

Spring 2013

Earth News, v36, Spring 2013

University of Northern Iowa. Department of Earth Science.

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University of Northern Iowa. Department of Earth Science., "Earth News, v36, Spring 2013" (2013). *Earth News*. 1.

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DEPARTMENT OF EARTH SCIENCE

EARTH NEWS

VOL 36 spring 2013



Earth Science faculty and staff (L-R, B-F)
Eric Wilberg,
Chad Heinzel, Kyle Gray, Lee Potter, Alan Czarnetzki, Mohammad Iqbal, Tom Hockey, Paula Even, Mike Stevens, Jim Walters, Joe Gale, Siobahn Morgan, Nora Janssen

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Friends and Alumni,

This past year has been one that has been defined by numbers. In spring of 2012 we had a record number of total majors in the Earth Science Department (82), as well as a record number of Geology majors (29). The enrollment in our courses was also phenomenal, in part due to the inclusion of earth science content in K-12 education, and the regular high level of interest in our courses. Unfortunately another number became paramount at this time as well – 10. That was the value that was used by the university to consider a degree program for closure. Specifically the criterion was a minimum of 10 students graduating per year for a degree program to be considered “safe”. Even though we had growth, quality, and centrality, we only had an average of 3-4 total Geology majors graduating when averaged over the past 5 years. And that was not considered sufficient to allow most of our degree programs to continue.

As a result of this numbers game, the university discontinued our Geology degree programs, as well as the Earth Science Interpretive Naturalist Emphasis, and all of the discipline specific minors (Geology, Meteorology and Astronomy). Now we have only majors and minors in Earth Science and Earth Science Teaching. Fortunately all current majors and minors in the discontinued programs are being allowed to finish their degrees. Unfortunately the cuts also resulted in a mandated removal of faculty from our department. Dr. Kenneth De Nault, who has had such an immeasurable impact on so many students since 1973, reluctantly has moved on, though he is currently teaching Systematic Mineralogy, and remains in the area. Dr. James Walters, who since 1975 has

provided quality teaching and research experiences, as well as 15 years of leadership as department head will be leaving after the next academic year. Dr. John Groves, who has won awards for both teaching and research excellence, also elected to go back to industry and is currently in Pittsburgh.

Many times since the decision to cut our degree programs was announced I have had to field questions such as “Does the department still exist?” “Do you still teach geology?” “Is there anyone left?” The answer to all of these questions is a resounding yes! The unique nature of the Earth Science department is that there are three different, though interconnected, science disciplines represented by the courses, faculty, research and student interest in the department, along with the overall umbrella of Earth Science Education tying them all together. No courses have been removed from our curriculum. No one has come around looking to moving into our space or taking away our resources. And most importantly, there is another aspect that remains – the students. Last week two students declared majors in Earth Science and Earth Science teaching, and on my calendar for tomorrow I have appointments with two more students about their interest in becoming majors. In fact, while nearly every department at the university has suffered a decrease in majors from last year to this year,

The Earth Science Department is showing an increase in total majors. And in one of the most ironic twists, we had a total of eight Geology major graduate in the spring and summer semesters, along with eight Earth Science majors. While our history wasn’t considered strong enough to justify retaining our degree programs, our potential is clearly strong (sadly

Earth Science Department 25 years ago



that wasn’t considered when decisions to close programs were made).

I think this is the traditional part of the story where someone talks about “making lemonade out of lemons”. It isn’t that simple. We weren’t given lemons but had too many trees in our orchard chopped down, and we now have to replant. We have looked at our assets and considered available avenues of growth areas in the geosciences, and we’re moving forward with plans to continue supporting our current students and also to increase our overall numbers. We are currently in the process of hiring an Environmental Geologist, as well as putting forward a degree program in Environmental Science based upon our faculty’s expertise in such areas as Air Quality, Hydrology, and Environmental Geosciences. We continue to bring in students into the Earth Science and Earth Science Teaching degree programs, and expect to further increase our numbers in the new Environmental Science degree program, ultimately to the point where new faculty will be needed to meet the curricular demands. It is my long term intention to use our growth in students to ultimately justify hiring more faculty in our curricular areas

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NEWS

from the faculty & staff



ALAN CZARNETZKI
PROFESSOR OF METEOROLOGY

Hello to all! As I write, some light rain is trying its best to ease the drought conditions that hit us hard this past summer. Iowa's summer (June through August) was the tenth warmest and second driest in 118 years of records. One benefit of the drought was a reduction in severe weather events. In fact, there have been only 16 tornadoes in all of Iowa so far this year (we had a total of 50 in 2011) and no tornado-related deaths! I managed to keep the sweet corn in my garden watered and healthy during the dry weather, but wasn't able to fend off a raccoon (or raccoons) that managed to destroy nearly every ear of corn before they could ripen! The Climate Prediction Center's outlook for winter (December through February) over eastern Iowa indicates equal chances of above, below, or near normal temperatures but a slightly higher chance of below normal precipitation.

In July, the STORM Project (Science center for Teaching, Outreach, and Research on Meteorology) hosted 23 middle and high school science teachers during the seventh edition of "Studies in Air Quality for Science Educators." Four of the 23 participants were from Iowa with the rest joining us from California, Colorado, Indiana, Maryland,

Massachusetts, Minnesota, Nebraska, New York, Pennsylvania, Virginia, Washington, and Wisconsin! The participants learned about air quality analysis techniques and dispersion modeling through lectures, hands-on activities, and a field trip to the Cedar Falls Utilities' coal-fired power plant. All participants developed an air quality unit or activity for the middle or high school classroom.

This fall I'm teaching the Meteorology course and two sections of Elements of Weather. "Weather Analysis and Forecasting" is scheduled to be offered in spring.

Best wishes to all!



PAULA EVEN
INSTRUCTOR

This past year has been one of great loss both personally and here at UNI. I always believed the College of Natural Science at UNI was one of Iowa's greatest and possibly least promoted treasures. In addition to excellent classes, students had the opportunity to interact closely with top notch professors. These opportunities to do research, take field trips and attend conferences are invaluable in the study of science. Some loss of identity seemed to occur as the College of Natural Science merged to become part of the College of Humanities, Arts, and Science but nothing

prepared me for the shock of losing the outstanding geology degrees in our department, especially at a time when the numbers of majors had been increasing. Over the past years, the one comment that I have heard repeatedly from our alumni is how well their geology degree from UNI had prepared them for grad school and/or employment. We as a department, but especially the geology professors, should feel a sense of pride at the qualified, respected, and successful individuals that have graduated from this department and are employed in geological professions across the nation. I would like to extend my deepest admiration and appreciation to those professors who did so much to make the geology program here at UNI exceptional. You have touched many lives.

In November, I attended the Geological Society of America conference in North Carolina. There I experienced a renewed sense of loss and a realization of the extensive impact the loss of a geology program would have on future students. The UNI Earth Science Department had eight current students, three recent graduates, and several alumni there. Many were there to present their geological research. Some were there in search of graduate schools and internships while others were there to explore different topics in geology or increase their knowledge in a specific area. One of the most important aspects of attending a conference like this is networking; the opportunity to make that connection that helps you get into the graduate school or secure the job you desire. It saddens me that with the loss of the geology program, we are losing the ability to provide our students these types of opportunities. On a brighter note, our youngest son (known to many of you as Matt) graduated in May from UNI with a B.S. in geology. It is so fun to have someone else in the family who appreciates rocks!

The year has also been busy with travel. One trip to New Mexico could possibly have been labeled Science Nerd Weekend. It involved a trip to White Sands National Monument and the Valley of Fire (geology), the Trinity Site (physics), the Balloon Fiesta (meteorology – boy did we check the weather conditions to see if the balloons would fly!), and lastly the VLA or Very Large Array, a radio astronomy observatory (astronomy). It is always exciting to see something you discuss in class.

Wishing everyone the best.



JOE GALE
INSTRUCTOR

I am in my twelfth year of teaching in the Department of Earth Science. I continue to teach three sections of Elements of Weather and one section of Elements of Weather Lab each semester, plus I teach a section of Elements of Weather in the summer. I also staff the Astronomy/Weather Help Room for an hour each week to help students taking Astronomy or Weather courses. My position is no longer funded through the STORM Project and is instead funded by the College. This has caused a slight change in how I'm classified, and as a result, I sometimes get letters or e-mails welcoming me to UNI, as if I am new to the University! One positive change is that I have now finally gotten my name put up by my office door (see picture), Yay!

For eleven years, I had a piece of paper with my name on it taped under my office number so that people would know it was my office and not Laura Dobson's!



KYLE GRAY
ASSISTANT PROFESSOR OF
EARTH SCIENCE & SCIENCE ED.

Wow!! Is this really my fourth year in the UNI Earth Science Department? This past year was a busy one for me. I had several papers published on my work with clickers in the classroom, and I started looking at ways in which my a into Earth Science course improves student confidence to teach the material.

In February of 2012, I was invited to participate in a large grant project sponsored by the National Science Foundation. The InTeGrate Project is developing lessons and activities that secondary and undergraduate instructors can use to teach Earth Science concepts to a wide range of students. I am collaborating with two colleagues from the west coast to develop a lesson that teaches how energy causes changes to streams as the water travels from the source to the mouth. I also received a small grant from the Iowa Space Grant Consortium to develop and improve a lesson on teaching about climate.

The past year has also seen me focus more on preparing Earth Science teachers. I am working with a group from the National Association of Geoscience Teachers to find ways to support Earth Science teachers. I am also considering one or more courses for teachers in Iowa to improve their content knowledge.



JOHN GROVES
PROFESSOR OF GEOLOGY

A lot can happen in a year! Last fall I was happily teaching geology, working with students and dabbling in my own research, but events in the spring caused me to rethink how I wish to spend the final years of my career. The decision to leave UNI was difficult. I loved my twelve years in the Department of Earth Science. I am especially thankful to have worked with such friendly and dedicated faculty colleagues, staff and students. In the end, though, I opted for a new career in mining rather than hang on at UNI where the future is unclear.

Last spring I taught my final classes of Earth History and Fossils & Evolution. The students, as always, were engaged and enthusiastic. Madison Pike and I finished our work on size and shape trends in fusulinid microfossils related to depth of habitat. We and former UNI geology major, Kasey Westley, authored a manuscript on the topic for the journal *Palaios*. The paper was published in October, 2012. Separately, Jacinda Ruggles (Anthropology) helped me compile a database of shell sizes

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NEWS

from the faculty & staff

and extinction dates for Middle and Late Permian microfossils. Our data revealed lengthy attrition rather than the sudden extinction that is commonly depicted in the literature. Further, we determined that there was no size selectivity: small and large species alike became extinct. A paper on this work will be published in the 2013 volume of *Journal of Paleontology*. These two projects, and the two students who worked on them, were supported by a grant from the Petroleum Research Fund of the American Chemical Society.

My job with Carmeuse started on July 1. Shortly after that Marthé and I sold our house in Waterloo and bought another one in Pittsburgh. We are beginning to feel settled now, but really miss friends and neighbors back in Iowa. As of mid-October the job has taken me to Michigan (twice), Ohio (twice), Kentucky (three times), Alabama (twice), Georgia, Tennessee and Virginia. I'm scheduled for two more trips to Michigan and another trip to Virginia before the end of the year. I've learned a lot about industrial uses of lime (cooked limestone) and how the chemical specifications vary from one customer to the next. The job requires a lot of field mapping and core logging. Ultimately all of the data are combined in software that creates a 3D geologic model for developing long-term mining plans. The work is fast-paced and demanding. It requires me to use all of my geologic training, even a bit of paleontology now and then.

We hope to visit Iowa from time to time, and will certainly stop by campus when we're in the area. Best regards to all!



MOHAMMAD IQBAL
PROFESSOR OF GEOLOGY

Highlights of my activities this past year include a trip to Tribhuvan University in Kathmandu, Nepal to initiate a collaborative research program with their Geology Department. The research initiative is focused on a comprehensive hydrological study of Bagmati River in Kathmandu Valley. The Bagmati River is known as one of the most polluted rivers in the world. My two weeks' visit to the area was very productive giving lectures as well as meeting with members of the faculty and administration in regards to the proposed project. It's a beautiful country and I look forward to going back there to get some work done.

For the UNI side, I taught Environmental Hydrology, Global Systems, and Intro to Geology classes this past year. Lately, interests in water related classes among our students have gone up considerably. Job prospects in areas of water look really bright for the next few years so some basic experience in hydrology would be a good thing to have for academic credentials. My NSF grant has officially ended this fall, but it has lined up many future projects in the area for UNI's hydrology program. Several of our students are currently involved in diverse water-related projects and some new ones are in the horizon. Our students have produced a large amount of

hydrologic field data in the recent years and many of them were presented at local and national meetings in geosciences. Several instruments at the water monitoring well site on campus are logging data in real time. Besides, we have implemented the Dry Run Creek Monitoring Plan.

Examples related to these activities can be found on the hydrology website <http://www.uni.edu/hydrology>. Some highlights of our NSF grant activities are documented in this newsletter.



THOMAS HOCKEY
PROFESSOR OF ASTRONOMY

As a puzzle I've given myself, I set about memorizing the proper names of all stars apparent magnitude 2.0 or brighter, visible from our latitude. The hardest turn out to be Murzim, Wezen, and Adhara, because they transit at such a low altitude in our sky. But if I do see them, I know that the end of the year is at hand and winter is upon us. So, time to sum it all up.

2012 was a year of ironies. I was asked to attend the meeting of the American Astronomical Society's [AAS] Publication Board. They put me on a flight that took place during the rare astronomical phenomenon, the transit of Venus, which I thusly missed. Ironic. I began this year the second edition of the *Biographical Encyclopedia of Astronomers*. I include

those astronomers who, while not considered famous, deserve to be remembered. I moved the cut-off date, arbitrarily, to individuals born before my mother—in 1920. (Mom is still alive, well, and driving her Mercury Sable around Cedar Falls, by the way.)

My stepson is in graduate school in Tennessee. My son has had to transfer right in the middle of high school because the UNI administration closed down Price Laboratory School. Price Lab and Cedar Falls High are both good schools, but very different. Ironic.

Yuliana's mother recently returned to Ukraine. I have the perfect mother-in-law: Neither of us understands the other's language! Kidding aside, we look forward to her return next April.

I chaired the AAS's Historical Astronomy Award (Doggett Prize) Committee, so got to present it in front of 1,000 people or so. That's a big class!

In the spring, I taught a heavily planetarium-based course on astronomy for Natural History Interpretation Majors. Of course, in the middle of it, the UNI administration eliminated the Natural History Interpretation Major. Ironic.

I continue to edit Astronomy Edition Review [AER] for the AAS. While there are plenty of places to find a good demonstration or teaching trick in astronomy, I'm trying to make AER a home for educational research papers based on social-science statistics and other sociological research techniques.

Recently, I was named Alpha Xi Delta's Teacher of the Week. I hadn't heard of this UNI sorority before. Ironic.



AARON SPURR
INSTRUCTOR OF SCIENCE ED. &
FIELD EXPERIENCE COORDINATOR

Greetings!

For the past few months my life has been full of personal and professional adjustment. During the past 14 years I was happily employed as a member of the science faculty at UNI's Price Laboratory School. But, last spring the school was selected as one of the programs to be closed in addition to the closings that happened in Earth Science and across campus. I am now a field experience coordinator, supervising and mentoring Level I and Level II field experience students in schools across the area. I am enjoying my new position and the responsibilities that come with it, but changing jobs is stressful. The best part of the change is getting to know my science education colleagues in the area a whole lot better and playing a more involved role in the early student field experiences. The hardest part of the change is not being able to work with high school students every day. My son, who was a high school student at Price Lab, also had to adjust to attending a different school, which has brought a different level of stress into the mix.

My appointment is still shared with the Earth Science department as it has been for the past 10 years. I'm still very fortunate

to continue to teach Current Technologies in Science Teaching each semester. I'm also happy to report my office is now in Latham Hall, so I'm physically closer to my Earth Science and Science Education colleagues, as well as secondary science education majors.

All across campus UNI is in a state of transition. I'm hopeful the outcome will be positive, but the transition time is sometimes full of angst.



LEE POTTER
INSTRUCTOR

This fall marks my 10th year teaching at UNI. Although I have taught as an adjunct for three organizations this year, I still count the Earth Science Department as "home". This makes this year's blurb especially hard to write as "home" has been trashed from within and without. Last year continued with me teaching multiple sections of the Capstone class Environment, Technology, and Society. I am wrapping up a project that involves my Capstone students collecting samples of stream sediment for analysis of trace metals and I have over 600 samples. Work on New Mexico volcanic rocks has slowed and manuscripts are in development.

Back home, our household is well, although we reconsider Scottish country dancing in the Cedar Valley, it is fun, but can be hard on the knees. Never doubt my desire to hear from you [lee.potter@uni.edu] but do

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NEWS

from the faculty & staff

consider a contribution in support of the Earth Science Department. Your help is needed more than ever.



MIKE STEVENS
INSTRUCTOR

After almost 20 years, I've returned to UNI. It was a roller coaster ride in Missouri followed by a lot of uncertainty the last couple of years back here in Iowa. However, it has been nice to have opportunities the past year to get back in the classroom and work with geology samples after being on the side lines as a substitute teacher for the last couple of years. Last spring, Hawkeye Community College gave me an opportunity to instruct science courses. Also, I helped out Grout Museum identifying rock and mineral specimens in their collection.

During the summer, after a Thursday night church league softball game, Siobahn asked me about my vitae. You see, Siobahn only had to walk a couple blocks to see "Momo" play or attempt to play first base along with Cynthia. Next thing I knew, I had a meeting with Cherin Lee about teaching a science education course at UNI because of a late resignation in the science education division. So, from that meeting, I was assigned to Earth Science, but work for Science Education ... or something like that. I've spent the fall semester teaching Inquiry into Physical Science in Lang. A

little rusty and dusty from being away from the classroom, but it does feel good to be back teaching. Next semester, Siobahn and Cherin have me lined up for Inquiry into Earth and Space Science and one of Chad Heinzl's Introduction to Geology lab sections. So, looks like I'll be back in the halls of Latham, even though my little nook is over in McCollum.

Enough about me, time for some news about Cynthia. She had her own adventures down in Missouri. However, she's found her niche working over at the Grout Museum in Waterloo. She pretty much does a little bit of everything. A few of her duties include school group programming, planetarium shows, trolley (bus) tours of Waterloo, and presentations at the Imaginarium... more than I could ever keep track of.

All in all, I will say it's nice to be given the opportunity to come back after all these years.



CHAD HEINZEL
ASSOCIATE PROFESSOR OF
GEOLOGY & SCIENCE ED.

This past year Dr. Chad Heinzl was awarded tenure and promoted to Associate Professor of Geology and Science Education. Rest assured though, while he may appear more "professorial" in this picture, the pipe is merely a prop!



JAMES WALTERS
PROFESSOR OF GEOLOGY

Last spring the heart of the Earth Science program at UNI was ripped out with the elimination of the Geology degree (both the BA and the BS and even the minor). I am greatly saddened by this turn of events, the way in which it was carried out, and the lack of respect the administration showed both for those affected and those sending in letters of support and calling the administration on our behalf. I found it to be devastating and it has changed my life. I am now on a two year phased retirement and will leave UNI at the end of spring semester 2014. This fall I am teaching Intro. to Geology and Geomorphology; next spring I will have no teaching assignment. In January Bonnie and I will travel to New Zealand to visit our daughter Jennifer and her family. I enjoy hearing from UNI alumni and friends and wish everyone all the best.



NORA JANSSEN
DEPARTMENT SECRETARY

(continued)
from the department head

and to build up the department to the level necessary to not only sustain the current degree programs, but also to bring back the degrees that were discontinued. I know that many of you are enraged by the university administration's abrupt decisions, and I thank you all for providing letters of support and messages to myself and the faculty (as well as letters of protest to the decision makers). We continue to cherish all of our alumni, and value your input and support. I have heard from some alumni who are reluctant to consider donating to UNI following the actions of this past spring, and I respect your views. However we still have geology students to

get through the degree program over the next few years and we just had 13 of them attend (and succeed in) geology field camp last summer – another record number. We had a van load of students attend GSA in Charlotte in November, and we continue to have all of our majors take part in research, internships, labs, and unique learning experiences. So if you do decide to donate to the Earth Science department, know that your generosity does impact all our majors either directly or indirectly. I seem to be writing quite a bit this year, and would rather not have had to do that, but I think that you all deserve an explanation of what has happened and what

we plan to do in the future. If you do have any questions, please feel free to contact me. More importantly, if you know a young person who has an interest in science, and an appreciation of the natural world, please do all you can to foster that youngster's curiosity and knowledge. This department's mission of nurturing future geoscientists and geoscience educators will continue only so long as those students keep coming to Latham Hall.

Finally, I do want to give you all my best wishes to you and your family over the next year.

Solar Viewing



VENUS TRANSIT



NEWS

from emeritus



WAYNE ANDERSON
PROFESSOR EMERITUS OF
GEOLOGY & DEPARTMENT HEAD
1970-1995

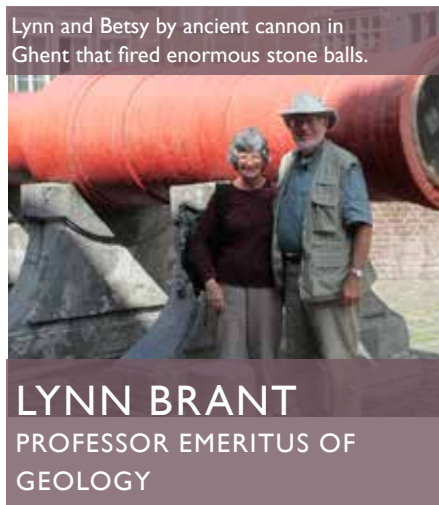
The past year has been challenging on several fronts. Last fall, Jan and I were in Seattle providing care for our youngest son, Mark. He underwent a bone-marrow transplant (stem cell infusion) at the University of Washington Hospital. The procedure appeared to be successful, and Mark returned to Corvallis, Oregon, just before Christmas. In early 2012, Mark developed respiratory problems and returned to Seattle for treatment. He died in Intensive Care at University of Washington Hospital on January 26. Mark had been employed at Oregon State University Extension as a writer, editor, and professor. Previously, he was publications editor for the Journal of Soil and Water Conservation, Ankeny, Iowa. Mark is survived by his wife (Sarah) and daughters (Julia & Phoebe). Jan and I are still trying to cope with the loss.

During the spring of 2012, I learned of the elimination of the geology majors at UNI. The geology programs were not the only ones dropped at UNI, but they were certainly dear to me. Although I am still fond of the institution where I worked for 37 years, the elimination of the high-quality geology programs broke my heart. I am

pleased that the earth science and earth science teaching majors remain. I have many fond memories of working with UNI and SCI students from 1963-2000.

A major wind storm in November of 2011 damaged, uprooted, or blew down some 50 trees on our Colorado acreage. It took much of the past summer to get things cleaned up. The property now has a different look, but the "new normal" is okay. Jan and I also found time to hike a few of our favorite lakes and mountain passes. We celebrated my 77th birthday in September with a trip to Ghost Ranch in northern New Mexico. While there, we hiked Chimney Rock and Box Canyon. A trip to a local museum provided an opportunity to see the home of New Mexico's State Fossil, a small carnivorous dinosaur.

I always enjoy hearing from UNI graduates and friends. Hoping that the coming year will be a good one for you.



Lynn and Betsy by ancient cannon in Ghent that fired enormous stone balls.

LYNN BRANT
PROFESSOR EMERITUS OF
GEOLOGY

Flying over southern England at 37,000 feet this past August, Betsy and I crossed the prime meridian. We had entered the eastern half of the world. Almost a half-century ago I crossed that line in the South Atlantic on an aircraft carrier bound for

Viet Nam. This time I was bound for happier meetings with old friends and the legendary beer of Belgium. It was an international meeting of diatomists (people who study this group of algae) in the old city of Ghent. We talked diatoms, drank beer, ate good food, and enjoyed the ambience of old Europe. Everywhere were buildings, castles, and cathedrals built before Columbus sailed to this side of the pond. Betsy and I shared a B&B with Steve and Elaine Main from Waverly. Steve is retired from Wartburg College and another diatomist. Betsy and Elaine toured the city while Steve and I attended talks.

These five-day international meetings always take Wednesday off for other activities. This meeting had an excursion planned for the Flanders Fields battleground of World War One. The sites, memorials, cemeteries, and the museum in Ypres honoring the hundreds of thousands of men killed just in that geographic area make for a somber day. One realizes why in Europe it is still called The Great War. Not all was sad though. We had lunch at the Abbey of West-Vieteren and drank some of their beer, supposed to be among the best in the world. (One does not drink these fine Belgian brews to get high or drunk.)

After the meeting, Betsy and I spent two weeks in England touring London and a few towns along the south coast. Our walks went from urban London to crossing pasture fields where we had to watch our step for the cow poo. Betsy said she had seen enough cathedrals for a while - Canterbury, St Paul's, Westminster Abbey, and Salisbury - and we aren't even Anglican! To give balance to the religions, we also visited Stonehenge. History in Europe and England extends over many thousands of years - and its evidence is right before your eyes. We want to go back.

SUNDAY AT THE QUARRY



On October 7th, the UNI Earth Science Department co-sponsored the annual Sunday at the Quarry along with BMC Aggregates. This year the event had a theme of Mapping Our Resources, and was held at the Morgan Quarry (located east of Waterloo). The estimated 800 visitors had an opportunity to participate in several educational activities, break a few rocks, collect some calcite crystals, and visit the quarry itself.

The UNI Earth Science Department was well represented. Chad Heinzl devised a couple of hands-on activities for kids of all ages. The older kids had fun making a geologic map based on some items placed in a sandbox, and the younger kids made a volcano out of homemade play-dough. Dr. Morgan was also spotted with her telescope. Many of our majors helped with the throngs of kids that visited our display.

All in all, the event was a smash success and we are already talking about what activities we can make for next year.



THE STORM WORKSHOP

2012

Major funding for the Science center for Teaching, Outreach, and Research on Meteorology (The STORM Project) was completed at the end of August 2012. STORM has been funded by the National Oceanic and Atmospheric Administration since August 2000.

Over the past 12 years, STORM has sponsored a significant amount of programming, including 13 summer courses for middle and high school science teachers and undergraduate students studying atmospheric science. Major equipment purchased with STORM funds include a microwave temperature profiler, portable sodar, ultraviolet lidar, particulate monitors, gas sampling equipment, and high-end mass balances.

Though major funding is complete, STORM continues to provide real-time weather imagery in support of K-12 classroom activities developed by STORM staff. Plans are in the works to continue STORM initiatives through external funding. Please continue to watch our homepage, www.uni.edu/storm for announcements about ongoing and new programming!

Alan Czarnetzki
STORM Project Director
Professor of Meteorology



GAMMA SIGMA CHAPTER-SIGMA GAMMA EPSILON

Another year has passed and 2012 was a very eventful year for SGE and the department. The Gamma Sigma Chapter of Sigma Gamma Epsilon has remained active since the last convention with 20-25 members. We initiated eight new members during the fall semester and six members last spring. The chapter meets bi-weekly, and we are very honored to have received that 2012 Quality Chapter Award.

During Earth Science Week this fall, we volunteered at the Quarry Open House hosted by BMC Aggregates LC by helping visitors identify rocks and answering questions about geology. The other volunteer activities we have participated in the past year include Homecoming Campus Clean-up, Earth Day activities, Honors Week, Major

in Minutes, Panther Peak Days, and the Earth Science Department Open House.

The largest social activity we have hosted this year was the beginning of the year lunch for students and faculty. We commemorated the 38th anniversary of the induction of our Chapter by hosting a game night. We are very excited for the annual holiday party. We are currently planning a geode collecting trip for the spring semester.

Our chapter fundraises by selling rock and mineral study kits for the Introduction to Geology classes, selling pop, candy and snacks in the student room, and selling rock hammers for field use.

Many members have remained busy by doing undergraduate

research, some of which has been presented at our department seminars and at the Iowa Academy of Science Annual Meeting. One of our members presented their research at the Geological Society of America Annual Meeting.

The University of Northern Iowa was represented at the Annual SGE Conference in North Carolina on November 3, 2012. Our delegate served as the Constitution and Bylaws Committee Chair. Many important updates were made to the Constitution. The convention was very successful and it gave our members new ideas for volunteering, community outreach, and fundraising events in the future.

Alison Schell
Chapter President



CONGRATULATIONS TO THE GRADUATES OF THE DEPARTMENT OF EARTH SCIENCE

May 2012 Graduates

Austin Cox, B.A. Earth Science
Kerri Dickey, B.A. Earth Science
Matthew Even, B.S. Geology,
B.A. Earth Science & Physics
Brittney Fry, B.A. Earth Science
Jake Haden, B.S. Geology
Elle Johnson, B.A. Earth Science
Ethan Levine, B.A. Earth Science
Elizabeth Madsen, B.S. Geology, B.A. Spanish
Jacqueline Treanor, B.A. Earth Science
Leann Vandonselaar, B.A. Earth Science
Interpretive Naturalist
Desirae Weber, B.A. Earth Science-Teaching

Summer 2012 Graduates

Nick Bosshart, B.S. Geology
Joseph Dague, B.A. Geology
Justin Dierks, B.A. Geology- Environmental Emphasis
Brandon Pugh, B.A. Geology
Josh Shultz, B.S. Geology

December 2012 Graduates

Chris Britt, B.A. Earth Science
Julie Johnson, B.A. Earth Science
Michael Maas, B.A. Earth Science
Interpretive Naturalist
Jessica Ott, B.A. Earth Science
Thomas Pingel, B.A. Earth Science
Audrey Roth, B.A. Earth Science-Teaching & Middle
Level Education-Dual Major
Cody Smith, B.A. Earth Science-Teaching
Michael Victoria, B.A. Earth Science

SEMINARS

Spring 2012

Dr. Siobahn Morgan, UNI Earth Science
The Unreliable North Star, Polaris

Dr. James Walters, UNI Earth Science
Permafrost Degradation in the Tananan Flats of Interior Alaska

Dr. Jennifer Anderson, Winona State University
Going Ballistic! Making Impact Craters in the Laboratory

Dr. Thanos Papanicolaou, University of Iowa
The Story of a Moving Sediment Grain: Implications to Sedimentation Issues in the US Midwest

Dr. Raymond Anderson, Iowa Geological and Water Survey
The History and Geology of the Legendary New Madrid Earthquakes of 1811 and 1812

Nick Bosshart, Geology B.S., Elizabeth Madsen, Geology B.S. & Spanish B.A., & Josh Shultz, Geology B.S.
Iowa's Environmental Sustainability (Soils and Landscapes): An Investigation of Heavy Metal Contaminate Transport

Fall 2012

Anthony Boxleiter, Geology B.S., Cody Mireles, Geology B.A., & John Chesley, Geology B.S.
2012 Summer Field Camp Experiences

Jeff Zogg, National Weather Service, Des Moines, Iowa
The Historic Missouri River Flood of 2011

Dr. Katie Keranen, University of Oklahoma
Extension Beyond the Rift Boundaries: Magmatism, Heat, and Depth-Dependent Deformation in Ethiopia

Alison Schell, Geology B.S. & Earth Science B.A.
Source Distribution of Nitrate around Municipal Wells of a Suburban Town in Iowa

Student Research



CHAS Summer Undergraduate Research Symposium
July 27, 2012
University of Northern Iowa

Alison Schell and Dr. Mohammad Iqbal
The Study of Nitrogen Sources in the Municipal Wells of Cedar Falls, Iowa

The Geological Society of America Annual Meeting
November 4-7, 2012
Charlotte, North Carolina

Alison Schell and Dr. Mohammad Iqbal
Source Distribution of Nitrate Around Municipal Wells of a Suburban Town in Iowa

Md. Aminul Haque and Mohammad Iqbal
Temporal Dynamics of Nutrient Flux Across Hydrologic Unit Boundaries

Nicholas Bosshart, Zach Lenth, Josh Shultz and Chad Heinzl
Mapping the Surficial Geology of the Iowa Erosion Surface

Internships

JESSICA OTT, Earth Science
Grout Museum - Imaginarium
Outreach Assistant
Spring 2012 & Summer 2012

MICHAEL STAHR, Earth Science
UNI Museum
Museum Intern
Spring 2012

JUSTIN EDWARDS, Earth Science
Wapsipinicon State Park
Recreation Aid
Summer 2012

ALICIA HERZOG, Earth Science
Silos & Smokestacks
Program Assistant Intern
Summer 2012

JULIE JOHNSON, Earth Science
Grout Museum
Assistant to Collection Curator
Summer 2012

CYNTHIA MEEHAN, Earth Science
Grout Museum
Assistant to Collection Curator
Summer 2012

THOMAS PINGEL, Earth Science
Webster County Conservation
Park Ranger Intern
Summer 2012

ANDREW SHEETS, ES Interpretive Naturalist
Philmont Scout Ranch
Associate Director of Conservation/Environmental Education
Summer 2012

MIKE VICTORIA, Earth Science
UNI Museum
Museum Intern
Summer 2012

ALYSIA GRANT, Earth Science
Cedar Rapids Science Station
Intern/Teacher's Aid
Fall 2012

ARIEL WILLIAMS, ES Interpretive Naturalist
UNI Museum
Museum Intern
Fall 2012

UNI EARTH SCIENCE DEPARTMENT RECOGNIZED FOR 10-YEAR COLLABORATION WITH ILPA AT ANNUAL CONVENTION

At the 67th Annual Convention of the Iowa Limestone Producers Association (ILPA) the Department of Earth Science was recognized for the 10-year collaboration with ILPA in the production and implementation of the very successful "Geology of Iowa for Teachers" course. Two of the UNI faculty who have been major players in the course, Dr. Jim Walters and Dr. John Groves were at the convention to accept the awards on behalf of UNI. In addition, Dr. Chad Heinzl was also recognized for his contributions to the long-running course.

The ILPA will continue to support professional development opportunities for teachers by supporting the annual Earth Science Update Conference, which is offered annually at UNI. Essentially, the Update Confer-

ence will continue the goals of the "Geology of Iowa for Teachers" course, but focus it to one manageable day. The new program will have a half day of recent research presentations and activities regarding earth science in Iowa and relate these presentations, as much as possible, to a quarry visit. The other half day will be spent providing the teachers with opportunities to collect field samples that may be coupled with the research talks to develop a meaningful activity for their own students.

Images provided courtesy of Sherman Lundy, with material from Midwest Contractor Edition, Volume 112 Number 5, May 2012, Associated Construction Publications, LLC.

L-R Sherman Lundy, Basic Materials Corporation (BMC) Aggregates, Dr. Jim Walters & Dr. John Groves



Student Scholarships & Awards

Jordan Altenhofen, BA Earth Science
McKay Scholarship

Victoria Arreola, BA Earth Science
Student First Scholarship Nominee

Nicholas Bosshart, BS Geology
Wayne & Jan Anderson Summer Field Camp Award

Anthony Boxleiter, BS Geology
MCAPS Scholarship
Wayne & Jan Anderson Summer Field Camp Award

John Chesley, BS Geology
Wayne & Jan Anderson Summer Field Camp Award
Jennifer and Andrew Erich Research Assistantship
in Earth Science

Casey Clark, BA Earth Science Teaching
Academic Achievement Award

Joseph Dague, BA Geology
Wayne & Jan Anderson Summer Field Camp Award

Justin Dierks, BA Geology - Environmental Emphasis
Wayne & Jan Anderson Summer Field Camp Award

Brittney Fry, BA Earth Science
CNS Earth Science Scholarship
Purple and Old Gold Award
Academic Achievement Award

Adam Gehrts, BS Geology
CNS Earth Science Scholarship
Wayne & Jan Anderson Summer Field Camp Award

Alysia Grant, BA Earth Science
Louise Hearst Speer Earth Science Scholarship

Alicia Herzog, BA Earth Science
Larry A. Kelsey Memorial Scholarship
Clifford McCollum Scholarship Nominee

Stephanie Hogan, BA Earth Science Teaching
Irene M. Thompson Scholarship Nominee

Julie Johnson, BA Earth Science
Academic Achievement Award

Richelle Kime, BA Earth Science
CNS Earth Science Scholarship

Zachary Lenth, BS Geology
CNS Earth Science Scholarship
Wayne & Jan Anderson Summer Field Camp Award

Hannah Loy, BA Earth Science
Academic Achievement Award

Kira Maltas BA Earth Science Teaching
CNS Earth Science Scholarship

Cody Mireles, BA Geology
Wayne & Jan Anderson Summer Field Camp Award

Madison Pike, BS Geology
CW Lantz Undergraduate Scholarship Nominee

Brandon Pugh, BA Geology
Wayne & Jan Anderson Summer Field Camp Award

Dustin Quade, BA Geology
Wayne & Jan Anderson Summer Field Camp Award

Joseph Reinders, BS Geology
CNS Earth Science Scholarship

Audrey Roth, BA Earth Science Teaching & Middle Level Education
Dual Major
Student First Scholarship Nominee

Alison Schell, BS Geology
Summer Undergraduate Research Program (SURP) Scholarship

Josh Shultz, BS Geology
Wayne & Jan Anderson Summer Field Camp Award

Cody Smith, BA Earth Science Teaching
Academic Achievement Award

Tiffany Smith, BA Earth Science
McKay Scholarship

Robert Spielbauer, BA Earth Science
CNS Earth Science Scholarship

Andrew Starkey, BA Geology
Wayne & Jan Anderson Summer Field Camp Award

Michael Victoria, BA Earth Science
Academic Achievement Award

Ariel Williams, BA Earth Science-Interpretive Naturalist
Charles J. Hearst Scholarship
CW Lantz Undergraduate Scholarship Nominee
Academic Achievement Award

Cara Wright, BS Geology
Jan Harken Scholarship
MCAPS Scholarship
Academic Achievement Award

Zach Zubrod, BA Geology
Wayne & Jan Anderson Summer Field Camp Award



TOP PICK ARTICLE

Dear Chad,

Congratulations on your short-term program to Italy being named a Top Pick in the 2012 Abroad101 Study Abroad Rankings presented by STA Travel! The rankings were determined based on the 16,000 student reviews hosted on Abroad101. Based on the ratings collected from your program's student alumni, I am proud to report that your commitment to excellence in international education was recognized not only by UNI, but also by Abroad101. This is a great accomplishment for UNI, SAC, CHAS and your department!

Last year, as you may recall, UNI SAC programs were ranked #4 in the nation for the academic quality. Now in its second year, the Abroad101 annual study abroad rankings awarded*the UNI Study Abroad Center's Capstone in Southern Italy program for Top Short-term Program

About Abroad101:

Abroad101 is the world's first, largest, and fastest growing study abroad review website. Founded in 2007 by Tufts, Harvard, and MIT graduates, Abroad101's mission is to promote global citizenship by fostering the most meaningful study abroad experience for all

students through technology innovation in international education. Abroad101 empowers universities with its free market-leading online evaluation tool and has awarded \$85,000 worth of scholarships through innovative contests. To learn more, visit <http://www.study-abroad101.com>.

Thank you very much, Chad, for your outstanding service to the institution and for supporting international opportunities for UNI students.

Dr. Yana Cornish
Director for Study Abroad Programs

Study Abroad Center
Office of International Programs
University of Northern Iowa
28 Gilchrist Hall

UNI Earth Science 2012 Update Conference

UNI's annual Earth Science Teacher Update Conference was held on April 13, 2012. This year's conference was a tremendous success due to the Iowa Limestone Producers Association (ILPA), who sponsored this year's event. ILPA's generosity enabled the Earth Science Dept. to offer free registration, lunch, and an afternoon field trip to local quarries. Seventeen teachers from all over Iowa were able to collect minerals, rocks, and fossils during the field trip to use with their students! This year's theme was "Our Ever-changing Earth". UNI faculty, staff, and members of the Iowa Geological and Water Survey (IGWS) shared their research and knowledge of our dynamic Earth within the fields of astronomy, earth science education, geology, and meteorology with the following presentations: *Bedrock Research in Iowa* (Bob McKay, IGWS), *Quaternary Research in Iowa* (Steph Tassier-Surine, IGWS), *Limestone – A Great Natural Resource* (John Groves, UNI),

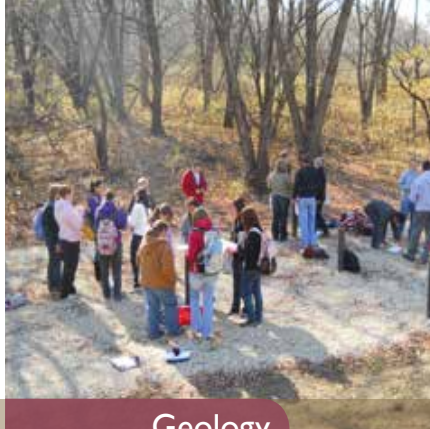
Teaching: Iowa's Geology and Natural Resources through STEM (Chad Heinzl and Kyle Gray, UNI), and *Building a Real Time Hydrologic Data Acquisition and Transmission Facility at UNI* (Mohammad Iqbal, UNI).



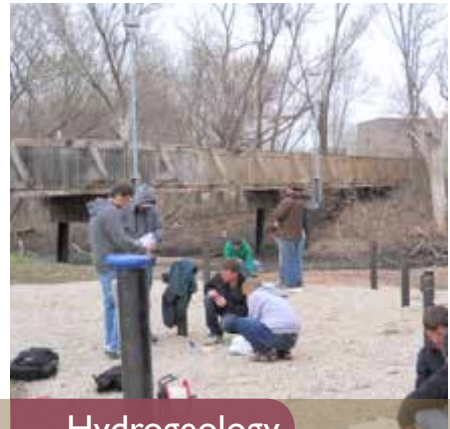
Instructional facilities development and student activities related to the NSF grant in hydrology at UNI (refer to www.uni.edu/hydrology for the program details)



Hydrology



Geology

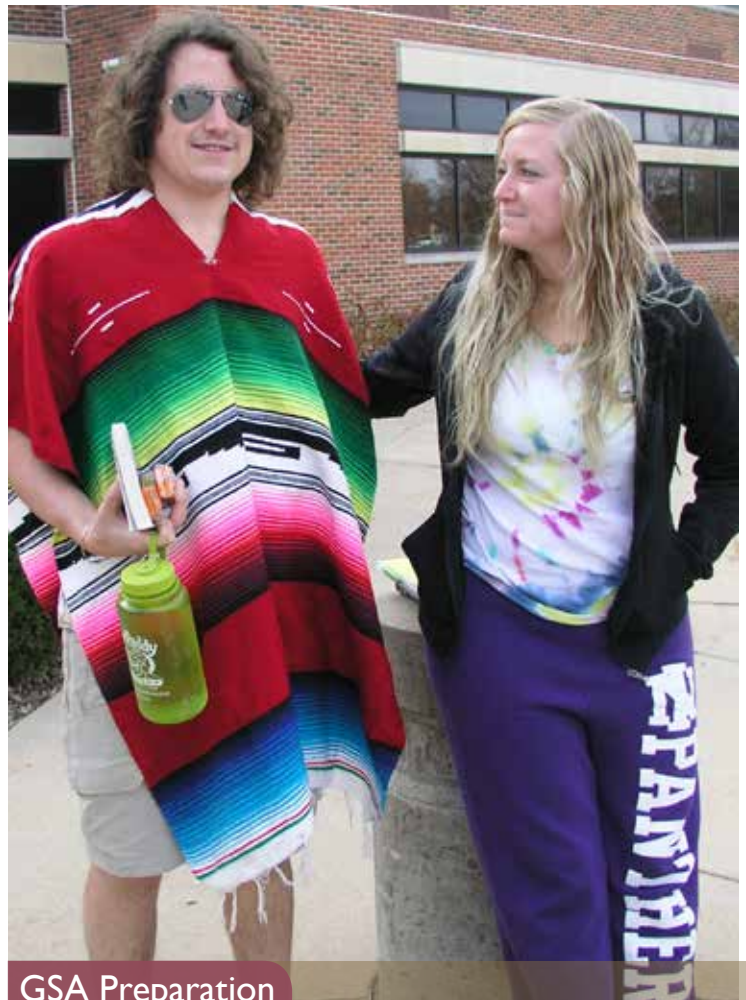


Hydrogeology

Activities 2012



Geomorph



GSA Preparation

Bill with the mastodon tusk he collected and donated to the Department.



Bill and Teri in their student years.

Alumni Spotlight: Bill and Teri Brecht

Bill and Teri (Youngren) met at a Rider Hall mixer in 1970 and married in June 1973. In 1972, Bill received a B.A. degree in Earth Science Teaching. Teri earned an Early Childhood B.A. in 1973. Both grew up on farms outside of small Iowa towns—Bill near Newhall and Teri near Dayton.

The first classes Bill took in the Earth Science Department were Physical Geology taught by Dr. Anderson and Astronomy with Dr. Hoff. From then on, he was hooked. Working as a lab assistant during his junior and senior years, he prepared and assisted in teaching labs, tutored students, and did preservation work on a mastodon tusk—all the while raking in the grand wages of \$1.25 per hour. The tusk is on display in the Earth Science Building today.

After graduation, Bill taught 8th Grade Earth Science at Jefferson Junior High/Middle School in St. Charles, MO, for 30 years. In addition to his teaching duties, he coached cross country and wrestling. In 1978, he received an M.A. in Comprehensive Science Education from Northeast Missouri State University (now Truman State University) and became an adjunct professor for NMSU, teaching extension classes for several years in the 1980s. In 1989, the D.C. Heath Publishing Company was planning a new middle school level earth science textbook. After attending several company-sponsored seminars, Bill was asked to co-author the book. After many months in front of an Apple II computer, *Earth Science: The Challenge of Discovery* was published in 1991. As an early childhood major, Teri led her UNI service fraternity in sprucing up the university pre-school and preparing hands-on projects and games for the center. For three years she spent evening hours working in the food service line. Teri moved to St. Charles and taught grades K-1-3 for seven years and 6th grade for twenty-two years. Teri sponsored the after school 6th Grade Science, Math, and Computer Clubs. MA'92 in Elementary Education was earned at Lindenwood University.

Bill became the education director at the Lewis & Clark Museum in St. Charles after retiring from teaching in 2002 and is now the museum's executive director. Other interests include travel and participating in living history events. As the owners of a 1949 Pontiac, he and Teri belong to local car clubs and drive to several shows each year.

Since retiring, Teri serves as an officer in St. Charles Branch AAUW, Faith UMW, and Gateway Regional District UMW. Her active participation in the church choir was highlighted by

performing twice at Carnegie Hall in NYC. Their sons Dan and Jon live in the St. Charles area.

Bill and Teri's family ties to UNI include their mothers who attended Iowa State Teachers College in the mid 1940s, two siblings, and numerous relatives, many of whom also entered the field of education.

As Bill and Teri have returned to the UNI campus they've observed numerous changes over the years. On one trip down memory lane, Bill and Teri visited an empty Rider Hall dorm room, recalling 1971 when guys were allowed in the girl's dorm room on Sunday afternoon from 2-4 as long as the room door was open and all feet were on the floor! In 1981 Bill received a request from the Earth Science Department for their annual newsletter. Included was an opportunity for alumni to donate to UNI with funds specified for the ESD. This \$50 gift gradually increased over thirty-one years of donations. Recently Bill and Teri made plans to support an earth science education major with a yearly scholarship. They feel that giving back reflects the gratitude they feel for the educational opportunities afforded them by attending UNI.



1960's

Ronald A. Peterson

M.A. Earth Science Education ('69)
804 Trading Post Trail SE
Albuquerque, NM 87123-3572
rpalingr@juno.com

Continuing to enjoy retirement. There's not enough time to do everything. I can no longer imagine trying to fit work into my schedule.

Mary Ann (Marsh) Smith

B.A. ('68) M.A. Earth Science Education ('71)
846 Kings Cove
Princeton, IL

Retired Teacher

There was nothing more important to my preparation for teaching the Earth Sciences than the various field camp experiences I participated in. This is my way to help support your current students. I retired this year after 28 years teaching Earth Science in Iowa and Illinois. I thoroughly enjoyed my years in the classroom. Duane and I continue to explore the country through our travels. Retirement just makes it easier. Special greetings to Wayne Anderson who also seems to make good use of his retirement years.

1970's

Bill Brecht

BA Earth Science Teaching ('72)
805 Longview Dr.
St. Charles, MO 63301
wbrecht@yahoo.com

Lewis & Clark Boat House and Nature Center
Executive Director

Since retiring from teaching in 2002, I've been busy at the Lewis & Clark Museum in St. Charles. My wife Teri, BA '73, is also retired and is active in several church

groups and the American Association of University Women. We enjoyed a trip west this summer, visiting several national parks with many points of geologic interest.

Jim Janssen

BA Geology ('72)
1020 4th Street SW
Waverly, IA 50677
jim.janssen1020@hotmail.com

Retired

Carla and I continue to enjoy our retirements with opportunities for play, community service, and travel. We are still interested in following UNI, both academically and athletically.

Dale Eiders

B.A. Geology ('73)
M.A. Earth Science ('75)
720 Garfield Ave.
Story City, IA 50248
eidersl@iowatelecom.net

Geologist (Retired), State of Iowa
Department of Transportation

I retired 2010 when the State offered several incentives to leave. I am involved with several hobbies and volunteer work. Pat and I are in good health and planning our winter escape to the South.

Mark R. Bolson

B.A. Geology ('73)
11605 Cherry Drive
Thornton, CO 80233
markbolson@comcast.net

Retired

Retired, but I am a Team leader for temporary exhibits at the Denver Museum of Nature and Science. Always learning new things.

Norm Meader

B.A. Geology ('73)
M.S. (77)
3443 E. Lee Street
Tucson, AZ 85716
nmeader@cox.net

Retired Administrative Associate,
University of Arizona

I am keeping busier in retirement than when I worked full time! Many volunteer activities keep me busy, especially fighting to protect the San Pedro Valley here in Arizona where I have a piece of property and a desert retreat. My UNI buddy, Russ Jacobson, made his yearly visit to Tucson to visit the Tucson Gem and Mineral Show. This is one of the greatest places anywhere to shop for great minerals and fossils, and Russ doesn't spare anything! He loves to be here, and it's great to see him. I hope to do more traveling in the coming year. I made two trips this past spring to the Sierra Pinacate, south of the border, a stark, remote landscape of great tranquility and beauty. I hope to get down there again later this fall. I have felt fortunate all of my life to have been a geologist, a choice I've never regretted.

Ken Thompson

B.A. Earth Science-Teaching ('75),
M.A. Earth Science ('85)
2801 Westlake Drive
Emporia, KS 66801
kthomps@emporia.edu

Professor, Earth Science Dept./Department of Physical Sciences
Emporia State University

Wife, Deb (UNI, 1977 - elementary teacher) and I continue working in positions we have held for around 20 years. Son Tyler is into his second year working as a chemical engineer in Orange, Texas. He

will be married in April 2013. Our jobs keep us busy and our travel opportunities are less than we hoped for at this stage of our lives. If anyone travels on Interstate 35, feel free to stop in! I am curious to find out how budget cuts have affected the ES Department.

Shelley (Langin) Beardsley

B.A. Earth Science ('77)
M.A. Science Education ('93)
17031 Meadowlark Drive
Peosta, Iowa 52068
rbeardsley1@mac.com

Retired Educator

I have been retired from Dubuque Senior High School teaching science (earth & physical science, astronomy, & oceanography) for one year and am enjoying it! I am spending a lot of time at my daughter's golf meets and tournaments, playing golf on a ladies league, working with my therapy dogs (Teddy & Bailey - golden retrievers), and currently preparing to send my daughter off to college next year. Spending time with family and friends is a top priority and fulfilling.

Larry Smith

B.A. Geology (79')
16467 Noble Point Drive
Anchorage, AK 99516
E-mail: Ljsmith@gci.net

Chief Geophysicist
Brooks Range Petroleum

Still working on the North Slope of Alaska. Brooks Range Petroleum has got our first development underway and should be in production by the end of 2014.

Mary Hogan

B.A. Geology ('79)
B.A. Earth Science-Teaching ('79)
2490 4th Street
White Bear Lake, MN 55110
maryhoganwbl@yahoo.com

Retired Teacher

I retired from teaching in 1998, after teaching 19 years at the high school and technical college level. Call or stop in for

a visit whenever you are in the Twin Cities area. You are always welcome. Minnesota has plenty of rocks, too!

1980's

Cathy (Kuchenreuther) Wilson

B.A. Geology ('83)
30 Durham Court
Iowa City, IA 52240
cwilson377@mchsi.com

Chemistry/Physics teacher
Iowa City Community Schools

Bruce and I are still in Iowa City, working our fingers to the bone, both teaching at City High (for more years than we'd like to count now). Our son, Colin, is currently a sophomore at UNI (majoring in music), so we do manage to get to campus now and again. It's good to be able to be on campus again.

I am sad, however, that they have pretty much gutted the Earth Science Department! We had such a wonderful experience and great times there! When I went to The University of Iowa to work on my Master's degree, I couldn't believe how far ahead I was of most of the rest of the students! I know that's due to all the outstanding teaching at UNI and all the opportunities we had as members of the department. So, thank you to all my former professors! You rock! (HA!)

If any of you who were my "contemporaries" back in the day are ever near Iowa City (this goes for you professorial types, too), look us up. We'd love to see you!

Milton Pierson

B.A. Geology ('83)
5254 Stillbrooke Dr.
Houston, TX 77096
miltonp@mac.com

Senior Research Chemist
Nalco, an Ecolab Company

My family and I are still in Houston. Not much change in the last year except for my move to a new career. I now operate a variable pressure SEM (Scanning Electron Microscope) equipped with an EDS system

in the Diagnostic Solutions group for Nalco. One of my primary functions is to analyze filtrates from produced water from Gulf of Mexico oil wells as part of the scale monitoring and control program. The primary scale minerals are barite and calcite. The abundance and morphology of these minerals is indicative of whether scaling is occurring and how well our scale inhibitor is working. I also assist various researchers with imaging and chemical analysis.

We return to Iowa annually in the summer, however, have not been to the UNI campus since moving to Texas in the late 80's. A visit to UNI is still on my wish list.

David Morris

B.A. ('83)
M.A. Science Education ('93)
running2star@hotmail.com

Before retiring in 2006, I worked at Sports-a-Foot, a running shoe and apparel business, for 8 years. I won the 1983 (35-39) age group State Championship in Iowa Grand Prix 10 running events. I was 9-1 that season. I also ran for Etonic Shoes for two years for their Midwest Regional team.

I received my Masters in Science Education from Drake University in 1993. While I was there I was a TA for Astronomy, Physical Science, and Geology. My teaching career brought me to Newton High School teaching grades 9-12 Earth Science; Winfield High School teaching Earth Science, Physics, and Chemistry; adjunct with Des Moines Area Community College; and also an adjunct at Kirkwood Community College in Astronomy. I was a track and head cross country coach with Newton High School for 5 years.

When I retired, I moved to Oregon where it took a year to determine that I wasn't capable of catching all the fish in Oregon. I got back into education and taught the entire science department in Powers, Oregon for a year. After that I moved to Salem and taught Earth Science, Physical Science, and Sports Medicine at Salem South High School for 4 years. Since then, there has been no more educating, at least at the formalized level.

I teach guitar for beginners. I've been playing guitar, blues harp, and singing for about 45 years. I now have taken this vocation and play professionally in the Northwest under the name of "Jelly Bean Dave". I perform at Senior Living establishments, roughly two to three times a week; I also back up night time musicians at several places in Salem, and solo at coffee houses, bars, and private parties in the area. They give me money for doing something that I love. Cool, huh? At 64, I still run roughly 30-40 miles/week. I compete frequently and try to stay with the younger runners, since my current age group is not too competitive.

Thanks and good luck back there in Iowa.

Brad Muhlenbruck

General Science, Earth Science Teaching ('84)
2730 F St.
Amana, IA
bradmuhlenbruck@ccaschools.org

Science Teacher, Clear Creek Amana

I recently started my 29th year teaching - 24 of those at Clear Creek Amana. I'm still teaching chemistry and physics and still enjoying it. Along with my teaching duties, I am the assistant golf coach for the boys and girls teams. My son, Reiner, recently started kindergarten. My wife, Gretchen, Reiner & I reside in Middle Amana.

Barbara Berquam

B.A. Earth Science ('88)
M.A. Earth Science ('91)
2202 Yorkshire Drive
Cedar Falls, IA 50613
baberquam@cfu.net

Retired

I retired about 1 1/2 years ago after serving for 4 years as the Black Hawk County, IA Emergency Management Coordinator. Four years - and four disaster declarations (ice storm, tornado, flood, wind microburst, more flooding). Prior to that I served as the GIS Coordinator (8 yrs) for Black Hawk County, IA government. Now I spend a more relaxed life playing and laughing with grandchildren and traveling. Fortunately

our grandchildren live nearby, so I see them often. I tend our backyard perennial and evergreen gardens that provide year-round color for us and others in the neighborhood to enjoy. My husband retired recently, which gives us even more flexibility to travel and play. I will always have fond memories of my years at UNI, which in retrospect seem more like play than work. Do I miss working? No. Do I enjoy retirement? Yes.

Darin D. Smith

B.A. Earth Science, B.A. Economics ('89)
4240 Ivy Court, Marion IA 52302
smithdr4s@mchsi.com

General Counsel, Transamerica

1990's

Elaine Houska

B.A. Earth Science ('91)
Doctor of Physical Therapy
University of Iowa ('10)
102 Pendleton Street
Newport News, VA 23606
e_houska@yahoo.com

Current Employer: Sentara

Barton Reese

B.A. Earth Science ('92)
1320 NE Depot Dr.
Lee's Summit, Missouri
breese@cityofls.net

Public Works Inspector
City of Lee's Summit, Missouri

I have lived in Greater Kansas City since January, 1993. I've been employed by the City of Lee's Summit, Missouri Public Works Department since November 1999. I am a Public Works Inspector, a job that entails inspections of new construction of storm sewers, sanitary sewers, water mains, streets and sidewalks at residential and commercial development sites in Lee's Summit, Missouri (pop. 93,000). I also work on Capital Improvement Projects, and perform countless administrative chores for the City. Also, every winter I am one of many workers who drive a snow plow for the City. For the first 11 years with the City of Lee's Summit, I worked as an Erosion and

Sediment Control Inspector/Regulator. I am a Certified Professional in Erosion and Sediment Control (CPESC).

I do prison outreach at the United States Disciplinary Barracks at Ft. Leavenworth. I do outreach with Benilde Hall, a residential treatment facility for men - we take hot meals to people on the streets of Kansas City. I also volunteer at Harvesters, a food pantry in Kansas City.

I am a member of the Panther Scholarship Club. I follow UNI athletic teams as closely as possible; I am excited about this year's Men and Women's Basketball teams. I am grateful for what UNI has done for me; getting a degree from UNI is my greatest achievement. I am proud of UNI and what the University represents.

Gaylen Hiesterman

B.S. Geology ('92)
2110 Rownd Street
Cedar Falls, IA
gaylen.hiesterman@cardno.com

Operations Manager, Cardno ATC

The years fly by with each one adding another group of memories. The year was full of family get-togethers, camping and a California vacation (Sea World, Lego Land and museums).

De Anna Tibben

B.A. Earth Science Teaching ('92)
M.A. Science Education ('94)
621 14th St. Pl.
Nevada, IA 50201

Earth & Space Science Teacher
Ames High School

Nothing really new...same job, same husband, same house... kids keep growing, though! Jake is in 8th grade and Abby is in 5th. Both kids are enrolled in Ames Schools so schedules are less hectic in the Tibben household! Enjoying life every day! Take care everyone!

Dave Dreesen

B.A. Earth Science Teaching ('93)
4500 Lincoln Way
Sioux City, IA 51106
dreesd@live.siouxcityschools.com

Grade 9-12 Educator
East High School, Sioux City

I am currently teaching Biology I and Field Biology (Ecology) at my Alma Mater, Sioux City East High School. I graduated from UNI in '93, and returned to Sioux City, Iowa. I married my best friend and high school sweetheart in 2006. Together my wife and I have 4 children ages 18,16,14 and 12. The oldest is a freshman at Augustana College in Sioux Falls SD, and the other three attend the Lawton Bronson Community School District. I coached football from 1989-2008, and am currently retired from coaching, so I can watch my children play sports. In 2000, I graduated from UNI for the second time with my MA in Education, but as for now have no interest in traveling down this path.

I continue to keep up with UNI, especially the ES department, and am looking forward to a visit soon. My wife works at Morning side College here in Sioux City, in the Alumni office, so I try to keep up with what's what about UNI.

Keep up the good work, and am looking forward to seeing some familiar faces soon. Thank you so much for all you do for UNI, and keeping the Alum up to date.

Amy Freiberg Miller

B.A. Earth Science ('99)
2404 15 ½ Street NW
Faribault, MN 55021
aemiller@districtonehospital.com

Registered Nurse, District One Hospital

I am currently completing my BSN in Nursing and am working as an RN at our local hospital. I enjoy providing care to others and feel nursing is a great fit for me. Jeremy continues to work at Malt O Meal in Northfield and we have been thankful for the steady employment especially after

my layoff a couple years ago. The children continue to grow: Isaac is in 5th grade and is a sport junky which includes football, basketball, and baseball. Noah is in 3rd grade and enjoys science fiction which includes Star Wars, Harry Potter, Ninjago, and Batman. Hannah started kindergarten this year so I was thrilled to have all three kids in school. Hannah enjoys gymnastics, girl scouts and playing dolls of course!

William J. Soesbe III

Secondary Science Education ('99)
704 Bel Air Drive
Waverly, IA 50677

Assistance Professor of Education
Wartburg College

I was hired into the Waverly-Shell Rock Community School District right out of UNI and worked as a secondary science teacher for six years. During that time I also coached wrestling at the high school and we won 9 state championships and one national championship during my tenure. I completed my MA in Middle Level Education in 2001 from UNI. In 2005, I was hired to serve as the Director for the Office of Student Field Experiences at Wartburg College. In 2012, I completed my Ph.D. in Educational Leadership from ISU. In addition, in 2012, I transitioned into a tenure track faculty position within the Education Department at Wartburg College where I serve as an assistant professor of education and leadership fellow. My areas of research revolve around leadership education, the use of service-learning within K-12 education systems, and a learning and teaching pedagogy referred to as "triangulated learning."

I have three children: Will (8), Kenna (6), and Ava (4) who all love to learn and really enjoy going on nature walks.

2000's

Jack L. Northrup

B.A. Earth Science Teaching ('01)
505 Delong Ave
Council Bluffs, IA 51503
jlnorthrup@fbx.com

Planetarium Director at King Science and Technology Magnet
Omaha Public Schools

I am starting my eleventh year at King Science teaching fifth thru eighth grade Astronomy and IT Essentials. One of my IT Essentials classes worked with our school's community to gather older computers for recycling and data disposal; it is cool to think that the students kept 750 pounds of computer parts out a landfill.

This last summer I was able to go to Baton Rouge for the International Planetarium Society meeting. It was the largest in the society's history with 700+ attending from 40 countries. I was able to present on an activity I use during the solar system unit where students design a planet of their own to present in the planetarium and lead a panel discussion on concerns of formal and informal educators on trends in education.

I did start a new project this year – restoring a 1958 MG MGA. It was in serious need of care, I found an empty raccoon nest under the hood. It has been a great way to unwind from the stresses of everyday, and lets me bring back some of my automotive skills.

Eve (Lampson) Halligan

B.A. Earth Science / Meteorology
Minor ('01)
16714 Man O War Lane
Friendswood, TX 77546

E/PO Specialist, Lunar and Planetary Institute, USRA

Greetings all from sunny South Houston!

The past year has been full of change and new challenges ... and excitement! I've been in my new position at the LPI for over a year now, and I'm currently working on several NASA-funded E/PO projects, as well as being actively involved with the NASA SMD Planetary Science E/PO Forum. It keeps me very busy, but it is also very rewarding work. I am heavily involved in leading professional development trainings for informal educators - such as librarians - helping them to bring NASA science and educational materials to their communities.

I am also heading up a project called MyMoon, which is aiming to engage college-aged adults in NASA lunar science and exploration. You can check it out here: www.mymoonspace.com.

My family is doing well and has adjusted well to the move. I still can't believe that my son turned 10 this summer and my daughter is edging closer to 8. I'm not sure where the time goes, but I guess when you're busy it flies by!

I hope that all of you are doing well - Best Wishes & Happy Holidays!

Amber (Lowe) Wolf

B.A. Earth Science ('01)
1002 Eloise Street
Okoboji, IA
Amber-wolf@dnr.iowa.gov

Environmental Specialist, Iowa DNR

Our second son was born in early September. Our oldest is 2 ½ years old. We have lived in Okoboji almost two years and love living in this part of NW Iowa. I am employed with the Iowa DNR and work out of Field Office #3 in Spencer, where I investigate environmental complaints and perform air quality and water supply inspections.

Jeremy Bakker

B.A Earth Science ('03)
Cedar Rapids

Operator, City of Cedar Rapids

I am currently working with the City of Cedar Rapids inside the Department of "Water Pollution Control". The never-ending job of keeping Mother Earth green and at the same time trying to keep on top of today's newest technology. Outside of work I find myself working along with my wife, Stacey, on the "Joys of Parenting". WOW! Challenging yet rewarding, with our 18 month daughter, Kennedy.

For all of UNI youth Love Life–Study–Praise God.

David Suchan

B.A. Earth Science ('04)
M.A. Geography ('12)
1746 Thrush Dr.
Waterloo, IA 50701
dmsuchan@hotmail.com

Environmental Specialist
Watershed Coordinator
Iowa Department of Agriculture and Land Stewardship Division of Soil Conservation

Greetings to the earth science/geology students, alumni, faculty, and staff! It has been a couple of years since I updated my info. I have been working for IDALS-DSC for the past five years. I get to work with urban and rural landowners to conserve soil, improve water quality (by reducing nutrients and bacteria), and increasing (aquatic and wildlife) habitat. I am married to Jennifer (UNI Assistant Registrar) and have two kids, Leland (5 yrs) and Bella (3 yrs).

Jason Cochrane

B.A. Earth Science Education ('06)

Associate Principal
Highlands Ranch, Colorado

I am currently serving as a middle school associate principal in a math/science charter school named Ben Franklin Academy in Highlands Ranch, Colorado. The school opened its doors last year and has dedicated itself to providing rich science content to K-8 students. The K-8 school has two science labs and will soon add the largest outdoor classroom greenhouse in the state during the spring.

Kaden Borseth

B.A. Earth Science ('05)
212 Adair Street, E3
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borsethk@gmail.com

Education Program Manager - Earth Science Programs
Fernbank Museum of Natural History

Last year my partner Megan and I moved to Atlanta, Georgia. Megan is pursuing her PhD

in Sociology at Georgia State University. Upon moving to Georgia, I began working at Fernbank Museum of Natural History as the Earth Science Education Programs Manager. I enjoy creating and teaching different programs, including an after school program for Title I schools, auditorium programs for schools groups of all ages, and summer camps for elementary age students. In addition, I manage a teen volunteer program and share my love of science with museum guests every day. Megan and I enjoy exploring Georgia, especially all of the fun hiking places we've discovered. If you ever find yourself in Atlanta, come visit me at Fernbank Museum!

Stacey Reisdorph

B.A. Geology, B.A. Earth Science ('08)
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Ph.D. Student in Oceanography
University of Alaska-Fairbanks

Hello all,

I have not updated you in a while and a lot has happened over the past couple of years. Since graduation I have moved to Fairbanks, Alaska and am currently in my 3rd year as a Ph.D. student in Oceanography at the University of Alaska Fairbanks. My research involves analyzing the carbon biogeochemistry of marine waters in Glacier Bay National Park and Preserve and evaluating the effects of glacial meltwater on ocean acidification within the bay. To do this, I get to travel to Glacier Bay nine times a year for research cruises where I get to experience things such as sailing along the bases of tidewater glaciers and watching stellar sea lions, otters, and humpback whales swim by. Rough, I know.

I also get to go out on research cruises for the Ocean Acidification Research Center, the lab I work in here at UAF. I get to see some amazing places surrounding Alaska. I have recently returned from my second Arctic Ocean research cruise aboard the U.S. Coast Guard Ice Breaker Healy where we studied the biogeochemistry of the near-shore and surface waters of the Arctic during the month of October. I have also gotten to sail in the North Pacific/Gulf of Alaska where there is long-term, biannual marine

observation program known as the Seward Line that began back in 1998.

When I'm not working I love to be outside. I enjoy hiking and snowshoeing (when it isn't -40° F) the many trails in and around Fairbanks or grilling under the midnight sun in summer. It has been quite an Alaskan adventure for me since my days at UNI and I am loving every minute of it.

Cheers from 'the city on the edge of nowhere'!

Amanda Even

Earth Science, B.A. ('09)
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Laurel, MD 20723
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University of Maryland-College Park
Coordinator of Adventure Trips

I'm currently in my second year as Coordinator of Adventure Trips for Campus Recreation Services at the University of Maryland-College Park. In my position, I am responsible for the adventure trips component of the Maryland Adventure Program (MAP). We offer recreational adventure trips all over the Mid-Atlantic for UMD students during the weekends. In addition to our recreational trips, we also offer trips focusing on service learning, leadership, and personal growth. This past January, I led a service learning expedition to La Amistad International Peace Park in Costa Rica and Panama that focused on sustainability and community building. I am also teaching a 300 level adventure leadership course at the university and am really enjoying teaching. I spent this past summer focusing on transition programs for incoming students; we offered multiple adventure freshman orientation programs and leadership immersion programs for incoming students. As MAP continues to grow, I definitely stay busy. When I'm not working, I enjoy training for the next race. I ran my third marathon this past February and completed my first Olympic distance triathlon in October. In addition, I also find myself making as many visits back to Iowa as possible to see my family and friends.

Bree McClenning

B.S. Geology and B.A. Earth Science ('09)
1519 Waterview St.
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breemc@gmail.com

Professor, Texas A&M University – Kingsville

In a nutshell, I graduated from UNI, went to Texas A&M University and received a Master of Science degree in Geology, and while in graduate school worked at Mt. Rainier National Park as a geomorphology technician and then for the Mountain Studies Institute in Silverton, Colorado as an environmental scientist. I thought that after moving to Colorado I would stay there for a while. I have learned that things never go as planned...so here I am working as a part-time professor at Texas A&M University-Kingsville. Life moves quickly when you find out you were chosen for a job teaching in Texas and realize you have only four days to move from Colorado! I must say that no matter how much hiking and research I was doing, I missed teaching. My passion truly is teaching. As I sit here in my office with students coming in to chat, I can't help but think back to my days at UNI. I spent much time visiting with the Earth Science professors. One thing I loved was how the professors always had open doors. There is a lot that I gained from being part of the Earth Science Department, but there are three main things that I will never forget...lick rocks, make a decision and never look back, and you are nothing without your honor. I find myself mimicking my former professors' teaching styles and emphasizing to my students what it means to be honorable.

In the next couple of months I will be transitioning from a part-time to full-time professor and getting married. Life never slows, but I realized that you must always smile and take things one day at a time. I hope that everyone is doing well. Peace be with you all.

Maria Hoekstra

B. A. Earth Science Teaching ('09)
107 Devlin Circle
Cedar Falls, Iowa
hoekstra.maria@gmail.com

Earth Science/Physics Teacher
Cedar Falls School District

My little family has settled down in Cedar Falls. My husband, Chris, is working as a software engineer at a local company named Banno. He loves it there. I am teaching earth science and physics in the Cedar Falls Schools. It is always a challenge, and there is never a dull moment, but it is very rewarding. I am happy here. We have a 2 year old daughter named Adaline. She is amazing. Her current life goals include mastering the potty and staying in her toddler bed all night. Addy is making great progress! Hope all is well with everyone.

Molly Hanson

Earth Science, Geology Minor ('09)
3205 143rd Street
Urbandale, IA 50323
Molly.hanson4@gmail.com

Naturalist/Environmental Educator

In the past year, my life has turned upside down – again. It seems to be the ongoing trend. But, the only constant is change and so we must adapt. In the past year, I have moved in with an old buddy I've known since I was four and her two dogs (Mocha and Chester), started my dream job as the Naturalist for the Madison County Conservation Board, and have been set up with (and am now dating) a fellow Earth Science Alumni who I had somehow never met! I'm still playing soccer, am active in the Young Professionals Connection in Des Moines, and have gotten involved with Mentor Iowa. I have to say, life is pretty sweet. It's amazing what it feels like to LOVE your job. I'll be heading up to Cedar Falls for 2012 Homecoming and again in December to see the "little" brother graduate from college...tear! Wishing you all happy trails and many adventures!

Molly Schlumbohm

B.A. Earth Science - Interpretive
Naturalist ('09)
1411 NE 16th Ave S425
Portland, OR 97232

Wildlife Educator and Performer
SeaWorld, San Antonio

I completed my thesis review this semester and hope to graduate with my M.S. in

Environmental Science in May. At the moment, I am working as a Wildlife Educator and Performer with the parrots at SeaWorld San Antonio in Texas. However, we are moving to Portland, Oregon in a couple of weeks. I don't have a job lined up yet, but am able to find positions in my field to apply to. All the best!

Brittney (Fry) Tiller

B.A. Earth Science ('12)
715 12th Avenue Gilbertville, IA 50634
fryb@uni.edu

Environmental Education Coordinator/
Naturalist
Louisa County Conservation

Nick Bosshart

B.S. Geology ('12)
University of North Dakota
Dept. of Geology and Geological Engineering
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Graduate Teaching Assistant
University of North Dakota

I have recently started (fall 2012) a Geology M.S. program at the University of North Dakota looking to specialize in Petroleum Geology.

Life has been crazy since I graduated in May. Matt and I got married in August then two weeks later I moved out to take an internship in Southern Iowa. After three months, they were able to hire me as the Environmental Education Coordinator/ Naturalist. As I write this, Matt and I are in the process of packing up and moving! Life changes fast but it is good!

WHAT HAVE YOU BEEN UP TO? UPDATE US

E-mail updates to
siobahn.morgan@uni.edu

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from alumni & friends



GIFTS from Alumni & Friends

(December 1, 2011 –
December 30, 2012)

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BMC Aggregates, LC
Matthew D. Boyce
William & Teresa Brecht
Shirley Cropper
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Iowa Limestone Producers
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Kimberly & Eugene Lemoine
Sherm & Beverly Lundy
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