benefit. I also gained a real fancy for Korean food. But most importantly, I discovered some wonderful people, both Korean and fellow foreigners, who continue to be important people in my life today, most especially my husband, Jeff.

At the end of our teaching contracts, Jeff returned to the USA and I returned to Nova Scotia. We made the agreement that whoever found gainful employment first would host the other. Jeff actually looked into doing a teaching degree at Acadia before he landed a great position at Digital Equipment Corp (DEC); and so, after another stint at BIO, I joined him in New Hampshire in April 1998.

Moving to New Hampshire without a job was a bit of a leap of faith, but it paid off. After "pounding the pavement" for two months (including cold-calling every engineering firm in the yellow pages!), I had three job offers and decided to join Nobis Engineering (www.nobisengineering.com) in Concord, NH. This turned out to be a very wise choice.

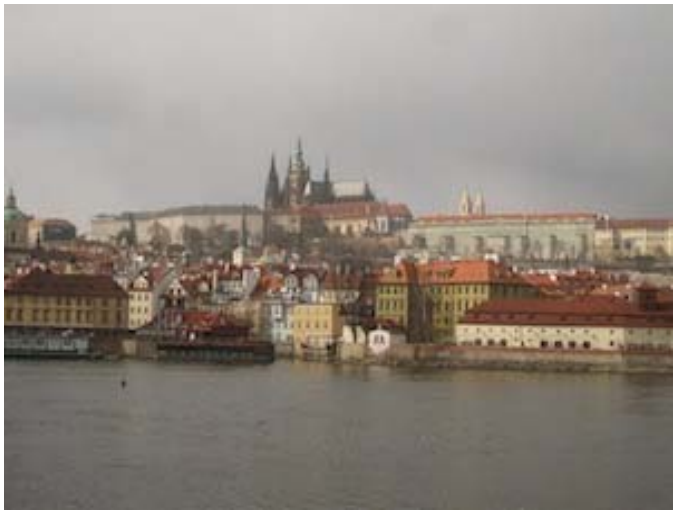
Nobis Engineering is an exemplary place of employment. I am so grateful for the eight years that I spent there. Nobis truly values its employees (it has been voted the top small business to work for in NH many years running) and so my first experience as an environmental consultant was indeed a positive one. I started out doing field work – installing monitoring wells, groundwater sampling, overseeing excavations and underground storage tank (UST) removals – but fairly quickly started writing reports as well. I became a licensed asbestos inspector, project monitor and management planner. I took on the role of equipment manager and got involved with the budgeting/planning process. My project experience was varied: petroleum hydrocarbon and chlorinated solvent site assessment and remediation,

Brownfields, specification preparation and so on. By my fifth year at the company I was a Project Manager, handling multiple projects and a variety of clients. I was the first in the company to take and pass the National ASBOG (Association of State Board of Geology) exam to become a licensed Professional Geologist for the State of New Hampshire. I was actively involved in marketing presentations, conference organization, and our community involvement program.

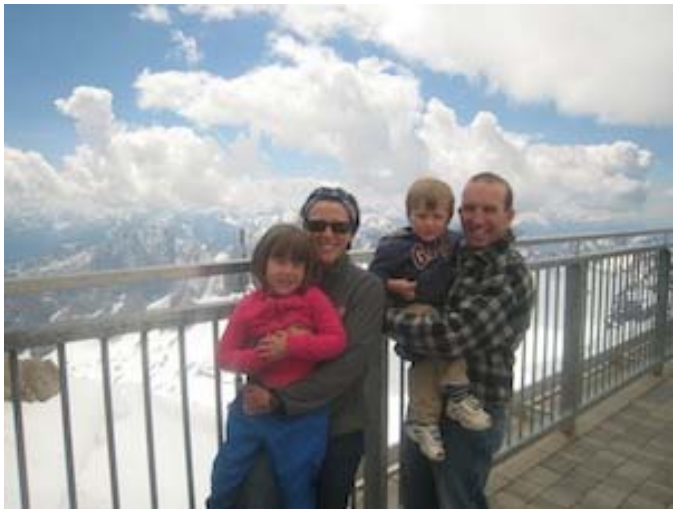
We enjoyed a great lifestyle in New Hampshire. We had a close group of friends, bought a lovely home in Manchester, travelled frequently, and were actively involved with the non-profit organization, Girls Inc. (www.girlsinc.org). It was a great place for outdoor activities like skiing, mountain biking and rock climbing. However, we maintained a dream of living abroad, as we had in South Korea. So, in July 2006, as our daughter, Ella, was turning one-year old, Jeff took a job with DHL and we moved to Prague, Czech Republic.

We spent four years in Prague. It is a gorgeous city with a captivating history. Our network of friends was truly international and we enjoyed learning about not only Czech culture and customs, but those of countries from around the world, too. During these four years, I took a break from geology/environmental work and focused my attention on the important work of being a parent. Prague was a great place to be a stay-at-home mom. Most women stay home for the first three years as their social system encourages this, so there are lots of activities and infrastructure geared toward moms and tots.

While in Prague, I explored my creative side and got involved with a non-profit group, Class Acts (www.classacts.cz), leading English-language music classes and story-times for bilingual children. It was very rewarding! I met amazing people, had lots of fun, and gained confidence speaking in front of a crowd. If you can hold the attention of 12 three-year olds, an adult audience is a piece of cake! Toward the end of our time in Prague, I did some business consulting work for my friends at Sarita's Macaroni and Cheese (S'MAC) in New York City (www.smacnyc.com), assisting them with the development of their employee benefits and training programs. I could write pages about our four years in Prague, but the most exciting event by far was the birth of our son, Mattias, in January 2008.



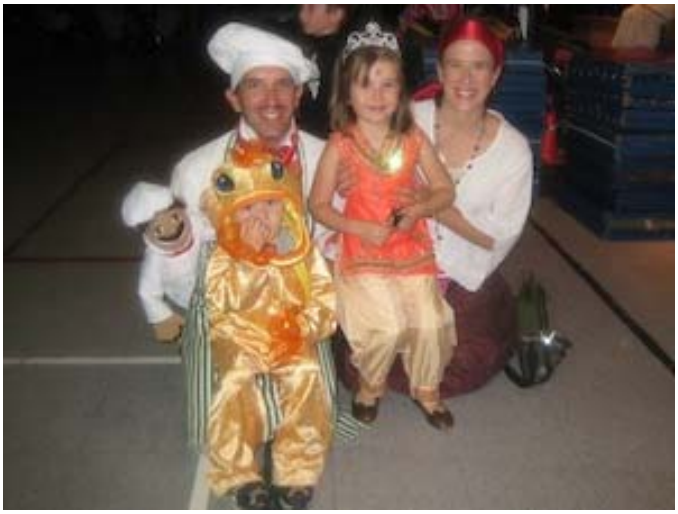
Prague – Our former "hometown"



In the Austrian Alps during our motor-home adventure

Jeff's position at DHL came to a close in April 2010. After making moving arrangement and a month-long European motor-home adventure, we returned to Nova Scotia at the end of June. The pull of family was strong and although we still sometimes struggle with our transition, it feels good to be home. Jeff and I have switched roles while he awaits permanent residency. He is the stay-at-home parent and I started working for Stantec Consulting (formerly Jacques Whitford) in Dartmouth at the end of July (www.stantec.com). From a technical standpoint, the work I do at Stantec is nearly identical to what I did at Nobis; but there are many differences in the clients, the regulations, the approach, and the company itself. It is interesting work and I am glad to be part of the Stantec team. Working for a company of 10,000 people in an office of 300 will surely afford me lots of opportunity to learn. It is empowering to work for a company in which you can be certain that regardless of the project, we have the expertise.

Life is indeed a journey. Although it is often a challenge, I try to approach life with a sense of



Enjoying our first real Halloween!

wonder and be aware and appreciative of the opportunities that lie in wait. My husband and I have learned that we usually regret the things we don't do more than the things we do. The geologic perspective reminds us that nothing in life should be taken too seriously. Although we live in the present and enjoy the moment, I hope we never stop asking, "What happens next?"

Maylia K. Parker, B.Sc., P.G.
Stantec Consulting
102-40 Highfield Park Drive
Dartmouth, NS
B3A OA3
Maylia.Parker@stantec.com

ESSO and Fletcher Geology Club

ESSO (or the Environmental Science Students' Organization) and the Fletcher Geology Club have spent the last year in conjunction organizing fun department-wide events. The current ESSO executive is President Jennie Pick, Vice President Allie Healey, Secretary Victoria Postlethwaite, Events Coordinator Graeme Hovey, and Treasurer Ben Grieder. Fletcher Club executive members are President Leah Chiste, Vice President Jason Wilson, Treasurer Nor Afiqah Mohamad Radzi, and Events Coordinator Graeme Hovey.

The 2010-2011 year began with the annual department-wide barbeque. The combination of free food and students guarantees a good time had by all and this year proved to be no different with new faces and old coming together to start the year. A September mud-sliding event brought students from the department and several residences together to have some good clean(?) fun. More than 70 students braved the cold and dove into the mud. Dr. Raeside and Dr. Barr also organized a trip to Cape Breton which was very well received – two days to circumnavigate the Cabot Trail and admire rocks and former lead mines in the Mira.

October was a busy month. A trip to the Noggins farm corn maze was organized, followed by s'more making around the fire. The air in the department became somewhat tense during a department-wide game of Assassins. Students and professors alike hit their targets with socks in an attempt to be the last one standing. Everyone showed great sportsmanship and enthusiasm while playing. The Fletcher Club also hosted the annual blood drive which was a great success. We have been hosting the blood drive now for 58 years, contributing to a very important cause with the support of everyone who came out to donate. October also included the annual Atlantic Universities Geological Conference (AUGC) hosted this year by Acadia University and the Fletcher Club. Over 100 undergraduates representing the six Atlantic Province universities with geoscience programs attended. The three day event went very well with an emphasis on the Annapolis Valley geological attributes as the basis of the conference.

In November the department teamed up for another good cause, donating enough items and money to send three boxes overseas as part of Operation Christmas Child. Thanks to everyone for donating! The semester ended with a graffiti party for the students, where white t-shirts were artistically decorated with markers, and the annual Christmas Party for everyone, this year hosted by the Pufahls. This year's party was a huge success with students turning out from all years of study, eating good food, and participating in a sustainable Yankee swap. Gifts brought in ranged from wine to rocks to homemade cheese cake, with a good time had by all.

Next semester promises to be fun as well, with an upcoming department Relay for Life team, another game of Assassins, the arrival of department clothing, a trip to Martock, and the annual year-end banquet. Also approaching are the AGS meeting for Fletcher Club members and APICS Environmental Science conference for ESSO members. The ESSO and Fletcher clubs are looking forward to another great year full of laughs and learning(?) for all!

KEEPING IN TOUCH

If you have an item of interest, or any news of your activities (or those of your classmates), please let us know. We will try to incorporate as much as possible into future newsletters. Did you write an annual newsletter at Christmas? Send a copy to Dr. Barr or Dr. Raeside at the Department of Earth and Environmental Science (sandra.barr@acadiau.ca, rob.raeside@acadiau.ca).

Harun Alrashid Mohamad Idris (BSc 2010) returned to Kuala Lumpur after graduation and has an office in the famous PetroNas twin towers working as an "interpreter of prospect maturation", finding with working life somewhat more restrictive than student life, but enjoying the helicopter work to the offshore.

Peter Budgell (BSc 2003) works in Calgary for the National Energy Board as a natural gas supply analyst. Peter and Melissa have two children, and he was planning to take paternal leave over the summer after the birth of Ava Grace Budgell. He still enjoys reminiscing with Blair Hayward about the good times in the Optics lab.

Gail Crouse (BSc 1991) achieved PGeo status in Saskatchewan and has returned to working in well-site geology out of Regina.

Corey Curl (BSc 2004) is working as Operations Manager for Grande Prairie's Environmental laboratory for AGAT Laboratories. His responsibilities include validation of the ICPMS for low-level metals analysis in soil and water, logistics and customer service. Tiffany and Corey were married in September and bought a house in Grande Prairie. They added an Airedale Terrier to the family, just to keep busy.

Elizabeth Grace (BSc 2000) is living in Crossfield, Alberta, about 40 minutes north of Calgary. She reported that it has been a busy year for her – she bought a house, became engaged, has a baby on the way, and is busy with work for RPS Energy Group.

Blair Hayward (BSc 2002) wrote that he finished a Petroleum Engineering program, moved to Alberta and started working in Red Deer as a technical specialist/engineer with Canyon Technical Services in Calgary. He doesn't get to use as much of his Geology as he would like, although it comes in handy when customers are asking about log interpretation, rock/formation characteristics and such. With his wife and baby daughter he is now settled in Calgary.

Lachlan MacLean (BSc 1999) has moved to Saskatoon, working as a science associate on the soft-intermediate energy beamline, SXRMB, at the Canadian Light Source. His duties began with the commissioning of the microprobe end-station but he was looking forward to pursuing more research in low-temperature biogeochemical systems.

Mark Slauenwhite (BSc 1984) is vice president of exploration for Focus Ventures, and his company was highlighted in an article The Northern Miner (Jan. 25-31, 2010). He has lived and worked in Peru for the past 13 years, during which time he helped discover the Pierina and Alto Chicama mines. His project at the time the article was written involved exploration for gold and silver hosted in granodiorite of the Cordillera Blanc batholith.

Sheri Lyon (MSc 2008) reported that she is working "up north" at Musselwhite Mine with Goldcorp Canada Ltd. as an exploration geologist. She enjoys the variety of her work and her "2-weeks on, 2-weeks off" schedule. She and Collin have purchased a house in Sudbury a few months ago, and have adopted a Border collie mixed puppy from the local shelter.

Mick O'Neill (MSc 1996) is working for the NS Department of Natural Resources at the core library in Stellarton, maintain the drill hole database, which had got 10 years out of date. He gets to employ a little bit of GIS and a lot of client interaction in that venture.

Scott McLean (BSc 2009) wrote last winter, reporting that the "Air Force gig" is working out great. At the time he was with a Tactical Fighter Squadron in Bagotville, Quebec, waiting to start the second phase of pilot training in Moosejaw, Saskatchewan and loving every minute of it.

Jim Reeves (BSc 1972) has followed the activities of the Department since graduation. He is mine superintendent and chief geologist at the Beaver Brook Antimony Mine, Glenwood, Newfoundland.

Paul Ténière (MSc 2002) announced the birth of daughter Caroline in July. Paul is working as senior resource geologist for Solid Energy New Zealand Ltd. in Christchurch.

Stu Venables (BSc 1999) accepted a position with the Oil & Gas Commission in British Columbia, and moving to Victoria at the end of the summer. It's the same type of work he did in Calgary, but from a regulatory perspective.

Donald Wood (BSc1999) dropped by when home for the wedding of sister **Nadine Wood** (BSc 2005) in September. He lives in Calgary with his artist wife and works in the marketing department at a media company, enjoying the atmosphere of that sort of creative workplace. He does a lot of stand up comedy also, with his next goal to make a name for himself as a writer for television: with no easy task! He hasn't lost my passion for the rocks though, and was inquiring about locations to look for Ediacaran bedding surfaces in Cape Breton Island.