Dear Alumni and Friends of the Earth Science Department,

The leaves have pretty much fallen from the trees and there is even snow on the ground, so it is that time of year to update you all on the happenings in Latham Hall. As you’ll see in this newsletter, we’ve been quite busy with the many outreach activities we do, as well as the field trips for our courses, and of course the regular business of classes, labs and research.

Things have changed quite a bit in Latham Hall, with Dr. Kenneth De Nault being granted emeritus professor status and the hiring of Dr. Alexa Sedlacek to support our new environmental science degree. We are also actively searching for another faculty position in Air Quality. We were fortunate to have the environmental science degree approved just before the start of fall semester, and in only a few months we already have 10 majors pursuing the degree! Also, the majority of prospective new students to our department indicated that they were interested in following the environmental science degree. We are also actively searching for another faculty position in Air Quality. We were fortunate to have the environmental science degree approved just before the start of fall semester, and in only a few months we already have 10 majors pursuing the degree! Also, the majority of prospective new students to our department indicated that they were interested in following the environmental science degree.

The new degree program, along with our steady offering of earth science courses for incoming freshmen, has helped keep the overall number of department majors at a healthy level, and of course, we’re hoping for even more majors in the future.

We've also been discussing future directions for the department. To bring back the geology majors at this time would be difficult without enough faculty to support it, but we are investigating proposing a geology minor and also an environmental science minor – both of which could make use of our current course offerings. In fact, we’re already looking at developing new courses to bring more students into the department: an introductory environmental science course, and a geological field experience/methods course. We hope to have these courses in the Fall 2014 schedule. Recent events have shown us that we need to not only concern ourselves about quality, which we have no problem delivering, but also quantity. Having a significant increase in our student population is one of the first foundations we can use for requesting more faculty positions.

With all of the changes in our department, we continue our efforts to expand the impact of our department on the UNI community and beyond. As you’ll see in the newsletter, we’ve continued our extensive outreach activities, and in 2014 we’ll be kicking off a new educational endeavor with the generous support of the Iowa Limestone Producers Association through a short course for teachers on Iowa’s Geological Resources. We continue to provide our students with memorable and educational (of course) experiences, such as the May trip to study the water resources of the American West, trips to the local quarries, telescope observations of the heavens, tracking of winter storms, exploration of the Maquoketa caves, and the annual trip to Casey’s Paha – how many of you remember that one? If you live in Iowa, you may be aware of a new initiative in your community, the STEM (Science, Technology, Engineering, Mathematics) initiative supported by the state of Iowa. At a November STEM event in the Five Sullivan Brothers Convention Center in Waterloo, the Earth Science department was well represented by not only faculty and staff, but also eager Earth Science majors. These folks were on hand to help keep hundreds of youngsters interested in science through a variety of hands-on activities centered on the Earth Sciences. This is probably one of our most important tasks outside of Latham Hall – to keep future generations interested in science and eager to pursue STEM careers.

(CONTINUED ON PAGE 13)
NEWS
from the faculty and staff

ALAN CZARNETZKI
PROFESSOR OF METEOROLOGY

Winter weather has made an early appearance as I write this year’s news, thanks to a polar high pressure system that made its way south out of Canada over the last few days. Thankfully, I finished digging the potatoes out of my garden this past weekend. My crops of tomatoes, green beans, and potatoes all did exceptionally well this year and, after a busy canning season, we should be able to enjoy them for a long time to come. After a cool, wet spring and early summer this year followed by a very dry late summer and early fall, our thoughts turn to the coming winter season. At this point, the Climate Prediction Center’s outlook provides no good indication of what we can expect in the Midwest. Their best assessment is that warm/cool/normal temperatures and wet/dry/normal precipitation are all equally likely in Iowa for the December through February winter season.

In July, the University of Northern Iowa’s IMPACT program, of which I am a team member, offered a 2-week summer institute in July, the University of Northern Iowa’s IMPACT program, of which I am a team member, offered a 2-week summer institute for middle and high school teachers to learn about the science inquiry process through use of GLOBE (Global Learning and Observations to Benefit the Environment) and STORM Project (Science center for Teaching, Outreach, and Research on Meteorology) resources. I introduced participants to weather analysis and forecasting concepts. We continue to work with our IMPACT participants throughout the academic year. If you are a middle or high school teacher, please visit http://www.uni.edu/ietti/impact/about_impact/ for details about the programming we will be offering in Summer 2014.

This Fall, I’m teaching the Meteorology course and 2 sections of Elements of Weather: “Air Quality” will be offered in Spring 2014. Best wishes to all!

PAULA EVEN
INSTRUCTOR

As I sit down to write this, it is hard to believe another year has flown by. The big news at the Even house this year is Gene retired from John Deere at the end of May. All of the children were able to be there, which made it an extra special event. The times we can all get together are few and far between due to jobs and distance. A couple of moving trips were made to New Mexico and Maryland this year. On one of the moving trips to New Mexico, we came across a few hundred elk in the calders. Of course they were just tiny dots and this is the one time I had left my binoculars home to save room! While we were in Maryland, we were able to watch Amanda participate in the Culpepper International Triathlon at Mountain Run Lake Park, Culpepper, VA. She did great! A nephew’s wedding north of Seattle at Cama Beach took us to the Northwest this past October. We had never been there before, and we had some very memorable moments at Mount Rainier (picture above), Puget Sound, Mount St. Helen’s, the Oregon coast and Redwood forest. All of the fog was a new experience for us and at times it was disappointing as it interfered with our views. We then headed to California to visit relatives and drove through Yosemite on a spectacular fall day on the way to Denver for GSA. At GSA, I was very busy with the SGE booth, but I was able to get away for Matt’s presentation. I finally know all about the research he has been doing! I wish everyone the best.

JOE GALE
INSTRUCTOR

I am in my thirteenth 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. I also staff the Astronomy/Weather Help Room for an hour each week to help students taking Astronomy or Weather courses.

KYLE GRAY
ASSISTANT PROFESSOR OF EARTH SCIENCE & SCIENCE ED.

It is hard to believe that I am starring my fifth year at UNI. Nothing earth shattering has happened since last year. I’ve taken no major trips or expeditions to parts unknown. I continue chugging away teaching Inquiry into Earth and Space Science (the intro course for elementary education majors). This course continues to evolve and is a joy to teach. I also taught the sequel to Inquiry (Investigations into Earth and Space Science), and this spring I will be teaching a graduate-level science education course, Research Methods in Science Education.

I continue to work on my research project where I am investigating changes in student confidence towards teaching science after completing my courses. So far the results are encouraging, and I am ready to see if I get similar results from the other Earth Science intro courses.

Outside of UNI, I recently named an Associate Editor for the Journal of Geoscience Education and recently helped to launch a Teacher Education Division within the National Association of Geoscience Teachers.

CHAD HEINZEL
ASSOCIATE PROFESSOR OF GEOLOGY & SCIENCE ED.

So 2013 was not a particularly fruitful year at the University of Northern Iowa, but with adversity comes equal opportunity and perhaps clarity. My family and I struggled with academic cuts/uncertainty, the destruction of the M. Price Laboratory, and the breaking apart of a community. It became explicitly clear that higher education, is not unlike any other business; perhaps we were too idealistic/ naive! The face of education and for that matter our civilization, is rapidly changing. So as in any democratic society, there are really only two choices: 1) cut your losses and move on; or 2) hunker down and use your skills, talents, and temporarily weakened ambition to create a civilization that you can be proud of. Some of my geochronological research has shown that during times of societal unrest, humans generally move towards familiar and perhaps comfortable settings. My family and I have selected option #2 and moved back toward our rural roots. We have relocated to rural Iowa and are enjoying a renewed sense of purpose and community. I am very excited about many recent UNI and personal developments. I am encouraged by on-going movements that seek to effectively communicate geology’s critical role in global development, conservation, poverty, climatic change, energy, geo-hazards, water/sanitation, infrastructure, and use of natural resources. Here’s to an amazing 2014 - if there is one thing I have learned from this past year, it is that it will take a lot of hard work and creativity, and in the end that might not even be enough, but at least you did your part!

MY NEWS is in progress and an award
from the faculty and staff

winner in the annual Cyber Defense Competition at Ames. (The sponsors are our own Aaron Spurr and Computer Science’s Paul Gray.) My stepson, Artyom, took a job with the Export-Import Bank of the United States and moved to Washington, D.C. My mother-in-law works with Yuliana at Casa Montessori School; I find this a remarkable accomplishment inasmuch as Valentina speaks no English. Michael and I drove to the Air & Space Museum in Hutchinson, Kansas for Spring Break — great museum. Also, there are a great many dusty miles of nothing but wheat fields. I taught eight students “Sky Interpretation.” It’s too bad our Natural Interpretation major got axed. I also now have the distinction of having at least one of my former “Astronomy” students running for Congress. I remember her because she always sat in the front row. Another leftier 4am from a year ago. I met the President of the United States in the summer of ’12. Or, at least I shook his hand. The campaign bus had come to a stop at the Pump Haus in downtown Cedar Falls — they have to eat somewhere, I guess. I got ushered up to the front of the ropes because I had with me my 92-year-old mother, and I believe they considered her a photo op. I think she still voted for Romney.

MOHAMMAD IQBAL
PROFESSOR OF GEOLOGY

Greetings to friends of the department! I have the great pleasure to teach Intro to Geology and Environmental Hydrology in the spring. Best wishes to all!

MIKE STEVENS
INSTRUCTOR

“Time is not measured by the passing of years but by what one does, what one feels, and what one achieves.” Jawaharlal Nehru

LEE POTTER
INSTRUCTOR

Thanksgiving comes late this year, and it is time to break with tradition in a number of ways. After 55 sections of Capstone, I had the great pleasure to teach Intro to Geology this fall semester. It is always good to get the creative juices flowing by doing something different. To that end, I will be taking on Structural Geology and 1/3 of the Optics - Petrography course in the spring. Research is ramping up again with New Mexico igneous rock chemistry and isotope work in various stages of planning or execution, and a possible return to West Texas.

ALEXA SEDLACEK
ASSISTANT PROFESSOR OF EARTH SCIENCE

I moved to the Cedar Valley this summer, after completing my Ph.D. in Geological Sciences at The Ohio State University. My husband, Patrick, and I lived in Columbus, Ohio, for six years, but moving to the Cedar Valley was like coming home. We grew up in eastern Iowa, and are happy to be back - this time with our toddler, Penelope, and pets. Cedar Falls and the surrounding community are welcoming, and we are impressed with the area’s great coffee, beautiful parks and extensive trails.

This semester, I’ve enjoyed teaching Earth History and Environmental Geology. The quality of UNI students and their willingness to work hard continues to impress me. I benefit greatly from the work of my TA, senior Geology major Madison Pike. Her extensive knowledge of the fossil and rock collections simplified my job. I also credit the department’s teaching collections, which are among the most well organized and complete collections I have worked with. I joined Dr. Jim Walter’s Geomorphology class on their field trips and am learning the geology of the immediate Cedar Falls area. I believe in a hands-on approach to geology and environmental science, and I look forward to developing a field component for most of my courses here at UNI.

I am a stratigrapher and carbonate sedimentologist by training. My research focuses on the end-Permain mass extinction, the largest extinction event of the past half billion years. My field area is in the Great Basin region of Utah and Nevada, and my dissertation adviser and I published a paper on our work there in Geology earlier this year. I have also analyzed samples from Italy, China, and Iran for carbon and strontium isotopes, which I use as geostratigraphic tools. In the near future I hope to form a research group and involve our majors in field and laboratory work.

I look forward to developing this program and will give you an update next year!

JAMES WALTERS
PROFESSOR OF GEOLOGY

In June 2014 Jim will be retiring from the Earth Science Department after 39 years of service.
WHERE ARE YOU NOW?

WHERE YOU ARE NOW?

WHAT DO YOU ENJOY MOST ABOUT WORKING WHERE YOU ARE NOW?

WHAT ARE SOME OF YOUR HOBBIES AND INTERESTS?

HAVE YOU RECEIVED ANY OTHER DEGREES SINCE GRADUATION OR DO YOU PLAN TO CONTINUE YOUR EDUCATION IN THE FUTURE?

WHAT HAVE YOU BEEN THE RECIPIENT OF ANY AWARDS OR SPECIFIC ACCOMPLISHMENTS?

WHERE HAVE YOU BEEN DOING SINCE LEAVING UNI?

HAVE YOU EVER HEARD THAT SPACE IS THE FINAL FRONTIER?

WHAT IS THE IMPORTANCE OF EDUCATION?

I am currently living and working (remotely) in Brandon, Iowa, with my husband and two children (ages 8 and 11 years old). I spent the previous two years living and working in Houston, TX, for the Lunar and Planetary Institute (LPI), a NASA-funded science research organization which is a part of the larger non-profit Universities Space Research Association (USRA), as an Education and Public Outreach (E/PO) Specialist. I have been very fortunate to have been able to continue my work for the LPI from Iowa over the past year.

I was honored to be the recipient of an American Meteorological Society Government/Industry Graduate Fellowship, sponsored by the National Weather Service.

I have thoroughly enjoyed the diversity of tasks and opportunities within my current position. Not many jobs provide this range of opportunities and experiences!

Since graduating from UNI, I have completed 30 hours of graduate work towards a M.S. in Geosciences. However, I do not have any additional educational plans for the foreseeable future.

It is right now in Earth and planetary sciences.

There is a lot to be excited about with all of the great NASA missions currently exploring our solar system, and it is fun to be the person to share the discoveries with people who may not realize how active exploration is right now in Earth and planetary sciences.

The primary focus of my work with the LPI has been the development of freely available informal science educational materials and activities and delivery of professional development trainings to informal educators from across the country through the LPI’s Explore program (www.lpi.usra.edu/explore/). This program started by serving and training public librarians but has expanded to include other informal educators such as museum staff, Girl Scout leaders, and camp professionals/interpreters. The Explore program is designed to engage children in Earth and space science in libraries and other out-of-classroom environments. Finally, I am also a member of the NASA Science Mission Directorate’s Planetary Science E/PO team, where I help to strategize, plan, and deliver professional development opportunities for the NASA Planetary Science E/PO community as a whole. Within this group, I have also helped to co-lead a task force on professional development related to serving underserved/underrepresented audiences in science education.

In July of 2011, I was offered an exciting opportunity to join the Education and Public Outreach (E/PO) team at the Lunar and Planetary Institute in Houston (my current position), which I happily accepted. It was a difficult decision since all of our family and friends were in Iowa, but it’s a risk that I’m glad that I took! Through my work at the LPI, I have had the honor of meeting and working with some of the most amazing and talented people I’ve ever encountered. Beyond that, though, is the love and passion that my fellow E/PO specialists and educators possess. It truly makes work much more enjoyable when the people you are with love what they do!

As an E/PO specialist, I primarily work to develop and deliver Earth and space science educational materials, resources, and professional development training to other educators across the country (and across NASA). My work largely involves taking the latest in NASA Earth and planetary science research and discoveries and making it into something useable and understand-able for various audiences — such as other educators, families, and the general public. In many ways, E/PO specialists act as a bridge between the science world and rest of the world at large. I find this exciting since it means I have the opportunity (and challenge) to inspire the next generation of scientists, engineers, and explorers through my work and the products/activities that I create. In particular, I feel it is important to help bring the true nature of science to my audiences. That science is not just a set of facts in a textbook but rather a way of understanding the world and universe around us. There is a lot to be excited about with all of the great NASA missions currently exploring our solar system, and it is fun to be the person to share the discoveries with people who may not realize how active exploration is right now in Earth and planetary sciences.

The importance of fostering strategic partnerships and collaborators for successful programs.

I have always enjoyed the outdoors, and have continued some of my favorite hobbies which include horseback riding, gardening, star gazing, and, more recently, running 5K’s. After returning to Iowa, I discovered a new passion for health and fitness through the Next Level Extreme Fitness Program in Cedar Falls – it is an amazing group (family) of people and has had a very positive impact on me and my family. I never would have believed that I would be good at running, let alone enjoy it, but I’ve discovered a love for the challenge of it. It has served as a good reminder to never settle in life, but rather to continue to try new things and push myself out of my comfort zone. That is the best way to really grow and learn... a good reminder for an educator.

I have thoroughly enjoyed the diversity of tasks and opportunities within my current position. Not many jobs provide this range of opportunities and experiences!

It is fun to be the person to share the discoveries with people who may not realize how active exploration is right now in Earth and planetary sciences.

The primary focus of my work with the LPI has been the development of freely available informal science educational materials and activities and delivery of professional development trainings to informal educators from across the country through the LPI’s Explore program (www.lpi.usra.edu/explore/). This program started by serving and training public librarians but has expanded to include other informal educators such as museum staff, Girl Scout leaders, and camp professionals/interpreters. The Explore program is designed to engage children in Earth and space science in libraries and other out-of-classroom environments. Finally, I am also a member of the NASA Science Mission Directorate’s Planetary Science E/PO team, where I help to strategize, plan, and deliver professional development opportunities for the NASA Planetary Science NASA Planetary Science E/PO community as a whole. Within this group, I have also helped to co-lead a task force on professional development related to serving underserved/underrepresented audiences in science education.

The importance of fostering strategic partnerships and collaborators for successful programs.

I have always enjoyed the outdoors, and have continued some of my favorite hobbies which include horseback riding, gardening, star gazing, and, more recently, running 5K’s. After returning to Iowa, I discovered a new passion for health and fitness through the Next Level Extreme Fitness Program in Cedar Falls – it is an amazing group (family) of people and has had a very positive impact on me and my family. I never would have believed that I would be good at running, let alone enjoy it, but I’ve discovered a love for the challenge of it. It has served as a good reminder to never settle in life, but rather to continue to try new things and push myself out of my comfort zone. That is the best way to really grow and learn... a good reminder for an educator.

I have thoroughly enjoyed the diversity of tasks and opportunities within my current position. Not many jobs provide this range of opportunities and experiences!

I have been able to experience and take part in some amazing opportunities and events - from NASA mission launches such as the Mars Science Laboratory (Curiosity rover), Lunar Atmosphere and Dust Environment Explorer (LADEE), and Mars Atmosphere and Volatile Evolution (MAVEN) missions, to becoming an authorized certifier for the lunar sample education disks launched from Johnson Space Center, and traveling across the country to train other informal educators in NASA hands-on activities, resources, and science content. I have thoroughly enjoyed the diversity of tasks and opportunities within my current position. Not many jobs provide this range of opportunities and experiences!
On Sunday, October 6th, the UNI Earth Science Department celebrated Earth Science Week by participating in the Sunday at the Quarry event. This annual event is sponsored by the BMC Aggregates and provides a chance for the general public to learn more about Earth Science. Various state and local groups offered educational activities for the young and young-at heart. Visitors could also smash some limestone crystals, or travel down into the quarry itself. An estimated 750 people braved the cloudy and drizzly weather and partook of the festivities at the Raymond Quarry just east of Waterloo.

This year’s theme was Our Resourceful Earth, and like past years, the UNI Earth Science Department (including a few teaching majors) assisted with the activities and had fun interacting with the public. Jim Walters and Lee Potter greeted visitors down in the quarry and explained the stratigraphy exposed on the quarry walls. Our newest faculty member, Alexa Sedeliece, also popped in for a while. For some reason, Siobhan Morgan thought that a thick cloud layer was a sufficient excuse to avoid setting up her telescope for viewing the sun.

Despite the rainy day, the event was a success, and we look forward to the 2014 event.

SUNDAY at the QUARRY
Several other bird sightings were new to us, see and hear the elusive and rare Colima from Big Bend National Park. Our trip was all to West Texas, including time spent in the During late April, we took a two-week trip to the last decade. Only 18 of a class of about 150 were present; so we aren’t kidding to a family gathering here for the holiday. in Cedar Falls. We are looking forward we are preparing for Thanksgiving 2013 to a family gathering here for the holiday. to a family gathering here for the holiday. Jan and I celebrated our 55th wedding anniversary in June. In October, we attended the reunion of our Keokuk High School class of 1959. Sixty years had taken its toll; several classmates had died during the last decade. Only 18 of a class of about 150 were present; so we aren’t kidding when we say that we are very thankful to be “alive and kicking.”

During late April, we took a two-week trip to West Texas, including time spent in the Davis Mountains, Marathon Fold Belt, and Big Bend National Park. Our trip was all about birding this time, but lots of good memories returned, related to several UNI spring break trips to Big Bend country. The birding was excellent! It took two long hikes into the Chisos Mountains, but we did see and hear the elusive and rare Colima Warbler in Boot Canyon. We saw our first Blue Grosbeak in the Marathon Fold Belt. Several other bird sightings were new to us, so overall it was a great trip.

It’s nearing the end of another year, and Earth has gone around the sun again. This is the time to greet old friends and remember those who are no longer with us as we take joy in celebrating new friends. I’m glad to have made it around the sun once more. Going around the sun is a concept that would have meant nothing to our distant forbearers. I have quite often thought about how our knowledge of the size and arrangement of the universe has given us a different sense of our place in the world. A few centuries ago, people thought in terms of only thousands of miles to all that exists. Now we think in terms of billions of light years and a world billions of years old. Likewise, not many generations ago, people had no knowledge of the microscopic. Amoebas, bacteria, and diatoms (you know I would get around to those) could not be imagined. One has to wonder what people in the future will be talking about that we are now unaware of. That’s why we build atom smashers, spaceships, and microscopes - why we have universities. Speaking of diatoms, I have been looking for those single-celled algae in 55-million year-old coal. After attending a diatomite workshop at Iowa’s Lakeside Lab in June, I started to examine coal from Montana and North Dakota. So far, I’ve had no luck, but if I find any, you can be sure you’ll hear about it next year. The North American Diatom Symposium was held this year in Bar Harbor, Maine, and because somebody has to attend these meetings, I sacrificed my time and resources to spend warm summer days by the ocean. It was hard!

July, August, and September were much better than normal in Custer County. We escaped the major flooding that damaged large areas of northern Colorado. Over the course of the summer, we got in lots of nice hikes in the local Sangre de Cristo Range and the nearby Wet Mountains. We are the oldest members in our hiking group and often the slowest. Still, there is much to be thankful for, and we are pleased that we can still get out and enjoy the great outdoors! Best wishes to UNI graduates and friends.

Outstanding Earth Science Teacher (EST) awards are given for “exceptional contributions to the stimulation of interest in the Earth Sciences at the pre-college level.” Any teacher or other K-12 educator who covers a significant amount of earth science content with their students is eligible. Ten national finalists are selected, one from each NAGT regional section. Some sections also recognize state winners. Individuals may submit an application themselves or nominate a colleague for the award.

MARY LESTINA

is in her twelfth year of teaching at City High School in Iowa City, Iowa. She currently teaches Ecology, Physical Geology, and Weather and Climate trimester electives for juniors and seniors, senior level Physics, and freshman level Foundations of Science III. Mary graduated from the University of Northern Iowa with a Bachelor’s of Art, Science Degree in 2000, majoring in All Sciences and Earth Science Education with a minor in Meteorology. She earned her Master’s of Science Education Degree from the University of Iowa in 2005 with an emphasis in Earth Science. In 2010, she was awarded the Excellence in Science Teaching Award from the Iowa Academy of Sciences.

As an active member of the Science Department, Mary has worked on curriculum review and standards alignment projects and was part of a team of teachers recognizing the need to extend the Earth Science offerings through Earth Science Trimester Electives. She has worked with science and special education teachers incorporating reading strategies, differentiated learning, and understanding by design strategies into her classroom, giving students the best experiences possible. Mary is an active member of the National Science Teachers’ Association and the Iowa Academy of Sciences (IAS), presented at several national and local science teacher conferences, and has served as IAS Membership Committee Chair and as a member of the IAS Recognition Committee.

Mary has sponsored the Science Club since 2000, and in the past has sponsored the Environmental, Rocket, and Global Perspectives Clubs at City High School. Mary’s teaching philosophy is to encourage all students to connect their lives to their education. Her positive attitude, high expectations of every learner, willingness to improve, and a value of every student’s unique abilities makes learning more meaningful for students within her classroom.

If you have the chance to attend one of these events, or to present your own experiences to a group of young students, I’d strongly urge you to do so.

For myself, I’ve continued to teach an array of astronomy courses and continue with my own outreach activities with the weekly observatory or planetarium shows. This fall we had nearly 400 visitors to the McCollum observatory — including students from Waterloo schools, Hawkeye Community College and two groups of boy scouts (and parents). I was also able to travel to Poland to present results of my research on variable stars, and do a little bit of tourism (and have some pierogi as well).

Please keep in mind, we are always interested in our alumni’s many activities and achievements. And as usual, I would like to thank you for your continued support and interest in our students’ many activities.

(continued)
Impacting Achievement with Collaborations and Technology (the IMPACT Program)
By Alan Czarnetzki, IMPACT management team member

The IMPACT Program began its eighth year of programming in July 2013 after receiving a three-year grant from the Iowa Board of Regents through the Title II A Improving Teacher Quality State Grant Program for Higher Education. The grant management team at UNI includes Dorwin Hayek and Lori Seawel (Information Technology Services – Educational Technology), Marcy Saywer (Iowa Academy of Sciences), and Alan Czarnetzki (Earth Science). Eight middle and high school teachers are participating in the 2013-2014 program year. Participants attended a two-week summer institute on the UNI campus in July 2013 and are receiving on-going support via the Iowa Communications Network, webinars, and school visits by the grant management team. The goal of IMPACT is to provide participating teachers with sustained, intensive professional development that results in demonstrable and measurable improvement in student academic achievement in mathematics and science. The content areas we focused on were weather analysis and forecasting (using materials developed by the STORM Project in the Department of Earth Science), GLOBE (Global Learning and Observations to Benefit the Environment) protocols for making scientific measurements, and inquiry techniques for the science classroom. Participating teachers develop two Technology Integration Action Plans (TIAP) for their classroom using STORM and GLOBE content. Many of the current and past participants will be presenting on implementation of their TIAPs and the resulting student projects at the Spotlight on Technology Day, scheduled for February 27, 2014, on the UNI campus. IMPACT participants receive a modest stipend and can register for graduate credit.

30 YEARS AGO AT UNI:
THE TWO-HUNDRED POUND GORILLA IN THE SINKHOLE

Currently, there is a somewhat-irritating ad running on cable television. The ad shows a husband and wife discussing their financial situation and then cuts to a gorilla who says “but don’t listen to me, I’m just the 800-pound gorilla in the room.” The gorilla is intended to be a metaphor representing the need for long-range financial planning, something that is obvious but often ignored. Some bloggers have criticized the ad as being a mixed metaphor and point out those creators of the ad should have used “the-elephant-in-the-room” metaphor if they were talking about something that people know (or see) but still choose to ignore. It doesn’t matter. My story deals with neither elephants nor metaphors.

However, one large gorilla is involved. What I write about happened nearly 30 years ago when a “200-pound gorilla” visited the 1984 Tri-State Geological Field Conference in north-central Iowa. One of the field trip stops was a karst region, north of Floyd, Iowa, where numerous well-developed sinkholes are present in farm fields and pastures. The sinkhole that I selected for a field stop was connected to an underground cave large enough to accommodate a few people, or one large gorilla.

I had arranged for a departmental colleague to enter the sinkhole and associated cave prior to the arrival of field-trip participants. As explanations and discussions took place around the periphery of the sinkhole, I heard excited comments coming from the gathered group: “Look, something is moving down there!” “I see a hairy head and arm!” “Oh, my gosh, it’s a gorilla!”

The “gorilla” turned out to be UNI geology professor Kenneth J. De Nault, attired in a rental outfit from a local costume shop. The 200-pound primate added some surprise, excitement, and humor to the field conference. He even directed traffic at selected stops, much to the amusement of those passing by. Who says Midwest geology is dull?

EARTH NEWS spring 2014 | 15

A TRIP TO...
PARTANNA, SICILY

Four UNI Earth Scientists embarked on an adventure this past summer near Partanna, Sicily. Dr. Chad Heinzel (Associate Professor of Geology) led three undergraduate students (Angela Petersen, John Chesley and Victoria Arrelos) in geoarchaeological field research. Our preliminary objectives were to begin developing two data sets: 1) characterization of Partanna, Sicily’s, natural resources (clay and stone), and 2) confirm the presence of a geoarchaeological record capable of addressing questions surrounding the Neolithic Revolution (6000 BC). We collected over one-hundred geologic (clay, stone, and ceramic) samples. Analyses (chemical and physical) of these samples are facilitating interpretations that directly tie western Sicily’s prehistoric communities with their geologic environment, providing a “window” into their lives.

Our efforts have identified an abundance of natural resources as well as a robust archaeological record dating back to the Mesolithic (10,000 BC). One of the most promising finds was a paleosol (buried soil) with significant cultural materials! These artifacts (lithic and ceramic) date to the Late Mesolithic to Early Neolithic. This paleosol may represent a soil, “natural time-capsule”, of the Neolithic Revolution, or time when humanity was evolving from hunting/gathering to agrarian lifestyles! In addition to identifying and characterizing the natural resources and artifacts, we constructed a series of Geographic Information Systems (GIS) maps that will serve as the basis for future work investigating western Sicily’s prehistoric landscape/climate changes, settlement/labor patterns and archaeological site prospecting. By characterizing the interrelationships between humanity, natural resources, and climate variability, our research aims to accurately portray and learn from the geoarchaeological record. “We hope to learn from the past, engage the present, and build a promising future!”
Another exciting year has flown by, and it has brought on a wealth of new experiences and events to make 2013 a great year for SGE. Last year we saw many of our active members graduate and move forward with their lives, but those voids have since been filled with new members who will certainly continue to help SGE grow.

We currently have 21 active members in the Chapter. During spring semester last year, we initiated four new members and an additional five members in the fall. The current officers were elected last April and include: President John Chesley, Vice President Victoria Arreola, Secretary Robert Spielbauer, and Treasurer Madison Phie. The members of SGE have ardently given their time and volunteered for events such as Sunday at the Quarry during Earth Science Week. Our members helped visitors identify rocks and aided with any questions they may have. Our biggest accomplishment that discusses energy and how the transition of energy resources will shape our future.

This year in order to help SGE raise money, we decided to make t-shirts. Making t-shirts for SGE had been talked about for well over a year but this year we finally managed to make it happen. SGE will sell pop, candy, and other snacks in our student room as another source for raising money. After seeing many of our members graduate from UNI, taking the next big steps in their lives, we are thankful for their participation and help in making Gamma Sigma what it is today. We encourage our new initiates to continue being active in SGE and bring new ideas to the table to make SGE an even greater organization. If you would like to follow us throughout the year, make sure to check out our Facebook page at www.facebook.com/unigamma.thechapter. The Gamma Sigma Chapter of SGE thanks you for all your support!

John Chesley
Chapter President
1960's

MARY ANN (MARSH) SMITH
B.A. Earth Science ('48)
P.M.A. ('57) Earth Science Education
Princeton, IL

Retired educator - I am thoroughly enjoying retirement, spending more time with our grandchildren, traveling, volunteering and a fair amount of loosing. I love to hear about the department and send special greetings to Dr. Wayne Anderson.

1970's

ELDON BIRD
B.A. Earth Science ('70)
P.M.A. Earth Science ('72)
Bettendorf, IA

Retired Educator - Enjoying retirement with travel throughout the US and wonders throughout the USA! Also spend time on the golf courses and bass fishing! After all the years of work, I now have committed to a life of play!

Our granddaughter has just been accepted at UNI - 4th generation of Panther Pride!!

BILL BRECHT
B.A. Earth Science Teaching ('72)
St. Charles, MO

Retired educator - Since retiring from teaching in 2002, I’ve been working part-time at the Lewis & Clark Museum in St. Charles. My wife Teri (UNI ‘73) and I enjoyed attending the Earth Science Awards Banquet and visiting the campus last April.

LYLE SILKA
B.A. Geology ('72) & P.S. Geology ('75)
Oklahoma State Univ.
Haymarket, VA

Consulting Hydrogeologist
Silka Consulting Services Inc.

Providing hydrogeologic investigation & remediation for subsurface contamination issues for the past 40 years mainly involving petroleum releases, dry cleaners, and As-Pb in old orchards. While my opinion is somewhat biased that data, I could not have done better than UNI. However, I'm not quite fossilized yet!

B.A. Geology ('73) M.S. ('77)
Tucson, AZ

Retired Staff
Deparmental Geosciences,
University of Arizona

This past year has kept me busy trying to protect the San Pedro Valley in southern Arizona, where I have a cabin and a community of friends. We have been struggling against a gigantic transmission system in the valley and working to establish a National Wildlife Refuge. In early February, my geology buddy Russ Jacobson visited Tucson again for the Tucson Gem and Mineral Show, and we had a great time wandering around looking at fossils and minerals. Other trips during the year included visiting the Pinacate Volcanic Field in northern Sonora and the Guadalupe Mountains in west Texas. I also visited my family in Iowa and returned through Colorado, escaping the state the very morning that the rain began that devastated the Front Range. Retirement keeps me busier than ever: I need a rest sometime!

JIM JANSSEN
B.A. Geology ('72)
M.A. Ed Psych-Teaching ('80)
Waverly, IA

Retired & Carla and I continue to enjoy the benefits of retirement–time to travel to see family, have fun, play community service, and have a more balanced life.

MARK BOLSON
B.A. Geology ('73)
Tucson, CO 80233

Retired

KAREN ASHBAUGH
B.A. Science ('74)
Fairport, NY

WW WebSphere Channel Sales
IBM Software Group

Employed in software channel sales with IBM Software Group – Application Integration Middleware business. Thirty three year IBM career has included U.S. field sales, mainframe hardware planning, network services planning, WW software business development and WW software channel sales. Summer time explorations to the Maine coast - Acadia National Park and winter excursions to the Canadian Rockies. Value of the earth science curriculum to my roles at IBM–disciplined study habits, project management skills as well as exercising concepts.

NORM MEADER
B.A. Geology ('73) M.S. ('77)
Tucson, AZ

Retired Staff
Deparmental Geosciences,
University of Arizona

IM’S fossilized yet!

MY OPINION IS SOMEWHAT DATED, I COULD NOT HAVE

AND AS-Pb IN OLD ORCHARDS. WHILE MY HWI R...
Hello Fellow UNI Alumni! I am still enjoying my job working on shale gas and shale oil exploration in Argentina. The travel is great, and the geology is diverse and challenging. My family is also doing well. My 4-year-old daughter Miranda has recently learned about the moon she was named after; she thinks that’s pretty cool. I am still very disappointed that UNI decided to drop the geology majors, it is such a great time to get a job in the petroleum industry. If you graduate with a Master’s degree! Hope Everyone is doing well, look me up if you are in Houston!

JASON MARTIN  
B.A. Earth Science ’96  
Seoul Korea  
Middle School Science Teacher  
Korea International School  
Back in the classroom after a nine-year sabbatical. After teaching in Egypt and Brazil my family moved back to the states where I entered the family business in Waterloo, IA (home). Our family decided to take a big step back into the overseas adventure and we landed in Korea. Leigh continues to be employed by UNI for the Out-of-State and Overseas Field Experience office, and I am teaching Middle School Science. Our girls, Willow (12) and Ayla (10), are adapting to their new school. Life is good and we are blessed to be experiencing such a wonderful adventure. Hope everyone is doing well.

GINGER LIDLOW  
B.A. Earth Science ’98  
Des Moines, IA  
Project Manager  
RN/Alliance  

AMY FREIBERG MILLER  
B.A. Earth Science  
Science Instructor  
Boone High School  
I have been chasing my dream of the ideal classroom, and I was recruited to Boone High School. As the mother of two children, Leah and Riley, and wife to Charles, moving the family from our NE Iowa roots has been an adventure, especially exploring the geology of Ledges State Park with my bare feet in the creek. The family has discovered that rocks and trees are better than any park equipment.

I have discovered that you really can do whatever you decide to do. I was asked, what classes would you love to teach?” My reply was “Earth Science of course!” For the third time I have started an Earth Science course - I am told to say thoroughly enjoying Meteorology and Astronomy classes. I am hopeful to join back up with UNI this summer for developing problem-based learning opportunities for these courses to be used in 2014-15. Boone is an amazing place - implementing a Research and Development Pipeline for all things STEM, and I plan to be an active and fun performer in our students into research scholars.

Whenever I think back to my years at UNI, I realize how deeply I was sculpted by those experiences, and therefore I am continuously grateful.

KADEN BORSETH  
Earth Science Major, Geology and Anthropology Minors  
Deserae, GA  
Education Program Manager - Earth Science Programs and F.U.N. Volunteer Program  
Fernbank Museum of Natural History  
This year I have been able to travel around the country meeting other planetarium directors and operators. It is fun to see how other astronomy educators handle teaching in the dark and manage their groups of children.

I am currently working with our local astronomy club and the school district to set up an Astronomy Day for Dew Drop. It has been interesting developing our own stall on the traditional Astronomy/Visit the Planetarium Day. I am still teaching 5-8 Astronomy and eighth grade Cisco IT Essentials.

NICK PAGE  
B.A. Earth Sciences (’02)  
Des Moines, Iowa  
Environmental Specialist Senior  
Iowa Department of Natural Resources  
Weather, Earthquakes and Space  
I am teaching Middle School Science. Our girls, Willow (12) and Ayla (10), are adapting to their new school. Life is good and we are blessed to be experiencing such a wonderful adventure. Hope everyone is doing well.

I have been working at the Fernbank Museum of Natural History since 2000. I am teaching Middle School Science. Our girls, Willow (12) and Ayla (10), are adapting to their new school. Life is good and we are blessed to be experiencing such a wonderful adventure. Hope everyone is doing well.

I have been chasing my dream of the ideal classroom, and I was recruited to Boone High School. As the mother of two children, Leah and Riley, and wife to Charles, moving the family from our NE Iowa roots has been an adventure, especially exploring the geology of Ledges State Park with my bare feet in the creek. The family has discovered that rocks and trees are better than any park equipment.

I have discovered that you really can do whatever you decide to do. I was asked, what classes would you love to teach?” My reply was “Earth Science of course!” For the third time I have started an Earth Science course - I am told to say thoroughly enjoying Meteorology and Astronomy classes. I am hopeful to join back up with UNI this summer for developing problem-based learning opportunities for these courses to be used in 2014-15. Boone is an amazing place - implementing a Research and Development Pipeline for all things STEM, and I plan to be an active and fun performer in our students into research scholars.

Whenever I think back to my years at UNI, I realize how deeply I was sculpted by those experiences, and therefore I am continuously grateful.

KADEN BORSETH  
Earth Science Major, Geology and Anthropology Minors  
Deserae, GA  
Education Program Manager - Earth Science Programs and F.U.N. Volunteer Program  
Fernbank Museum of Natural History  
This year I have been able to travel around the country meeting other planetarium directors and operators. It is fun to see how other astronomy educators handle teaching in the dark and manage their groups of children.

I am currently working with our local astronomy club and the school district to set up an Astronomy Day for Dew Drop. It has been interesting developing our own stall on the traditional Astronomy/Visit the Planetarium Day. I am still teaching 5-8 Astronomy and eighth grade Cisco IT Essentials.

NICK PAGE  
B.A. Earth Sciences (’02)  
Des Moines, Iowa  
Environmental Specialist Senior  
Iowa Department of Natural Resources  
Weather, Earthquakes and Space  
I am teaching Middle School Science. Our girls, Willow (12) and Ayla (10), are adapting to their new school. Life is good and we are blessed to be experiencing such a wonderful adventure. Hope everyone is doing well.

I have been working at the Fernbank Museum of Natural History since 2000. I am teaching Middle School Science. Our girls, Willow (12) and Ayla (10), are adapting to their new school. Life is good and we are blessed to be experiencing such a wonderful adventure. Hope everyone is doing well.

I have been working at the Fernbank Museum of Natural History since 2000. I am teaching Middle School Science. Our girls, Willow (12) and Ayla (10), are adapting to their new school. Life is good and we are blessed to be experiencing such a wonderful adventure. Hope everyone is doing well.
rewarding work. I do wish MAP, this year, I’ve gotten more involved in other areas at the university. These opportunities include: serving as a staff adviser for Alternative Breaks; coaching for Transfer 2 Terp (a program that assists transfer students); serving on the Division of Student Affairs Learning Outcomes Committee; and teaching academic leadership courses for the School of Education. This past November, I co-hosted the Association of Outdoor Recreation and Education (AORE) National Conference in College Park. The conference brought together professionals and students in the field of outdoor recreation and education to exchange information, promote the preservation and conservation of the natural environment, and address issues common to college, university, community, military, and other non-for-profit outdoor recreation and education programs. After two years of planning, it was rewarding to see the conference come to fruition.

When not working, I’m preparing for the next race. This past year, I completed the Delaware Marathon, the Smallwood Olympic Triathlon, and the Culpepper International Triathlon.

MARIA HOEKSTRA
B.A. Earth Science Teaching (’09)
Cedar Falls, Iowa
8th Grade Earth Science Teacher
Holmes Jr. High
Cedar Falls Community School District
Life is going so fast! My daughter, Adaline, is 3 years old now. My husband and I both work in the Cedar Falls area and love it here. We are enjoying the fast-paced world of being young professionals and parents. It is a crazy life, but very rewarding as well. Hope all is well at Latham.

JOE ZEITLER
B.S. Geology (’09)
Juneau, AK
Production Geologist
Hecla Greens Creek Mining Co.
After leaving UNI, I headed to South Dakota to begin graduate work at the South Dakota School of Mines and Technology. I finished my Master’s degree in Structural Geology and Ore Deposits in the fall of 2012. Prior to that I had moved up to Juneau Alaska in July 2012 to begin working at the Greens Creek Mine. At the mine, my duties include face sampling and underground mapping in addition to working closely with the other geologists, engineers and miners to ensure we are extracting ore in a profitable manner. Probably the best part of my job is knowing that every day is different and never boring. I hope that everyone out there is well and enjoying their time after UNI as much as I did.

2010’s

SEAN NEWLIN
B.S. Air Quality (’10)
Cedar Rapids, IA
Environmental Scientist
Stanley Consultants Inc.

JONATHON LAUNSPACH
B.A. Geology (’11)
Duluth MN
GIS Analyst
SRA International
This past Summer, I finished my Master’s degree at the University of Northern Iowa in the Geography program. My thesis focused on an automated way to extract sinkholes in Northeast Iowa using LiDAR data. This fall, I received a job in Duluth, MN, where I am currently working for SRA International as a GIS Analyst and provide support to the EPA Research Lab.

BRICE JENSEN
B.A. Earth Science Teaching (’11)
Roeland Park, KS
Physics Teacher
North Kansas City Schools
I am currently in my second year of teaching 9th grade physics down in Kansas City. On top of teaching, I started an environmental club at our school, which has really taken off. Last February, I proposed marriage to Kelley Hampton, a UNI biology alumnus and current graduate student at KU Medical Center for cancer research. We are having a fun time planning for our wedding and taking care of our two kittens.

ELIZABETH WELDER
B.A. Earth Science (’12)
Navada, IA
Americorps Forestry Aid
State Tree Nursery-DNR

DESIRA WEBER
B.A. Earth Science Teaching (’12)
Chesapeake, IA
Pet Stylist
PetSmart
I am currently studying for the GRE, planning to go to grad school for mechanical engineering next fall.

BRITTNEY (FRY) TILLER
Earth Science (’12)
Wapello, IA
Environmental Education Coordinator
Naturalist
Louisa County Conservation
I am just wrapping up my first year as a full-time Naturalist for Louisa County Conservation. It has been an awesome year of field trips, classroom and public programs, and youth trips! The highlight of my year was showing the 3rd graders the first moon phase through our telescope. Their eyes lit up as they saw the beauty of our natural world! Matt and I just bought a small house and got a cute little puppy so needless to say, life is good, and we are so very blessed.

ALICIA HERZOG
B.A. Earth Science (’13)
Cedar Falls, IA
SRA International

ALICIA HERZOG
B.A. Earth Science (’13)
Cedar Falls, IA
Student Life Assistant Program Coordinator
Hawkeye Community College
I recently took a job at Hawkeye and am working part-time at the YMCA. I am hoping to find a job in a science museum outside of Iowa sometime mid-2014.

CHRISTIAN MCCLAUGHLIN
B.A. Earth Science (’13)
Waterloo, IA
Sales Rep
Voss Distributing/Red Bull

CODY MIRELES
B.A. Geology (’13)
Sunchang, South Korea
K-6 English Teacher
Currently, I am teaching English in Sunchang, Jeollabuk-do, South Korea. I sneak in as much Earth Science as possible.

Dr. Iqbal received a $50,000 research grant from the Iowa Nutrient Research Center (INRC) at Iowa State University. The Center was recently created by the state of Iowa to implement Iowa’s nutrient reduction strategy that was originally developed by the Iowa Department of Agriculture and Land Stewardship, the Iowa DNR, and Iowa State University. The above strategy is a science and technology-based framework to assess and reduce nutrients in surface water from both point and non-point sources in a scientific, reasonable and cost effective manner (ISU, 2013). The long term goal of this initiative is to promote research on farm processes, the environment and water. Dr. Iqbal’s project deals with distribution, transport, and biogeochemical transformations of agriculturally derived nitrogen and phosphorus in the Cedar River watershed. This impact of land derived nutrients on the quality of water in Iowa is a matter of great concern. There is no natural resource more important than water to the economy and quality of life in Iowa. Most rivers and lakes in the state are being degraded from diffuse inflow of nitrogen and phosphorus from farm fields adjacent to these water bodies. There are two general causes of nutrient inflow to the aquatic ecosystem: (1) inefficient land management, and (2) changing hydrologic characteristics. The management issues include excessive application of farm chemicals, poor design of disposal facilities, inefficient management practices, and inadequate policies. The hydrology issues include transport mechanisms of nutrients, sediment loads, high intensity rains, and flooding events. Dr. Iqbal’s project is expected to bring insights into the geo-hydrologic relationships between Iowa’s agricultural lands and adjacent water bodies. The proposed project will be conducted by hydrologic sampling in the watershed, including the main channel Cedar, Little Cedar River, Shell Rock River, West Fork Cedar River, Black Hawk Creek, and Wolf Creek. The specific goals of this project are to (1) conduct geo-hydrologic mapping to identify probable hot spots of pollution by soil runoff nutrients, (2) delineate avenues of nutrient and sediment transport caused by high intensity rain events and flooding; and (3) study biogeochemical transformation pathways of nitrogen and phosphorus in the watershed. Dr. Iqbal and two of his students, Madison Plise and Collin Barker, have already done some preliminary sampling in the area this fall. Recently Sushil Tuladhar has joined the project as field and lab activities coordinator. In addition to gathering important scientific data, this project is expected to serve as a great opportunity for students to learn about Iowa’s farm community, and thereby appreciate the state’s waterways and land resources.

WHAT HAVE YOU BEEN UP TO?
E-mail updates to siobahn.morgan@uni.edu
Log on today and “LIKE” University of Northern Iowa Earth Science
DEPARTMENT OF EARTH SCIENCE IS ON FACEBOOK
GIFTS from alumni & friends

GIFTS from Alumni & Friends

(January 1, 2013 – December 31, 2013)

- Wayne & Jan Anderson
- Barbara & James Benquem
- BMC Aggregates, LC
- Cathy Oates-Bockenstedt & Paul Bockenstedt
- William & Teresa Brecht
- Shirley Cropper
- Iowa Limestone Producers Association Inc.
- Sherm & Beverly Lundy
- Charlotte & Adam McDermott
- Dean & Ann Rigdon
- The Estate of Mr. Charles Richard Shane
- Linda Siefert
- Duane & Mary Ann (Marsh) Smith
- Stan & Kay Strike
- Deborah & Kenneth Thompson
- Michael & Rose Ann Weeks

YOUR CONTRIBUTIONS MAKE A DIFFERENCE

Your contributions make an impact!

Contributions to our scholarship funds by our friends and alumni play an increasingly greater role in maintaining the tradition of excellence the Department of Earth Science has established over the years. Your gift will directly impact a student, perhaps by contributing to a department scholarship awarded to a student or to cover the costs associated with taking a class out into the field or possibly by providing support for registration and travel to a professional conference where students will present their undergraduate research results.

We sincerely appreciate the support from our friends and alumni. Please remember, if you are contacted by the UNI Foundation, you can always designate your gift to the Department of Earth Science. Tax-deductible contributions can be made using the form on the next page or via on-line giving by following the links provided at the earth science alumni page, www.earth.uni.edu/alumni.html.

CONTRIBUTION FORM

Would you like to support an Earth Science student and/or the Department of Earth Science? If so, please fill out the form below and return it to:

UNI Foundation Financial Services, 1223 W. 22nd Street, Cedar Falls, IA 50614-0239

Name ____________________________________________________________
Address _______________________________________________________________________
City __________________________ State __________ Zip _________________
E-mail __________________________ Phone ________________ ☐ Cell ☐ Home ☐ Office
☐ This is a new address, phone or email.
If we would like to support the following fund(s):

$ _______ Earth Science Alumni Fund (21-220024)
$ _______ Wandering Coprolite Quasi-Endowed Fund (20-220408)
$ _______ Wayne and Jan Anderson Summer Geology Field Camp Fund (21-212415)
$ _______ Larry A. Kelsey Memorial Quasi-Endowed Scholarship (20-210460)
$ _______ Louise Hearst Speer Endowed Scholarship (10-210113)
$ _______ Charles J. Hearst Quasi-Endowed Scholarship (20-210313)
$ _______ Jan Harken Quasi-Endowed Scholarship (20-212143)
$ _______ Bill & Terri Brecht Scholarship (21-212682)
$ _______ Total

You can also donate through the secure online link provided at the department website www.earth.uni.edu

☐ My (or my spouse’s) company, ______________________ (name), will match my gift. (Please contact your HR office for details and matching gift form to be submitted with payment).

Payment Method (select one): Check enclosed - Payable to the UNI Foundation
Credit Card* - Please charge my card $ .
Beginning (mo/yr) /
Signature (required) ______________________ Date ________________

*(Credit card information will not be kept on file.)

Card Type (circle one): VISA MasterCard Discover American Express
Card # ______________________ Expiration Date ______________________

EARTH NEWS spring 2014 | 27