

Alumni News from the IUP Geoscience Department

GEO-TIDINGS

Number 2

Summer 1998

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GEOSCIENCE DEPARTMENT CELEBRATES ITS 30TH BIRTHDAY IN 1998 !

We don't want to make anyone feel old, but it's official: the IUP Geoscience Department, founded back in 1968 by Paul Prince, Fred Park, Bob Woodard and Walt Granata, will officially turn 30 years old this fall. We would like to commemorate the occasion by having some campus celebrations and by starting special funds to honor some of our founding faculty members. Some possibilities under discussion include:

- **The Walt Granata Geology Fund:** proceeds could help an IUP student go to a geology field camp each summer, support students doing local field work, or purchase equipment needed for field research.
- **The Paul Prince Oceanography Fund:** proceeds could help an IUP student attend a class at the Marine Science Consortium every summer, take part in oceanographic cruises or other marine-related field projects, or purchase equipment for oceanographic or meteorologic research.

On the social side, we'd like you to mark the date of **Friday, October 2** on your calendars now. That's the Friday of homecoming week-end, so you can celebrate the department's Big Three-Oh and still spend time with your non-geology IUP friends the next day. Possible Friday activities include a banquet in the evening with an alumni slide show, a department open-house & more. Please note that hotel space fills up fast for that night, so a quick call to one of the inns listed on the inside page might be in order for out-of-town visitors. Any local alumni who would be willing to host new or old friends for that night, contact your acquaintances directly or let us know and we'll try to coordinate.

There is one thing all these projects require to succeed, and that is YOUR support, either financial or moral. Many alumni and IUP Faculty members either volunteer their time or contribute to the IUP Foundation to help support student programs and extra-curricular activities in a time of declining state appropriations. In 1997-1998 alone, alumni donations of time and money made possible the transport of donated USGS equipment, visits by distinguished guest speakers and an OSHA 40-hour Safety Training Course that helped many of our students land permanent or summer jobs in environmental geology. None of this would have been possible without you! If the Geoscience Department or any of its professors has made a difference in your life, consider making a contribution earmarked for the Geoscience Fund of the IUP Foundation. Thanks again for all the help you've given us, and have a safe and happy summer!

24th ANNUAL GEOSCIENCE DAY

Our 24th annual Geoscience Day was a technical and scientific success, with an outstanding series of student and alumni presentations. Under the capable guidance of Dr. Darlene Richardson, our students made the leap this year to the digital age, presenting their research talks with the help of Microsoft Powerpoint, a Pentium laptop computer, an Iomega Zip Drive and a digital projector. This technology allowed them to integrate words, pictures and data on a single screen, and also to make multiple changes to their slides (no more last-minute trips down to Pittsburgh!)

The day started with a Best Paper Award-winning presentation by **Stacy Kish**, based on research she conducted aboard a deep-sea research vessel in the Pacific. Working in conjunction with Dr. Steve Hovan, Stacy helped to document new ways in which oceanic sediments can be used to study climate change. The next presentation by **Angela Novotny** focused on acid mine drainage in Bear Run and the West Branch of the Susquehanna River, research which followed up Pat Federinko's 1985 study of the same area. Under the guidance of Dr. Joseph Clark, Angie found improvements in stream pH from 3.7 to 5.6. Her work may persuade the state to purchase parts of the area as game lands. **Jason Taylor** then discussed the results of some laboratory groundwater models that he ran with Dr. Karen Rose Cercone to determine the effects of brine spills on various geological media. Jason concluded that the clay-rich soils of Pennsylvania would make spills easy to contain but long-lasting in their effects on water contamination. **Patrick Shipley** concluded the first session, reporting on his analysis of reservoir characteristics of the First Bradford sand in Indiana County, under the guidance of Dr. Joseph Clark.

The second student session of the morning began with an investigation of acid-mine drainage done by **Shane Sechrist** near his home-town of Saltsburg. Under the guidance of Drs. Joseph Clark and Karen Rose Cercone, Shane managed to locate the main sources of the acid drainage to the Loyalhanna in that area. Shane has already been invited to

present his results to the Loyalhanna Watershed Association in order to prepare for possible remediation of the area. Next came **W. David Neely's** Best Research Award-winning presentation on hydrocarbon fluorescence in carbonates as a possible tool for environmental research. In conjunction with Dr. Karen Rose Cercone, Dave followed up on the Best Paper Award-winning presentation of Mandi Druso in 1996, and extended our understanding of why hydrocarbons fluoresce and how fast growing carbonate crystals can incorporate fluorescent compounds. Several chemistry professors and crystallographers have expressed great interest in continuing this work. The final presentation of the day was given by **B. Alex Boughamer**. Drawing on his extensive caving experience, Alex examined the unequal distribution of caves in Chestnut Ridge and Laurel Hill. He concluded that the more easterly setting of Laurel Hill (closer to the source of clastic sediment) made it just enough less soluble to prevent extensive caves from forming there. Alex later received SGE's W. A. Tarr Award for outstanding scholarship and contributions to the department.

The afternoon session of Geoscience Day was devoted to a talk by IUP Alumnus **Matthew Valentine '87**. After receiving his masters in geology from West Virginia University in 1990, Matt worked his way up to his current position as Senior Project Geologist at Paul Rizzo Associates. His work as an environmental consulting geologist has taken him to six countries and twenty states, and he very graciously made time to speak to us before flying out again to Slovakia for more field work. Matt's presentation began with an overview of Pennsylvania's Land Recycling Act, and finished up with a case study of the proposed St. Michael Pumped Storage Project in Cambria County.

After the talk sessions, Matt Valentine joined the faculty, students and several other alumni for our traditional banquet at The Rustic Lodge. Dr. Frank Hall gave a wonderful overview of his Northern Rockies field trip after dinner, including slides from several generations of students who have attended it.

FACULTY UPDATES

Darlene Richardson

This past spring, Darlene Richardson finished her stint as Director of Liberal Studies for the university, and returned full-time to teaching in the Geoscience Department. She will spend the academic year 1998-1999 on sabbatical, pursuing her research on women scientists and gender issues in science. As part of that work, she will plan a new course concentrating on regional women scientists such as Rachel Carson, Mary Treat, a naturalist who studied the New Jersey Pine Barrens in the second half of the 19th century, and Florence Bascom, a geologist who mapped much of eastern Pennsylvania. She will also plan a seminar series and discussion group on "Gender Issues in Science" centered on issues such as feminist critiques of science, the history of women in science and gender paradigm shifts.

Connie J. Sutton

This past semester, IUP initiated *The Teacher Education Center for Science, Mathematics and Technology*. Directed by Dr. Terry Peard of the Biology Department, it draws together the expertise of thirty-one IUP professors including our own education specialist, Connie Sutton. The Center will provide professional development activities for teachers, curriculum development for school districts, recruitment for these fields, grant proposals for research, workshops and loans of teaching equipment.

The Center has already received its first grant, which will sponsor a workshop for teachers in August. Teams of teachers from eight school districts will spend a week at IUP learning how to integrate and use basic concepts from biology, chemistry, computer science, geology, mathematics and physics. Connie Sutton will coordinate their work with topographic maps and land site evaluation.

If anyone is interested in learning more about our new teaching center, their web address is www.iup.edu/smetc/. The phone number is **1-800-487-4899** and the fax line is **724-357-7808**.

John F. Taylor

The department's paleontological collections continue to grow as John Taylor and his students work on a variety of projects dealing with Cambrian and Lower Ordovician trilobites. Faunas under study include those recovered from microbial reefs in the Upper Cambrian Ore Hill Limestone of south-central Pennsylvania. These reef-related faunas are described for the first time in a manuscript co-authored by Jim Loch '83 and Pat Perfetta '96 and accepted for publication in a special 1999 trilobite issue of the *Journal of Paleontology*. Lower Ordovician faunas from the Stonehenge Formation of central Pennsylvania are also under study, and an upcoming grant from the SSHE will allow several current IUP students to conduct an inventory of these rich trilobite assemblages. Trilobite faunas from the Stonehenge are proving useful in correlating this unit to age-equivalent strata both within and outside the Appalachians.

For the fourth summer, John will also be doing field work on the Manitou and Dotsero Formations in western Colorado, part of an NSF-sponsored study of the paleontology, sedimentology and geochemistry in the central Rocky Mountain region. Trilobites play a vital role in this study because they provide a way to document the location of the Transcontinental Arch, a highland that separated the waters of two different oceans during late Cambrian time. Preliminary data suggest that the Homestake Shear Zone in the middle of the Sawatch Range marks the former location of the arch. IUP students participate in this study through research projects that utilize the collected fauna.

Paula Martini, our long-time departmental secretary, continues to take graduate courses in literacy and reading education, specializing in the education of children with dyslexia. Look for updates on the rest of our busy department in the next issue of *Geo-Tidings*.

ALUMNI NOTES

Marty Arford '97

Marty writes from the University of Tennessee at Knoxville to say that he had a great trip down to Costa Rica this March. He found lots of volcanic ash and tephra in the sediment cores he collected for his Master's project, so he's still doing some geology!

Chuck Bove '86

Chuck informs us that he has settled in the San Francisco Bay area, even after hearing Dr. Clark say in 1985 that was the next hot zone for earthquakes. He arrived in February 1989 just in time for the big one! For the past two years, Chuck has been the Director of Industrial Hygiene for Winzler & Kelly Consulting Engineers. He tells Fred Park that they need good scope people out in California.

Melinda (Campbell) Rudibaugh '70

Melinda tells us that she was promoted to Chair of the Math/Science Division at Chandler-Gilbert Community College in Phoenix, Arizona this May. Along with husband Jerry, Melinda has two children, Amy and Evan.

Bryan Emilius '89

Bryan reports from New Jersey that the environmental business is keeping him too busy to make it back to IUP for homecoming. He's currently employed by Resource Control Corporation in Rancocas, New Jersey.

Ralph Feather Jr. B.Ed.'71, M.Ed.'74

Ralph is proud to announce that he received his Ph.D. in Instruction and Learning, Science Education from The University of Pittsburgh this April. Ralph's dissertation was entitled, "The Use of Free and Formal Journal Writing in the Development of Conceptual Change in Ninth Grade Earth Science Students as Measured using Concept Maps and Achievement Tests." Ralph has worked with and mentored several student teachers from IUP over the past 25 years. During that time, he also received the Burns Citation for Excellence in Science Teaching (1982), the NAGT Outstanding Earth Science Teacher award (1984), the GSA Award for Excellence in Geology Teaching (1991) and

the Presidential Award for Excellence in Science and Math Teaching (1991). Ralph was appointed IUP's alumni ambassador in 1988. He has written several high school science texts including Glencoe Earth Science, Merrill Earth Science, Science Interactions and Science Connections. Congratulations, Ralph, on your outstanding career!

Pat Federinko '86

Pat says he loved the last Geo-Tidings (we always like to hear that, Pat.) He is still with Glenn O. Hawbaker, Inc. in Bellefonte, Pennsylvania and is becoming quite successful at prospecting for new stone quarries. Pat is continuing his education by taking graduate courses at Penn State in Geology and Mining Engineering.

Mark Feighner '80

Mark writes to tell us that after an M.S. from Michigan Tech and five years in the oil patch with Chevron, he went back to get a Ph.D. in geophysics from UC Berkeley. He has been working at the Lawrence Berkeley National Laboratory since 1995, doing seismic imaging of the Yucca Mountain high-level nuclear waste site.

Joseph Fondrk '86

Joe not only sent along his email address for our records, he also sent along a prediction that the Pittsburgh Pirates would be playing in Sacramento in three years. Joe admits he did go to about ten Pirates games last year and enjoyed them very much.

Eric Haase '95

Eric has finished up his term with the USGS and joined the Woods Hole Oceanographic Institute. He is currently aboard a German seismic vessel in the Indian Ocean, doing vertical seismic profiles of the MOR. After that, he'll join a cruise in the Persian Gulf aboard a Navy oceanographic vessel, and he hopes no one will take any shots at them. Who ever said seismology couldn't be exciting?

Paul Hale '94

Paul tells us that he's currently a field operations leader for TetraTechNUS, traveling up and down the east coast to perform remedial operations at military installations. He and wife Jennifer are expecting a new addition to the family soon.

Jason Hayes '96

Jason says it was great to hear from the IUP Geoscience Department, and that things are going well for him down in Maryland. Jason is working as an Earth/Space Science Teacher at Chopticon Middle School in St. Mary's County. He notes that his school is only about 15 miles from Calvert Cliffs (site of Dr. Taylor's 1994 paleontology field trip). Hope your students enjoy fossil collecting, Jason!

Keith Howell '96

Keith tells us that he's working for Sperry-Sun Drilling Services way down south in Broussard, Louisiana.

Doug Kuhns '84

Doug wrote to say that he enjoyed the last newsletter. He's been working in the environmental restoration area as a project manager at the Idaho National Engineering and Environmental Laboratory, where he's been responsible for completing a number of cleanup projects. He says he often thinks about the 'good ole days' at IUP and the great field trips he took here. Doug lives with wife Wendy and children Amanda (4) and Meghan (2) in Idaho Falls, Idaho.

Tim McMillen '95

Tim says he wants to thank Dr. Taylor for his great paleo and strat courses, which have come in handy in his second year of grad school at WVU. Tim's thesis is based on a detailed field description of the Coeymans/New Creek in West Virginia and Maryland.

Wendy (Metcalf) Straatman '92

Wendy tells us that she's been transferred from Texas to "Mecca" (otherwise known as Bartlesville, Oklahoma) where she'll be working as a research geologist in reservoir characterization for Phillips Petroleum. Her work

includes projects from all around the world, ranging from exploration to development.

Tim Nuss '88

Tim recently updated on his activities since graduating from IUP. Tim first worked for Victory Energy here in Indiana and became the company's chief geologist. After a few years, he networked his way to a job at the New Jersey Department of Environmental Protection through his contacts with fellow IUP alums **Mark Yanosky** and **Gary Smarsh**. Currently, Tim oversees underground storage tank removals and directs soil and groundwater clean-ups for the state. He remarried in 1997 and lives with wife Doreen and black lab Jasmine in Westhampton, New Jersey.

Tim O'Keefe '75

Tim is currently living in Middletown, Maryland and serving as Department Head of Middle School Science for the Montgomery County Public Schools. He and wife Emily have four children: Jeni (19), Sean (14), Jessi (12) and Jacki (8).

Ted Payne '84

Ted was happy to let us know that he was nominated as an outstanding educator in Carroll County, Maryland by the Chamber of Commerce. He finished his Master's Degree last year at Towson State, and hopes to be working toward a Ph.D. in Human Resource Development at George Washington University within the next year. He passed along the news that fellow alum **Tom Carney** is still in Virginia and **Mark Maclellan** is in North Carolina, but **David St. Clair** has moved to Virginia and become a farmer.

Pat Perfetta '96

Pat tells us that he is now the proud owner of a Master's Degree in geology from the University of Missouri. Pat is currently working on two scientific articles based on his research, one for *Geology* and one for *The Journal of Paleontology*. (For more news on Pat's other research, see the Faculty Update on Dr. John Taylor.) Pat will be starting his new job with Phillips Petroleum soon. Congratulations, Pat!

Chuck Peterman '74

Chuck informs us that he recently left IT Corporation, where he was no longer doing much actual geology. He has found some short-term employment but is still seeking a longer-term job in either petroleum or environmental geology. Although he enjoys being in the Indiana PA area, Chuck says relocation is always an option for the right job with the right company. He can be reached by email or at (724)-349-5340.

Michael Petrunyak '92

Mike is now a lieutenant in the US Army. He tells us that it's been a while since he's been on campus at IUP, and that while he misses some things (like Professor Prince) there are other things he doesn't miss (like Professor Prince's exams.) Mike spent the last four years in Germany, but is currently stationed at Fort Drum, New York, right next to the Adirondacks. He complains that he can't get a compass to work worth a darn up there so close to the shield and all the metal in the ground, but he enjoys the interesting weather up there.

**Jon Pina B.S. '72,
MS Geol '78, MS Safety Sci '89**

Jon recently started his own environmental firm in the Indiana area, Evergreen Health & Safety Inc., after working for 21 years with major environmental consulting firms such as IT Corporation and ICF Kaiser. He and wife Margie (Silveri) Pina have two daughters: Melanie (16) and Natalie (6).

Wanda (Prisk) Sheaffer '74

Wanda writes to say that she just rediscovered her first newsletter on her desk and definitely wants to keep getting them in the future. She says she likes Linda Ferrant's idea of an alumni address directory (we're still collecting data and

should have one done by fall). Linda currently lives in Lancaster and works as the safety manager for a company called J.L.Clark.

Tom Proctor '93

Tom tells us that he's now employed as a Sales Coordinator at US Silica in Berkeley Springs, West Virginia. Congratulations, Tom!

Jennifer (Serafin) Frye '91

Jen informs us that she is back in Ebensburg, Pennsylvania, after a three-year hitch getting her Masters at Montana State University. She's working as an Erosion Control Specialist for the Blair County Conservation District. Jennifer says she still has the sunny and positive disposition that earned her the nickname "Sunshine" at IUP.

Rob Templeton '93

Rob tells us he's working as a geologist at Geologic Services Corporation in Evans City, and also says his company is looking to hire someone part-time to sample groundwater wells. Rob and his wife Ellen live in Renfrew, Pennsylvania with their two-year old daughter, Taylor Anne.

Jim Turner '75

Jim writes from Littleton, Colorado to say that he's working as a Senior Technical Specialist for the US Department of the Interior, managing a Geographic Sciences Laboratory at the National Applied Resource Sciences Center. He and wife Christine have four children: Steven, Michael Ann, James and Jason.

Keep those alumni updates coming! We like to hear about new degrees, new jobs, new homes, new kids, new pets, new web pages....anything!

For those alumni who have been wanting to get in touch with Professor Paul Prince now that he's retired to Hilton Head Island, here is his current address:

**The Cypress — B-316
63 Birdsong Way
Hilton Head SC 29926**

Mr. Prince would enjoy hearing from former students.

ALUMNI SPOT-LIGHT

In each newsletter, we highlight several outstanding alumni who have provided support to the department over the past six months. Our thanks this time go to:

John Repetski '69--for coordinating the donation to the IUP Geoscience Department of specimen cabinets worth approximately \$10,000 from the United States Geology Survey in Reston. These cabinets will be used to store our many paleontological and mineralogical samples, while saving us the need to spend our limited equipment funds for storage.

Nancy Durika '92--(along with her wonderful family) for taking time off her job to transport the new specimen cabinets from Reston up to IUP. Hope you didn't leave any dents in the rental truck, Nanc....

James Loch '83--for donating monetary awards to support the Best Paper and Best Research awards given out on Geoscience Day. This is Jim's third year as our award sponsor, and his generous support is deeply appreciated.

Ralph Feather '71--for serving as a judge on Geoscience Day and helping to give feedback to our students on their research presentations.

Chuck Peterman '74--for sharing information about a local environmental well-field which the Geoscience Department may be able to use as an educational site.

Matt Valentine '87--for taking time off to be our featured speaker at Geoscience Day and also taking the time to judge and give feedback on the student presentations.

Dave Brezinski '77--for contributing his time and expertise as a geologist with the Maryland Geological Survey to assist department faculty who carry out research and conduct field trips in the Blue Ridge, Frederick Valley and other areas in Maryland.

FICTIONAL GEOLOGISTS: A NEW IUP TRADITION

Many alumni who graduated before 1990 may not know about the newest IUP tradition: getting your name 'adopted' for a character in a Star Trek book co-written by Karen Rose Cercone and Julia Ecklar under the pen-name L.A. Graf. Writers always need interesting names to use, provided the name's current owner doesn't mind getting transported to a future reality where they may become an evil villain, a murder victim or even an alien monster! Fortunately, Prof Cercone always finds a few willing victims for each book from among her students and colleagues.

The trend began in 1992 with the novel *Death Count*. In this book, the department's paleontologist John Taylor boldly went where no IUP professor had gone before, guest-starring as a Starfleet efficiency auditor who tries to reform Captain Kirk's free-wheeling command style. Unfortunately, he falls prey to a ruthless alien saboteur before he can succeed.

Geology itself took center stage in 1994's *Firestorm*. In this book, the Federation Geologic Survey tries to study a giant volcano in a distant

star system but is attacked by ruthless aliens (talk about dangerous field work!) Two IUP graduates, Scott Mutchler and Wendy (Metcalf) Straatman, portrayed a volcanologist and a geophysicist respectively, while John Dembosky, Jayne Park and Amy (Poole) Dembosky had cameo roles as the victims of alien attacks.

The next appearance of IUP geoscientists in Star Trek didn't come until the 1997 novel *Armageddon Sky* about the effect of comet impacts on an alien planet. Alex Boughamer guest-starred in this book as a Starfleet officer injured by a falling spectrometer while escorting a party of planetary geologists, while Barb Osgood lent her name to a Starfleet weapons office. In 1998, Dave Neely and Heather Renyck took their turns as injured Starfleet officers in the novel *War Dragons*.

So, who will be the next IUP Geoscience member to beam up with Captain Kirk or travel through worm-holes with Captain Sisko? Stay tuned to Geo-Tidings for another exciting episode of Fictional Geologists....

Alumni Information & Message Form:

Name: _____ Email: _____
Phone: _____ Web URL: _____
Address: _____ Spouse: _____
Children: _____
Position: _____ Employer: _____
Permission to Publish Your Address & Email in an Alumni Directory: ___ Yes ___ No

Your news for our next newsletter / IUP magazine / web page:

Please fill out and send back to the Geoscience Department, 115 Walsh Hall, Indiana University of Pennsylvania, Indiana PA 15701-1052. Or email your news updates to jftaylor@grove.iup.edu.

AN INVITATION TO ALL GEOSCIENCE ALUMNI

Please make plans to join us next year on **April 30, 1999** for the **25th Annual Geoscience Day** and on **October 2, 1998** for the **Geoscience Department's 30th Anniversary!** For your convenience, here are some local hotel numbers:

- Holiday Inn (724-463-3561)
 - Best Western (724-349-9620)
 - Super-8 in Indiana--*new* (724-349-4600)
 - Comfort Inn in Indiana--*new* (724-465-7000)
 - Comfort Inn in Blairsville--*new* (724-459-7100)
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