Greetings! I hope your new year is starting off well. I’m happy to report that the state of the WIU Geology Department is strong (can you tell the State of the Union and State of the State speeches are still fresh in my mind?). Despite the overall lower numbers for student enrollment at WIU and other Illinois universities, we have over 40 Geology majors. This is the largest number we have had in many years. We even had to modify our labs to accommodate the larger numbers (we have 26 students in Paleontology!), but it is a good problem to have.

You’ll see from the photos included in the newsletter, and those that are posted on our Facebook page, that field trips remain an important component of our curriculum. We continue to include field trips in many of our upper division courses while also supporting Geology Club trips and offering special field trip courses. Drs. Melim and Hegna taught a special course during the Spring 2013 semester that culminated in a field trip to the Grand Canyon and other national parks and points of geologic interest in the Colorado Plateau area. This trip would not have been possible without the generous donations of our alumni, as funds from our Geology Department Foundation account were used to help reduce the cost to students enrolled in the course. During the Fall 2013 semester we took a group of students to the Tri-State Geological Field Conference and visited quarries in northeast Iowa. It was a great opportunity for our students to interact with geology faculty and students from other institutions….and the fossil and mineral-collecting was great!

We continue to involve our students in undergraduate research projects covering a wide range of topics. Again, alumni donations have provided essential support for these projects, partly defraying equipment and travel expenses for both faculty and students. You can read about some of these projects in the faculty news section of this newsletter.

Geology Club advisor Dr. Tom Hegna went through paperwork to establish a student chapter of AAPG at WIU. Our Sigma Gamma Epsilon remains active and will be coordinating with the Geology Club to sell t-shirts and pint glasses (see page 6) at the Geodeland Rock and Mineral show in March. We’d love to see you there if you are in the area!
Leslie Melim

Summer 2013 started out spectacularly, literally! Tom Hegna, our (relatively) new paleontologist, and I took eight students on a field trip to the national parks of Utah and Arizona. Starting in Las Vegas, we visited Zion, Capital Reef, Arches, Canyonlands, Natural Bridges, Monument Valley, the Grand Canyon, and Sunset Craters and it just doesn’t get much more spectacular than that! Everyone had a great time, and we all got in lots of hiking, culminating by going down the Bright Angel Trail in the Grand Canyon. We all met at Plateau Point, above the Inner Gorge, to contemplate a very cool island underneath the Tapeats Sandstone, then about half the students went down to the river, while the rest of us just headed back up the 3000 ft. I had a clueless ranger (who admitted to hating rocks!! While hiking the GRAND CANYON!! I still don’t get it...) tell me that the river and back in a day was not doable! Fortunately, the group who went down ignored the signs, and made it back just fine (of course, we had been hiking for a week by then and were all in good shape!). All in all, one of the best field trips ever! And funded by Geology Foundation, so funded by our generous alumni! Thank you!

The rest of my summer was split the usual way: cave research, woodworking, and horseback riding. I took a student back to Cottonwood Cave (my fourth visit) and down the rope to Hidden Cave (second time). It is amazing how many new things I see with every visit. I must admit the vertical work was much easier after getting in good shape for the Grand Canyon! I also started work on yet another National Science Foundation proposal with my cave research colleague, Diana Northup, University of New Mexico. We got it submitted in January for research on the only known example of living pool fingers, in the Herbstlabyrinth-Adventhöhle Cave System (they like long names in Germany!).

My fall semester was interrupted rather rudely by a stay in McDonough District Hospital after a nasty fall while racing on horseback. Yep! I officially do not bounce like I did when I was 18 years old! (I never broke anything back then...) This time I broke ribs and punctured my lung. The department and students were spectacular! I really appreciate all the help and care I received while recovering. I don’t think I will ever forget lecturing on carbonates from a chair—I’m sure the students won’t forget either! Much patience was needed, and received, from all. Thank you!

For Spring Semester, I will be working on my classes, continuing the never-ending battle to write papers, working with undergraduate research, preparing for Field Camp, and starting my new duties as Co-editor of Journal of Sedimentary Research (JSR). JSR is the leading sediment journal and I will be in charge of all carbonate-related papers (the other co-editor gets clastics). Looks like a busy semester!
Greetings alumni and friends of the Department,

I would like to thank you, our alumni and friends, for your generous support, which has made it possible to continue to function! We have been able to increase and expand our scholarship offerings to incoming freshmen and transfer students, as well as our continuing majors. We continue to provide funds for equipment, class field trips, travel for students and faculty to professional meetings and for Geology Field Summer Camp.

Our enrollments continue to increase with numbers we have not seen in a long time, necessitating offering additional sections in Paleontology, Mineralogy, and possibly other required courses.

The hiring freeze is still on, and will continue into next year, but there is still hope that we may fill the Geomorphology position. I continue to teach my online Environmental Geology and serve as a consultant to the Industrial Mineral community.

We are always happy to see you! So if you are in the area, stop by the Department.

Greetings to you all,

For those of you living closer to the equator, please know that we’ve had some interesting and challenging weather-related days here at WIU. The University actually closed for a day and a half in January when the predicted highs called for below zero temperatures. Personally, I don’t remember the University ever closing for weather-related events when I was a student here, way back in the day.

Some of our alums have visited the department this past year. It’s always a pleasure to see them and hear about their pursuits, memories of their WIU Geology experiences, and meet additions to families, etc. You’re all welcome to visit any time.

The Geology Department is gearing up for Summer Field Camp 2014. We’ve had a lot of inquiries from non-WIU students, so it’s pretty evident that some schools no longer offer Field Camp. We feel very fortunate that we’re able to offer this experience and that we have the students to attend it.

Tillman has new tile flooring on the first floor of the building, which has created a brighter, more-welcoming atmosphere. The lighter space has Bob Johnson, museum curator, working diligently to spiffy up the hall displays.

We continue to rely on Foundation funds to help us get through the tough budget issues the state faces. We’re so thankful for the donations you make to the Foundation accounts. The use of Foundation funds helps us continue to move forward with purchasing much-needed equipment and supplies for student research, with helping fund student travel to conferences to present their research, and granting scholarships to our majors.

Hoping 2014 is an amazing year for all.
Greetings all! I am in the middle of my third year at Western Illinois University, and I feel like I am finally getting on top of things. I am still teaching History of the Earth and Paleontology, but I am now in the process of refining those classes. Next fall, I will be co-teaching a new class—Integrated Science I—that will help our science education majors get their proper fill of geology.

As alluded to in my last alumni newsletter update, the summer of 2013 was a busy one for me. I co-led a departmental field trip (with Dr. Melim) to Grand Canyon and nearby national parks and points of geological interest. Through the support of alumni like you, the departmental foundation was able to completely support the travel and lodging costs for the students. This turned into an unparalleled opportunity for the students to see some spectacular geology first hand. It is one thing to see the Grand Canyon as a giant gash in the Earth’s surface—it is another to hike down inside of it, stand near the Great Unconformity, and stare across the chasm at a preserved Cambrian Island!

I piggy-backed some research work onto the end of the field trip (since I was already in the Great Basin . . .). With colleagues from Pomona College and the Université Claude Bernard Lyon, we worked to understand the paleobiology and sedimentary geology of a site of exceptional fossil preservation in the Cambrian strata of the House Range. It is a beautiful area, and I brought back many samples for future student research projects.

This fall, I again attended the annual national Geological Society of America meeting in Denver, CO. There I co-chaired a special session devoted to microscopic techniques in paleontology (session titled: “Unlocking Lilliput: New Approaches to Microscopy in Paleontology”). While there, I was a part of two talks and two posters.

I presently have a lab active with student research. Brian Knecht presented another poster at GSA detailing new findings on the Carboniferous amblypygid Graeophonus. Three student received undergraduate research grants this fall. Nick Liming will be looking at patterns of silicification in fossils that I brought back from the House Range in Utah this summer. Stefan Ososky will be trying to explain a weird example of bryozoans preserved in the mineral glauconite. Hunter Starr will be critically reviewing a dubious Triassic-age amphipod from Nevada. Matt Juron will be examining some possible defensive behaviors in Silurian-age trilobites from Canada. In addition, Ososky and Starr will be working together on a hobby project to prepare some scrappy dinosaur remains that have been lurking in the basement of Tillman Hall for the last 30 years.

I had intended on focusing my own research on getting old projects out the door to make room for new ones over the past year. However, several new projects climbed in and insisted upon themselves. I wrote a brief piece dissecting some historical aspects of the taxonomic name ‘Arthropoda’ and described two new genera of an enigmatic extinct crustacean group called the thylacocephalans. Presently, I am working on a paper detailing the taphonomy of the modern crustacean Triops and relating it to fossil examples, describing a new genus of notostracan from the Devonian of Belgium, and working on a paper trying to understand the evolutionary and taxonomic significance of the conchostracan carapace.

Next time you are in Macomb, make sure you stop by and say hello!

New publications:


Selected conference presentations:


* denotes WIU student

The youngest member of the Hegna family wanted to see what it was like in Diane’s seat. (Nice hand position on the keyboard!)

Dr. Hegna has make great use of WIU’s new 3D printer to make fossil models for both teaching and research. Bob Johnson brought the printout of the spider Graeophonus to life with a custom paint job. The spider was enlarged for printing so it wouldn’t be too delicate and the details would be easier examine. (It also looks scarier at this size.)
It has been a year full of teaching, research and trips. Teaching is going well as I’m continuing to revise labs for both Petrology and Structure. My class sizes are still continuing to grow and this requires more lab samples in Petrology. This is good because it gives me opportunity to make improvements as I change the labs to accommodate more students. The Spring field trip was planned for either northern or central Wisconsin, but we were snowed out and thus went to southeast Missouri again. This year we went to Pilot Knob to look at the banded iron formation including some outcrops that displayed nice cross bedding which is unique to this deposit as it is one of the few that formed in a lacustrine environment.

On the research front, I got a special surprise last Spring when I was invited to work with a research group from Denmark. This group includes my former Ph.D. advisor and some friends from Davis. I went over to Aarhus University in July for 10 days to give a presentation and to start the collaboration. This summer I’ll spend ~5 weeks in west and east Greenland examining and sampling mafic dikes. I’m looking forward to seeing Greenland again and working with this group. I’m still continuing my research in northern Wisconsin on the Mellen complex. Two undergraduate students and I spent four days working in the complex this past summer and I hope to squeeze in a trip this May. I presented some of the Mellen Complex work this Fall at the GSA meeting in Denver. I want to thank everyone who donates to the Geology Department Foundation, this money helped pay for the Mellon Complex field work and for a trip to use the microprobe at Washington University in St. Louis.

On the personal side, Mari and I vacationed in the Black Hills and Yellowstone this summer. I have made this trip nine times previously, mostly for field camp, but she had never been. She was overdue for a trip and thus we went and had a great time. We spent four days in Yellowstone and I took the opportunity to scout out some new places to visit for field camp. Being in Yellowstone also allowed me to indulge my love for running in the mountains. Along those lines, I ran in my first trail marathon in May along the Berryman Trail in Missouri. The end was challenging but I had a really good time. Mari crewed and cheer for me at the different aid stations. We both enjoyed the scenery and meeting new people within the trail running community.

I hope that all is going well for you. Please send me an email as I would love to hear how you are doing (KR-Mayborn@wiu.edu).
**Sara Bennett**

Hello everyone. Hope you have all had a chance to go fossil, rock or mineral collecting in the past year. I had the great good fortune to attend the Tri-State Geological Field Conference last fall with a group of students and we were delighted to be able to collect in five different Iowa quarries! What could be better than quarries to get one’s geologic blood flowing (and I don’t mean smashing a finger with a rock hammer)?

My family visited various sites in the Upper Peninsula of Michigan last August. Beautiful area and quite cool, we were not accustomed to such low August temperatures. We visited the Porcupine Mountains and peeked into an old copper mine. There is an interesting history of copper mining in the Upper Peninsula. Turns out prehistory people were mining pure copper thousands of years ago. In 1842 the Chippewa “ceded” 30,000 square miles to the US government. The copper rush was on! The area was unusual because the copper was found not as copper oxides or sulfides but as pure native copper in Precambrian rocks. Cool. Old abandoned mines and houses are scattered across the area.

We also took a boat cruise along the Pictured Rocks National Lakeshore. Very awesome. We hiked an easy mile and a half to visit the Au Sable lighthouse. This is a must see part of any trip to Pictured Rocks. The lighthouse is restored with the original lens and the volunteers who staff the station are incredible resources of information. The view from the top of the lighthouse was spectacular.

Take care and may your life be filled with geologic delights.

**Bob Johnson**

Tillman Hall got new tile for the first floor this summer (2013), white with brick red accent tiles scattered through it. While a definite improvement for the hall, several display case bases now look shabby by comparison. The remedy is to simply redo the display bases. So far we have updated four, adding a new base with rubber kick guard and a new paint job. There are still a few displays left that need work but the improvement is worth the effort.

Many smaller projects are also progressing, including new fossil moldings and castings, an upgraded air system for the air scribe and air abrasive unit used to prepare fossils and rebuilding a hand–me–down compressor to be used with a new air hammer for larger fossil extractions. Something is always popping up to keep things interesting.

The family is doing well, grandkids seem to be growing too fast. Parents are busy and everyone wants Spring to come soon.

I made the trip to St. Louis for the 2013 Broken Arrow Stunt Championships. A grand day of flying and fun was had by all. Again I finished in the money, well I got a trophy, second place. I hope to have an electric-powered stunter to campaign for the 2014 season. I can hardly wait to start flying again, all this snow and cold doesn’t help.
Steve Bennett

The years keep going faster and faster! This is my 20th year at WIU, which is very hard to believe. The last year has been a good one. I continue to teach Introduction to the Earth, Geologic Field Methods, and Hydrogeology. In fact, I had my largest Hydrogeology enrollment ever, 15 students. It was difficult to work with such a large group during field labs where I have limited equipment, but I prefer this problem to low-enrollment concerns. The first offering of my online version of Energy and Earth Resources last summer went well. It is a very different teaching format and I can’t say that I enjoy it over teaching face-to-face, but this is where education is going so I’m adapting with the times.

I continue to involve students in undergraduate research in the Spring Lake watershed. Unfortunately, this persistently cold winter has put a hold on collecting field data for the time being.

Another area of research that has drawn my interest are abandoned wells in McDonough County, particularly as rural water has penetrated the county in recent years. I’m in the very early stages of coordinating with the Illinois State Geological Survey and WIU’s GIS Center to come up with estimates of past and potential abandoned wells in the county.

I remain active in service inside and outside of the university. Some of my activities include chairing the McDonough County Groundwater Protection Education Committee, serving on the WIU Faculty Senate, acting as treasurer for the Illinois Groundwater Association, and co-chairing the Physical Science General Education Panel for the Illinois Articulation Initiative. However, my favorite service activities are those that allow me to interact with young people, where I can convey my enthusiasm for geology. Sara and I were the Geology merit badge counselors at the Illowa Council’s Boy Scout Merit Badge University and I serve as the Rock and Minerals event captain for the regional Science Olympiad event hosted by WIU. It is great to see young people that are interested in geology.

On a personal note, we decided to visit the upper peninsula of Michigan for our family vacation last summer. It was the first time I had been up there since I went on the Fall 1997 field trip led by Dr. John Klasner. It is just as beautiful as I remember it. I didn’t realize how many waterfalls there are in the UP. We took a ferry to Mackinac Island, rented bikes, and rode around the island. It was a great way to see the shoreline and the local geology, I highly recommend it.

I enjoy hearing from our alumni so please feel free to send me an email (SW-Bennett1@wiu.edu) or stop by the Geology Department if you are visiting Macomb. Have a great year!

Our local groundwater protection education committee conducted a well-sealing demonstration last summer. Here I am with Chris Adams of the McDonough County Health Department checking the depth of the well. It was a real bear. The concrete around that the brick was VERY hard!

I couldn’t help but take a photo of this sign of Rocky, the mascot of the Rockford (Iowa) Brick and Tile Quarry. This was our last stop on the Tri-State Field Conference. I like our Rocky much better than this one.
Group Photo from Summer Geology Field Camp 1994

Continuing Student Alumni Award

Fall 2013
Joshua Smith

Richard Schafer Freshman Scholarship

Kari Beckum
Allison Hartman
Stefan Ososky

2013 Graduates
Ryan Golz
Tim Papan
Brad Raver
Ashley Tinnin-Timm
Undergraduate Research Presentations


Joe Candioto with Kyle Mayborn. Joe’s poster, titled “Geochemistry Trends Across the Mineral Lake Intrusion, Northern Wisconsin”, was presented at the 2013 Thomas E. Helm Undergraduate Research Day sponsored by the WIU Centennial Honors College.

Last February the WIU Geology Department was graced by the presence of Charles Monson from the Illinois Geological Survey. He gave a very interesting talk on the importance of basic, boots-on-the-ground, geological research (i.e. sedimentology) for work on carbon sequestration.

Group photo at the annual Geology Department Holiday party at the Old Bailey House. We had a great turnout this year, and the food was very good as usual.
Spring 2013 Grand Canyon Field Trip

Group photos of faculty and students

Students showing their school spirit

The five super-hikers who went from rim to river to rim in one day! (The photo is angled because they had to use a self-timer and balance the camera on a rock.)

Dr. Hegna striking a pose (nice lighting!)
Donations

The Geology Department would like to thank the individuals and organizations listed below for their donations. Your generous gifts have allowed us to provide scholarships, defray student costs of field trips (including the Spring 2013 trip to the Grand Canyon!), purchase scientific equipment for use in undergraduate research, and cover registration fees and travel expenses of students presenting research at geologic conferences. Again, thank you! (This list contains donations received since January, 2013.)

Timothy Aten
Hannah Barnes
John Becker
Michael Bingham
Dennis Bomke
William Branson
Andrew Brehm
Craig Brown
Nancy Calengas
Peter Calengas
John Carl
Chevron
   (Matching for R. Jones)
ChevronTexaco
   (Matching for M. Bingham)
Derek Clark
Jeffrey Durrant
EOG Resources Inc.
   (Matching for K. Perez & John Becker)
ExxonMobil
   (Matching for W. Jardine)
Charles Finley
Richard Formosa
Elizabeth Geiger
Geodeland Earth Science Clubs
Terry Gordon
Todd Hall
Todd Juson
Sandra Jankowski-Rose
William Jardine
William Johnson
Philip Kaminski
Marvin Klusman
Scott Koza
Frank Kveton
Sheri Lamberson
Steven Larson
Marathon Corporation
   (Matching for S. Koza)
Robert McGaughy
Scott McGill
Joseph McKe
Margaret Morton-Davis
Quintin Overocker
Lee Osmanson
Kim Perez
Harry Petersen
Harley Ponsler
Spencer Quam
Brian Rice
Stanley Robinson
Holly Stein
Timothy Tessendorf
Barbara Van De Voorde
William Van De Voorde
Ginny Walsh
Scott Walters
Anthony Wendle
Kristin Woody
David Wronkiewicz

SGE President Morgan Stice presents the W.A. Tarr Award to Tim Papan. The award is voted on by members of the local SGE chapter and includes a certificate and $50 check. Congratulations Tim!

Members of the WIU Geology Club made a trip to Chicago's Field Museum during the Spring 2013 semester.
We were saddened to hear that retired WIU geology professor Dr. Will McCracken passed away on May 6, 2013. Will was born February 9, 1936 in Houston, Texas and received his B.S. and M.S. degrees from the University of Houston and a Ph.D. from Stanford University. Will taught Stratigraphy and Sedimentology and Summer Field Camp for many years. He retired in 1996 after 26 years at WIU and returned to his native Houston.

Some of our students take advantage of the student lounge to catch up on their sleep …. and Dr. Hegna catches them in the act! Does this bring back any memories of your undergrad days?

Joint Tri-State and Great Lakes Section
SEPM Fall Field Conference

Students and faculty search for good mineral specimens in Basic Materials Corporation’s Raymond Quarry in Blackhawk County, Iowa. The rubble piles were prime spots for mineral collecting at this quarry. Pyrite, fluorite and deep-brown calcite were present in many of the vugs.
Recent Field Trips

In April, 2013 the WIU Geology Club visited a local Mississippian limestone quarry (facilitated by alumnus Kevin Gunn) and the Fryxell Museum of Geology at Augustana College.

Dr. Mayborn’s Structural Geology and Petrology students on an exposure of columnar-jointed basalt. They enjoyed great weather during their Spring 2013 field trip to Missouri.