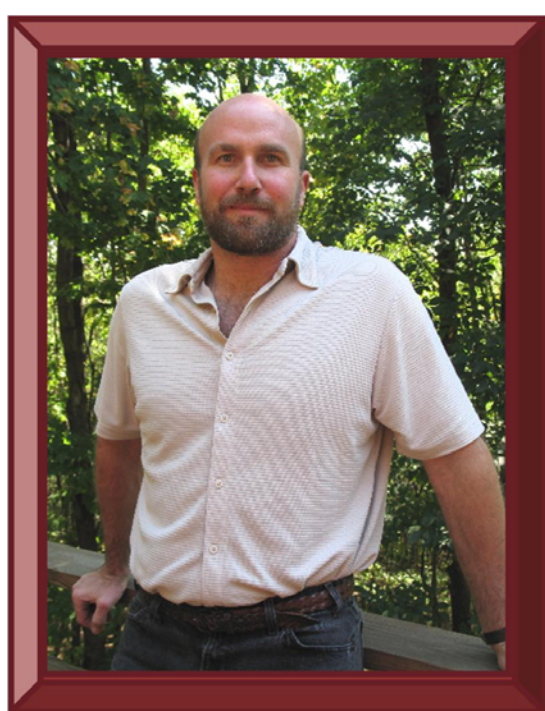




The Alumni Newsletter of the IUP Geoscience Department
Dr. John F. Taylor & Dr. Karen Rose Cercone, editors

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Dr. Steve Hovan Selected to be IUP's 2007 University Professor



Yes, our very own Steve Hovan has been selected as IUP's 2007 University Professor!

The university gives this title each year to the one faculty member who demonstrates the most outstanding record of teaching, research and service. In order to be selected as a University Professor, a faculty member must be an enthusiastic and effective teacher and must contribute significant amounts of committee and department service. First and foremost, however, a University Professor must be someone who does ground-breaking research that advances the state of knowledge in their academic field.

Dr. Hovan's research examines how changes in atmospheric circulation and ocean currents document global climate change, a topic that has become increasingly critical both to scientists and to the general public. His research has been funded over the past ten years by two major National Science Foundation Awards and numerous smaller grants. Steve has served as a shipboard scientist for several ocean research vessels, and lately has even been taking some of his IUP Geoscience students with him to learn shipboard science.

"Teaching, learning and scholarship represent the heart and soul of the university's mission," IUP President Dr. Tony Atwater said when he presented Steve with this award in June 2007. "Our faculty members reflect the very best of the teacher-scholar model, and it is most appropriate to honor the "best of the best" with this prestigious honor, which represents extraordinary instructional and intellectual success."

A Chat with the newest University Professor, Steve Hovan

1. What exactly is the University Professor award?

The award is given to one faculty member each year that exemplifies every aspect of university professorship (scholarship, teaching, service). For the academic year 2007-08, the award comes with a reduced teaching load to work on research (25%), a small stipend to help support research (\$5k) and a summer contract to continue working on project. The title (University Professor) stays with me for as long as I continue at IUP.

2. What aspects of your work at IUP did the award committee look at in deciding to select you?

The initial selection was based on all aspects of professorship and then I was asked to submit a research proposal for what I would do during my release/summer stipend if the award was made.

3. How did it feel to find out you had been selected?

It was an incredible honor. I think of this as one of the highest honors that a faculty can be awarded. And to be selected for this award for doing a job that I truly love to do... heck, how can it get any better than that?

4. What will you be doing as the University Professor that is different from your regular duties as professor and chair?

There are several opportunities to present my research results. I'll be giving a brief presentation to the Trustees in September, and later in the fall I'll give a public presentation followed by reception in my honor. I'm also giving short presentations to various student groups (honors college, etc). In a less formal way, the award also gives me an opportunity to be included with discussions with various administrators about aspects of scholarship at IUP and how to improve and/or extend them to faculty. I've had several people ask me to serve on various committees in that regard just because of the title.

5. How will this award affect your research program and students?

The additional stipend will be used mainly to fund another undergraduate student in my lab next year and to provide travel support for students to join me at a major conference. \$5k doesn't go a long way, but it will mean one more student gets an opportunity to become involved in a genuine research experience and that alone is probably the biggest benefit of the award!

Katie Farnsworth joins the Geoscience Department!

The Geoscience Department welcomes Dr. Katie Farnsworth as our newest faculty member this summer. Dr. Farnsworth fills the position of sedimentary petrologist that was left vacant by Dr. Darlene Richardson's recent retirement. We'll let her introduce herself to you in her own words:

"I came here to Indiana from Santa Cruz, California where I was working for the USGS Coastal and Marine Geology Team. Although I was born in California, I was born into a Navy family and therefore moved every few years.

I received a BA in Computer Science and Physical Geography from DePauw University in Greencastle Indiana. For graduate school I got both my masters and my PhD from the Virginia Institute of Marine Science which is part of the College of William and Mary. My research has focused on the flux and fate of terrigenous sediment in the coastal oceans - particularly looking at the character of small rivers draining mountainous coastlines.



Between completing my PhD and going to work for the USGS, I was a visiting professor at Muskingum College and back at William and Mary. I thoroughly enjoy teaching and involving students in my research, and it was for this reason I applied for the position here at IUP. My current research continues on the rivers and coasts of California, with a project starting up in the next year near the Tijuana River Mouth. We will be looking at the fate of fine-grained sediment introduced into the surfzone there by natural and human processes. This is an attempt to understand the fate and possible impacts of fine-grained material included in beach nourishment projects. I also plan to get some local work going in the streams and lakes of this region to be able to use in class and for student projects.

Random fact my CV will not tell you about me: I have a love for being on the water which I certainly did not inherit from my Naval Father. Although he was in the Navy for 20 years, he was uncomfortable on and around the ocean. He did not like losing sight of land, while I treasure that moment. I also think there is nothing better than standing on the back of a ship watching cores come aboard - wondering what story they are going to tell this time.

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Indiana University of Pennsylvania endeavors to maintain the accuracy of the information on its official electronic publications. Many links from these pages go to external web sites whose content is not directly approved by the university and does not necessarily reflect the views of the university, its officials, or the State System of Higher Education. The Geo-Tidings web-site is maintained by Karen Rose Cercone (kercrone@iup.edu) and Ken Coles (kcoles@iup.edu). This page was last updated on August 24, 2007.

The GeoTidings privacy policy is to share email addresses of alumni on these pages only when they have specifically asked to be contacted by fellow alumni. If there is a former class-mate you would like to get in touch with, please contact [April Mazur](#) or [John Taylor](#) and they will be happy to forward your request to that person if we have a valid email address for them.

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Ken Coles

Ken Coles reports that he had a busy year in 2006 — in spring, he was given responsibility for two extra courses for science educators in addition to his own large classes. At the same time, he was overseeing two student teachers and supervising a senior research project on Moon topography by Chaney Woodring (who won the best presentation award on Geoscience Day for this project). Dr. Coles says he was pleased to get all this done in reasonably good order, but hopes it is a long time before he has another overload like that one! In Fall 2006 Ken was appointed Coordinator of Science Education for the college, which gave him the responsibility of completing all the work to reinstate the national accreditation for the University's science education programs. He also taught GEOS 341 Solar System and supervised two student teachers.

Dr. Coles adds: "Over the summer I attended an astronomy teachers' institute at Gettysburg College. Part of this experience was a visit to Greenbank, W.Va., home of a major radio astronomy observatory. You can see me here by one of the 13-meter telescopes. We got to use it to look at the arms of the Milky Way and determine their motion. I was also lucky to be able to travel to Australia in July to give a paper at the meeting of the International Planetarium Society in Melbourne. I looked up whenever the sky was clear and dark, and enjoyed seeing the Southern Cross, Magellanic Clouds, Jewel Box, and other celestial sights!"

"While 2006 had less time than I hoped for observing projects, I did get a University Senate Research Grant to go to California in November for the transit of Mercury across the Sun. You can see Tom Lavanga (left) and me (right) ready for work in the desert near Indio, Calif. Tom was responsible for operating one of the Department's venerable Questars with a solar filter, a Canon D20 SLR camera, and a portable power supply for the clock drive. I was operating a video camera on a hydrogen-alpha filtered telescope at the same time. This project will contribute timings for the transit to an international program, which constrains the changes in the size of the Sun. We also showed the feasibility of traveling from IUP to remote sites for observing projects, which I hope to do again in the future with more Department students."



Jon Lewis

Dr. Lewis continues his research in Costa Rica and this Fall will start on a new project in SW Japan. A manuscript on contemporary strain in Costa Rica coauthored by recent graduate Adam Boozer is currently in review for publication at the American Geophysical Union. As promised in the last Geotidings, Dr. Lewis has embarked on a new line of inquiry that uses tectonic geomorphology and geochronology to constrain the rate of slip on a major fault in central Costa Rica. This new work, for which extramural support is pending, is being tackled with help from the department's first McNair Scholar, Kalin McDannell (see highlight on page three).

The new work in SW Japan is part of the Integrated Ocean Drilling Program (IODP), specifically the ambitious Nankai Trough Seismogenic Zone Experiment (NanTroSEIZE). This will have Dr. Lewis boarding the new Japanese drilling vessel [Chikyu](#) in November for IODP Expedition #315. Drilling will focus on the recovery of 1 km of core from an offshore basin that sits atop a probable tsunami-generating fault known to have generated M>8 earthquakes. The research team expects to penetrate faults within the basin as well as tsunami deposits that will help them reconstruct the tsunami and earthquake history. In other news, Dr. Lewis is a co-principal investigator (PI) along with four faculty members at IUP (lead PI, Bev Chiarulli from Anthropology) on an NSF proposal that has been recommended for funding. This award will be used to acquire



geophysical surveying tools for use by faculty and students in the Departments of Anthropology, Geography, Geoscience and History. Instrumentation will include Global Positioning System receivers and base station, a ground-penetrating radar unit, two resistivity meters, and magnetic gradiometer and susceptibility meters. Dr. Lewis also submitted an NSF proposal to support collaborative research in Taiwan. The target of this support is earthquake and fault modeling in southern Taiwan where a partially subducted fracture zone appears to play a major role in controlling mountain building. Lastly, two research efforts that focus on trans-tension in eastern California have come to fruition after many years of work — one paper was published in the *Journal of Structural Geology* (Volume 29, Issue 7, July 2007, Pages 1201-1215) and one is in press as a chapter in a *Geological Society of America Special Paper*.



Michael Poage

Dr. Poage (seen here with the legendary Sir Edmund Hilary) continues his research on the geochemistry of soils in the Dry Valleys of Antarctica. He has a paper in press with *Arctic, Antarctic and Alpine Research* on the influence of soil salinity on nematode populations in Dry Valleys soil and is currently preparing a manuscript for *Geoderma* on variations in soil geochemistry as related to landscape history. Dr. Poage will again travel to Antarctica this Christmas to work with the National Science Foundation's McMurdo-Dry Valleys Long-Term Ecological Research Program and begin work to understand the influence of soil geochemistry on microbial populations in the Dry Valleys. He will present the results of his work at the Scientific Committee on Antarctic Research conference in St. Petersburg, Russia in July of 2008. Dr. Poage has been recently funded by the university to establish an Inductively Coupled Plasma Optical Emissions Spectrometer (ICP-OES) lab which will allow for both trace and major element analysis from a wide variety of geological materials.

Steve Hovan

Steve Hovan and students (Tom Bondra, Brittany Fetter, Ashley Hague and Becky Reese) were among 24 scientists who sailed from Papeete, Tahiti to Honolulu, Hawaii on board the ship R/V Roger Revelle last spring. While at sea, students earned 3 credits of special topics coursework (Paleoceanography of the Pacific) and participated in every aspect of core and seismic deployment and sediment analysis. Photos, shipboard logs, and a copy of their poster presentation detailing their experience can be found by clicking [here](#). The main scientific objectives of this cruise were to map the mound of fossiliferous sediments that lies beneath the Pacific equatorial zone of upwelling and to survey and sample sites planned for drilling in Fall, 2007. The target of the drilling expedition was a series of sites on the paleo-equator and just off the old ridge crest of the Pacific spreading center. Each site (located on crust ranging in age from 15 to 55 million years) has moved northwestward with the Pacific plate as new Pacific crust was formed. The location of each site near the old ridge crest helped assure that they will recover the best preserved (least dissolved) microfossil assemblages possible. The object of these sites will be to determine the history of biologic productivity in one of the largest upwelling systems on earth. The recovered sediments will also give information on variation in the strength of the trade winds that drive this upwelling system.

Dr. Hovan also received a grant by the National Science Foundation to study the role and response of the tropical Pacific thermocline in Pliocene and Pleistocene climate trends and obliquity cycles. That's a fancy way of saying that he's going to study the long-term evolution of El Niño conditions in the equatorial Pacific Ocean. In Fall 2006, Dr. Hovan and students Ashley Hague and Christina Ritter, began analysis of about 1200 sediment samples from the tropical Pacific Ocean. Data collected from these samples will contribute to a fundamental understanding of the role of tropical Pacific processes in global climate change. Working in collaboration with researchers from UC Santa Cruz, we will test the following hypotheses: 1) The early Pliocene warm period included El Niño-like mean conditions; and the transition to cooler ice age climate was accompanied by a gradual shoaling of the thermocline and a switch from permanent El Niño-like to modern normal conditions; and 2) Higher frequency (obliquity, glacial-interglacial) sea-surface temperature variability in the tropical Pacific is related to changes in thermocline conditions. To address these hypotheses, we will evaluate the underlying physics of long term tropical climate change by using records derived from sedimentary proxies of sea-surface temperature, precipitation, wind strength, and thermocline depth.

John Taylor

The past year and a half has been a hectic but very productive time for John and the students in the paleo research group, with numerous projects being brought to completion, or at least [close](#) to completion. A monstrous manuscript coauthored with Dave Brezinski and John Repetski on 3rd order sequences recognizable in the Cambrian and Ordovician carbonates of the Central Appalachians should be in review by the time you read this. If not, the department encourages you to contribute what you can to the John Taylor Memorial Fund and/or the Brezinski Legal Defense Fund, established to ensure that Dave gets the best lawyers possible to help him argue a "justifiable homicide" defense. In John's defense, distillation of nearly 25 years of research into a concise but lucid paper, without getting bogged down in the details (yeah, he's still that way), is a formidable task. And it's not like there haven't been countless distractions. Description of the trilobites from the Lawson Cove section in the Ibex area of Utah, proposed as a stratotype for the base of the highest stage or substage of the Cambrian System (Miller et al., 2006 – December issue of *Paleoworld*) took more than a little time. The small part he played in providing trilobite data and crafting the biostratigraphy section for the feature article of the July 2007 issue of *GSA Bulletin* on the sequence architecture of the Cambrian and Lower Ordovician of the Upper Mississippi Valley (Runkel et al., 2007) did likewise. It's worth checking that one out just to see the spectacular color cross sections that show how laterally shingled parasequences produced a fairly complete record of that time interval in the northern Mid-continent, despite low subsidence rates and limited space for vertical accumulation of sediment. Cratonic successions are more complete and less anomalous than you've been led to believe.

A two-week visit by Jim Loch in July derailed the mega-manuscript briefly, but the progress made in pulling together a manuscript that describes some new species of the trilobite genus *Symphysurina* from the very base of the Ordovician in Utah, New Mexico, and Texas was worth the detour. And the story emerging from the Skullrockian-Stairsian Stage interval in the Lower Ordovician of the western USA is just too exciting to be kept on the back burner for long stretches. The faunas recovered from the *Paraplethopeltis* Zone and base of the overlying *Leiostephium* Zone in New Mexico, western Colorado, and western Utah provide fairly conclusive evidence that the pattern of faunal turnover that characterizes biomere boundaries in the Cambrian did not continue into the Ordovician. Geology senior Matt Morgan presented a poster at IUP's second Undergraduate Scholar's Research Conference on that topic, essentially the "end game" for the biomere phenomenon. Two other paleo posters at that conference by Mallory Zelawski and Nick Welsh reported on the successful dating and correlation of 3rd order transgressive cycle peaks from the lower Conococheague Formation in Maryland to age equivalent deposits outside the Central Appalachians. John presented an expanded version of the Conococheague sea level story at the 12th International Conference of the Cambrian Subcommittee in August and enjoyed a long-overdue week-long tour of the Cambrian of eastern New York and adjacent Vermont with a group of Cambrian specialists from around the world. He's promised to send them all a copy of the giant paper when it is done....or have Dave do so if the penitentiary will ante up the shipping costs.

Other Faculty Notes

Karen Rose Cercone was awarded the College of Natural Science & Math's Service award for 2007. She also served as the keynote speaker for the IUP library's dedication of a special reading area in April. Former IUP part-time faculty member Bill Bragonier, who once headed the geology section of R & P Coal, now holds the position of Head of Geologic Mapping for the Pennsylvania Geological Survey. Joe Clark, now retired and Professor Emeritus, still comes into the Department weekly and continues his research with the USGS in the California Coast Ranges. His Purisima Professional Paper with co-workers is in press and his paper on Quaternary faulting in the Salinas Valley has recently been approved for publication. This fall he and other department faculty plan to rejuvenate our chapter of Sigma Gamma Epsilon. Darlene Richardson has moved back to Hawaii to enjoy a well-deserved island retirement with no snow to shovel and no more committee meetings to attend. Connie Sutton is keeping busy with her grandchildren, although she somehow manages keep her former education students informed about teaching resources related to the space program. Fred Park and Frank Hall are also doing well and send their best wishes out to all.

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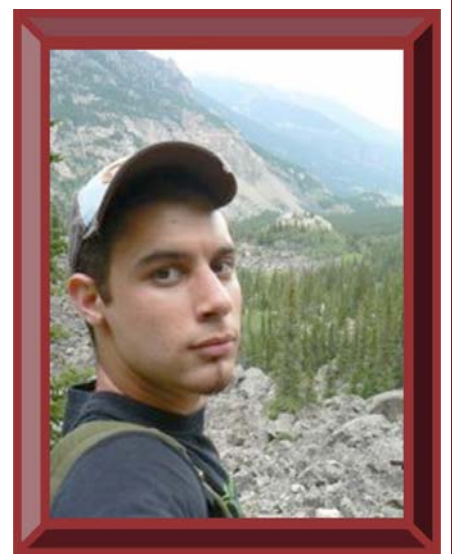
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STUDENT HIGHLIGHT: Kalin McDannell

Kalin McDannell has been awarded a prestigious [McNair Scholarship](#). The McNair program is aimed at increasing the number of doctoral students who come from low-income families, first-generation college students and/or minority groups. As part of his first Summer as a McNair Scholar Kalin presented a talk on his research proposal: "Constraints on Pull-Apart Basin Formation from Tectonic Geomorphology: Central Costa Rica" to his fellow Scholars and guests at IUP. His talk led to an invitation to present his research proposal at a national meeting of McNair Scholars in Buffalo, NY. This was one of only four invitations offered to the eighteen first-year IUP McNair Scholars!

Kalin's research aims to establish the filling history of a small, intra-arc basin that is forming in response to ongoing faulting. The first step, which Kalin initiated this summer, is documenting the longitudinal profiles of the streams that transect the basin. He has used this approach in conjunction with air photo analysis to identify possible fault strands and to fine tune the areas for subsequent work. The next major step will be detailed mapping of multiple generations of stream terraces and sampling sediments for luminescence and radiocarbon dating. Success will depend on careful documentation of the sedimentologic and spatial context of the sediments and/or carbon sampled for geochronology. We're thrilled with Kalin's success in the McNair Scholars program and proud to have him representing us in this prestigious program.



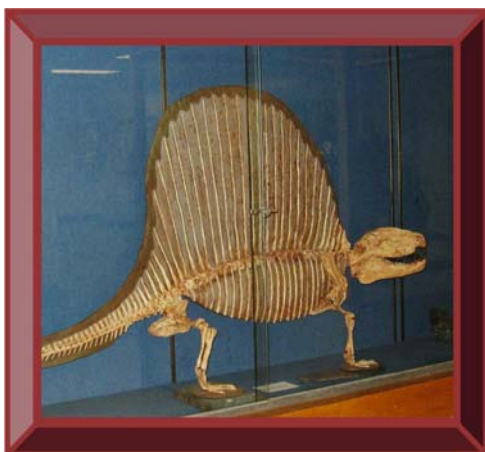
2007 Field Course: Carbonate Geology of Florida & Bahamas

A group of eight IUP geoscience students traveled with Dr. Steve Hovan this past May to southern Florida and Andros Island to learn first-hand about carbonate sedimentation. Among the highlights of the trip was a visit to the Kennedy Space Center and a trip up to Joulter's Key to observe oolite formation. The trip was made possible for Jocelyn Wallwork by alumni donations to the summer field scholarship program.



Alumni Donations Make It Possible!

Your generosity allows us to offer scholarships based on merit to geoscience students who would otherwise not be able to take a regional field class at IUP. Your funds also sent IUP students on a ship-based learning program and helped them both attend and present posters at GSA and AGU meetings. To help fund the **Paul Prince Oceanography Fund** or the **Walt Granata Geology Fund**, contact the Foundation for IUP through the link below!



Two New Fossils in The Department!

Dr. Taylor is happy to announce that the Geoscience Department now has two members who are even older than he is and unlike Dr. Cercone, they never forget to keep their office hours! Thanks to the generosity of Michael and Barbara Simcak of *Treasures of the Earth*, these replica specimens are now displayed in the lobby area of the Weyandt Planetarium, where they attract attention from passersby and help our introductory geology students better understand dinosaurs.



TEACHER UPDATES!

Ken Coles is pleased to report that IUP's Earth & Space Science teaching graduates continue to do well. Danielle Chirip (May 2006) is teaching in Florida at Bellalago Charter Academy in Kissimmee, while Jesse Carpinello (May 2006) is teaching middle school in Punxsatawney, where he gets to run a Spitz-built planetarium similar to the one at IUP. Victoria Pretti and Brad Adams finished in December 2006. Brad is teaching Eighth-grade Science in Derry, while Victoria is seeking a permanent position. We also hear that Sammi Jo Cooper (May 2005) has moved to teaching grade 9 at her alma mater, Greater Latrobe Junior High School. Spring 2007 graduates are Justin Reed (headed to Taiwan to teach English), Tom Lavanga (teaching in the new science wing at Perkiomen Valley H.S. in eastern PA), Calvin O'Rourke (now a middle and high school general science teacher in Carbondale, PA), and Caleb LaMont (still seeking a position the last we heard from him). During 2007-08 eight more students are scheduled to student teach. If you know any one who needs a good Earth and Space Science teacher soon, IUP can supply one! Two of our majors, Tom Lavanga and Nate Dell, worked over the summer of 2006 at the Camp I.Q. program of the Indiana County Child Development and Care Center. They taught a set of science lessons in which the children designed a settlement to be built on Mars. The department is proud of the fine job they did in this non-traditional setting.

Mark these dates for 2008

April 25, 2008: 33rd Annual Geoscience Day presentations & banquet
October 10, 2008: Geoscience Department 40th Anniversary celebration

MAIN GEOSCIENCE OFFICE RENOVATIONS IN PROGRESS!

Thanks to the perseverance of Steve Hovan and the support of our dean and provost, our hard-working and always cheerful secretary April Mazur now has a fully-renovated and enlarged department office to work in! The renovations of the Walsh office complex made space for a chairperson's office, a mailroom, two associated faculty offices (for Katie Farnsworth and Jon Lewis) and a large, air-conditioned computer lab for our students to use. We hope to have a grand opening celebration and dedication of it on the Friday of Homecoming Weekend.



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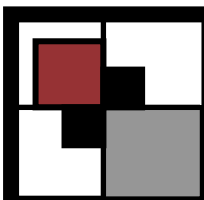
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Richard Parrish '75

As something of an anomaly in the oil business, I have worked for the same company (Getty/Texaco/Chevron) for the last 27 years, and have remained in Houston all along (by my own choice). Two mergers, numerous reorganizations and downsizings, two oil booms, one bust . . . and I'm still here. It's been an interesting ride. I have worked on some great projects over the years, almost always as an exploration geologist. These include Gulf of Mexico lease sales, offshore California, Alaska North Slope (including spending a January there on well site), Bangladesh. For the past several years I have been devoted to Latin America new ventures work, involving bid round evaluations, new area acquisition and exploration drilling. This work, while done in Houston, has afforded me the opportunity to travel quite a bit to Argentina, Panama, Colombia, Venezuela, Trinidad. In addition to the fascinating geology in these places, some also offer a bit of political intrigue to keep things interesting (and do put Trinidad on your birding list if you haven't been there yet). I have remained pretty much in the technical world, rather than management side, as I prefer being closer to the rocks. So, all in all, the oil business has been pretty good to me. Houston has been a good place to live over the years. I prefer putting up with Houston summers rather than PA winters, or at least that's my rationalization. Wendy and I get to do a bit of traveling on our own also. New Zealand and hiking the Inca Trail to Machu Pichu have been two highlights. I have also been back to Big Bend several times. Always involves a hike to the South Rim. That first trip in ~1974 left quite an impression on me. I haven't ignored the Guadalupes either. Each time I go back there, new fossils have migrated into the outcrops on the Permian Reef Trail. At home, to keep from getting bored, I took up skydiving several years ago. I now have accumulated ~2,300 jumps, including being a part of the Texas State Record for largest freefall formation. This was done just this spring by 150 of us here in Houston. It's a great way to take in the scenery.

I'm aware that your students have a choice of geologic directions to go after leaving IUP, as in oil & gas, coal, environmental, teaching, etc. From my perspective, I can readily recommend this business to anyone looking for a good career opportunity. With the "demographic bubble" of so many industry workers in their 50s now, the writing is clearly on the wall that there will be a significant shortfall of manpower in this business a few years down the road. This has implications on the US competitive position in the world, but also indicates that there will be a world of opportunities for new geologists, geophysicists and engineers to move into the exploration and production business. With pretty universal agreement that supplies will always be tight, and thus prices high, it is at least my perception that many of the uncertainties regarding job security, which I faced in past years, will not be a factor in the future. For those students that want interesting work that pays very well and makes a real impact in the economy, I can readily recommend the oil and gas companies. Most companies are hiring these days, and I can expect that to continue (remember that bubble). Masters degrees are pretty much standard to assure a job offer though. One trend I am seeing is for companies to go overseas to hire the new talent. And, with so much of the work among the larger companies involving foreign countries, this offers opportunities to travel and live overseas (for those that choose this course - it pays even better). Skills that are valuable to this work now are a bit different than 30 years ago. Then, being able to make a good map was all important. Nowadays, things are far more integrated. Understand the "petroleum system" as a whole - source, reservoir, seal, trap. The large companies also enable one to specialize these days, in addition to being a "generalist" geologist or geophysicist. Reservoir properties from seismic data, basin modeling, reservoir modeling, petrophysics, stratigraphy, seal evaluation, etc. Often those specialties are borne out of the graduate work that a student does, but are also learned on the job. And of course, working 3D seismic data on a workstation, with all of the peripheral applications, occupies many folks here. Being able to integrate all of these ideas into an exploration evaluation, even while making those maps, is important to exploration work. Being able to model reservoirs, with facies analysis, petrophysics, structural interpretation is all-important for development and production work. Understanding and describing risk factors, in the petroleum system elements and reservoir performance, wraps all of these ideas together. That is what managers look for in reviewing worker's interpretations, at least in a major size company like ours.

John Nale '75

I got a job as a geologist immediately after college at IUP in Texas working for Sun Oil in their coal exploration group. From there I went to the University of Houston (1977) for grad school. Spent about 15 years working in the coal industry as a geologist doing all sorts of things. Eventually I wound up in Knoxville TN where I switched into the environmental consulting industry around 1989. Good experience there and then I got another job here in Chattanooga TN where I worked for 10 years. I just left there in January and am now trying to start my own little business doing environmental work. Being self employed has its ups and downs. One of the little things I do are meth lab cleanups. I am actually more interested in industrial hygiene these days, but I continue to do environmental assessments and other environmental things.

Loved the mining industry and the geology related to mining whether it be reserve delineation, depositional modeling, mapping, roof and floor issues, faulting etc. Worked both surface and underground mine situations. Have looked at coal properties from all over the world. One of my highlights was doing work in South America (Colombia) mapping a new mining area. In hindsight, it was very interesting and fun; but at times was not the most pleasant of things while it was ongoing--you know no electricity, no plumbing, drinking water, malaria concerns, language issues, and so forth. As I'm sure you know, geology in environmental work is primarily hydro related. The environmental industry is mostly an assessment and analysis type game prior to cleanups. Engineers are more involved in the remediation side of thing, but geologists play a role all the way through projects.

A few years back, I decided that I needed to move in the direction of my youth in terms of hobbies and so forth and got back into hunting and doing more trout fishing which I truly enjoy as well as some recreational shooting. I enjoy the geology in North Georgia and Chattanooga area. Can't say that I stop at many road cuts and beat on rocks much any more, but I always keep my eyes open. The copper basin area of TN is fairly interesting and I am learning just how varied Georgia's geology is. I love the Great Smokey Mountains and the Blue Ridge in general. That was my favorite part about living in Knoxville, TN. I remember on one of our undergrad field trips on our way through Tennessee thinking.... I could live here.... funny how things go.

David Brezinski '78

We are pleased to report that Dave's groundbreaking work on urbanization and karst development, featured in our last issue of [GeoTidings](#), earned him the 2007 John C. Frye Environmental Geology Award from the Geological Society of America. The Maryland DNR Press Release stated, "The prestigious John C. Frye Memorial Award is given annually to the best environmental geology report or research paper published by the Geological Society of America or by one of the state geological surveys. Dr. Brezinski's Report of Investigations No. 75, Stratigraphy of the Frederick Valley and Its Relationship to Karst Development was recognized for its excellent research and mapping. Under the auspices of DNR and MDSA, Dr. Brezinski and his team mapped more than 1,800 sinkholes and identified natural and man induced factors that lead to the formation of sinkholes. Dr. Brezinski's work discovered that sinkholes frequently occur along old stream courses, where building or highway construction disturbed stream routes. City and county planning departments are already following the report's recommendations. "Although the report carries my name, the study resulted from the efforts of several Department of Natural Resources (DNR) and Maryland State Highway Administration (MDSA) employees. I am highly flattered and grateful that our four-year effort was recognized," said Dr. Brezinski.

Jim Loch '83

My major events for the year would be the birth of a grandson (Lucas Michael Murray) and the impending publication in August 07 of my dissertation by the Oklahoma Geological Survey...Trilobite Biostratigraphy and Correlation of the Kindblade Formation (Lower Ordovician) of Carter and Kiowa Counties, Oklahoma" as Bulletin 150.

Tom Frederici '83

Things here are good. John Salvino came up for a visit with his family last year, they are living in the general Atlanta, Georgia area, still consulting. My wife and I went to Tucson last summer to see the sights - had a chance to visit with Barb Eiswerth. She is focused on refugee work, appears to be loving life. I'm fine, growing accustomed to management, miss that field work like crazy.

Mike Belsham '83

Mike Belsham here from the class of 83. Believe it or not - I did work in the oil patch for a few years when oil was 8 bucks a barrel. I think the classes during that time had a very very tough time in the business. I started a well site consultant business with another geologist I met in Wyoming-and was moderately successful for about 2 years. There really was no money at that time or many jobs in the ones available. I was making 60 bucks a day for 16 hours of work. I eventually moved into financial services and I have had a mortgage practice here in Sarasota Florida for the last 15 years. I have been very successful and last year my dream came true. I was able to purchase a home in Jackson Hole Wyoming — my favorite place along with Frank Hall. In three years I hope to semi-retire and split my time between Wyoming and Florida. I have a great lady in my life for a number of years and we are content. I have a few friends with kids here at the age graduating HS and figuring out or not figuring out what they want to do. I always tell them I might not be a practicing geologist now-but the skills I learned from IUP in regards to analyzing a situation, putting the pieces together-and THINKING-have taken me on a nice ride in the business world. Really true. I still love the science and research. I am great at cocktail parties. In June in Jackson I found a place to go fossil hunting in the Green River formation, for he fish stuff-down in Wind Rivers. I know nothing about that, so it will be even more interesting. I am also working on a short story using the Green River Formation as the basis for a mystery story.

Barb Eisworth '85

Barb Eisworth is currently employed at the University of Arizona as the coordinator of the [Iskash*taa Refugee Harvesting Service](#), which seeks to empower refugees by creating opportunities to use their knowledge and skills from Africa to help their families and their own community and to better integrate with the larger Tucson community while gaining life skills that serve them in America. One example of their work is the Tucson Youth Mapping and Gleaning Project, which uses digital mapping to organize a farmers style food exchange.

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John Dembosky '92

I've been teaching at Methodist University in Fayetteville North Carolina since 2005, after finishing my PhD at Pitt. Finally got that Associate title this past year. It's been "fun". My next big thing is to start a secondary geoscience education degree here at MU. Should be interesting to see how that goes. We currently have no secondary science education at all. I did get back to IUP this August to see April, Taylor and Lewis, even say a Hi to Steve. Looks like the construction is going well!

Wendy (Metcalf) Straatman '92

I am now working for EXCO Resources as the Division Vice President & General Manager for Appalachia. However, just to confuse things, I am also President of North Coast Energy, Inc. We are currently in the process of moving to Akron Ohio, a place I never imagined I might be living someday. Fortunately, there seem to be a lot of houses for sale there!

Jeff Miller '92

I'm living and working in Tasmania now, of all places. Followed my girlfriend here in 2006 and have been living the good life, working as a regulator of contaminated sites for the state government (so much better than consulting!). Hey, does anyone have contact details for Pete (Mike) Bohan? We fell out of touch a couple years back and I'm keen to find him again. Any help would be appreciated.

Jen (McCardle) Copperthite '93

This is my 13th year teaching Earth Science at Fauquier High School in Warrenton, VA. In August 2005, I earned my Masters in Geosciences from Mississippi State University. I attached a picture of the highlight of the required regional field trip where we did a 15 mile hike in the Tetons up to Solitude Lake. I hope all is well in the Geoscience Department. I come up to visit my family in Indiana often. My dad Jim McCardle, who is also a department alumnus from 1971, retired from his teaching position at the Indiana Area Junior High in 2005.



Scott Mutchler '94

After years of making lots of money being a software developer, I made the decision to be poor again and returned to academia for a while, running the laser ablation ICP-MS lab and the ion-microprobe facility at Virginia Tech. I also helped out with the Raman microprobe facility and put together a web page for the lab that can be viewed [here](#). Unfortunately, I recently had to take another job in computers to pay the bills as my wife's job may be in jeopardy. I'm still collaborating with VT on some experiments, however, and was able to travel to Bern, Switzerland to present a paper with them this past summer. My wife Cathy and I have one daughter, Makena, seen here. She is named after the beach in Maui we were married on.



Henry Scott '94

I'm still an Assistant Professor at Indiana University South Bend. I'm in the physics department, but I was hired as a geophysicist and mainly teach geology courses. The job is great, but I miss the geology, hills and scenery of Western Pennsylvania!

Stacy Kish '95

I am working with the USDA in Washington DC and living in a new (rather small) apartment in Dupont Circle, I welcome any news from my friends across the country. I hope you are all doing well. Please [email me](#) your most recent contact information so I can send you letters composed on strange antiquated typing devices!

Jen (Dovin) Gregory '96

It's been over 10 years that we are out! At least that's what the calendar tells me, I can't believe it's been that long. I miss those late nights with my classmates at Walsh Hall and Denny's! For the last five years, I have been busy in the Geospatial field. Currently I am working for a Planning Board in Upstate New York, developing GIS databases of public infrastructure for six counties. I am fortunate that I enjoy my work very much and yet, I am about to start a new endeavor,,, the challenge of "motherhood" with my husband John. Anyone up for a reunion at the North Country Brewing Company in Slippery Rock ? One of our classmates is the owner!

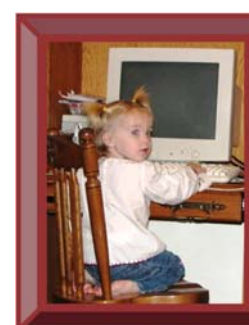


Barb (Osgood) Kutchko '97

I am working now with the US DOE at the National Energy Technology Lab and finishing up my PhD. I passed my qualifiers, etc... all that PhD stuff. I am just working on research now. The civil and environmental engineering department at CMU is a demanding, yet nurturing, place to learn. The nice thing is that my position at NETL is permanent ... so I have the security of already having a job when I get my PhD. My son Aidan is now 2 and he has embraced the notion of the "terrible two's". He is such a sweet and smart little boy.

Mike Cypcar '97

My internships with PA State Geological survey developing their first web site led to my fast-paced career in the IT space. In 1996 I put the out-of-print Map 61 publication online for the geologists of the world to print from the convenience of their PC. That online publication is still available [here](#) today. I am currently employed by Verisign Inc. supporting the storage infrastructure that runs .com, .net, and several other top level domains. In case you were wondering just how busy the internet has become we process over 15 billion name look ups a day, more than 3 times the number of phone calls made in the US daily. Although the geo thing didn't work out for me I wouldn't have made it where I am today without the help and guidance of the IUP Geoscience faculty and the Professional Geologists at the PAGS. My wife Stacy, daughter Emma, and myself live in Northern Virginia and make it back Pennsylvania regularly to visit family.



Heather Renyck '99

I accepted a job in June 2006 to teach earth science and biology at White Mountains Regional High School in Whitefield, NH. It's a perfect match for me. I work with four other fabulous science colleagues. It is a very cohesive department that works together for our student population. Teaching biology has been a huge challenge, however. Most recently, my proposal for a geology of New Hampshire elective was accepted. And what a great place to do it! We are in the heart of the White Mountains. This school year can be described as a rejuvenating experience for me. I am attaching a picture of the Presidentials as seen from our school parking lot. I've been up a few of the big peaks since moving here. Mt. Jefferson and Mt Lafayette (over 5000 feet) are the tallest I've climbed. I hope that people will contact me and feel free to visit to go hiking. Come on up!



Mark Zellman '99

I moved back to Berkeley, California (for the 3rd time!) early in 2007. I'm still working for William Lettis and Associates (WLA), and it's been a busy year. I've mostly been doing GIS for our seismic hazard evaluations, but I've been able to get out into the field for some rock coring and fault trenching. The picture shows me next to a massive (1200' long) trench we opened and logged in Northridge, CA this summer to map the Northridge Hills fault. I don't have much else going on other than the occasional rock climbing or snowboarding trip, although I did make it back to IUP to catch up with my old IUP friend Chad Hurley (of UTube fame and fortune!). WLA is in the middle of a hiring frenzy to staff a bunch of the nuclear jobs (seismic hazard investigations / geotech investigations) we've been awarded. If you're looking for a job, please [email me](#) or visit the company [website](#).



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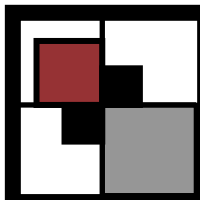
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Mike Hardwig '01

I'm still a teacher in southern Maryland at Thomas Stone High School teaching ninth grade Earth Science. Currently, I'm completing my Master's Degree through the Geosciences program from Mississippi State University and hoping to move back to Pennsylvania.

Christa Ziegler '01

As many of you know, I completed my doctoral degree in December 2005 from Boston University and have since moved to Houston, TX. I'm working at ExxonMobil down here and love it! My first project is in the Middle East / Caspian Sea regional database working with a few oil fields in Iraq... and if all goes well, I'll get to go to Abu Dhabi (for those that don't remember their geography, it's on the Persian Gulf, east of Saudi Arabia). It's very exciting to work with the international community and as a result I am learning Arabic (2 hours a day, 3 days of the week). The scientists that I work with are amazing and very friendly. As for our new house, we are officially unpacked and our cats have settled in. Now all we need to do is furnish it (ha!) - which will take many years!!!

Yvonne Branan '01

In 2006-07 I returned to the IUP Geoscience department as a faculty member! Although it was certainly a little strange at first, I have really come to enjoy my time here. Getting the opportunity to put together a Geomorphology class was a wonderful experience. I was lucky to have a terrific group of students who were great at helping me learn a good deal about creating and teaching a class for the first time. The biggest news for me lately is that I have just defended my PhD! I spent a week back in Houghton, MI where I got to see a lot of old friends and faculty, who helped me celebrate my successful defense. The upcoming semester will find me doing several things, first and foremost of which is making some minor corrections to my thesis and getting all that paperwork finished! I will also be excited to see my first article in print, as the *Journal of Volcanology and Geothermal Research* has accepted my paper, "Investigations of At-Vent Dynamics and Dilution Using Thermal Infrared Radiometers at Masaya Volcano, Nicaragua." I'll be working on following that up with publication of the remainder of my thesis as well. IUP has offered me a part-time position teaching some introductory labs again this fall. I'll be spending what's left of my time searching for a more permanent position; and since everyone always asks... no, I'm not necessarily trying to stick close to PA. I'm planning to apply for jobs all across the country.



Steve Smith '02

I have completed my first full year as an Orbit Analyst with the National Geospatial-Intelligence Agency (NGA) in St. Louis, MO. Though it is a good job, the actual work is not what I envisioned it would be, so I am currently trying to transfer into another branch within the agency to work with either GIS or remote sensing. I am still open to any position that may come along that deals with studying volcanoes, so if an opportunity presents itself, I may take what comes along. During some of my training with the agency, I traveled to Colorado Springs, CO and Washington, DC. In order to keep up with some of the latest science, I also attended the 2006 Fall AGU meeting in San Francisco, CA. It was nice to meet up with some friends at the conference, one of them being Yvonne Branan (IUP Geology, Class of 2001).

The best news of all is that on June 20, 2007, my wife Kate and I welcomed a baby girl to our family! Her name is Aurora Jade Smith and she weighed in at 6 pounds 13 ounces and about 19 and a half inches long. Everyone is doing well. The feeding and diaper changing are going okay, but are always an adventure. Yes, I have been changing my share of dirty diapers, for those that wanted to know!

Brad Tysarczyk '02

Right after I graduated from IUP, I taught in Annapolis Maryland for two years. The cost of living was way too expensive for me to survive, so I moved back to Pittsburgh. Luckily I got a job, a house, and a wife out of the deal! I got married last July. Matt Martin got married in San Diego the week before I did — I flew out to San Diego for his wedding and he came to Pittsburgh for mine. He teaches middle school earth science in Hawaii and I currently teach 7th grade earth science at Kiski Area Middle School. I love it!!

Matt Martin '02

I am currently the department head for Science at Ilima Intermediate School in Oahu, Hawaii. I graduated from IUP in 2002 and moved out here. It has been the time of my life living beachfront and teaching a Science class. Life has been busy but we're having fun too. I recently got married and we close on a house here in two weeks. We are currently looking to fill many vacancies in our school's Science Department, so if you are interested in working with seventh or eighth graders in Hawaii please contact me for more information. They offer a good starting salary (around \$39,000) and that is definitely enough to live on. There are tons of young people from the mainland at our schools and especially a lot from Pennsylvania. Teaching in Hawaii is a great experience so please [email me](#) with any questions.

Bob Kervin '02

I finished my masters degree in Fall of 2006 and moved to Houston in early 2007 to work as a geologist for El Paso Energy on a project evaluating a massive acreage in West Virginia. I was sad to leave southern California, but happy to get back to the petroleum industry!

Heather Rogers-Kline '03

I am teaching Earth Science, International Baccalaureate Environmental Systems and GIS (dual enrolled with James Madison Univ) at Clarke County High School in Berryville, VA. Since public schools have had to do testing for no child left behind (PSSA's in PA, they're called SOL's in VA), Earth science in this school has only averaged at about a 65% pass rate. This year, I had a 93% pass rate! Thanks to Dr. Taylor for helping me to love geology so that I can help my students to love it too. I also have one student who is majoring in geology next year! And I'm starting Shenandoah University in the Fall for my Master's in Education.

Charlie Burger '04

I am working at Mountain Research, LLC. It's a small to medium sized environmental consulting company located in Altoona which just became a completely employee owned firm. We specialize in soil and groundwater remediation and also do Phase I and Phase II site assessments, air quality, Act II, drilling, etc.... and have our own in house laboratory. My title is Environmental Technician. It has been a very good start for me because I have gotten a ton of experience in a very short time. Things are going rather well. I just received my first raise after only 6 months and it was rather substantial so I guess (know) that I am doing a pretty good job. Thanks to Doc Taylor for pushing me in the Stratigraphy class, it has definitely paid off!!!

Jeremy Bader '05

I defended my master's thesis at Texas Tech in April and then made a presentation of my project for GSA in Kansas the following week. It was quite funny to see the list of presenters (all the big name conodont workers) and then some dude named Bader thrown in the mix. Brandon Klingensmith is giving a talk also, so once again the "bad boys of IUP paleo" will be rockin' the house at a GSA meeting! So that is my life as I know it, up until now, just putting the finishing touches on the thesis (90 pages of conodont bliss!) and trying to find a job, getting prepared for another summer in Houston (internship time!) and getting ready for graduation.

Chris Crum '05

I have been working as an environmental remediation consultant for an engineering/geotechnical firm called Kleinfelder, formerly Geologic Services Corp., out of the New York City office. It's a rapidly expanding company with a lot of job opportunities in both New York and Cranberry, PA. The web site is <http://www.kleinfelder.com/> — if anyone is interested, feel free to [email me](#).

Garrett C. Schmidt '05

I just wanted to give the old Geoscience department a update and thank you for all your help through the years. I'm living in Daytona Beach, FL and I am working as an Environmental Specialist for Universal Engineering Services, a private company doing research. Things are going great and I use what I learned from IUP everyday. Best wishes to the geoscience department and my fellow students!

Jesse Carpinello '06

I am currently employed at Punxsutawney Area Middle School teaching Astronomy in their planetarium. It's the job I've always wanted!

Tim Hazen '06

After working as an environmental technician with Delta Environmental in Houston, I recently got a job working as a staff geologist at a company called SKA Consulting. It is also based in Houston Texas.

Ryan O'Connell '06

Just dropping an e-mail to say hello and also to share another IUP success story, so to speak. Being a grad student at West Virginia, one of the two undergraduate requirements I've had to make up here is field camp. Well, it was a rough ride. I think we had every type of weather imaginable out there from rain to snow to heat to wind. We experienced about every element but an earthquake. And WVU has a REAL field camp. What I mean by that is that we were literally given a Brunton compass, a topography map (1:12000) of the area, and told to go off on our own. Other universities we ran into out there basically kind of spoon-fed and ran it like a show-and-tell, but we were really mapping. Anyways, I just figured I'd let you know that I was far more prepared for field camp than any of the other students out there (undergraduates and graduates). A lot of kids were struggling with mapping skills (which I owe to Dr. Lewis), but I actually had my field notebook on a couple of occasions used as a template other students should be following (again to the credit of Dr. Lewis). The stratigraphy background at IUP easily surpasses what those kids were using out in the field. The bottom line I suppose is that a lot of kids struggled and hated the experience. I was actually battling for top grade against a PhD student from Rutgers and I'm probably going to be the TA for field camp next year.

Calvin O'Rourke '07

It has been a hectic summer. During the weekend when we were leaving Indiana (the beginning of July), I was moving our dresser down the staircase, and received a phone call offering me a job. I accepted the position, and will be teaching 8th and 11th grade general science at Carbondale Area High School in Carbondale, PA.

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