

Acadia Geology Alumni/ae Newsletter

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HAPPENINGS

The new year 2014 started with a bang as the department hosted the annual Atlantic Geoscience Society colloquium in the Old Orchard Inn, just outside of town. It's a big job to run a conference (in mid-winter) for 170 delegates, with three simultaneous sessions of presentations, 30 or so posters, a workshop, several committee meetings, and AGM, and a closing banquet replete with awards, medals and a musical postlude. Ian Spooner and Rob Raeside did most of the organizing, but all the geology faculty were involved to some extent, staffing the registration desk, and chairing sessions. Being nearby, many of the students were able to attend also, and were there to see Ian being awarded the Laing Ferguson Distinguished Service Award in recognition of 20 years of service to the Society, including the organization of at least four colloquia in Wolfville, and masterminding the technical facilities for most of the conferences in other locations. Sandra Barr graced the delegates with a comprehensive and insightful review of the fifty years of the journal *Atlantic Geology*, which she has edited for more than half of that time, telling us that she was in fact involved in producing the second volume, 50 years ago!



Ian Spooner received the Distinguished Service Award of the Atlantic Geoscience Society from Rob Raeside.

Several students gave presentations at the colloquium: Acadia students had 7 posters on display: Alicia Daniel showed a poster on “Salt marsh migration in Prince Edward Island”; Vincent Beresford had a poster on “Late Neoproterozoic plutons in the southern Cobequid Highlands, NS”; Steven Kramar” showed a poster on “Lithogeochemistry and chemostratigraphy of the Hanson Lake assemblage, Saskatchewan”; Amanda Loder and Patrick Englehardt contributed to a poster on “Examination of trace metals in gastropods to determine the potential for accumulation in the Border Marsh Region, NB/NS”; Charity Mouland had a poster on “An integrated water quality forecasting model to restrict the harvesting of shellfish following extreme weather events”; Lisa Mundry had a poster “Meguma terrane, Nova Scotia and the Harlech Dome, Wales: a petrological comparison of sills and dykes in metasedimentary rocks”; and Mike Reid had a poster “Petrography and geochemistry of drill core from the Taylors Brook property in the Stirling Belt, SE Cape Breton Island, NS”. In addition, Justin Drummond gave a talk on “Neoproterozoic peritidal phosphorite, Sete Lagoas Formation, Brazil: Implications for the Precambrian phosphorus cycle” and Ben Misiuk gave a talk co-authored with Drake Tymstra on “A comparative study of anthropogenic impact on dimictic lakes in Halifax regional Municipality, Nova Scotia: Implications for restoration and management.” Both Ben and Justin took first place in their categories. Students also participated in a short course on Computer Programming for Geoscientists using Python. At the AGM Cliff Stanley was elected to the position of president, and Rob Raeside re-elected (for about the 10th time) secretary.

In February, graduate student, Renee Delisle joined the Dalhousie petroleum geology field course in Trinidad. She spent a week on the island investigating the sedimentary depositional systems in a petroleum

deposit under the guidance of Dr. Grant Wach from Dalhousie.

In March, three Environmental Science students, Amanda Loder, Lewis Mahon, and Monica Reed participated in the Science Atlantic Environment conference at St. F.X. University, where they presented their discoveries as part of their honours theses. Amanda took top award in Science Communication for her presentation was on trace metals in gastropods in the Border Marsh region of NB-NS. Lewis spoke on biotransport of trace elements by colonial birds to the islands in the Eastern Shore Wildlife Management Area; and Monica on the monitoring of fish and porpoise in the Fundy FORCE area near Parrsboro.

Field school this year was one of the largest in memory – combining Geology and Environmental Science numbers, 50 students participated this year, resulting in us having to stagger the start over two days. Last year the weather was idyllic, and students eagerly anticipated a nightly ritual of watching the sun set into the Gulf of St. Lawrence (as related by last year's participants). However, this year the field school turned out to be one of the coldest on record, so the frisbee field at Camp Geddie didn't get much of a work-out, and we enjoyed only one glorious sunset. However, the low temperatures kept people moving, and we all got a little more sleep than usual at night!

We had 31 students graduate last spring, equally split from the Geology and Environmental Science programs. Particular honour went to Ben Misiuk, winner of the University Medal in Environmental Geoscience; and Mike Reid, winner of the University Medal in Geology and recipient of the Mining Society of Nova Scotia Centennial Medal.

Through the winter term we hosted several visiting speakers. Joshua Kurek (Queen's University) discussed the environmental legacy of the Athabasca oilsands development, and in a second presentation the phenomenon of "rock snot" in Eastern Canadian salmon rivers ("rock snot" is the product of an algal bloom); Josh Payne from Shell gave an overview of petroleum systems, and provided insight into making a career with Shell; Hugo Beltrami, St. F.X. University addressed "Continental heat gain in a warming climate" using geothermal data, and Jacob Hanley (St. Mary's University) discussed the origin and role of volatiles in the formation of magmatic Ni-Cu-PGE deposits using fluid and melt inclusions.

The annual joint meeting of the Geological and Mineralogical Associations of Canada was held this year in Fredericton on the UNB campus in late May.

Faculty and both current and former students from Acadia were prominent among the 650 participants. Talks and/or posters were presented and/or co-authored by professors Sandra Barr and Cliff Stanley, and MSc student Vincent Beresford, and Cliff Stanley presented a one-day short course following the meeting. Both Sandra Barr and Rob Raeside were busy with various council and committee meetings for 2 days before and also during the 3-day conference. Sandra Barr was also co-leader on a post-conference geological field trip in the Saint John area looking at some of the oldest rocks in New Brunswick.

Over the summer, students and faculty scattered across the planet. Laura McNeil obtained a prestigious Nova Scotia Museum research grant to study the paleoecology of Windsor Group rocks near Joggins. Dewey Dunnington spent a month at Whistler, BC, studying the paleolimnology of Alta Lake, as well as performing in local establishments and making himself well known in the community newspaper. Lisa Slaman worked with the Department of Natural Resources in the Cobequid and western Cape Breton Highlands, the latter work focused on her thesis project. Cliff Stanley had collaborations in both New Zealand and Eritrea, while Peir Pufahl and graduate student Krista Kroeninger did field work in Brazil. Sandra Barr did field work in southern New Brunswick and the Cape Breton Highlands National Park.

In summer, a team led by Nelson O'Driscoll, and including Mark Mallory (Biology) and Karen Kidd (UNB-SJ) received an NSERC Research Tools and Instruments award of nearly \$45,000 to be used to update equipment for analysis of mercury contaminants in air, water, soils and organisms, in particular bio-accumulative methylmercury. The award was announced by Greg Kerr, MP (West Nova), representing the Minister of State (Science and Technology). This funding will help Nelson and his team to understand why some ecosystems are susceptible to mercury and will lead to better protection and preventative measures to ensure the health and well-being of Canadians.

Alice Cohen, who joined us as an assistant professor in Environmental Science and Environmental and Sustainability Studies last year, was rehired for on a three-year term (the best you can get these days), seemingly nonplussed by all the rock-talk in the corridor. Her stay is currently interrupted by the slightly earlier than expected birth of her son, Sam Sedgwick, just before Christmas.



The senior field school crew, led by Sandra Barr at the Limestone Falls on Goose Cove Brook.

Fall term has now concluded, and students departed. The term began with the senior field school at the Gaelic College in Cape Breton where seven students braved sunshine and waterfalls. In a new venture, the Cape Breton part of field school was shortened by a couple of days, that time being replaced by a two-day exercise conducted outside Wolfville in October. That saved the students some time from summer work/holidays, and some money, and gave them another exercise to hone their skills in the autumn woods in the Valley.

Early in the term the entire department participated in a review of our Geology and Environmental Geoscience programs. Happening only once every ten years or so, this review allows us to take stock of what we are doing, and how well we are doing it. The review team included geoscientists from Vancouver and Edmonton, and professors from Physics and English at Acadia, who were able to meet with all faculty and staff in the Geology programs, and a large number of students. Initial reports are that we are doing things well, but we will be considering their recommendations in the New Year.

FACULTY AND STAFF NEWS

Sandra Barr had more reasons than most to be happy to see the 2014 completion of the CFES book “Four Billion Years and Counting”: as one of about 100 co-authors of the book, she was happy to see this labour of love and cooperation finally come to fruition; as a member of the 6-person publication committee for the book, and its French language companion, she was happy to be able to see the end

of all those meetings (dozens since the concept of the book was born in the mid-2000s); and finally as current President-Elect of CFES she sees the book as a potential money maker for CFES but more importantly a flagship to help raise the profile of the fledgling organization. Sandra was also kept busy completing her book with Martha Hild on the Geology of Nova Scotia, which went to the printer just prior to Christmas. Although

Seven students and one professor from Acadia attended the AUGC, held at the Fredericton campus of the University of New Brunswick in October. On Thursday evening, Fletcher Club president Céline Porter and treasurer, Thomas Bagley competed in the CSEG Challenge Bowl, taking second place. On Friday, students participated in field trips to the Mount Pleasant and Sussex areas, and toured the lab facilities at UNB, and on Saturday Celine and Thomas presented talks on their BSc honours thesis projects.

Several Acadia students attended the Nova Scotia Department of Natural Resources “Geology Matters” conference in mid-November. Lisa Slaman and Céline Porter presented posters on their thesis research projects. During term we welcomed more visiting speakers to our department, including David Risk (St. F.X.) who discussed the role of soil gases in extreme environments (Dry Valleys, Antarctica, and industrial CO₂ injection projects. Peter Morse (Geological Survey) brought a Special Permafrost Edition of *Mythbusters*, and Peter Cary (Arcis Seismic Solutions, Calgary) revealed the “Known knowns, known unknowns, and unknown unknowns in land exploration seismology.” Industry geologist Patrick McAndless presented a seminar on November 13th offering advice to students on resume preparation and successful interviewing, as well as tips on how to have a successful career.

Finally we concluded the term with the annual year-end party in the Curling Club, where as always a wealth of food and culinary talent was on display, followed by yet another hilarious video interview of many of the local geo-worthies. Tom Bagley and Céline Porter continue to tax students and faculty with ever more awkward and difficult interview questions!

Lots more detail about these events and more photographs to accompany them can be seen on the department’s web pages at <http://ees.acadiau.ca>.

perhaps not an admission that should be made, she learned a surprising amount about the geology of Nova Scotia during the writing of this book! Sandra presented and co-authored talks and/or posters at the annual colloquium of the Atlantic Geoscience Society in Greenwich, NS, in February, at the annual meeting of the Northeastern Section of the Geological Society of America in Pennsylvania in March, at the GAC-MAC in Fredericton in May, and at the NB and NS reviews of activities in November in Fredericton and Halifax. Other highlights of the year included a field trip to the Avalon-Gander boundary in the Hermitage Bay area of Newfoundland, and field work with MSc student Lisa Slaman in the Cheticamp area. She also has been active in advocating against the construction of a large monument on an important geological site at Green Cove headland in the Cape Breton Highlands National Park.

Pam Frail: It was another fine year in the rock room. One of my favorite parts of the job is working through the challenge of making thin or polished sections from new (to me) materials and Dr. Barr and Dr. Pufahl kept it interesting this year with submissions ranging from halites to assorted size grains. I was also let loose in the Economic Range where Dr. Stanley and I tucked away or turfed a long time accumulation of materials. The actual curation of the materials will happen this spring and I look forward to making a neatly labelled room and database. Ian Stewart has been a great student assistant for both terms. He never complained about the dirty or heavy jobs assigned to him and quickly learned the saws and laps.

Lynn Graves still enjoys the daily challenge of keeping the department info organized so I can find (or remember where I put it) the item someone is looking for, most of the time a successful answer is found! As always, registering students, filing, plotting maps and posters, and keeping track of the budget are all a priority. More students in the department is a challenge for me to recall names/faces at a moment's notice; so far they are forgiving when I have to ask their name if I don't recognize them! I now have four grandchildren, wishing they lived closer than Colorado Springs, but must admit that is a beautiful vacation destination. As always, I enjoy time at the cottage, never enough!

David McMullin continues in his largely teaching role. In the winter David taught the labs (3 sections) and paleontology portion of the lectures in Earth History and the labs in the second year Petrology class (2 sections). Once again he took on Meta-

morphic Geology, his area of specialization. The course continues to grow and change as David makes it his own. For those of you doing the math, you'll realize that this amounts to 6 labs in 5 afternoons! His Thursday afternoons were spent going up and down the stairs keeping tabs on a great selection of TAs in simultaneous lab sections of two courses. David also continues his role as overall manager and teacher of much of the Field Methods course. 2014 saw the largest enrolment in Field Schools since the 1980s with 50 students (26 in Geology, and 24 in Environmental Science). This meant that, though the first three days of field school are the same for everyone, we had to run them as separate exercises (i.e., David taught the Synthetic Traverse twice). And in 2015 the numbers seem to be even higher, with 31 currently enrolled in the Geology field school and about 24 in Environmental Science field school! We wonder if we'll be able to manage those numbers at Camp Geddie. Even with huge enrolments in the Fall session, there is a continuing demand for an intersession Natural Disasters class, which this year David taught as soon as he returned from Field School. The rest of the summer David spent doing some upgrades to displays in preparation for the review of the Geology programs. In the fall he continued to teach the Intro labs and an overfull course in Natural Disasters. This year he continued using the Top Hat course response system, which, in his estimate, was a success. It changed the tone of the class making it warmer and more interactive. On a personal note, David has had a busy year of travelling, with one trip to visit his family in Ireland and a 10-day trip to Sable Island. This was David's second trip to Sable Island. What an incredible place to see geology in action! The sand is constantly in motion from both wind and water. Just turning on one spot on the island and you can see both deposition and erosion in action. On this trip, one of the most fascinating things to see was the deck and part of a mast of an old wooden sailing ship emerging from a dune cliff being eroded by winter waves. An amazing sight!

Nelson O'Driscoll renewed his discovery grant last year and also received an NSERC equipment grant for automated mercury analysis equipment. Graduate student Gordon McArthur (MSc) graduated with a thesis examining mercury movement in coastal wetlands. Nelson travelled to the high Arctic with PhD student Erin Mann and Dr. Mark Mallory to take some of the first mercury flux measurements on Arctic snow near Resolute Bay where temperatures reached -40 degrees Celsius. Nelson also began his year-long sabbatical in Lisbon, Portugal this year with a short stop in Edinburgh, Scotland for the Global Mercury Conference. He enjoyed research at his host institution (IST, Lisbon) and supervising two Portuguese graduate

students (Sara Justino and Rute Cesario). Sara Justino recently successfully defended her MSc on mercury flux from Tagus Estuary wetlands. The Tagus is a highly contaminated with mercury in some areas due to industrial activity where mercury is used as a catalyst. Over the year Nelson and his team examined mercury movements with tide and evaporation to the atmosphere from mud and plants. The environment in the Tagus is very similar to the Bay of Fundy however the mercury levels are hundreds of thousands times higher in some places. Collaborations were also started with researchers from the University of Aveiro to examine mercury accumulation in migratory birds. His sabbatical also included invited lectures at the University of Trieste, Italy and at the Universite Joseph Fourier, in Grenoble, France. Nelson also attended and chaired sessions SETAC Europe in Basel, Switzerland where Erin Mann presented her recent papers and had a quick stop in Bern to meet with former graduate student Stephanie Rogers who has just completed her PhD. Nelson and his family had many adventures over the year seeing large portions of Italy, Germany, Belgium, France, Switzerland, Spain, as well as most of Portugal and the island Madeira. They enjoyed the climate, food, and new experiences. Back in Canada PhD student Sara Klapstein continued her work in Kejimikujik National park on mercury and carbon dynamics. On his return to Canada Nelson co-chaired several mercury sessions at SETAC Vancouver in November where graduate students Sara and Erin presented both posters and oral presentations.

Christa Pufahl started 2014 with an intense interest in hydroxyapatite – $\text{Ca}_{10}(\text{PO}_4)_6(\text{OH})_2$ – as she waited for a broken arm to heal. Although it kept her sidelined from her favourite winter pursuits of ice polo and extreme tobogganing, the plus side was that she was legitimately able to avoid diaper duty. By March, the cast was off and sadly, diaper duty had returned. Most of the spring and summer were spent chasing a tyrannical toddler (aka Euan) and attending many basketball practices, games and tournaments with his older brother Callum.

Fall saw a return to the classroom and the opportunity to introduce an entirely new class of students to the wonders of geomorphology. As with previous years, it was a chance to spout off favourite words such as ‘monadnock’, ‘allochthonous’, and ‘pingo’. The students enjoyed an informative guest lecture, with prizes, by Peter Morse on permafrost and periglacial features. A warm and fairly dry fall meant great conditions for field trips around Wolfville for labs in weathering, soils and mass wasting, and a chance to get to know the students

outside of the sweltering confines of HSH 336. Unfortunately though, things were not so favourable for field trips to Avonport Beach, where high, cold winds drove students off the beach one day, and a torrential downpour had everyone taking refuge in the bus the next. Another side benefit to the labs was a chance to get to know the TA, Dewey Dunnington, who gave an awesome presentation to the class in how a ukulele contributed to his appreciation of geomorphology as he travelled the world. Christa is looking forward to the opportunity to teach the class again.

Peir Pufahl has had another busy year teaching, supervising graduate students and postdoctoral fellows, travelling abroad for fieldwork and conferences, chasing a toddler, and dealing with the angst of his teenager! Peir welcomed two new MSc students, Krista Kroeninger (University of Wisconsin) and Mariana Carvalho (State University of Rio de Janeiro, Brazil), as well as a PhD student, Geraldo Sampaio (Federal University of Ouro Preto, Brazil), to his research program. His other graduate students have been incredibly productive. Justin Drummond defended his MSc thesis last May and is pursuing a PhD at Queen’s University, Renee Delisle defends in February, and Laura MacNeil is working hard to complete in April. His postdoctoral fellows have been busy with research and family. Estelle Ricard moved back to France and Urmi Raye and husband Sandeep welcomed their baby boy Siddhartha. Peir has also been active as an Associate Editor for the journals *Sedimentology*, *Sedimentary Geology*, and the *African Journal of Earth Sciences*. He looks forward to teaching his Bermuda field course in late April, which will soon be converted to a credit course. His most memorable trip this year was to Geneva to attend the International Sedimentological Congress where he delivered the citation for Dr. N.P. James who was awarded of the Sorby Medal, the International Association of Sedimentologist’s highest honour.

Rob Raeside is now comfortably installed as professor, and no longer department head, but continues to do the bulk of student advising. With 170 majors in our programs, this means on average a couple of student visits every day, and lots of negotiation with the Registrar and even more with the registration system!

As secretary to the Council of Chairs of Earth Science Departments he participated in the Council’s annual meeting in Ottawa in October. He has just completed a five-year term as chair of Science Atlantic, the regional group that oversees many of the student conferences in the Atlantic provinces (including the AUGC), and other networking and collaborative initiatives among the universities, typically with the

deans at the other universities in the region. In his role as coordinator and editor of the Mineralogical Association of Canada's short course series, he produced a text "Cathodoluminescence in Geoscience" for the May meeting in Fredericton, and is now working on a text on the "Uranium and Thorium Deposits" for the next meeting in Montreal, in May.

In August he and his wife Wendy enjoyed the company of many friends and family from across the country as their elder son, Gordon married Laura McIsaac. Gordon and Laura brought their family (Stella the beagle and Zeus the rez-mutt) from his RCMP posting in Saskatchewan, to ensure the week was properly chaotic.

Aside from running committees, teaching and writing, Rob keeps busy with singing in two choirs, teaching Scottish country dancing (even had a class with Earth and Environmental Science students this term – that was fun!), and maintaining his flag website.

Ian Spooner spent the last year working on a variety of problems, but (as usual) mostly on lakes and wetlands. Work on Second Lake in Sackville, Nova Scotia with Ben Misiuk (BSc EnvSci 2014) resulted in a really nice record of relatively recent environmental change, even the Halifax explosion of 1917 was resolved in the lake core. Other projects with Lewis Mahon and Amanda Loder (both BSc EnvSci 2014) were focused on contaminants in the environment and were undertaken with Dr. Mark Mallory (CRC chair, Biology). On the Masters side of things, Dewey Dunnington (BSc EnvSci 2012) is working with Ian on a lake impact project in Whistler, B.C. which has had some nice benefits including a little bit of skiing in early December 2014. Ian is also working on an interesting project with Erin McKee, investigating a Terminal Archaic paleo-Indian site along the Annapolis River that is being co-supervised by Dr. Michael Deal (MUN).

Cliff Stanley continued his teaching his standard fare of courses, presenting Economic Geology, Mineralogy, Geochemistry and Geophysics in 2014. On the research front, Cliff is supervising the honours thesis research of Thomas Bagley, who is determining just how homogeneous certified reference materials (CRMs) used in resource estimation QAQC by mining companies really are. Thomas is undertaking his own analyses of CRMs provided free of charge by several manufacturers, but two commercial analytical laboratories are also contributing free analyses. Dr. Stanley is also supervising M.Sc. student Steven Kramar, who is in his final year developing a

lithogeochemostratigraphy of the Hanson Lake block on the western end of the Flin Flon greenstone belt in Saskatchewan, a project supported by Foran Mining Corporation of Vancouver. Dr. Stanley was also active in presenting the results of his research, presenting two keynote addresses in Eritrea at the Asmara Mining Conference in October, one on the lithogeochemistry of host rocks to the Bisha and Harena VHMS deposits with former M.Sc. student Ronald Massawe, and a second on the geochemistry and mineralogy of the gossan developed over the Bisha VHMS deposit with former B.Sc. Honours student Kacper Halama. Dr. Stanley also presented a talk on the lithogeochemistry of the Bisha VHMS deposit footwall at Saskatchewan Geological Survey Open House in Saskatoon in December. Lastly, Dr. Stanley continues his service to the profession, serving as the Nova Scotia representative on the Canadian Geoscience Standards Board, as a member of the admissions board of the Association of Professional Geoscientists of Nova Scotia, and as president of the AGS this year.

GRADUATE STUDENTS

Two students completed their MSc degrees in geology in 2014: **Vincent Beresford**, working with Sandra Barr, completed his thesis entitled "Field relationships, petrology, and tectonic setting of Neoproterozoic plutonic rocks in the southern Cobequid Highlands, Nova Scotia, and **Justin Drummond**, working with Peir Pufahl, completed his thesis on "Sedimentology and stratigraphy of Neoproterozoic peritidal phosphorite, Sete Lagoas Formation, Brazil: Implications for the evolution of the Precambrian phosphorus cycle". **Renee Delisle** is nearing completion of her thesis with Peir Pufahl on phosphogenesis and economic phosphorite in Neoproterozoic peritidal limestone cycles, Salitre Formation, Brazil. Other students continuing from 2013 are: **Steven Kramar**, who is investigating lithostratigraphy of the Hanson Lake block in the Flin Flon Greenstone Belt, Saskatchewan, with Cliff Stanley; **Laura MacNeil** working with Peir Pufahl on the sedimentology and paleoecology of the Early Carboniferous Windsor Group saline giant, Nova Scotia; **Lisa Slaman** working with Sandra Barr on the petrology, age, and tectonic significance of the Cheticamp pluton in western Cape Breton Island.

New students in 2014 are **Dewey Dunnington**, working with Ian Spooner on a paleolimnological environmental assessment of Alta Lake, Whistler, British Columbia, and **Krista Kroeninger**, working with Peir Pufahl on iron deposits in Brazil.

In the Applied Geomatics MSc program, **Alicia Daniel** completed her project on salt marshes in Prince Edward Island, and **Charity Moulard** continued her work on a water quality forecasting model to restrict the harvesting of shellfish following extreme weather events. Both students are co-supervised by Ian Spooner at Acadia and Tim Webster of the Applied Geomatics Research Group, Middleton.

HONOURS STUDENTS

Two students submitted their honours theses in Geology in the spring of 2014. Melanie Plante worked on interpreting paleoenvironments of the Devonian-Carboniferous Blue Beach Member of the Horton Bluff Formation, Nova Scotia, with Peir Pufahl and Ian Spooner, and Michael Reid studied the petrography and geochemistry of drill core from the Taylors Brook property in the Stirling belt, southeastern Cape Breton Island, Nova Scotia, with Sandra Barr.

On-going honours thesis projects in geology include “Determining the heterogeneity of reference materials’ by Thomas Bagley (Supervisor Cliff

Stanley), and “Petrographic and chemical characteristics of mafic dykes and sills in the Antigonish Highlands, Nova Scotia” by Celine Porter (Supervisor Sandra Barr).

FLETCHER GEOLOGY CLUB

The 2014 school year was pretty rockin’ for the Fletcher Geology club. Fletcher members were seen hiking to Cape Split and the Ovens, swinging in the tree tops at OnTree, braving a snowstorm to play soccer and even learning some Scottish dancing. The activities allowed club members to make memories with friends and form bonds with the newest club members. We attended Geology conferences such as PDAC, AGS and AUGC where some students presented their Honours research and won awards. We had the opportunity to learn about industry not only by attending these conferences but by going to many presentations about oil and gas, geophysics, resume building and more. The Fletcher club has allowed students to have new experiences, get to know one another and has also helped form a relationship with the Earth and Environmental Faculty. We look forward to everything that 2015 has to offer.

Rikki Simpson, President

WHERE ARE THEY NOW?

Ken Adams

Each year we ask a graduate to write an article on his/her past and current activities since leaving Acadia. This year we invited Ken Adams, who studied at Acadia from 1974 to 1976

2014 marks the 40th anniversary of my arrival at Acadia University to begin my M.Sc. studies, and my retirement from the Fundy Geological Museum, located in Parrsboro, NS. Whenever I visited the department over past four decades a picture of the 1974-1975 Fletcher Club members could be seen posted across from the third floor entrance. Last summer when I dropped a copy of my thesis off for Peir Pufahl I discovered that the image had moved to just inside of the door to the administration office. Over the years this picture has served as a reminder of my own geological journey and continuing connections to Acadia University. Excluding myself I have crossed paths at one time or another with seven of the other nine students shown in the picture.

Looking back on my own career in geology I realize that little or no long term planning was involved. Chance encounters, being in the right place at the right time, word of mouth, drawing on Acadia University connections, and helping to create your own job description, it ended up looking like the rock cycle diagrams that we learned about in first year geology.

I graduated from Mount Allison in 1973 where Laing Ferguson had kindled my interest in paleontology, and I wanted to pursue a paleontological thesis under the supervision of Reg Moore. Their passing, earlier this year within a few months of each other, reminded me of the role they had both played in my lifelong interest in the geology and paleontology of the Bay of Fundy region. In retrospect they were both responsible for setting me on a path that ultimately led to the doors of the Fundy Geological Museum.

Growing up as an air force “BRAT” moving every three to four years was part of life. In 1959 Dad was transferred to I Fighter Wing in France and over the next four years we had the opportunity to travel throughout Western Europe, and somewhere along the way the fossil-bug bit. What more could a budding geologist ask for: the Alps, the White Cliffs of Dover, limestone caverns in Belgium.....and finding marine fossils in the middle of a continent.

Returning to Canada, an introductory geology course in Grade 8 helped to describe some of the landscapes around Bagotville, PQ, providing clues to its glacial past. Family and friends picked up on my



Standing left to right: Bob Boehner, let us know who this is, Ken Adams, Randolph (Ace) MacDougall, Tom Tokash, Matt Holleman, Stephen Prest; Seated John Greenough, Jim Black, Bob Ryan.

interest in geology and when we headed “down east” to go “home” to Nova Scotia there were trips to the shore at Five Islands, Parrsboro and Joggins to look for fossils and rocks.

In Val d’Or, head frames dotted the landscape and many of my classmates had parents who worked in the local gold mines as miners, mine managers, and engineers, or who were prospectors looking for new discoveries. Our science teacher, an eccentric Brit, who was also a prospector, took us out on regular field trips.

In 1969 my first Geology 100 field trip at Mt.A included a morning walk along the Joggins Fossil Cliffs then a bus ride over the Boars Back and through the glacier-shaped landscape of Lakelands, followed by a mad dash from Swan Creek, around Clarke Head to the Glooscap Campground. It provided me with a whirlwind introduction to the complexity of the region’s geological heritage, and served as a backdrop for future studies and work for most of my career.

While at Acadia I did field mapping for two summers in northern New Brunswick with Rao Irrinki (M.Sc. 1974) out of the Mines and Energy Branch located in Bathurst, and my younger brother Gordon (Honours B.Sc. 1980) also worked with our crew near Plaster Rock. Then two summers with TexasGulf working in NB, NS, N&L and PQ, part of this time with Richard Mann, whose two younger brothers were both taking geology at Acadia.

I walked out of my thesis defence and Jack Colwell passed me a note and said “Call this number”. The ensuing phone call to A. Claude Durocher (M.Sc. 1974), Chief Exploration Geologist for MINOREX (exploration branch of Asbestos Corporation Limited) in Thetford Mines, Quebec, led to four years of mineral exploration in N&L, NB and NS.

Following my first summer in N&L I was transferred to a project in NB where John Stones (B.Sc. 1977) was part of the field crew. By my second summer I was responsible for supervising a field crew of a dozen geology students including my future sister in law Debbie Seaboyer (B.Sc. 1981), and the following summer the students included Joey Campbell (B.Sc. 1980) and John O’Loughlin (M.Sc. 1981). Along the way Kevin Austin (son of Ian Austin, B.Sc. 1973, and former departmental technician joined John Stone’s crew in Ontario.

In 1982 the PQ government nationalized ACL, and I headed back to Nova Scotia. A phone call from Claude Durocher in the spring of 1983 saw me packing my bags and heading back to Quebec. By this time Claude was Senior Exploration Geologist for Noranda Exploration in their office in Mattagami Lake. During my stay in Mattagami I ran into Stephen Prest’s (B.Sc. 1976) uncle, Clarence Logan, who was in charge of their office in Rouyn-Noranda (I had worked for Clarence out of the Bathurst office as a summer student in 1971. On a side note Stephen taught school in the

Arctic during early 1980s and worked with my brother Kevin (B.Ed., 1977).

While contemplating applying for full time employment following the 1984 field season one of the other geologists suggested that I contact Seabright Exploration as they were looking for people. Another phone interview and back to NS. One of the first people I was introduced to in Halifax was Bruce Hudgins (B.Sc. 1983) and as Seabright's exploration activity increased a number of other familiar Acadia U faces began to appear, including Joey Campbell (B.Sc. 1980) and Dave Duncan (B.Sc. 1979). At one stage it seemed like most of the folks in the exploration crews were Acadia grads.

Brendan Murphy (M.Sc. 1977) dropped in to the Forest Hill site with one of his classes from Saint Francis Xavier, and Paul Smith (M.Sc. 1973) spent time there doing research on the mineralization. In another odd twist I also spent some time at the Beaver Dam site, where a former class mate from high school in Val D'or, Jim Fortin, worked there as the Mine Geologist.

Following a layoff in 1989 I became involved with the Parrsboro Museum project, as one of the original Board Members of the Cumberland Geological Society. After volunteering on a number of the committees involved in the development, planning and design of the Fundy Geological Museum's original gallery I was hired as the society's first full time employee, Director/Curator.

In my role as Director/Curator I had the opportunity to participate in a number of projects both on and off site which have helped to promote the heritage and tourism resources of Cumberland County and Nova Scotia to the world, including the Joggins Fossil Cliffs UNESCO World Heritage site, Cape Chignecto Provincial Park, Fundy Shore Tourist Destination Area, the Association of Nova Scotia Museums, and FGM's exhibit gallery renewal in 2010.

Over the past 22 years I have been able to reconnect with a number of Acadia graduates. I would like to thank Ralph Stea (B.Sc. 1977), Bob Boehner (M.Sc. 1974), Bob Ryan (M.Sc. 1975), Matt Holleman (M.Sc. 1974) and John Greenough (B.Sc. 1977) for their assistance and advice. Following the gallery renewal in 2010 Brendan Murphy had the opportunity to visit the gallery with a group of his students, and Jim Black (B.Sc. 1975) has dropped by on several occasions.

During my time at FGM a number of the summer students were from Acadia U. including Jamie Babineau (B.Sc. 1998), Andrew Fage (B.Sc. 2014) and Majur Bior (B.Sc. 2013). Amy Tizzard (B.Sc. 2003) also worked at FGM while pursuing a technical

diploma in geology at Fleming College in Lindsey, Ontario. She went on to Acadia to complete her Earth Sciences degree, making her one of the early transfer students from Fleming.

Over 70 students from the Parrsboro/Cumberland County area and further abroad have had their first work experience at the museum and FGM "alumni" now include at least one PhD, a dozen or more geologists, a museum registrar, and numerous teachers. Although I have had the opportunity to work in a special part of the province I have watched a number of our local youths, including my daughter, leave our rural part of Nova Scotia to pursue their education, careers and lives elsewhere.

On a personal note my daughter Sarah arrived at Acadia U. this past fall to begin her B.Sc. in Environmental Science after completing three years in the Ecosystem Management Program at Fleming College. Another full circle, while I finally graduated in 1978, her Mom, Etta (Hudgins), graduated from Acadia in 1980 with an M.Sc. in Wildlife Biology. Sarah's choice to head to Acadia to pursue a degree in Environmental Science may be grounded in our family's shared interest in the natural heritage that surrounds us. While growing up she had to put up with participating in my curatorial walks and our family ventures along the shores of the Bay and throughout Cumberland County. As I drove her to school most days during her P-12 studies she also had the opportunity to listen to me describe the landscapes shaped by the glaciers along our route on more than one occasion.

In retirement I have found plenty of time to pursue wood working, square dancing, catching up on some reading, volunteering as an instructor with the Amherst Chapter of the Tantramar Seniors College and keeping slightly ahead of a "to do" list that has accumulated over my time at FGM. I recently found out that I have been appointed as a Curator Emeritus by the Board of Governors of the Nova Scotia Museum, and also have Research Associate status with NSM for the next three years. This will provide me with the opportunity to continue do work on several paleontological research projects with Deborah Skilliter, Curator of Geology at NSM and Melissa Grey, Senior Scientist at the Joggins Fossil Centre.

After 40 years my enthusiasm for exploring our county has not diminished, and there are several stretches along the shore that remain to be explored, as well as some elusive back country outcrops. Fortunately the Fundy Tides also help renew the story twice each day and I now have time for beach walks with Etta.

Ken Adams

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. Send details to Dr. Barr or Dr. Raeside at the Department of Earth and Environmental Science (sandra.barr@acadiau.ca, rob.raeside@acadiau.ca).

Stephanie Anderson (MSc 2009) and her husband **Kieran McDonald** (BSc ENV5 2008) reported the birth of their son Charlie in April.

Troy Boyd (BSc 1989) is still teaching Chemistry in Fort St. John, BC (more than 17 years now). He is the Head of the Science Department, and is fairly involved in online education. He has had a “little farm” back home in Nova Scotia for several years, with a nice little cottage on the Debert River and 40 acres of land and spends his summers there, but still dabbles in the oil and gas industry in BC, activity he thoroughly enjoys.

Brian Campbell (BSc 1999) is working as exploration manager at Tamarack Valley Energy, a junior oil and gas with about 6500 boe/d. He got engaged this year to Lisa Shand, who also graduated from Acadia 1998 (BEd). We bought a new house in SW Calgary, and spent part of the summer revisiting Nova Scotia.

Mike Campbell (BSc 1987) was back at Acadia attending a conference in the summer. He is president of Remedi-8, a division of SCG Industries, in Saint John, New Brunswick.

Edwin Escarraga (MSc 2010) has been working in the north again for the summer, and is now a permanent resident of Canada. To celebrate(?) he went to Tanzania, and climbed Kilimanjaro and Doinyo Lengai.

Brent Ferguson (BSc 1997) still at Stantec Consulting in Stoney Creek, ON, working in Environmental Consulting. He and his wife Heather now have two children: Nora (1.5) and Gavin (3). They are a handful but “between the two of them, they have four hands, so it's all good.”

Moirra Goodfellow (BSc 1998) now lives in New Brunswick, working as a lawyer and at UNB as a Labour Relations Specialist. She and her husband are renovating a house to keep us busy.

Marty Huber (BSc 2011) and **Drew MacPhail** (BSc 2012) were encountered at the Geological and Mineralogical Associations of Canada conference in Fredericton in May. They both work for Hinterland Metals Inc, in Val d'Or, Quebec.

Laila Nowell (BSc 2014) moved to Perth (Australia) and has settled in nicely. She is working offshore mud-logging with Schlumberger (Geoservices), and benefitted from the HSE training process in Texas and France. She writes, “being on the rig is amazing. It's nice to be in the middle of everything and my supervisor has been helping me understand all of the data that are coming in to our computers.”

Kara-Lynn (Scallion) Whiston (BSc 2008) and her husband Scott reported the birth of their daughter Penelope in April.

Gary Stewart (BSc 1976) died in November. “His quiet manner and big laugh created friends wherever he went, their numbers too many to list, and his passing has left holes all around the world. Gary is remembered as a past member of the Association of Engineers, Geologists, and Geophysicists (APEGGA) of Alberta, Association of Professional Engineers and Geoscientists (APEG) BC, Masonic Lodge of Canada.”

Baruck (Buck) Wile (BSc 1983) is mine superintendent at Pugwash Mine, Nova Scotia, part of the The Canadian Salt Company Ltd.