Letter from the Chair 2013

“We conclude that the Department of Geology is a ‘jewel in the crown’ at UW-Eau Claire and in the State of Wisconsin.” — Final report, UW-Eau Claire Internal Review Committee

I hope this newsletter finds you well! If you return to campus this year, you will hardly recognize it! The beautiful new Davies Center opened in August between Phillips Hall and the Nursing building to the west. The old Davies Center and Campus School were demolished last summer, and a new Education building towers over the Campus School site. A nice open mall is being developed on the site of the old Davies Center. Come visit to see the changes and swing by to see us!

This past year the department went through its seven-year review. Our external and internal reviewers spent much time evaluating the department. Their suggestions will help strengthen our department. Their overall sentiments about the Dept. of Geology were very positive (see boxes). Based on recommendations from the reviewers, the administration has agreed to give us a new position, a Field Geology Coordinator who will teach classes and support our field-based geology program. This is great news for our thriving department.

We now have 100 majors in the department. As far as I know, this is a new record. We are moving toward a two-lab model for many upper-division classes, so the Field Geology Coordinator position will be important. As far as I know, this is a new record.

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One of my goals this year was to reconnect with pre-1992 (Before Kent’s Era) alumni using Google and LinkedIn (my daughter calls this “stalking”). It was fun communicating with many “less recent alumni” and seeing the amazing things UW-Eau Claire Geology alumni are doing. Our Alumni News section this year has many entries from the 1960’s, 1970’s, and 1980’s. If you are part of that that time period (or more recent), I encourage you to send me news updates on a regular basis. You are the foundation on which our department is built, and we wish to establish more connections with you.

Donations of alumni and friends support our field program for undergraduates, fund valuable scholarships to defray ever-rising tuition expenses, and allow students to present research results at regional and national conferences. Alumni donated money to purchase a new Trailblazer after the old Blazer died in Montana. Alumni who send job announcements and speak for our Earth Science Seminar Series help our students see the world beyond the campus walls. Thanks for your support! If you are ever in the Eau Claire area, please stop by and visit us!

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Recent Geology Grads
Fall 2012, Spring & Summer 2013
(unofficial list)
Bissen, Heather
Borden, Elizabeth
Denning, Brian
Edgar, Matthew
Folta, Brian
Fry, Logan
Gustafson, Alan
Hopkins, Marcus
Hughes, Cameron
Jacobs, Katrina
Lindblad, Todd
Molitor, Timothy
Moore, Rebecca
Olson, Erik
Turriff, Ethan
Valitchka, Greg
The tradition of high-quality field excursions continues in the department. Our quasi-annual spring break trip involved a geologic excursion across the Central American volcanic arc in Nicaragua. Mahoney, Geoff Pignotta and Lori Snyder led twelve very excited students on a multi-faceted exploration of the geology of Nicaragua, its resources, and culture. We examined the active volcanoes of the arc closely, from the steam fumaroles of highly active Vulcan Masaya outside Managua to volcano boarding at breakneck speeds down the jet-black scoria on Cerro Negro.

Nicaragua is a study in contrasts. We spent a fascinating half day exploring artisanal gold mining, from hand-dug tunnels through solid rock to crushing the ore by hand and separating the gold with mercury. An amazing process. Our gold-mining tour was in direct contrast to our exploration of a state-of-the-art hydrothermal energy system built on the flanks of Santa Clara. This plant is revolutionizing energy usage in Nicaragua, and is a fine example of linking energy production to local resources.

Our guide, Gerald Durand, opened our eyes to the rich culture of Nicaragua. From his description of the historical transformation of Nicaragua from the days of the Sandinista to the culinary uses of the iguana, Gerald was a walking, talking encyclopedia of Nicaragua. His enthusiasm and love for his country enriched our overall experience in Nicaragua.

Our exploration of the arc ended with a couple of wonderful days on the Corn Islands, a spectacular reef complex created by unusual ocean currents on the outer edge of the continental shelf.
FIELD CAMP I – NEW MEXICO
By J. Brian Mahoney

A very successful Field Camp I was held in New Mexico in January 2013. Geoffrey Pignotta and Brian Mahoney, with Samantha Taylor as TA, led twenty students into the New Mexico desert for three weeks of geologic exploration. Lori Snyder joined us for the most of the field camp, and was a most welcome addition. The students were quite happy to master topographic-map-reading skills, understand major unconformities, discover hematitic oolites, and find perfectly preserved fusulinia. The Black Range Lodge was wonderful as ever, and the concert by Acoustic Eidolon was magnificent. Both the weather and the computers cooperated, and everyone returned in good spirits, happy, and a bit more experienced. [Editor’s note: A huge New Mexico fire came within 800 m of the Black Range Lodge in May 2013. Thankfully the Lodge was not destroyed.]

FIELD CAMP II – MONTANA
By J. Brian Mahoney

Mahoney and Pignotta, along with TA Samantha Taylor, led twenty motivated students into the wilds of Montana for Field Camp II in late May. This was our largest offering to date, and ten field teams definitely kept the instructors hopping! The stage was set badly when weather shut down the first day of the stratigraphic section, but the students were more than happy to spend the day exploring the depths of Lewis and Clark caverns. We quickly got back on track, however, and student interest and motivation kept things moving smoothly. The instructors most definitely appreciated the groups’ willingness to fight through the rough stretches and the focus on fine-tuning their geologic skills. Process not product!! The group did a very admirable job tackling the complicated geology of southwestern Montana, and it was quite invigorating to see them apply all of their geologic skills to difficult projects.

Nancy Oyer of Barrick, Inc. once again provided an outstanding tour of Golden Sunlight mine, as well as an excellent overview of the real-life applications of Vulcan in mineral exploration and development. Nancy also joined us in the field for the Cardwell exercise and fascinated students with her fancy Freiberger dip and dip-direction compass. Matt Edgar returned the favor by introducing Nancy to the ukulele while sporting an amazing chop design after dinner. The Cargills were fantastic hosts, as always. Student comments suggest they truly enjoyed and appreciated the geologically challenging experience.

Field Geology I crew in New Mexico, January 2013.

Large Field Geology II crew in Montana, May 2013.
1. Students Mark Green, April Leistikow, and Sam Taylor with the new departmental Trailblazer in western Montana. Many alumni contributed money to purchase this new vehicle — THANKS! (JBM, GSP)

2. Photomicrograph of Wonewoc Fm. sample from Colfax, WI (FOV=11 mm). Taken during Amy Rasmussen and Becca Moore’s petrologic study of frac sand unit cements. (JBM and KMS)

3. Ellyn Swenson evaluating the role of Fe-oxyhydroxides in sequestering metals in the Central Valley of California using analytical transmission electron microscopy (ATEM). (RLH)


5. Scott Wipperfurth and Todd Lindblad seeking quartz crystals in the high Alps, Switzerland.

6. Sam Taylor and Brian Mahoney at their mapping Mission Control, western MT.

7. Tents in Wyoming, Earth History field trip, fall 2012.

8. The 2013 Structural Geology class at Blakely Mountain Dam, Ouachita Mountains, AR. The class is in front of a boundinaged fold limb in the Blakely Mountain sandstone.

9-10. Brian Nehring, a 6’-3”, 211 lb. junior Dual Degree Geological Engineering major, helped lead the Blugold hockey team to its first NCAA Division III national championship. The Frozen Four was held in Lake Placid, NY, at the arena made famous by the 1980 Olympic Miracle on Ice.
Field trips continue to be very important in the program. The Mineralogy and Petrology I field trips fall-2012 were both very successful. The weather fully cooperated with sunshine so you could even use hand lenses without fog-up. Students learn so much more when they can see what you are talking about. The weather for the trips to UP Michigan and the Black Hills was in the 70’s during the day and cool at night. I don’t think we saw a single drop of rain or a snowflake on either trip.

Geology 303 (Rocky Mountain) for summer 2012 was a different story. We had a major snowstorm for the second year in a row over the Memorial Day weekend in the Big Horn Mountains. The good news is that the students had great gear and everyone stayed at least warm and dry. The stratigraphic section in Tensleep Canyon was done in the fog so it wasn’t until the next day when the sun came out that the students could see how high they had climbed in the canyon (about 1900 vertical feet). Grand Teton was exciting because we were the very first campers in the group site and had to share the camp site with a grizzly bear (Fuzzy Wuzzy) that tried to pry at the defenses every night. It made a trip to the bathroom at night quite an adventure knowing you were being watched. Fuzzy did not cause any real trouble but gave the students some pause about storing food anywhere near their tent. We also camped over at Crazy Falls in the Sheridan National Forest which is the first campground outside Yellowstone that is not limited to hard-sided camping. We had another grizzly bear in the area, but he was very well behaved and didn’t actually come into camp. The weather was generally agreeable for most of the trip and we were able to do all of the exercises as planned. Overall it was a great time and the students matured in the outdoor skills.
Ian Anderson (2004). Ian is completing his MS in the UW-Madison Water Resources Management program. He is reviewing high-capacity well applications for the WDNR in Madison.

Cale Anger (2007). Cale received the University of Minnesota Distinguished Master’s Thesis Award. He is an Environmental Engineer at ARCADIS in Minneapolis/St. Paul.

Greg Beckstrom (1984). Greg is the Vice President and Manager of the Upper Midwest Operations for AMEC Environment and Infrastructure. He is working in the mining, oil and gas, transportation, and energy business in the states that fall within his region (North & South Dakota, Minnesota, Wisconsin, Iowa, and Illinois).

Anya Benda (2012). Anya received her geological engineering dual degree at the Univ. of Minnesota. She is employed by Itasca Consulting Group. She reports, “I will be a Geotechnical Engineer working on consulting engineering projects, primarily in mining, petroleum and civil applications. I will be performing field investigations and measurements, including core logging, surface and underground geotechnical mapping. I also will be using computer-aided designs to guide geomechanical model construction.”

Angela Berthold (2012). Angela is currently working on her Master’s degree at UMD. She spent two weeks in San Salvador as a TA for a coral reef studies class and also collected fossil coral samples for her research into uranium-thorium dating. She reports, “I still have a lot to learn about the U-Th system, so hope fully my Geochronology class will continue to clarify the things I’ve already read about it. Also, I have yet to go to a hockey game!”

Lynn (Borgenheimer) Moline (1976). Lynn received her MBA at the Univ. of St. Thomas. She is owner of a leadership development company, Lynn Moline Associates Inc., in the Minneapolis area.

Kristin Weaver Bowman (1996). Kristin writes, “I’ve had a good year. In addition to following UW-Eau Claire Geology activities on the Facebook site, I’ve had my hands full keeping up with my two boys and their activities. It is hard work keeping up with the latest trends in Lego and Minecraft, but someone has to do it. I also continue to enjoy teaching at CSUE. (This is a great way to keep my sanity and have a few adult conversations each day!) This past year I returned to teaching an introductory Earth Science course for future elementary school teachers, in addition to upper-division G.E. Earthquakes and National Parks classes. My hard work paid off because in April the College of Natural Sciences and Mathematics recognized me for my teaching and science outreach activities with the Outstanding Lecturer Award!”


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Kristin Weaver Bowman (1996)

John Buckley (1979). John received his MS in Mining Engineering from the Univ. of Arizona. He is Senior Project Manager in the Decommissioning and Uranium Recovery Licensing Directorate of the Nuclear Regulatory Commission.

Brad Burton (former faculty member). Brad joined with three other people to start a small oil company focused on exploration in the Llanos basin in Colombia. The company has a team of 15 in Exploration, 22 people in their Calgary office and almost 80 employees in an operations office in Bogota. He writes, “We drilled two dry holes out of the chute, but now we have drilled four successes in a row, are producing 1800 bbls/day, and will be over 5000 bbls/day by year’s end.”

Jay Byers (1979). Jay works for Chevron (see photo associated with Roger Kocken’s news item).

Sandra Chamberlain (1968). Sandy was the first graduate out of the UWEC Geology Department with a major in geology and a minor in history. She has an MS degree in Adult Education from SUNY-Buffalo State. She works as a Senior Technical Assistant running a writing center and transitional studies computer lab at Monroe Community College–Damon City Campus. She writes, “I have many fond memories of Dr. Bergstrom–how he loved the origin of words and laughter, local field trips to Baraboo and the Upper Michigan copper mines, and the very first field camp in the summer of 1968.”

Mike Coughlin (1980). Mike is President of Cornell Corporation in Eau Claire.

Taylor Crist (2012). Taylor completed her dual-degree engineering degree at UMN-Twin Cities. Taylor is employed as a Staff Geologist/Engineer in the St. Paul Office with Antea Group. She reports, “I was hired to work on the operation, maintenance, and sampling of current remediation systems. This position is exactly what I was looking for, as I am interested in eventually designing of remediation systems.”

Dan Dahlman (1999) & Jody (Brandrup) Dahlman (1999). After 15 years together, we are happy to announce the birth of our first child, River Daniel, in May! We were in “nesting mode” earlier in the year — remodeling the house and preparing for the arrival of River. With two parents having geology degrees, we have no doubt that he will love those rocks! Cheers!

Thomas Danielson (1998), Tom writes, “Lots of exciting news from the Danielson residence. After many years working in the public sector, I made the jump to private industry in January 2012. I’m working as a Senior Project Geologist with Teck Resources Ltd’s North American exploration group and am lucky enough to be exploring in a world-class zinc district. Will miss my colleagues at the Corps of Engineers, but I am very excited about this new direction. On the family front, I recently became a first time grandfather with the birth of my grandson (Weston). Antje and I have become empty-nesters after a move to the Vancouver, BC, area in early March. Fortunately Alex will only be a couple of hours away so we can visit often.”

Joe Drapeau (1985). Joe is Vice President at Pioneer Environmental Inc. in Madison, WI.

Carol Eloranta (1982). Carol is a conservation biologist/wildlife technician for the WDNR.

Jae Erickson (2010). Jae is starting a pilot study on fluorite from various deposit types at the Colorado School of Mines. He writes, “I absolutely love Mines. I am learning as much from the other students as I am from the professors. Everyone really knows their stuff. I’ve been in contact with people all over the world who have fluorite samples that they would like to send me for my project.” In March, Jae received a Graduate Student Fellowship from the Society of Economic Geologists Foundation, Inc.

ALUMNI NEWS (continued on page 7)
Corrie Floyd (2011). Corrie was hired by Barr in 2011. He reports, “Since employment with Barr, my day-to-day activities have varied greatly. I am in the field around 60-70% of the time and perform tasks such as soil and groundwater sampling, excavation observation, and general field work. When I am not in the field I assist project managers with report writing, figure generation, and GIS tasks.”

Ken Fredricks (1972). Ken is currently a Principal-Geophysics at Halliburton Consulting and a Project Manager in Malaysia.

Nick Freiburger (2004). Nick received his MS degree in geology from UMD. He works for Chevron in Midland, TX. He is responsible for development and maintenance of several water-flooded, oil-producing assets on the Central Basin Platform and Midland Basin.

Scott Galetka (1998). Scott is employed as the Land Records Administrator/Land Information Officer for Bayfield County. He feels very lucky to be able to look out his window at work, and look through the leafless trees to see the icy Lake Superior. Scott writes, “It has been great being part of creating data and information for economic development, managing a four-county LIDAR project, creating countywide addressing and creating interactive maps. I purchased a log cabin home near Ino, WI, a couple years ago. It was a short sale so the previous owners let some of the maintenance go. My son will turn 7 this year in May and is one of many joys in life. In 2012 I became President of the Wisconsin Land Information Association.”

Lynn Galston (2008). Lynn writes, “Still here in China (you can blame the Shanghainese man I married last March in Shanghai). We’re both working in Beijing. We’re working for rival oil companies right now — he’s working for Exxon and I’m working for a subsidiary of China National Petroleum Corporation. This subsidiary is responsible for most of China’s overseas drilling projects, so they basically go all the places Exxon can’t go: Iran, Sudan, Kazakhstan, Venezuela. My job, like most of the foreigners here, is related to English editing/interviewing/training. I like Beijing as a city, and living here has definitely improved my Chinese fluency.”

Thomas Gill (1985). Thomas is an Environmental Manager with Waste Management, Inc. in the Chicago area.

Kevin Gostomski (2005). Kevin has worked for several mineral exploration companies in the state of Alaska since 2007. He has performed early-stage mapping and sampling in the Brooks Range and on the Seward Peninsula, as well as in-pit exploration at Kinross’s Fort Knox open-pit gold mine in Fairbanks. He has worked as a geologist for Tintina Resources since 2010 as the company continues to develop its Black Butte Copper Project in central Montana.

Rachel Greve (2003). Rachel completed an MS in hydrogeology at UW-Madison. She is reviewing WDNR high-capacity well applications in Madison.

Kristen Gunderson-Inden (1995). Kristen reports, “Maximilian Gunder (pronounced Goon-der) Inden (aka Max) arrived via section in February. Even though he was three weeks early, he was 8 pounds 9 ounces. Mom, Dad, and Baby are all doing well.”

Rick Hagen (1984). Rick has a Ph.D. in marine geology and is working at the Naval Research Laboratory in Washington, DC.

Fred Halfen (1969). Fred was awarded the Lifetime Excellence Award from the University of Wisconsin-Eau Claire during a ceremony on December 19, 2012. Fred earned a bachelor’s degree in geography/cartography in 1974. He began his career as a cartographer for UW-Eau Claire from 1974 to 1976, preparing county land-use maps for regional planning commissions. He became Vice President of the Ayres Associates photogrammetry division in 1987 and vice president of the Ayres Associates Madison office in 1999.

Doug Hallum (1996). Doug writes, “I’m now officially a Nebraska Cornhusker, much to the chagrin of my Badger children. I’m learning a new routine in academia with a research and service appointment, which is different from integrated water management in the regulatory environment of Nebraska DNR. My interest and activity in groundwater/surface water interaction modeling and responsible water management remains intact. Paula and I moved to North Platte where we will soon build our own home.”

Dave Hodek (1995). Dave reports, “The family is still enjoying living in Duluth. We spend much time along the North Shore and it’s been fun watching the kids show more interest in geology and rocks (other than just climbing or throwing them at each other). I’m still working at Enbridge Energy and am now working as a supervisory engineer in design.”

“I’m now officially a Nebraska Cornhusker, much to the chagrin of my Badger children.”

Doug Hallum (1996)

and construction. I’ve spent the last couple years building pipelines in North Dakota and Saskatchewan to move more oil production from the Bakken Formation to market. Working in North Dakota during the shale oil boom has been quite an experience.”

Eberhard Hoehl (1976). Eberhard is a seismic data analyst for Stone Energy Corp. in Lafayette, LA.

Terri Hogue (1995). Terri is a faculty member at the Colorado School of Mines (CEE department). She writes, “It is a great place and big change from UCLA. We’re glad to be back in Colorado and out of LA. I feel very lucky to have gotten a job in such a cool place.”

Dirk Holman (1984). Dirk received his MSSE in Software Engineering at the Univ. of St. Thomas. He is IT Manager at Medronic in the Twin Cities.

Matthew Hysen (2011). Matthew is employed as a mud logger at Sudbrink Geological Consulting, Inc. in North Dakota. Some of his responsibilities include analyzing and describing lithology and monitoring gas emissions in the Williston Basin.

Olivia Iverson (2012). Olivia reports, “After I completed my summer internship at Chino Mine, I was hired on as a full-time geologist. Since then, I have had many opportunities to expand my knowledge and gain more responsibilities. In January, I helped give the Chino Mine tour to the UWEC Field Camp 1 class. It was great to share what I do with the UWEC Geology Department and help them experience the economic side of the geology in New Mexico.”

David Kawatski (2008). David reports, “After graduating from UW-Eau Claire, I went to Moody Theological Seminary in Chicago, IL. I graduated in May 2012. Meanwhile I am studying Egyptian Arabic in order to meet the requirements for a certificate in applied linguistics at the Graduate Institute of Applied Linguistics in Dallas, TX. I am employed assisting the Greek professor.”

Bridget Kelly (2009). In fall 2012 Bridget accepted a job with Redflint Group in Eau Claire. Much of her time is devoted to industrial sand mining activities in western Wisconsin.

Paul Kirschling (1975). Paul is President of Thiele Kaolin Company in Sandersville, GA.
SCOTT CLARK, Assistant Professor
clarksc@uwec.edu

Greetings everyone! My third year is wrapping up and it has been a good year for both research and teaching. Last summer, I had my first opportunity to join the group out at Field Camp II in Montana. Because of weather delays, I arrived in time to experience all the mapping exercises, and only missed out on the strat section. I am looking forward to being back out there again, soon.

I continue to enjoy teaching the Earth Sciences course for elementary and special education majors. My hope is that in the future, they will pass along some enthusiasm for learning about our planet and its place in the universe when they are teaching. Teaching Water Resources (Geol 308) for the first time this spring, I discovered the challenges of teaching a course that has students whose backgrounds range from upper-level hydrogeology majors to non-science majors. As the topic of water resources is important to everyone, my goal is to make the course as relevant as possible to all students.

Research in my lab has taken off this year, and I am currently working with four students. Xai Her and Ellen Buelow gained significant experience interacting with news reporters last summer as we collected data from journalists who had reported on the 2004 Indian Ocean Tsunami. As we were interpreting and analyzing that data, they both took their research in new directions. Xai has been studying the differences in how people described the tsunami based on their proximity to the event: People near the event were much more likely to call the event a tidal wave than were people who were situated at a distance — who called the event a tsunami. Our original findings suggest that the news media and the general public experienced a gain in their science literacy in the aftermath of the 2004 tsunami. Ellen is finding evidence for the permanence of the science literacy shift of 2004: News reports of the tsunami that hit Japan in 2011 were written in a way that presumes a pre-existing knowledge base of basic tsunami information.

Last spring, I helped Joel Smith create a survey for tourists who passed through Charles Darwin Research Station (CDRS) in the Galapagos Islands. Joel spent the summer in the Galapagos Islands with a group of UWEC students who were led by Dr. Debra Freund (Dept. of Biology). While there, Joel continued collecting data via interviews during the school year. He has compiled and analyzed his data, and will be submitting a discussion of climate change. Initial results are very interesting, and she will continue this research during this coming year. As the lab group builds on our successes of this past year, I am very excited to see what we will accomplish in the coming year.

Publications:

JILL FERGUSON, Analytical Scientist and Laboratory Manager
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This year has been full of rewarding projects for me. Introducing students to the wealth of instrumentation we have, whether it is in Geology 110 or through faculty/student research projects, is exciting. I've enjoyed some particularly fruitful collaborations with Geology majors Scott Wipperfurth (Ihinger) and Andie Holm (Mahoney). The enthusiasm of these young scientists is infectious! Speaking of young scientists, I've also been working with future Blugolds, hosting hands-on events for classes from Cadott Elementary, Eau Claire DeLong Middle, and Flambeau High schools, as well as students from Wisconsin Virtual Academy.

I've also been busy supporting economic development in our region through my work for new and established companies. I've done plenty of elemental analysis (ICP-MS, XRF) and microscopy (SEM/EDS, optical microscopy) for our private-sector clients. I can frequently be found working on sand, rock, and water samples alongside catalysts, anodized aluminum, and printed circuit boards. I enjoy the variety of clients and projects in my role here at UWEC.

New acquisitions to the Materials Science-supported instrument suite include a new x-ray diffractometer (Bruker D8 Discover XRD) and an Instron tensile tester. We are looking forward to replacing our current x-ray fluorescence spectrometer with a new Bruker S8 Tiger XRF in the coming year. You can learn more about the instrumentation available to our Geology faculty and students, as well as our private-sector partners, by visiting uwec.edu/matsci/center

I've been busy with some big life events as well. My husband Andy and I welcomed our first child, Rosalie, in July. We are enjoying this new chapter of our lives with Rosie. Judging by the coos and funny voices in the hall when she visits, I think the Geology faculty are enjoying her as well!

As always, if you want to take a tour of our labs or find out more about our capabilities, please don't hesitate to contact me. I enjoy meeting with alumni!

KATHERINE GROTE, Associate Professor
grotek@uwec.edu

Once again, the year has gone by too quickly! I am taking my first sabbatical this year and am enjoying it. I spent the first semester mostly processing data and writing a manuscript, but I was also involved in more service (campus and community) than I meant to be. The second semester I am looking into new research directions (I have some cool ideas, if I can get the oil and mining companies to cooperate with me!) and studying for the professional engineering exam. I find the studying to be both interesting and occasionally frustrating, and am definitely nervous about taking the exam — probably helps remind me how my students must feel…

Since I have been on sabbatical this year and maternity leave last year, I haven't had the usual student interaction, which I miss. This fall, when I return to "real life" and a full teaching load, will be both rewarding and challenging. I have worked with a few students while on sabbatical: Anastasia Burns is working on a project to determine the primary sources of nitrate in Eau Claire County groundwater, and I am taking over for Bridget Kelly in working with students Timothy Molitor, Katie Grant, Alan Gustafson, and Kelsey Franko on a project monitoring chloride concentrations in surface water as a function of road salting. It is good to be back working with students again!

Life on the home front is fairly quiet, in as much as life with three young children (ages 1, 5, and 10) is ever quiet. We spent two weeks last summer in Yellowstone and the Tetons, teaching them about groundwater and geothermal heat, glacial geology.
and wildlife. The most exciting part for the children was not really the rocks, but rather the bear we met unexpectedly when rounding a curve of the trail. A good way to end a vacation, especially when the bear is headed the other way…

As always, I love hearing from alumni! Please keep the emails coming, and stop by if you make it to town.

KAREN HAVHOLM, Assistant Vice Chancellor for Research havholmk@uwec.edu

You would be amazed at what the new Davies Center did for the Celebration of Excellence in Research and Creative Activity, or CERCA (the new name for Student Research Day). The lovely venue made the whole event seem more professional, and students rose to the occasion with professional dress and demeanor. There were oral presentations, performances and art exhibits as well as posters. Nerve-wracking to organize, but the outcome was worthwhile.

We have a program that is in its third year now called International Fellows. This is to support faculty/student research (sometimes with a service component) abroad. It has been great to see two Geology projects funded – one in Switzerland and one in Argentina (upcoming). The campus is working to better internationalize/globalize its curriculum, and this has been one research-focused aspect of that.

On the home front, our first trip to Edmontont, where our daughter is in graduate school, is coming up in August. There is actually a direct flight there from the MSP airport, amazingly. We are looking forward to seeing this area we have never traveled to before, and must visit while we have a place to stay. At home things go on much as usual, except that I have committed to doing my first outdoor triathlon this summer! We enjoy living in Eau Claire, which has new things to offer each year. We hope to see some of you as you come to visit our amazingly revised campus.

ROBERT HOOPER, Professor hooperrl@uwec.edu

I continue to teach Min/Pet I and Geochemistry in addition to Rocky Mountain Field Studies and a little bit of Geol 110 (Physical Geology). I have been spending most winter breaks in the Caribbean snorkeling and scuba diving. Getting out of town for January makes the winters shorter. I’m looking forward to spending the spring break skiing at Breckenridge because they are finally getting snow in the Rocky Mountains. I enjoy the students at Eau Claire more every year, even though they seem to be getting younger. One new job has been advising almost all new freshmen and it is really nice to get to know them before they get to Min/Pet I.

Last summer was a complete bust after Geol 303 (Rocky Mountain) because I had a couple of “elective” surgeries that kept me from pushing too hard on my road bike. I only got in about 600 miles all summer when 2000 would be more normal for a good summer. I have two students this year doing research on the TEM. One student is looking at nano-crystalline Fe-oxo-hydroxides and their potential for impacting human health in soils and air particulates. Another student is working with me and the Smithsonian Institution on trace element determination for their collection of microbeam reference materials. We plan on taking both projects to the CSA in Denver next fall, so if you are at the meeting come to the posters or talks. I still love to give department tours so let me know when you’re coming to town and I’ll show-off all of the cool new analytical equipment we have amassed over the past few years.

PHILLIP IHINGER, Professor ihinger@uwec.edu

Greetings, Geology Enthusiasts! I write this ‘hello’ just minutes before heading out on a long-awaited family vacation to the West Coast, which represents the first of many excursions as I begin my sabbatical year. The Ihinger laboratory has been a hivere of activity, ever since Team JLW (Aleisha Johnson, 2014, Todd Lindblad, 2013, and Scott Wipperfurth 2014) returned from their immersion experience in the Swiss Alps last summer. Our International Fellows grant was funded by the Center for International Education, and we successfully collected hydrothermal quartz samples from over twenty localities along a traverse across the Swiss Alps.

Upon returning from Europe, the Team successfully developed an innovative protocol for preparing polished, oriented samples using newly acquired equipment purchased through the Materials Science Program. The Team presented two posters and one oral presentation at this year’s newly named, CERCA celebration (which bundles Research Day and the Provost’s Symposium). Eric Houle (2014) and Travis Bender (2013) (along with Todd) also completed a fun project examining gradients in water speciation around exsolved bubbles in Mono Craters obsidian — a project inspired by long-time colleague and former UWEC grad, James Watkins (2005), who is now an Assistant Professor of Geology at the University of Oregon (congratulations, Jim!).

Meanwhile, my children are growing up way too fast: Ghislaine is finishing up at Macalester, Mati has completed seventh grade, and Evie is saying good-bye to her favorite Mr. Lilly of second grade at Manz Elementary School. Tricia and I are finally accepting our new Raison d’etre: shuffling between soccer fields, softball fields, art lessons, and different homes across the Chipewa Valley! Life is good.

J. BRIAN MAHONEY, Professor mahoney@uwec.edu

Life gets more interesting through time, to be sure. The 2012/2013 year was a time of reflection, reinvigoration and reorganization for yours truly, and I am very happy to report that life is fine and the air is sweet! Everyone knows I tend to be overcommitted with too many irons in the fire, but at this point the priorities are seemingly in order!

The field season last summer involved a new push into the Lincoln, Montana, area, where Geoff Pignotta, Sam Taylor, Brian Nehring, Amy Rasmussen, and I conquered the Blowout Mountain quadrangle near Lewis and Clark Pass despite massive terrane and encroaching wildfires. Sam Taylor was the senior author presenting our mapping and detrital zircon work in the area at the National CSA meetings, where she won First Place in the SEPM poster contest against mostly graduate students!

I was on sabbatical in the Fall semester and stayed in Eau Claire for the most part to get things done. I managed to submit two NSF proposals between summer and fall, and am very happy to report that we were successful on our Argentina grant! The next three years will focus on Miocene orogenic exhumation and basin evolution of the south-central Andes. Should be a great project!

I capped off the sabbatical with a trip to Malaysia, focusing on Borneo. Absolutely spectacular place…wonderful people, awesome food, orangutans and proboscis monkeys in the jungle, and some of the most spectacular snorkeling in the world. Snorkeling amid a school of hundreds of 3-4 foot barracudas and dozens of massive sea turtles is something I will never forget!

I was happy to get back in the groove of teaching in the spring. SedStrat and Structure once again combined to take about 50 students to Arkansas for our annual spring field trip, and we managed to have a great experience with no problems. Geoff Pignotta, Lori Snyder and I also led a group on a volcanic arc cross section field trip to Nicaragua over spring break, and a wonderful time was had by all!

Bottom line: things are good here in the Department of Geology, and we continue to interact with an absolutely tremendous group of students and alumni. Teaching the students and watching their careers develop is what makes this job worth doing. My
thanks to you all. Say hello when you get a chance.

GEOFFREY PIGNOTTA, Assistant Professor
pignotta@uwec.edu

Another year has passed here in Eau Claire. How the time flies! It was a long and challenging year, but I definitely learned a lot. Last fall teaching Economic Geology again was a blast. Help from several alums definitely made that class a better experience for students. Thank you to Anne Gauer, Michelle Forgette, Lars Olausse, Olivia Iversen, Mark Nelson, Travis Pickering and Alex Thompson, all of whom contributed to the class in different ways. I look forward to teaching it again this fall and am shamelessly requesting that any alum who is interested in speaking/contributing to the class is more than welcome to do so. I send a special thank you to alumna Anne Gauer and Maptek, developer of the software package Vulcan. Anne came to the Department in October and taught Introduction to Vulcan and Block Modeling courses over a four-day marathon session. It was an excellent opportunity for the students. Field camps in New Mexico and Montana were great once again. Both were huge, 20-person classes which definitely kept Brian and me on our toes.

Last summer was a fantastic summer for research despite the very dry conditions (and fires) experienced in the western US. The summer was spent mapping throughout Montana. I am developing new research directions to involve students in the Department. I’m starting to attack the Boulder batholith in earnest and have started an economic geology-based project with George Hudak of the Natural Resources Research Institute at UM-Duluth. The project is in the Archean Greenstone Belt of northern Minnesota investigating arc magmatism and volcanism and its relationship to deformation and gold mineralization. Looking forward to this wet and mosquito-filled adventure!

Overall life is speeding by in Eau Claire.

It is hard to believe that my daughter Sophia will be turning three at the end of the summer. Tania is also doing very well. Not surprisingly requesting that any alum who is interested in speaking/contributing to the class is more than welcome to do so. I send a special thank you to alumna Anne Gauer and Maptek, developer of the software package Vulcan. Anne came to the Department in October and taught Introduction to Vulcan and Block Modeling courses over a four-day marathon session. It was an excellent opportunity for the students. Field camps in New Mexico and Montana were great once again. Both were huge, 20-person classes which definitely kept Brian and me on our toes.

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GREETINGS TO ALL!

Greetings to all! Teaching at the University of Montana-Western in Dillon, MT, last fall made clear to me that I continue to enjoy my career interacting with university students and doing geology. Western Montana is one of the few public institutions that teach courses entirely on the block system, where students take all of their courses in low-enrollment (24 students) sections in an intensive 3.5-week format. It was challenging teaching three different sections of Introductory Geology in three months. As you can imagine, field trips in Montana in December were limited, though the mines around Butte are worth seeing anytime of the year.

I am also teaching online in Eau Claire during the current summer session (a 3-week summer interim Future of Global Energy class (Geol 122)). This is the first entirely online offering of any course in the Department. Once again, the format was a new and challenging experience for me. I am very pleased to be returning to Eau Claire full time in the fall. I have wonderful colleagues in the Geology Department and I appreciate their support. I hope that you all have a great year and I send best wishes for a wonderful year ahead. As always, keep in touch and drop by if you are in the area!

LORILIE STEINKE, Academic Department Associate
steinklm@uwec.edu

There were many changes in my personal life this past year and I am looking forward to settling back into a “normal” routine again. My daughter Morgan finished her first year as a UWEC Blugold, and my daughter Margo will be a senior in high school.

The department continues to be very busy. We now have a fleet of three department vehicles which make local field trips much easier to schedule. I truly enjoy hearing from our students after they graduate. Stay in touch with me via email, Facebook, or by just stopping in if you are in Eau Claire.

KENT SYVERSON, Professor
syversonk@uwec.edu

Greetings from Eau Claire! I have completed my 21st year in the department. Time marches onward. As Chair much of that time is spent in meetings. In addition, I spent much time last summer writing the Geology self-study report for our internal and external review.

This past year I taught Geomorphology and Oceanography. This spring I had many “Hall of Fame” students graduate, so graduation day was quite meaningful. It is sad to see students leave, but I guess it is sad if they never leave...!

My fall semester was a whirlwind. Certainly the highlight of my professional year was receiving the 2012 UW-Eau Claire Excellence in Teaching Award. As part of this honor, I attended my first Varsity show and served as Grand Marshal for the Homecoming parade. I definitely think I have more gifts in teaching than in grand marshaling.... I also participated in some other special events. I led a Continuing Education field trip to the Blue Hills Felsenmeer in Rusk County to showcase the results of numerous UW-Eau Claire undergraduate research projects. I also was invited to present a talk and co-lead a field trip at the SME-sponsored silica sand conference in Minneapolis last October. More than 300 people attended the conference, and the field trip had three full coach busses. The field trip way delayed -1 hour when protesters climbed on top of a coach bus. Several people were arrested. A little more exciting than most field-trip departures!

Brian Mahoney and I supervised students Becca Moore (x2013) and Amy Rasmussen (x2013) in studying the mineralogy of frac sand cements. They both attended the SME Silica Sand Conference in Minneapolis (the only undergraduate students there, I believe) and presented their research at NC GSA in Kalamazoo, MI, in May. This project will continue into the next academic year.

Phil Ihinger and I spent many hours in meetings dealing with the revision of the UWEC general education program. That was frustrating. They say sometimes you win, sometimes you lose. Sometimes you just lose. The Department will be fine, but I am concerned about the overall UWEC educational experience.

Summer 2012 was quite busy. I was very involved with the Wisconsin industrial sand industry. I continue to do exploration work for sand companies and landowners, and I have been providing more expert testimony at permitting meetings. The most exciting meeting lasted six hours – a great way to celebrate my birthday!

My family and I stayed rather close to Eau Claire during the summer. We took a short family vacation to Manitowoc, WI, on Lake Michigan. Activities included touring a WWII submarine, wading at Point Beach, and attending church at Holy Hill in the Kettle Moraine (in my old master’s thesis area).

Soon my second daughter will graduate from high school and go away to school. With my other daughter in college, discussion around our dinner table won’t be quite as lively. (The Syverson boys don’t talk as much as the girls.)

I will be around Eau Claire much of the summer. If you are around, please stop by to visit the department!
2013 Geology Banquet

The spring Geology banquet is always a fun time to eat a fine meal, recognize graduating seniors, say goodbye to classmates after another year, and reminisce about field trips gone by! This year approximately ninety students, parents, and faculty assembled in at the American Legion in Eau Claire for the event. Departmental awards were made, and the Geology Club once again presented awards as well for “Best Dance Moves,” “Fashion over Function”, etc.

Anastasia wins the coveted GeoClub Fashion over Function Award (translation — Most Impractical Footwear for a Professional Conference).

The 2012-13 Geology graduates at the annual banquet and on graduation day, May 2013.
Hughes and Moore Presented the “Excellence in Geology” Award for 2012-2013

The “Excellence in Geology” Award recognizes the academic achievements of the outstanding graduating geology major, both in coursework and in faculty/student collaborative research. The winners of the Geology Excellence Award for 2012-2013 are Cameron Hughes and Rebecca Moore.

CAMERON HUGHES
(written by Kent Syverson)
Cameron (Cam) Hughes is originally from Minnetonka, MN. She transferred to UW-Eau Claire from the University of North Texas where she was majoring in music. She has been an excellent student since she arrived on the UW-Eau Claire campus. She received the Golder Associates Geology Scholarship in 2011-12. In addition, she participated in the National Student Exchange to study at Univ. Alaska-Anchorage (fall 2011). She elected to attend Idaho State University’s six-week geology field camp during summer 2012 where she received the top performance award. That was right before our external reviewer, ISU professor Paul Link, came to review our Geology Dept. Her performance in field camp made us look VERY good! Cam worked for the Alaska Division of Geological and Geophysical Surveys after graduation and will be attending the Univ. of Tennessee for a PhD in structure and tectonics.

REBECCA MOORE
(written by Kent Syverson)
Rebecca (Becca) Moore is originally from Champlin, MN, and has completed her degree in the hydrogeology emphasis. Becca was recipient of the Myers/Willis Field Camp Scholarship based on her performance in Field Geology I. Becca worked on two research projects during her time at UW-Eau Claire. She and collaborator Ian Freeman conducted glacial geology research in Straight Lake State Park with Kent Syverson. This work was presented at the national GSA meeting in 2011 (Minneapolis). The WDNR recently printed 2000 color copies of their Ice Age Trail hiking guide for Straight Lake State Park. Also, Becca and collaborator Amy Rasmussen have studied the mineralogy of frac sand cements. This work was just presented at the NC GSA meeting in Kalamazoo, MI. Becca recently accepted a job as a geologist with Haley and Aldrich, a consulting firm in Boise, ID.

Lindblad wins 2012-2013 Annual Award for Service

The “Annual Award for Service” recognizes the exceptional service a geology major has done for the department.

Todd Lindblad of Eau Claire, WI, is the recipient of the Service Award. He worked tirelessly with geology vehicles, rentals, and the Geology website. You name it, he has helped. He will be missed. Lorilie unsuccessfully tried to sabotage his graduation so he could help us during the next year as well! However, he has begun a full-time job with Smart Sand Inc. in the Tomah area, so Lorilie is out of luck.

In addition, Todd conducted research with Phil Ihinger. Todd and his research team were UWEau Claire International Fellows during summer 2012 and collected hydrothermal quartz samples along a traverse across the Alps in Switzerland. Todd analyzed those samples during the academic year and the data will provide the basis for a professional presentation and potential publication.

Buelow, Johnson, and Smith win Myers/Willis Field Camp Scholarships

Field camp experiences have become increasingly expensive for students. This scholarship, established by the department in 2006, is intended to lessen the financial burden of field camp for excellent students who also have financial need. The scholarship also honors the contributions of Dr. Paul Myers and Dr. Ronald Willis, geology professors at UW-Eau Claire who worked very hard to establish a strong field component in our young geology program.

Ellen Buelow (Chilton, WI), Aleisha Johnson (White Bear Lake, MN), and Joel Smith (Duluth, MN) are recipients of this year’s Myers/Willis scholarships. Recipients were selected based on performance excellence at Field Camp I in New Mexico. Each student will receive $500 to defray expenses for Field Camp II in Montana. Congratulations!

The Geology Dept. hopes to offer Myers/Willis scholarships to more students each year as the scholarship fund balance rises. We encourage all alumni who have benefited from our field experiences over the years to contribute to this fund. In addition, this is a great way to honor Paul and Ron for their dedication to our field program! See page 18 for information about contributing to this important scholarship fund.
EAU CLAIRE — After high school trips to rural China and Tanzania gave him a firsthand look at water supply and contamination problems, University of Wisconsin-Eau Claire student Josh Olson knew he wanted to work on clean water projects in developing parts of the world.

Olson, a junior geology and hydrogeology major from Amery, WI, is the recipient of the National Ground Water Research and Educational Foundation’s 2013 Past President’s Award — the organization’s top scholarship — to help him achieve his goal.

“I was ecstatic when I found out,” Olson said of receiving the prestigious scholarship. According to the foundation’s website, the Past President’s Award is given to the most qualified of the ten students receiving scholarships from the foundation.

Dr. Kent Syverson, professor and chair of the department of geology, said Olson has the qualities needed to put him at the very top of an exclusive list of students.

“Josh is extremely intelligent, but he also has an excellent work ethic,” Syverson said. “His academic record opened the door for prestigious paid hydrogeology internships with the Kansas Geological Survey and Barr Engineering, and these made him very competitive for the highest scholarship awarded by the National Ground Water Research and Educational Foundation.”

Olson said the service trips he took to Asia and Africa made him realize he wanted to make a career choice that would allow him to help others.

“Water supply and contamination were serious issues in many of the areas I visited,” Olson said. “I felt as though this was an issue I could help address. These experiences motivated my decision to study groundwater. My end goal has always been to go back overseas after grad school to work on clean water projects in developing countries.”

Syverson said Olson transferred to UW-Eau Claire from UW-Platteville after his freshman year to follow his dream.

“He knew our geology program would prepare him to meet his goal after graduation: supplying safe drinking water for people in third world countries,” Syverson said. “Thanks to his hard work, his professors, and the rigorous hydrogeology program at UW-Eau Claire, Josh is well on his way to achieving that goal.”

Olson said his decision about where to transfer was easy after he visited UW-Eau Claire and was given a tour of the geology department.

“The professors I met were all friendly and knowledgeable,” Olson said. “I was impressed with how advanced the machines in the labs were, and the variety of field experiences offered to geology students.”

Olson’s NGWRF scholarship speaks to the quality of the program and professors, Syverson said.

“UW-Eau Claire’s hydrogeology program has had an excellent reputation for 30 years,” Syverson said. “Josh is one more student in a long line of successful Blugold hydrogeologists. Josh has worked hard and taken advantage of what UW-Eau Claire has to offer, and he deserves this award.”

Olson, who plans to continue studying hydrogeology in graduate school following his December graduation, said it was an honor to represent UW-Eau Claire as the Past President’s Award winner.

“The education I have received here has been excellent,” Olson said. “I know the direct contact and help from professors, high quality of the labs and field work, and depth of material covered in my education was critically important for my success. In many ways, this award is a great compliment to UW-Eau Claire’s Geology program.”

Holm wins Beckstrom Geology Major Scholarship

by Kent Syverson

This scholarship, established fall 2005 by Greg Beckstrom (UWEC Geology 1984), is for comprehensive geology majors who have completed Mineralogy-Petrology I, developed an excellent academic record, and demonstrated a financial need.

Andrea (Andie) Holm is the 2013-14 recipient of the Beckstrom Geology Major Scholarship. Andie grew up on a dairy farm in Elk Mound, WI, just to the west of Eau Claire and is a rising senior in our program. Last fall, she excelled her Min-Pet I class. Andie has been conducting research with Dr. Scott Clark. She has been studying the correlation of news reports of extreme weather events and the media’s discussion of climate change.
Sylverson wins 2012 UW-Eau Claire Excellence in Teaching Award

(Excerpted from UW-Eau Claire New Bureau press release dated 8/21/12)

Kent M. Sylverson received the Excellence in Teaching Award during the university’s academic year opening meeting August 21, 2012. He joined the UW-Eau Claire geology faculty in 1992.

The teaching award recognizes outstanding ability to inspire students to high standards of scholarship; the recipient is selected by alumni.

Sylverson teaches a large liberal education class -- Oceanography. He stresses “three-star concepts” — foundational concepts that can be used to understand many processes acting on the earth. His office hours are commonly packed as he quizzes students about important concepts before and after exams.

Students in Sylverson’s small upper-division courses (Geomorphology and Glacial Geology) participate in real-world projects to improve their field skills, apply classroom knowledge to field problems, and prepare them for the working world.

Sylverson is a glacial geologist by training, and he considers research with undergraduate geology students an important part of his teaching. Sylverson has studied the glacial geology of Wisconsin and Maine with undergraduate geology students. Sylverson’s recent interest in the geology of frac sand deposits in Wisconsin has led to a research project with two geology students who are studying the mineralogy of sandstone cements.

Audrey Boerner (UWEC Geology 2011) is in the second year of a master’s program in earth and atmospheric sciences at the University of Nebraska-Lincoln. Her first geology class was Sylverson’s Oceanography course during the fall semester of her freshman year.

“Kent supervised me through my first two undergraduate research projects, and I learned the value of scientific ethics and meticulously setting research goals and sticking to them — very important skills in graduate school,” Boerner said. “He also believes very strongly in sound ethical reasoning and protecting individual rights; this served as a great example during my formative college years.”

Senior organizational communication and French major Britta Cusick took Sylverson’s Oceanography course.

“Dr. Sylverson was easily one of the best professors I’ve had at UW-Eau Claire,” Cusick said. “His lectures were very interactive, and he always made a sincere effort to get to know each one of his students. Dr. Sylverson made sure to explain the subject matter in several different ways so that the class could conceptualize and fully understand the material. He is the kind of professor most students hope they meet at college: easy to approach, passionate about what he teaches and willing to help each student.”

Course work, research projects and the field-based geology program are preparing students for jobs in industry and providing full-ride funding to top-tier graduate schools, Sylverson said.

“I enjoy the intellectual life I see in UW-Eau Claire students,” he said. “It is fun seeing students start to mature, view the world around them in a different way and become more curious. I am blessed to have a job I enjoy.”
Maptek partners with Department of Geology program
by Geoffrey Pignotta

Over the past several years, Maptek Inc., makers of the software package Vulcan, and their employees have been an integral part of the UW-Eau Claire Geology educational experience. Maptek employee Anne Gauer (UWEC Geology 2008) helped us obtain a valuable site license for Vulcan and then came to Eau Claire during fall 2011 to teach an Introduction to Vulcan short course to the Economic Geology class. Presently, many alumni are employed at Maptek in Golden, CO, including Anne, Alex (Guy) Strand, Kate (MacLaurin) Smith, Brennan Kadulski, and Mark Nelson. The department cannot thank Maptek and our alumni enough for supporting our Geology program, not just in the form of software access, but also the numerous training visits provided by Anne, Kate and Brennan over the past two years.

Geology students have embraced these visits to receive hands-on experience and training and to learn the power of Vulcan. This is incredibly valuable from an academic standpoint and for helping majors get jobs in the mining industry. We thank Maptek for its continued support of the Geology program.

Earth Science Seminar Series

The Earth Science Seminar Series continues to bring excellent speakers to campus. It provides faculty and students with the opportunity to interact with other scientists working on a broad range of research topics, and it also allows us to “show off” our department and research equipment to the visitors….! Below are the talks presented during this academic year. Seminars schedules are posted on the Geology website. In addition, if you live in the area and would like to receive e-mail announcements about upcoming seminars, please contact Dr. Scott Clark at clarksc@uwec.edu. If you work for a company that would like to sponsor the seminar series or contribute money to defray speaker costs, please contact us!


Dr. Jim Watkins, UWEC alumnus & Assistant Professor, University of Oregon, “Chemical gradients around bubbles and crystals in obsidian: Geobarometry and geospeedometry,” 9/28/12.

Paul Morin, Director of the Polar Geospatial Center, University of Minnesota, “What do you do when you can see it all at sub-meter resolution? Lessons from counting penguins and watching ice retreat,” 10/4/12.

Anne Gauer, UWEC alumna and Geologist, Maptek, “Having a Career in Mine Geology Outside of a Mine,” 10/5/12.

Tonia O’Brien, Geologist, and Tina Pint, UWEC alumna and Hydrogeologist, Barr Engineering. “Barr Engineering Company -- Spotlight on Assessment and Remediation,” 10/19/12. [Editor’s note: Tonia and Tina came to recruit UWEC Geology students for internships, and potentially future permanent jobs as well. Josh Olson (x2014) has a summer internship with Barr Engineering in Minneapolis.]


Henry Loope, PhD candidate at University of Wisconsin-Madison, “Fluvial evolution of the Upper Mississippi River during the last glacial period,” 11/29/12.

Dr. Kent Syverson, Department of Geology, UWEC, “So you want to go to...Graduate School?” 11/30/12.

Doug Hallum, UWEC alumus and Survey Hydrogeologist, University of Nebraska, “Using a Total Water Budget Approach for Conjunctive Water Management Modeling,” 12/7/12.

Fairmount Minerals donates $2000 to Dept. of Geology

The Wisconsin Industrial Sand Company [WISC], a division of Fairmount Minerals, recently donated $2000 to the Department of Geology. Fairmount Minerals has specified that the funds be used wherever they are most needed. This gift will be used widely to improve educational opportunities in the Dept. of Geology.

WISC operates several sand mines in western Wisconsin, including underground mines in Pierce County and a surficial mine in Menomonie. These mines supply sand for glass manufacturing, foundries, and the oil and gas industry. Several of our geology classes have taken field trips to the mine in Menomonie, and this has been an excellent learning experience for our students. Michele (Skahaug) Maxson (UWEC Geology 2006) is Regional Environmental Health and Safety Officer for WISC. In addition, Ian Freeman (UWEC Geology 2013) is working on an internship with Fairmount Minerals this summer.

Thanks to WISC and Fairmount Minerals for partnering with us as we us train the next generation of geologists (and non-geologists as well)!!


Dr. Andy Breckenridge, Associate Professor, UW-Superior, “The intrabasin sediment record of the terminal phase of glacial lake Agassiz-Ojibway,” 3/1/13.


Kate (MacLaurin) Smith, UWEC alumna and Project Geologist, Maptek, “Coal Mining: The Good, the Bad, and the Ugly?”, 3/3/13.


Dr. Andy Breckenridge, Associate Professor, UW-Superior, “The intrabasin sediment record of the terminal phase of glacial lake Agassiz-Ojibway,” 3/1/13.


Kate (MacLaurin) Smith, UWEC alumna and Project Geologist, Maptek, “Coal Mining: The Good, the Bad, and the Ugly?”, 3/3/13.

Celebration of Excellence in Research and Creative Activity—Spring 2013 (formerly Student Research Day)

The Twentieth Annual UW-Eau Claire Celebration of Excellence in Research and Creative Activity was held May 1, 2013, in the new Davies Center on the UWEC campus. This event showcases faculty/student collaborative research occurring on campus. The Geology Department has been very well represented throughout the years, and this year was no exception. All of the students noted below presented posters this year. We are very proud of our students!

Note: Students who presented posters at professional conferences are also indicated. Student travel to conferences was supported with money from the Geology Advancement Fund and the Office of Research and Sponsored Programs.

Ellen K. Buelow and Xai Her with Scott K. Clark
Scientists as Media Resources in the Aftermath of Disasters: Trends Following two Devastating Tsunamis

Franklin L. Heaton with J. Brian Mahoney
Sediment Geochemistry of Petroleum Source Rocks: A Potential Exploration Tool

Xai Her and Brian C. Nehring with J. Brian Mahoney
Geochemical Analysis of Nicaragua’s Volcanism in Comparison to Continental Volcanoes in the Central American Arc

Xai Her and Ellen K. Buelow with Scott K. Clark
The Role of Proximity in How Individuals Describe Natural Disasters: Analysis of the 2004 Indian Ocean Tsunami

Lindsey A. Lepak with J. Brian Mahoney
External Collaborator: Beth Wenell, University of Minnesota
Chemical Weathering in Heterogeneous Bedrock

Todd A. Lindblad, Scott A. Wipperfurth, and Aleisha C. Johnson with Phillip D. Ihinger
Chemical Fingerprint of Quartz Crystals Sampled at Windgällenhütte, Switzerland

Todd A. Lindblad, Travis C. Bender, and Eric D. Houle with Phillip D. Ihinger
Water Speciation Around Vesicles within Obsidian Fragments from Mono Craters, CA: Testing the ‘Bubble Geobarometer’

Rebecca J. Moore and Amy K. Rasmussen with Kent M. Syverson and J. Brian Mahoney
Petrographic Analysis of Cambrian Sandstone Cement in Western Wisconsin: Implications for the Composition and Quality of Frac Sand. Also presented at NC GSA, Kalamazoo, MI, May 2-3, 2013

Brian C. Nehring and Timothy H. Molitor with Geoffrey S. Pignotta
Dissecting an Active Volcanic Arc: International Experiential Learning in Nicaragua

Samantha S. Taylor with J. Brian Mahoney
Stratigraphic and Structural Interpretations of the Prairie du Chien Group, Western WI and Eastern MN

Samantha S. Taylor and Rebecca J. Moore with J. Brian Mahoney
Stratigraphic and Structural Analysis of the Phosphoria Formation, Southeast Idaho

Samantha S. Taylor, Brian C. Nehring, Amy K. Rasmussen, and Rebecca J. Moore with J. Brian Mahoney and Geoffrey S. Pignotta
Basal Cambrian Stratigraphy in Western Montana, Evidence of Pre-Cambrian Uplift?

Scott A. Wipperfurth, Aleisha C. Johnson, and Todd A. Lindblad with Phillip D. Ihinger
Chemical Fingerprint of Quartz Crystals Sampled Across the Lepontine Zone in the Swiss Alps

Joel H. Smith with Scott K. Clark and Deborah A. Freund
Multi-method Analysis for Expansion of Public Outreach at Charles Darwin Research Station, Galapagos Islands

Scott A. Wipperfurth with Phillip D. Ihinger and Jill W. Ferguson
A New Sample Preparation Technique for Measuring REE Abundances in Carbonate-rich Silicate Rocks: Safer, Faster, Cheaper


Sean M. Morrison, Matthew W. Struve, Lauren E. Roeglin with Harry M. Jol, Douglas J. Faulkner, Garry Leonard Running, IV.

Craig Koch (1982). Craig completed his MSE with an emphasis in Physics at UW-Oshkosh and now teaches physics, chemistry, and physical sciences at Hilbert High School near Lake Winnebago. Craig writes, “I didn’t find a job in summer 1982 and returned to Milwaukee, my home town. I read where there was a shortage of science teachers in Wisconsin and that fewer than 25% of schools had a certified physics teacher, so that’s what I decided to do. My wife Marie and I have 3 children, the youngest of whom graduated from high school three years ago.”

Roger Kocken (1979). Roger is a Staff Geologist with Chevron. Roger writes, “In November of 2012, three graduates of the UWEC Geology Department met at the Chevron office in Covington, LA. For two of us, it has been several decades since we graduated, but we still recall fond memories of our time at UWEC. Most notable were Dr’s. Willis, Bergstrom and Myers, who provided us with sound backgrounds in geology. We also could never forget the six-week camping/hiking trip called Field Camp.”

Blugold Geology reunion at Chevron! From left to right: Jay Byers (1979), Jessica Lopez (2005) and Roger Kocken (1979).

Ric Kopp (1975). Ric is an Independent Exploration Geologist working on North American exploration and production operations. Ric writes, “In February of 2013 I became an Independent Consulting Geologist, evaluating properties and generating new plays. Working on my own has been different and a good learning experience especially when you no longer have an HR Department to do taxes, insurance, social security and retirement for you. My contacts and good reputation has been the most important thing in this new venture. Life is still good, Jacqueline and I enjoy spending a lot of time with the grandkids ages 3 and 5, and they appear to like horses and chasing cattle and just like their Grandpa, they like rocks too.”

Lisa Kraft (1999). Lisa reports, “I lost my career in late 2008, and have been living the dream ever since in the beautiful high country of Colorado! I am now a part-time fly fishing guide and have a full-time, year-round job that has nothing to do with Vail Resorts and the ski industry. I work for a great family owned garden center and couldn’t be happier. The highlight of the year was placing 5th out of 70+ in the fly fishing competition at the Teva Mountain Games!”

Kevin Krenk (1982). Kevin received an MS in geology at Texas Tech Univ. He is a Senior Geological Advisor at ExxonMobil Production Company.

Gillian Krezoski (2006). Jill completed her M.Sc. in Environmental Studies at McMaster University. Jill writes, “I was hired as a NASA JPL contractor February 2012 in southern California. I am part of the team running the science cameras (MAHILL, MARDI, Mastcams) for the Mars Curiosity rover. They are all the color photos you see in the news.”

Kromenaker, Traci (1993). Traci is co-owner of the Falls Baking Company in Fergus Falls, MN.

Kate (MacLaurin) Smith (2007). Kate writes, “I work at Maptek, a mining software company located in the foothills of the Colorado Rockies. Sometimes I am on the road teaching geologists how to use the software or doing consulting projects. Other times I am in the office trying to break the software or taking support calls. I work with four other UWEC Geology graduates which makes life awesome! I am also really thrilled because I get to come to UW-Eau Claire once a year to teach the current students the Vulcan software. On the personal side of things, I had a great year. I married my bartender from graduate school, we got a dog (my dream since I was four years old), and we backpacked in South America for three months. Thanks to UWEC for helping make this possible!”

Kevin Martindale (1980). Kevin received an MS in geophysics at Purdue Univ. He is a Geological Advisor at Andarko Petroleum in the Houston area.

David Meyer (1977). David received his MS in geological oceanography at Florida Institute of Technology and now works for Chevron.

Timothy Masterlark (1994). Tim was tenured at the Univ. of Alabama and recently accepted an Associate Professorship in Geodynamics at the South Dakota School of Mines and Technology.

Audrey (Mohr) Boerner (2011). Audrey writes, “I am in the second year of my M.S. at the Univ. of Nebraska and plan to graduate by the end of summer with a hydrogeology specialization. This past year, I visited the Grand Canyon and Zion National Park for the first time on a sedimentology/geochronology field trip to southern Utah and Northern Arizona! I currently work part-time at the Department of Environmental Quality (DEQ) in Lincoln, NE, as a ground-water geologist. My work focuses on the remediation of brownfields and Superfund sites.” She has accepted a full-time, permanent position with the Nebraska DEQ starting in August.

Todd “Pyro” Myse (1995). Todd lives in Butte and is in his third year as a Research Hydrogeologist for the Groundwater Investigation Program with the Montana Bureau of Mines and Geology. Todd writes, “We study overdevelopment pressures on groundwater supply and quality, changing of irrigation practices and how that will affect the groundwater-surface water systems, and how canal seepage affects the groundwater system throughout Montana. Recently, I have worked mostly in the beautiful Bitterroot Valley. Living in Montana and the Northern Rockies has been wonderful. So many outdoor activities to feed the soul (hiking, backpacking, floating, fishing, telemark skiing, etc.)!” I saw Mahoney briefly last year as he was passing through the area with UWEC’s field camp.” In addition, Ann (Melby) Kron lives only an hour away in Helena she sees her and her family. He welcomes visitors if you are passing through the area.

Joe Nawikas (2005) and Suzie (Reed) Nawikas (2005). Suzie writes, “Joe and I met during Phil’s Earth Resources class in 2003, and we officially tied the knot in St Germain, WI, this past fall. Following the wedding, we took

“I work with four other UW-Eau Claire Geology graduates which makes life awesome!”
Kate (MacLaurin) Smith (2007)

an amazing honeymoon to the Andes and Patagonia region of Argentina and Chile. We live in a beach town north of San Diego. Joe has a fun job as a Hydrologist with the USGS at the California Water Science Center. I work for a small environmental laboratory by the name of H&P Mobile Geochemistry. H&P is a drilling and sampling firm with stationary and mobile laboratories. We work a lot, but still find time to explore all that CA has to offer...and hang at home with our two cats, Rodinia and Pangaea.”

Mark Nelson (2006). Mark received his MS at Simon Fraser University in 2012. He is now an I-Site Technical Consultant for Maptek in Colorado.

Diane (Noserale) Hansen (1985). Diane works for the USGS.

Nathan Nushart (2012). Nathan is in the geochemistry graduate program at the Univ. of South Florida.

Jamie Oakley (1995). Jamie reports, “This is my 11th year living and working in Alaska,

(continued on page 18)
and I still am able to travel to a new adventure every year. My wife Monica and I had a baby girl this spring to add to our team, so I may need a bigger boat to get everyone out fishing. [Editor’s note: The entire family visited UWEC in early July, and Baby Morgan is a cutie!]

Lars Olaussen (2010). Lars writes, “I am a geologist with Allied Nevada Gold. The company has grown from 150 to over 500 employees in the year and a half since I started my job. I joined a team of only one geologist back in 2010 and now there are eight of us. I recently became Database Manager. I oversee the exploration drill hole database as well as the production database. My current project is set out to combine Acquire, Vulcan, and AssayNet database systems into one fully functioning database.”

Lars Olaussen (2010)

functioning database. I have also have been put in charge of mapping the entire project area to get a detailed geologic map of the deposit.”

Sarah (Prindiville) Engelhardt (2004). Sarah was married in October 2011 on a beach in Cabo San Lucas, Mexico. They purchased a house in Muskego in April 2012. She is employed with AECOM.

Elizabeth Prueher (1980). Elizabeth received her Ph.D. in oceanography from the Univ. of Michigan. She is a Research Associate at the Denver Museum of Nature and Science.

Heidi Rantala (1997). Heidi writes, “I have been busy working on a stream restoration project in southern Illinois. We have a large-scale experiment planned for this summer. We are going to pump water into a water-starved section of a river and measure the ecological responses. This project has taken a lot of politicking and permit writing. Other than that, I was able to travel a bit in 2012: Panama, Espana, and Louisville (all work related), and Eau Claire. I got a second dog in July—another boxer, Elsa, who is reminding me how much patience puppies take. If any of you are in the area, look me up. Carbondale is a good stopping point between St. Louis, Chicago, Memphis, and Nashvegas!”

Todd Renville (1987). Todd received an MBA at the Univ. of St. Thomas. He is currently Principal Environmental Scientist at URS Corporation in the Minneapolis area.

Lois Ristow (1975). Lois received an MBA and became Regional Director for Wisconsin Emergency Management.

Mark Sautter (1994). Mark writes, “I currently work as an Environmental Specialist III at the Florida Department of Environmental Protection (FDEP). I am not paid much, but truly love my job. I have been personally commended by our Governor for my job performance and my charity work teaching under-privileged middle school kids about Florida’s environment. I am married to an Environmental Engineer/Registered Nurse from Paris, France. I have a 21-year-old son and a 17-year-old daughter.”

Kirsten Cahow-Scholtes (1997). Kirsten is working as a hydrogeologist at the WDNR. She also is teaching an environmental issues class with Globe University.

Herald Schultz (2008). Herald transferred back from Oregon to the Midwest at the end of 2011. He reports, “I have stayed with CH2M HILL, but have been transitioning from soil/ground-water remediation work to permitting and compliance for natural gas pipelines.”

James Scrivner (1979). James received his M.S. in Geology from Washington State University. He is Deputy Director with the Bureau of Land Management (California Region, Energy and Minerals).

Gregory Small (1988). Gregory is a hydrogeology project manager at the MN Pollution Control Agency.

Marian Smith (1984). Marian received her Ph.D. in Education from the Univ. of Minnesota and now teaches in the Communications Dept. at Chippewa Valley Technical College in Eau Claire.

John Sobehrad (1979). John is an independent geological/geophysical consultant and owner of the company Geo-Logic. His petroleum experience has been onshore in Texas, Oklahoma, Louisiana, Mississippi, Montana, North Dakota, and Morocco. Offshore experience includes the Gulf of Mexico and the Atlantic basins of Morocco.

Robert Solberg (1975). Bob double-majored in geology and computer science at UWEC. He has been working in the computer industry in the Chippewa Valley. He currently works for Ekanova, and he has also worked for Integrated Device Technology and Silicon Logic Engineering.

Thomas Stephens (1984). Thomas is an IT Engineer with Cray Inc. in Chippewa Falls.

Emilia Teige (2009). Emmi is working at the Outdoor School in Marble Falls, TX. She teaches geology to fifth graders who attend two-day field trips. She writes, “It’s intensely rewarding and challenging work.”

Chad Underwood (1996). Chad reports, “Business has been great over the past two years. The construction industry has been very strong in the upper Midwest, including some big underground construction projects. The North Dakota oil boom has not only been good for geologists, but it has sparked several infrastructure improvement projects that keep us engineers busy too! Alison and I still live in Hudson, WI and our kids started kindergarten this year. They seem to enjoy school, and it’s amazing how fast they learn! Alison is back to doing some substitute teaching after spending a few years at home with the kids, so she has been busy too.”

Mel (Weisheipl) Shine (2002). Mel writes “I moved back to the Midwest (MN) from California in 2008. Married Joe Shine in Eau Claire in 2011, and honeymooned in Napa & Shenandoah Valley drinking our weight in wine. And, we are expecting our first child, a girl, in May. Would love to hear from classmates and catch up!”

Beth Wenell (1999). Beth reports, “I continue to thoroughly enjoy my re-entry into academia. After drilling last summer in the Christina River Basin Critical Zone Observatory, I have enough samples for several dissertations, so pulling off one dissertation seems probable. I have been delighted to re-connect with the UWEC Geology Department this year and collaborate with a student on my work. My sons (now 6 and 8) are rapidly growing, and with each year we are able to enjoy more and more of the great opportunities afforded by life in Minneapolis, from the arts to the outdoors.”

David Winter (1991). David is the Director of Technical Services of Energy and Environment at Barge Waggoner Sumner & Cannon, Inc. in the greater Nashville area.

Timothy Zimmer (2002). Tim writes, “I am still running my racing transmission business, and we are expecting our second child in the beginning of March.”
Donations to the Department

The Geology funds with UW-Eau Claire Foundation are used to support a wide range of activities in the Department including student travel to professional meetings, faculty/student field trips, faculty recruitment, and student scholarships. The attached slip is intended to make it easy to contribute to the Geology funds. Please be assured that your gift will be greatly appreciated and it will be used effectively within the Department. In addition to financial support, we also welcome and encourage your support by volunteering to speak to our majors/minors about your job experiences, offering possible job opportunities to our students, or by the donation of equipment or field supplies.

During the past year, 42 individuals/companies donated $18,490 to the Geology Foundation accounts. Please understand that all gifts, large or small, are greatly appreciated! Please consider giving something back to your undergraduate department.

Due to state budget cuts and increasing gasoline prices, alumni gifts to the department’s advancement funds are becoming increasingly critical. Therefore, we have been working with the Foundation Office to learn more about establishing a named lecture series, new scholarships, etc. If you would happen to be interested in establishing a scholarship within the Department of Geology, here are a few basic guidelines from the Foundation Office.

- All gifts to the UWEC Foundation are tax deductible to the fullest extent allowed by law. You may use cash, checks, credit cards, stocks or other tangible assets to fund a scholarship.
- There are two types of scholarships: the annual scholarship, which is funded each year, and the endowed scholarship, where principal is invested and only the income is used for the annual scholarship award.
- A minimum commitment of $500 is required to establish an annual scholarship fund.
- A minimum investment of $10,000 is required to establish an endowed fund; there is no maximum.
- The name of the scholarship is determined by the donor(s). Most name a scholarship after their family or the name of a loved or honored one. Some have endowed scholarships in the name of a favorite professor.
- The donor(s) may help develop scholarship criteria with the assistance of a development officer. Preferences rather than requirements are most often expressed. Preferences may involve academic major, financial need, international study, academic promise, first-year student or upper-division status.
- IRS regulations prevent donors from designating family members as recipients or from selecting the recipients themselves. Donors may be notified of the finalists and will be notified of the recipients.

If you would like more information about establishing an annual or endowed scholarship, please feel free to contact the Foundation Office at 715/836-5630. We ask that if the UW-Eau Claire Foundation Office calls you asking for a donation, please remember the Geology advancement funds! If you work for a corporation or a geology-related firm, please inquire if your company has a matching program for contributions to academic geology departments.

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Mailing Address: UW-Eau Claire Foundation, Schofield Hall 214, 105 Garfield Ave, Eau Claire, WI 54702-4004. Or give immediately by going to http://www.uwec.edu/fndn/giving.htm
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