The Department of Geology and Environmental Geosciences

Lafayette College

NEWSLETTER

Department of Geology and Environmental GeoSciences

Lafayette College

Number 23 **December 2009**

Staff

Our staff has remained the same since the last newsletter.

Professor Dru Germanoski, the Ervin R. VanArtsdalen Professor and Department Head specializes in Earth Surface Processes, and Hydrogeology,
Professor Guy Hovis, the John Markle Professor of Geology specializes in Mineralogy, Petrology, and Geochemistry,
Associate Professor Lawrence Malinconico, specializes in Geophysics, Structure, and Tectonics,
Assistant Professor Kira Lawrence specializes in Paleoclimatology, Climate Change, and Oceanography,
Assistant Professor David Sunderlin specializes in Paleobiology, Sedimentology, and Tectonostratigraphy
Visiting Assistant Professor Tim Cook specializes in Paleoclimatology and Oceanography
John Wilson, the Lab Coordinator, is a Petrologist, and GIS specialist,
Ana Meyerson, the Department Secretary,
Robert Thomas the Department Technician,
MaryAnn Malinconico, Research Associate,
Bill Metropolis mineral collection Curator.

College and Department News

Introduction

The past three years have been dynamic and exciting for the Department of Geology and Environmental Geosciences. We have developed new courses, the new faculty members have settled in to their renovated research labs, and our enrollments have been strong. Our mineral collection has expanded greatly as the result of several major donations, and we are pleased to have the Montgomery Prize fund finally reach the endowment threshold as the result of a generous gift from George and Ferne Elling. Our students are enjoying the new courses, both regularly scheduled courses and new interim courses, and many students are doing collaborative research with faculty members both in and beyond our department.

Professor Lawrence will be on research leave for academic year 2009-10 and Professor Sunderlin will be on research leave Fall 2009. We are pleased to have hired a Visiting Assistant Professor, Tim Cook, to teach courses that otherwise could not be offered this year.

Facilities

Rooms 6 and 8 in the basement have been fully renovated including the installation of large fume hoods to support Professors Sunderlin's and Lawrence's research work. Students have been working on collaborative research in these facilities and as described later in the newsletter, publications and conference presentations are already coming out of these new labs. We were also able to add a fume hood in Room 11 for general-purpose use.

The College is planning to build a new building to house Life, Earth, and Environmental Sciences and include the following Departments: Biology, Geology & Environmental Geosciences, Computer Science and new environmental programs. We have been touring new science buildings at other schools and meeting with architectural planners to develop a plan for Geology and the other sciences. Although there is no formal timetable established for the project we are firmly in the planning phase.

Curriculum

As expected, the addition of two new faculty resulted in the development of several new courses. Professor Lawrence teaches three new courses, Geology 115 "Earth's Climate: Past, Present, and Future", Geology 315 "Paleoclimatology and Paleoceanography", and VAST 253 "Global Climate Change." Kira also teaches the Oceanography course. Professor Sunderlin teaches Geology 130 "Darwin, Dinosaurs, and Deep Time", Geology 321 "Paleobiology", and a First Year Seminar FYS 157 "Islands and Isolation". Professor Germanoski developed a First Year Seminar course FYS 149 called, "Living with a Serial Killer, Life on Planet Earth", a geohazards course.

In an effort to better integrate the upper-level course curriculum and enhance our field focus, Professors Malinconico and Sunderlin are offering "Modern and Ancient Depositional Systems" and "Tectonics and Structure of the Earth" in sequence, and in October, 2009 they ran a fall break field trip to the Sheep Mountain Anticline in Wyoming. Despite record cold temperatures,

thirteen students, along with Professors Malinconico and Sunderlin enjoyed four productive days of field mapping of an anticline syncline pair near Greybull Wyoming. The trip was supported by a one-time grant from the Provost's office. Because the trip was so successful and student response was so positive, we are actively seeking ways to endow a fund to make this trip an annual part of the geology curriculum.

We continue to offer a vibrant and growing number of off-campus interim session courses. Our Geology of the Hawaiian Islands course remains popular and is offered in even-year Januarys. Professor Sunderlin has joined Professor Malinconico in offering the May-June course Geol 160 "Geology of the National Parks A to Z (Arches to Zion)". This past January 2009 Professor Germanoski joined Professor Kney from the Department of Civil and Environmental Engineering in offering "Envisioning the Environment, Environmental Science and the Geology of New Zealand". Professors Sunderlin, and Malinconico along with Provost Hill will be offering a new interim session course Geol 170 "Geological & Paleobiological Evolution of Ecuador & the Galapagos Islands" in January 2011.

We conducted a Department retreat in May to assess our program and discuss future directions for the Department. We reviewed the Geology programs at a number of liberal arts colleges in preparation for our self-assessment. We learned that, by comparison, we have a diverse curriculum and a fairly broad coverage of the discipline in terms of faculty expertise. Nonetheless, we would like to enhance our program by adding a biogeochemist or a low-temperature geochemist to the staff if additional staffing resources become available.

Study Abroad

Many students have been taking the opportunity to spend a semester studying abroad. Over the past few years we have had students study in London, Scotland, Ireland, and New Zealand. We have just finished the paperwork for making Lafayette the school of record for two programs in New Zealand called Frontiers Abroad. One program is an Earth Systems program and one is a Geology program. Both programs begin with a five-week field mapping course followed by a semester at either the University of Canterbury or the University of Auckland. This past spring (2009) we sent six students from Lafayette: three Geology majors participated in the Geology program, and one Geology student and two Engineers participated in the Earth Systems program. The programs are described in detail in the Frontiers Abroad website (http://www.frontiersabroad.com/).

Enrollments and Graduates

Enrollments have fluctuated from year to year, but have remained strong. We graduated 11 majors this past spring, 4 in 2008, and 5 in 2007. Eighteen seniors are scheduled to graduate next spring and there are 8 students in the junior class this year. Our graduates are still finding jobs in the environmental consulting industry and many continue to pursue graduate and professional degrees. Members of the class of 2009 have matriculated in graduate programs at the University of Wisconsin, The University of Pennsylvania, Harvard Law, and Pace Law. Other recent graduates are enrolled in graduate programs at Duke, Stanford, Penn, Pace Law, and Montclair State and we have one alumnus doing a Post-Doc at the University of Hawaii. There

is also a trend where one or more graduates per class pursue careers in primary or secondary education.

Internships and Externships

The College has embraced the practice of allowing students to get credit for internships and externships including summer internships, interim session (January), and academic semester internships. Students can also receive pay for the internship which is important to many companies to satisfy insurance requirements. Many of our students have expressed interest in gaining internships but we have been slow in establishing formal internship opportunities. If your company is interested in participating in an internship program with talented, motivated, well-educated students, please contact Dru Germanoski. (germanod@lafayette.edu).

Geology Club

The Geology Club has been very active over the past three years and have taken weekend camping trips to Rickett's Glen State Park, Bear Mountain State Park, mineral collecting trips to the Sterling Mine and St. Anthony's Nose, NY, and offer weekly movie nights to watch "geologic" movies. In addition to these activities, the students regularly teach Cub Scout dens, elementary school classes and other groups the wonders of geology, with hands on demonstrations, of minerals and fossils. They also had a unique opportunity to participate in a stimulating dinner conversation on natural gas production in organic shales sponsored by Bud Scherr '78, from Valence Operating Company, a natural gas exploration and production company in Houston. See additional photos of the Geology Club found in the center photo insert.

B-B-Q's and other Department Activities

For the past few years, the Department has opened the fall semester with a barbeque the first week of classes. This provides a time for new, returning students and the faculty to meet and swap stories of their summer adventures. We cap off the fall semester with a holiday party in Van Wickle, where students can celebrate the end of the semester. In the last week of spring semester, we break out the charcoal grills once again, and have an end of semester picnic in front of Van Wickle Hall.

May 8, 2009: Some of the members of the Geology Department during the end of the year barbeque.

Brown-Bag Seminar Series

We continue to maintain a strong Brown-Bag Seminar series throughout the academic year. We have enjoyed having many of you serve as speakers and we welcome any of you who would like to return to campus to contribute to our Brown-Bag Seminar Series. The students have embraced this weekly program and our attendance rivals what we see in graduate program seminar series.

The listings of seminar speakers are located later in this newsletter. You will notice that over the past few years, we have added many seminars that feature our students. These presentations provide a nice look into the research projects, summer internships, field camps and jobs that students have worked on.

Arthur Montgomery Mineral Collection

On March 7, 2008 we held a series of events to celebrate recent significant donations to our Montgomery Mineral Collection. The Department was thrilled to be the recipients of the Scalisi Mineral Collection donated as a generous gift from a donor who wishes to remain anonymous. Dr. Philip Scalisi delivered a feature presentation, "The Adventures of a Mineral Collector" describing the history of the minerals and the joy with which he built the collection. We presented a chair with a Lafayette logo to Dr. Scalisi and celebrated twelve donors who have contributed to the Montgomery mineral collection over the past 5 years. President Weiss presented a plaque to the Department listing the names of the donors which is now mounted on one of the support columns in the mineral museum. The event was attended by over 70 people including a large number of Geology Department alumni.

Phil Scalisi addresses a "standing room-only" crowd

Whereas many colleges and universities are liquidating their mineral collections, we are proud of the fact that we are actively working to enhance and further develop our collection. The College has supported this effort by providing funds to purchase over 30 Viking rock and mineral storage cabinets and building a secure room in the basement dedicated to the collection. Bill Metropolis visits the campus monthly to curate the collection and update the displays in our museum and hallway display cabinets. It is rather rewarding for all of us to see the frequency with which students, faculty and guests walking through the building stop, examine, and discuss the minerals on display.

We also presented Bill Metropolis, our mineral collection curator extraordinaire with a Lafayette chair. Bill, his wife Marylin, Bill's mother Georgina, and late Father Ted were also recognized

for their gifts to the collection. The Metropolis Family have become integral and much appreciated members of the Geology Department. We owe Bill special thanks for the magnificent job that he has done to grow the mineral collection and assure that we will be able to continue to honor a student each year with the Montgomery Award (see the next paragraph for the details).

From Left Mr. Elling, Dr. Scalisi, Mr. Avella, Mrs. Georgina Metropolis and Mr. Bill Metropolis

More pictures of guests and students from that memorable evening.

LAFAYETE COLLEGE
Mineral & Fossil Collection

The College & the Department of Geology & Environmental Geosciences acknowledge the following individuals for their personal generosity in supporting this invaluable educational resource.

Mr. & Mrs. William and Marilyn Metropolis
Mr. & Mrs. Ted & Georgia Metropolis
Mr. Sal Avella & Mr. Fred Corcoran
Mr. & Mrs. George & Fern Elling
Mr. & Mrs. Phillip & Cheryl Scalisi
Mr. & Mrs. Robert & Edna Whitmore

James Dyson and Arthur Montgomery Student Awards

We continue to honor our best students with the James Dyson Award (41 years) and for the past 7 years we have been able to honor additional high achieving students with the Arthur Montgomery Award. This past spring we were thrilled to be gifted a very generous donation from George and Ferne Elling that provides the fund with a sufficient base to sustain an annual Montgomery Award for the foreseeable future. The fund had been dwindling to the point of extinction before being rescued by the generosity of the Ellings. George captivated our faculty and students in the spring with a brown-bag presentation describing his collection of fluorescing minerals.

It is wonderful to be able to recognize several outstanding students with the Dyson and Montgomery Awards. We have been fortunate to have so many hard-working, high-achieving students deserving of these awards. The 2009 Montgomery Award went to Rachel Heron. Rachel deserves special recognition because she was Valedictorian of the class of 2009 with a perfect 4.0 GPA. This is a mean feat indeed, because as you probably recall, we are not guilty of grade inflation in our department.

If any of you wish to contribute to either of these funds, all you have to do is list Montgomery fund or Dyson fund on your donation and the people in the Development Office will see to it that your gift reaches the desired destination.

A listing of Dyson and Montgomery Student Award winners can be found on page XX.

Annual and Special Gifts

I would like to take a moment to thank all of you who have made a point to contribute to the College and, in many cases, to have made special gifts to the Department. Your generosity has allowed us to support faculty-student research and student travel to professional meetings. Whereas I would love to list your names for public recognition, I realize that many of you prefer to keep your gifts anonymous. You can't imagine how much we appreciate your confidence in our department and our students.

Student – Faculty Research

Student – faculty research continues to be one of the Departments main focuses. We pride ourselves on incorporating students into our research projects through both Excel Scholar research, and independent studies. The students work hard at what they do, and many of our students turn out work that is comparable to that produces in graduate programs. All of the faculty members have had students working with them over the past three years, and we have tried to reproduce a listing of the students below. There are also some pictures of these students.

Dru Germanoski:

Andrew Mott ’07: Using GIS to identify and characterize Wet Meadows in the Central Great Basin

Melissa Larsen ’09: Great Basin tectonics and its effect on drainage basin morphology.

Andrew Baldridge ’10: Ground and surface water interactions along the slate-carbonate transition, Northampton County, PA.

Alysia LeComte ’10: Ground and surface water interactions along the slate-carbonate transition, Northampton County, PA.

Tyler Germanoski ’11: Wet meadow assessment in Central Nevada.

Guy Hovis:

Andrew Mott '07: The nepheline-kalsilite solvus for intermediate excess silica contents .

Andrew Mott '07: Senior Thesis, Investigation of fluorite geochemistry.

Joanna Morabito '08: Thermal expansion of nepheline - kalsilite crystalline solutions having intermediate excess Si, research performed in part at Cambridge University.

Sarah Wildermuth '09: Thermal expansion of fluor-chlorapatite solid solutions.

William Hudacek '10: Thermal expansion of fluor-chlorapatite solid solutions.

Anthony Romanoski '10: Thermal expansion of Ca-K feldspars, data from Cambridge University.

Allison Tether '10: Thermal expansion of Ca-K feldspars, data from Cambridge University.

Maricate Conlon '11: Thermal expansion of apatite, plagioclase, and K-Ba feldspars, research performed in part at Cambridge University.

Aaron Medford '11: Thermal expansion of apatite, plagioclase, and K-Ba feldspars, research performed in part at Cambridge University.

Kira Lawrence:

Joanna Morabito ’08: Examining ancient productivity patterns in the North Atlantic.

Laura Bochner ’10: Reconstructing past ocean surface conditions in the equatorial Atlantic.

Hilary White ’10: Documenting sea surface temperature evolution in the North Atlantic.

Sean Murphy ’11: Testing a technique to reconstruct ancient wind patterns.

Lawrence Malinconico:

Joanna Morabito ’08: Long-wavelength gravity anomalies in Pennsylvania.

Matthew Harhen ’08: Gravity acquisition for the Gravity Map of Pennsylvania.

Matthew Dempsky ‘10 Sub-surface gravity models related to Carbon Sequestration, Western PA.

William Hudacek ’10: Subsurface gravity modeling of the Reading Prong rocks of Northampton, Bucks and Lehigh Counties.

Brian McAtee ’11: Long-wavelength gravity anomalies in Pennsylvania.

David Sunderlin:

Eric Ricci ’08: Late Cretaceous fossils of Denali National Park, Alaska.

Nancy Parker ’09: Plant – insect interactions during the 55ma warm period, Alaska.

Sarah Wildermuth '09: Leaf taphonomy in temperate forests.

Matthew Dempsky ’10: Tertiary insects in amber, Alaska.

Elizabeth Graybill ’10: Ordovician trace fossils from southern PA.

Alysia LeComte ’10: Tertiary Alaskan fossil leaf assemblages.

John Wilson:

Matthew Harhen ’08: Land Use/Land Cover Change analysis of Northampton County.

Daniel Brown ’09: Mapping the Historic Scamman California Gold Collection.

Brett Lambie ’09: GIS and remote sensing in the film industry.

News from Faculty and Staff

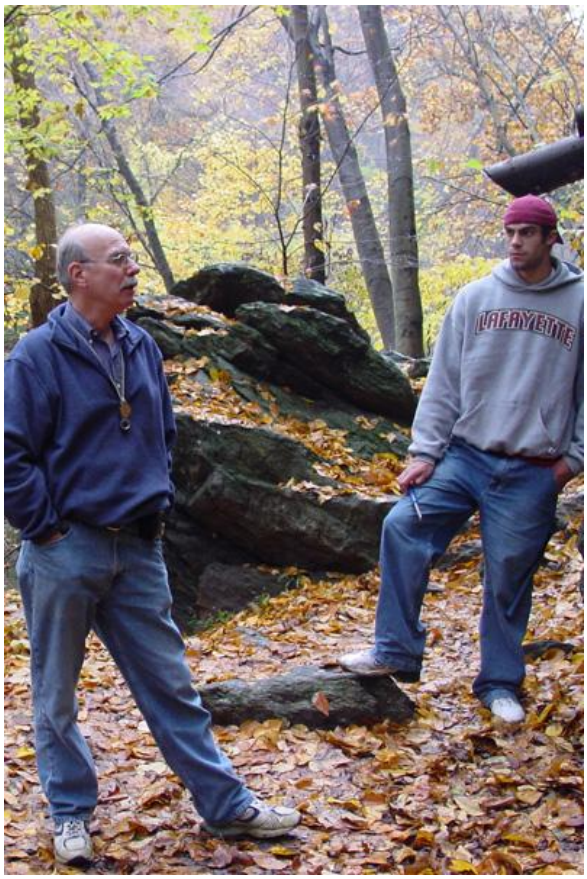
Dru Germanoski

This newsletter always forces me to take a few minutes to reflect on our accomplishments and the state of our program. I am overwhelmed by a sense pride. I am proud of my colleagues in the department, our students, and you, our alumni. I am also shocked to realize that I just finished my 22nd year at Lafayette and my 9th year as Department Head. It is truly hard to fully appreciate how fast time flies, but I suppose the old adage applies, "time flies when you're having fun!" I have continued to conduct research in central Nevada, and we just submitted our fourth and final manuscript from our work on the Rio Pilcomayo in Bolivia. I thank all of you who have helped me on these and other research projects over the years.

On the personal side of the ledger, things have been both joyful and sad. My wife Leann and our sons continue to be sources of great joy to me. Jake and I spent ten days hiking in the Sangre de Cristo Mountains last August at the Philmont Scout Ranch and Jake is on the cusp of joining his brothers Andru and Tyler as Eagle Scouts. Andru has just begun his senior year in the health policy management program at Penn State, and Tyler started his second year at Lafayette as a double major in Geology and History. Jake is now a Junior in high school and enjoying high school ice hockey and lacrosse. Instead of looking up to me, all three of them are looking down on my gray hair.

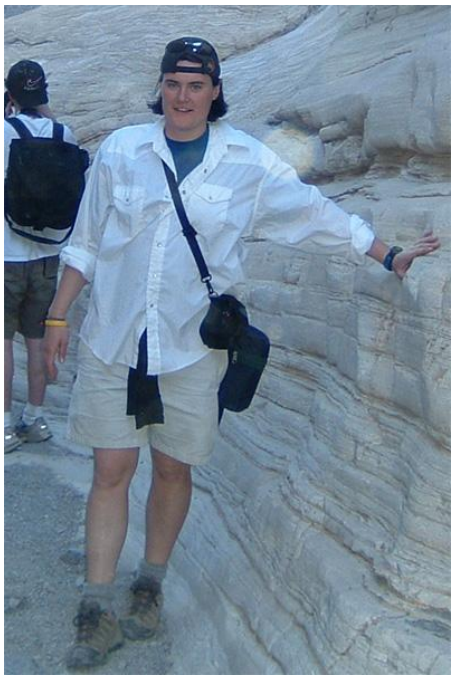
On a terribly sad note, those of you from the class of '06 probably recall our youngest Gordon Setter, Murphy. We lost Murphy to a tragic accident last December. Murph was the family favorite, a magnificent bird-dog, and a clown with a fabulous personality. In the spirit of moving forward, we got a new Gordon pup in April. Peat, who shares a bloodline with Murphy (follow this one if you can, Peatie's mother is Murphy's father's sister), is turning out to be a wonderful addition to the family. We see a lot of Murphy in him as we hoped, and he is already pointing anything that flies, but he brings another array of traits to the table. No sooner had the other two dogs (Max and Misty) adjusted to the young punk, and we had to put Misty down in October (a month shy of 14 yrs – so not too bad). So yes, I remain obsessed with field Gordon Setters. Max and Peatie are a dynamic duo and Leann reminds me almost daily, that two dogs are plenty.

Guy Hovis



Hello Lafayette alums. This writing finds me kicking still. I continue to enjoy teaching, which includes a geology intro course, From Fire to Ice, An Introduction to Geology. Upper-level courses include Earth and Planetary Materials, Igneous and Metamorphic Petrology, and Geochemistry. Like other staff members, I supervise Independent Study and Thesis projects, as well as EXCEL Scholars. I continue to take students to Cambridge University, UK, for thermal expansion research. Solution calorimetric research takes place here at Lafayette. I've done a lot of work on framework silicates, in recent years focusing on feldspathoids, although never leaving feldspars entirely. A recent student-coauthored paper in the *American Mineralogist* reports that feldspar thermal expansion is a simple function of room-temperature volume; in short, room-temperature chemical expansion limits the degree to which $AlSi_3$ feldspars can expand. This is a simple principle, but one that had never been recognized before, and it was really nice to produce a paper in which students helped make the discovery. In addition to silicate minerals, including some interesting work on zeolites, the big new area of research for me is the apatite group, a complex F-Cl-OH-CO_3 phosphate solid solution series, and we're getting some interesting results on the thermodynamic and thermal expansion behavior of these minerals. As always, research collaborations include scientists beyond the walls of Lafayette, especially in Europe. On the personal side, my two daughters both live in the eastern USA now, one in the Boston area and the other in Brooklyn. I have three grandsons, all in Brooklyn, so Joyce and I get to see them fairly frequently, but it seems never enough. They are really cute little boys, and they seem to think that grandpa is an OK guy. I've been at the business of teaching for 37 years now, 35 of them at Lafayette. I have wonderful memories of so many of you; if you are in the area, don't be a stranger, and do let me know you are coming so that I am here to greet you (hovisguy@lafayette.edu / 610-330-5192). I wish you good health and happiness. Finally, for old time’s sake, answer this question: What happens when you hit shale with a hammer? Answer: Clay Aiken. Keep smilin'.

Kira T. Lawrence



Assistant Professor Kira T. Lawrence teaches courses on Earth's climate and oceans including a large 100-level introductory course with an emphasis on climate, a VAST seminar on climate change, a 200-level oceanography course, and a 300-level paleoclimatology and paleoceanography course. These courses have included field trips to local destinations (Ringing Rocks State Park; Easton Cemetery; Jacobsburg State Park; Portland, PA Power Station; Bear Valley Strip Mine in Shamokin, PA) as well as locations more far a field (Mystic Seaport, Mystic CT; Chesapeake Bay, MD; Sandy Hook, NJ; Dinosaur State Park, Hartford, CT).

Professor Lawrence's research interests are in understanding how and why climate has changed through time. She recently received a $96,600 grant to study climatic change in high latitude regions during the most recent interval of global warmth, the Pliocene epoch (3-5 million years ago). She has presented her work at several regional and national conferences as well as through a number of invited talks at other institutions including Rutgers University; Scripps Institute of Oceanography; University of Massachusetts, Amherst; Skidmore College; the US Geologic Survey and Bucknell University.

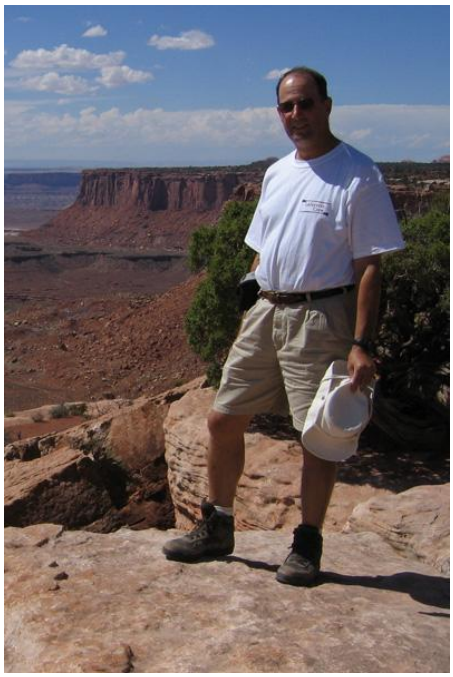
Over the past several years geology majors and EXCEL scholars Joanna Morabito '08, Laura Bochner '10, and Hilary White '10 have worked with Dr. Lawrence generating records of past ocean temperature and productivity that are used to reconstruct past changes in Earth's climate. This spring, Laura Bochner and Hilary White presented results of their EXCEL research projects at the Geological Society of America's Northeast Section meeting in Portland, ME. During each summer, Dr. Lawrence and her students have traveled to Brown University to discuss their research findings with collaborators at Brown. This summer, Sean Murphy '11 has joined Dr. Lawrence's research team.

Professor Lawrence has also served on several College committees including the Curriculum and Education Policy Committee and Athletics Committee. In addition, she has been heavily involved in the College's "Green Move-out" campaign to collect and donate useable items that are discarded by students at the end of academic year. Last winter, Professor Lawrence wrote a piece on human-induced climate change for the College's Alumni Newsletter, which can be downloaded from the College website.

Lawrence, K.T. We've Turned Up the Heat: Humans Role in Changing Earth's Climate. Lafayette Alumni News, Winter 2008, 33-36.

Student Researchers:
Joanna Morabito '08
Laura Bochner '10
Hilary White '10
Sean Murphy '11

Lawrence L. Malinconico Jr.



Since the last iteration of the newsletter, we have had several exciting curricular developments involving both on-campus and interim session courses. When I last wrote, we had offered the National Parks Course for the first time. It has since been offered two more times, both with Dave Sunderlin. This has made a tremendous difference since we can now truly focus on the stratigraphic and structural development of the Colorado Plateau as exemplified by the geology in the parks on the Plateau. Additionally, Dave and I have had numerous conversations about the role of understanding the synergy between the sedimentologic and structural history of an area.

As a result, we are beginning a pedagogical experiment where we will no longer treat Sed/Strat and Structure as two separate courses. Rather we will integrate the two topics over a two-semester period, and use basin development and deformation as a focus. One of the enhancements that we truly excited about is a capstone field experience to the Bighorn Basin in northern Wyoming. Over the fall semester break (in the second semester of the sequence) we will take the students to Greybull to map two areas around Sheep Mountain anticline. While the mapping skills gained by the students will be useful, the important curricular experience is that we will ask them to develop the geologic history of the area based on their understanding of both the stratigraphy and structure. We are currently a week away from leaving (everyone is excited) and by the time you read this we will have returned from the first iteration of the field trip. I want to acknowledge that this year all of the travel (except food) for the students is being supported by an innovative teaching grant from the College. Should this prove to be the pedagogical success that we anticipate, we will need to find ways to support this through department funds.

My work continues to focus on gravity and magnetic measurements as applied to structural problems in Pennsylvania. Under a grant from the PA Geological Survey we have recently completed a comprehensive database of gravity measurements for Pennsylvania. Eventually, when economic conditions improve, the Survey will produce a paper version of the Bouguer gravity map of the State. This work was greatly assisted over the past two and half years by several geology majors including Matt Harhen ’09, Billy Hudacek ’10 and Bryan McAtee ’11. In the data to model the long-wavelength gravity anomalies in Pennsylvania. The students have been co-authors on presentations at both national and regional GSA meetings and the national AGU meeting. This past summer we began a new gravity project helping to define the structure of a salt-cored anticline in western Pennsylvania that the State hopes to use to store captured CO_2. Working with Billy Hudacek ’10, Matt Dempskey ’10 and my wife MaryAnn we collected over 500 new gravity observations in a nine-quadrangle area. These data are currently being processed and we will then develop subsurface models based on the defining the gravitational

signature of the Reading Prong in Pennsylvania . He will then develop subsurface Structural models based on the gravity anomalies.

On a personal level, our daughter Megan, after jobs with the Children's Defense Fund, the Brookings Institution and the Congressional Budget Office, has returned to graduate school and is now in her second year of a Master's program in social work at the University of Pennsylvania. Our son, Larry graduated from FSU in the spring of 2008. Knowing that he wanted to work in the music industry, he packed up his belongings and drove to LA. After a brief period of unemployment, he has now completed his first year working for a small company that produces and licenses music for movie trailers!. MaryAnn completed her two year USGS Mendenhall Postdoctoral Research Fellowship working on the thermal evolution of the Chesapeake Bay impact structure. We recently celebrated out 35th wedding anniversary with a trip to Las Vegas and Los Angeles where we had the whole family together. I continue to referee lacrosse, bicycle and fly for recreation.

Please keep in touch. The easiest way is usually by e-mail (malincol@lafayette.edu) I look forward to hearing from you.

MaryAnn Love Malinconico

I finished my post-doc at the US geological Survey in Reston in December 2008, where I worked on a thermal study of the Chesapeake Bay impact crater http://geology.usgs.gov/postdoc/profiles/malinconico/index.html. Since then I have been working on a background thermal maturity (diagenesis to very-low-grade metamorphism) of the Atlantic Coastal Plain (ACP), in which the crater sits, using samples from old coastal plain oil exploration wells, including the deepest and easternmost well drilled in the ACP, the 1946 Esso #1 Hatteras Light in North Carolina. The data will provide information on consistency or variation of general heat flow within the post-seafloor-spreading Atlantic passive margin sediments, especially when added to data available from earlier continental shelf drilling.

David Sunderlin

The first three years of my time at LC have just flown by! I have been busy developing new courses and now have a rotating arsenal that includes *Paleobiology* for upper-level geology and biology students, *Modern & Ancient Depositional Environments* at the 200-level (and affectionately known as "Sed/Strat"), *Dinosaurs, Darwin, & Deep Time* as an introduction to natural history and geology, and my FYS course called "*Islands*

& Isolation". I also had the opportunity to co-teach (with Dr. Malinconico) the May Interim course to the desert southwest's national parks area in GEOL 160 in Summer 2007 and 2009. Each course presents its own unique challenges and I continue to enjoy exploring these topics with students. I'm a lucky man to get to talk to students about the depths of evolutionary theory and the hidden importance of the Hjulstrom diagram!

I have been continuing an active research program too with both ongoing and new fieldwork in Alaska. Summer 2007 was an expedition to Denali National Park to examine Late Cretaceous (~70 Ma) strata that preserve invertebrate traces, fish swimming traces, bird trackways, dinosaur trackways, and, most interestingly to me, well preserved fossil leaves and wood. For this work, I was assisted in the field by Eric Ricci '08 and I am now working in collaboration with scientists at the University of California - Berkeley, University of Alaska - Fairbanks, Kansas University, and the Dallas Museum of Natural History, to investigate the ecosystems of the north just prior to the K/T extinction. The first of these results were presented at the Geological Society of America meeting in Fall 2008. Just this past summer I was co-PI on a Keck Foundation project to Alaska's Matanuska Valley with colleagues and students from Franklin & Marshall, Amherst, Colgate, Oberlin, and Union. Here we were investigating the terrestrial ecosystems of Alaska ~55 Ma during a time of intense global warmth. Nancy Parker ('09) was integral to the fieldwork and completed a fine thesis investigating plant-insect interactions during this well-known warm phase in Earth history. I have started local (non-Alaska) field-based research this past year as well. Together with Sarah Wildermuth ('09) and Jenn Bell ('11) we have been working on how the fossilization process occurs to fallen forest litter. Our study sites are in old growth forest of Jacobsburg State Park. Alysia Lecomte ('10) and Matthew Dempsky ('10) have also been involved in Alaska collections-based research in my lab investigating Tertiary leaf fossil assemblages and insects in amber. All exciting stuff and great to have so many students interested in the evolution of life and earth!

John Wilson

Greetings Lafayette Geology Alumni. I hope this message finds you well. As usual, time flies, but at least I can say that the times truly has been fun. My son, Jack, has turned four. He is a happy little guy, and I look forward to heading home every day after work. As soon as I step out of the truck, he is running from the door to greet me and tell me all of the wonderful things he has done that day. His latest project has been to take care of ten baby cows with his grandfather. Every morning and night, he puts on his mud boots and heads to the cow barn to feed the calves. If you ask him whose cows they are, he will most definitely tell you they are his cows. Over the summer, Sarah, Jack and I went to visit my parents in Washington D.C. During the visit, we had dinner on the river, near Reagan Airport. Jack was enthralled to see the airplanes landing right over top of us. He is growing very fast, and is learning new things each and every day. I

imagine that by the next news letter, he will be getting ready for school.

Sarah has remained busy with her business of breeding and training Andalusian horses. She has also been publishing articles on the history and training of the breed, to various magazines across the country. In Sarah's free time, she also does all the advertising and web page design for the farm. You can see her work at www.oldstonehousefarm.com. Over the summer, Sarah and I went to a polo match in Bucks County, and had a great time seeing the game. Sarah is looking to give polo a try as another way to stay busy.

I have been busy at work and on the farm over the past few years. Over the past two years, I have been active in my garden, and doing various building and repair projects around the farm. I would always enjoy more time to work on some projects at home, but I can always dream of more time in the future.

When I am not working on the farm, you can usually find me somewhere in Van Wickle Hall working on any number of projects. Over the past two years, I have been active helping teach the introductory labs for Dru, Guy, Kira, Larry and Dave. In each case, we are always trying to improve the lab assignments for the students, and we keep busy modifying the labs to best teach the material. My GIS course has been thriving in the past few years as well. Each year, I am updating the course to match the new available technologies that exist, or that we acquire. Most recently, we have been teaching our students how to use a Trimble R8 Differential GPS system, for centimeter scale accuracy of location. We also acquired remote sensing processing software, so students are able to use aerial photographs and satellite imagery to identify features, landscapes, and changes of the Earth's Surface.

I have had a number of students working for me over the past few years. Matt Harhen '08, worked with me on a project identifying land use/land cover changes in Northampton County, over the past 36 years. His project, which started from a simple idea for an independent study, culminated in a poster presentation at the March 2008 Northeast Section meeting of GSA in Buffalo, NY. The work that he started is being continued, and will eventually be a GIS dataset available to the public. Brett Lambie '09 performed an independent study to look at the use of GIS in film location scouting. The project evolved to how GIS can be used in the creation of films. His work is in a short movie that won three awards at the Lafayette Academy of Motion Pictures 2009 film review. Daniel Brown '09 cataloged our recently donated gold collection, and in doing so created a GIS map of the Historic Gold Rush Samples from California. His map is so created a GIS map of the Historic Gold Rush Samples from California. His map is only partially complete, due to samples with location names of "big Jim's mine" and "Bobby's Claim." As time allows, these unknown locations are going to be explored further so we can place more dots on the map.

I have also been doing GIS mapping with local municipalities and watershed associations to create maps for planning purposes. This work often finds its way into my GIS class, and allows the students to learn GIS skills in a real world project. This past year, the class provided GIS mapping for the 2008 election. With the Policy Studies program, we participated in a live election night televised broadcast. The broadcast displayed background maps of election demographics for the news anchors to discuss. In addition, the students created "live" maps of

the election returns. It was a fun experience for all. The telecast can be viewed at http://lafayette.edu/news.php/view/12902.

I look forward to the next few years, and hope that I will have more exciting activities to tell you about in the next edition of our newsletter. I wish everyone good luck in all their endeavors, and I certainly look forward to hearing them in the newsletter.

Richard (Dick) Faas

Greetings from the Mississippi Gulf Coast, the 'Riviera of the South'. We are in our thirteenth year of living in Diamondhead, MS and, with the exception of the occasional hurricane, are still enjoying the laid-back lifestyle and relaxed living of the Deep South. We're only about an hour and a half from either dining on seafood in New Orleans or Mobile, or just staying home and getting fresh shrimp from the docks in Pass Christian or Long Beach. I continue my association with the Department of Marine Sciences, University of Southern Mississippi campus at Stennis Space Center and have been collaborating with several geologists from the Naval Research Laboratory and the Naval Oceanographic Office (also located at Stennis) on some exciting problems in fine-grained sedimentology. If anyone finds themselves in our area, please call or stop in for a visit. We're just off Interstate 10, exit 16, and would be glad to see you. Phone 228-255-0971

FACULTY PUBLICATIONS

DRU GERMANOSKI

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GUY HOVIS

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KIRA LAWRENCE

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Principal Investigator: National Science Foundation OCE-0623310: High Latitude Temperature and Biological Responses to Plio-Pleistocene Global Change ($96,660 over 3 years) (October 2006).

LAWRENCE MALINCONICO

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MARYANN MALINCONICO

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DAVID SUNDERLIN

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Hampton, B. & **D. Sunderlin.** 2008. Provenance and paleoflora of the Cretaceous Caribou Pass Formation, south-central Alaska: Development of a collisional foreland in the final stages of island arc accretion. *Geological Society of America Abstracts w/ Programs*. 40(6): 156.

Murphy, J., Williams, C., and **D. Sunderlin.** 2007. Woody debris lenses as paleoenvironmental

archives. *Geological Society of America Abstracts w/ Programs*. 39(6): 632.

Sunderlin, D. and P.M. Rees. 2007. New insights from a cycadophyte-dominated paleoflora in the Early Jurassic Talkeetna Volcanic Formation, Talkeetna Mountains, Alaska. *Geological Society of America Abstracts w/ Programs*. 39(6): 418.

Sunderlin, D., P.M. Rees, K. Lutz, and K. Nockleby. 2007. Warm Paleoenvironmental Indicators in the Paleocene/Eocene Chickaloon Formation, Matanuska Valley, Alaska. *Geological Society of America Abstracts w/ Programs*. 39(4): 57.

Sunderlin, D. 2006. Broad Phytogeographic Patterns on Northern Pangea in the Permian. *Geological Society of America Abstracts w/ Programs*.. 38(7): 319

GRANTS

Discover Denali Research Fellowship (National Park Service) 2007
Lafayette Academic Research Grant 2007
Keck Consortium Grant 2008

JOHN WILSON

ABSTRACTS

Harhen, Matthew P., and **Wilson, John R.,** 2008, Land Use/Land Cover Change of Small (Sub)Urbanizing Watersheds: Remote Sensing Classifications and GIS Comparison, *GSA Abstracts with Programs*, Vol. 40, No. 2, p. 71.

Larsen, M., Germanoski, D., and **Wilson. John R.,** 2009. Drainage Basin Morphometry as an Indicator of Tectonic Activity in the Southern Toiyabe Range, Great Basin Nevada. *Geological Society of America Abstracts with Programs* Vol. 41, No. 3. P. 93.

GRANTS

Kingdom Software Educational Grant 2009-2012: $2,760,200.00

James Dyson
and
Arthur Montgomery
Student Awards

THE ART MONTGOMERY GEOLOGY AWARD
LAFAYETTE COLLEGE
PROFESSOR OF GEOLOGY
1951-1975

Awarded to the Student majoring in Geology who has exhibited high Academic Achievement and whose leadership & participation has contributed to the geology community at Lafayette College.

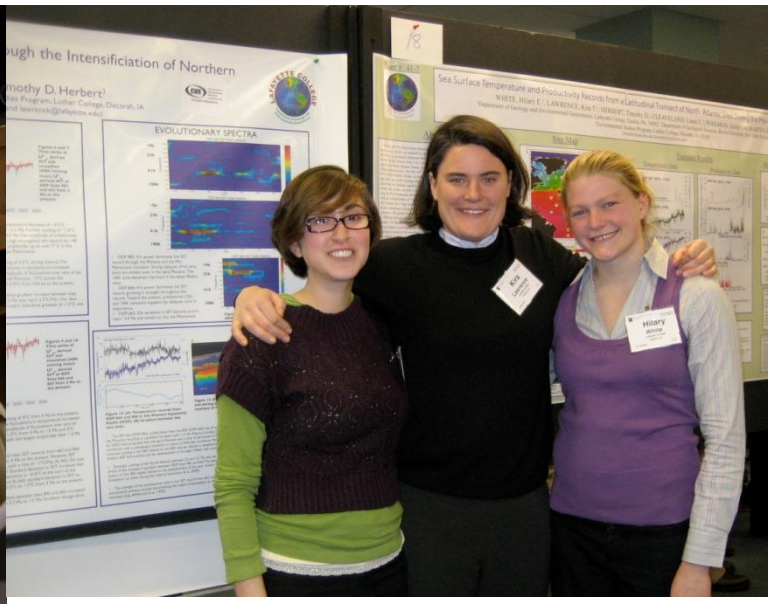
Dana Emerson	2002
Virginia Foulkrod	2005
Andrew Mott	2006
Rachel Heron	2009

Rachel Heron, Lafayette College Valedictorian, class of 2009: Photo courtesy of The Express-Times/Lehighvalleylive.com

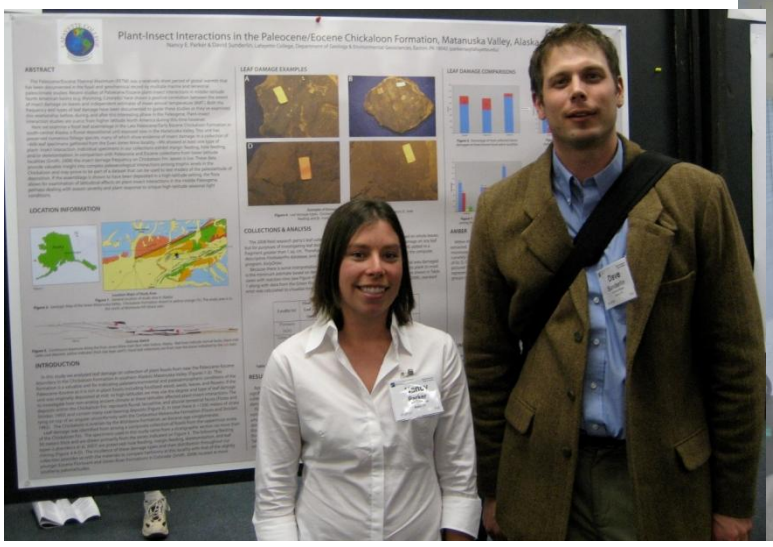
THE JAMES LINDSAY DYSON '33 GEOLOGY AWARD
LAFAYETTE COLLEGE
CHAIRMAN OF THE DEPARTMENT OF GEOLOGY,
AND JOHN MARKLE PROFESSOR
1947-1967

Awarded to the Student majoring in Geology "who by Academic Achievement & Character " exemplifies the ideals by which James L. Dyson lived and worked.

John Cromwell	1968	Stacy Walter	1999
Sanford Kaplan	1970	Lisa Wasiowich	1999
Dean Lausten	1970	David Wattles	1999
Thomas Cavanaugh	1971	G. Mathew Julin	2000
Dale Springer	1972	Jessika H. Luth	2000
Gary Huber	1973	Becky R. Dreibelbis	2001
Robert Von Rhee	1974	Nathan K. Hawk	2001
Ellen Raber	1975	Robert J. Libutti	2001
Matt Toner	1976	Kristen Woods	2002
Andrew Mellgard	1977	Sarah Gately	2002
Margaret Savage	1978	Brian Schubert	2003
Susan Bathke	1979	Daniel Latham	2003
Annette Russo	1980	Amy Spooner	2005
Carolyn Cooper	1986	Erik Person	2005
Mitchell Bormack	1987	Michael Werner	2006
Jill Edwards	1988	Joanna Morabito	2007
Peter Cocheo	1990	Nancy Parker	2008
Daniel Rogers	1991	Laura Bochner	2009
Sarah Washburn	1991	William Hudacek	2009
Cortney Brand	1992		
Duncan Thomas	1992		
Shannon Brennan	1994		
Julie Gloss	1994		
Allison Tumarkin	1996		
Meghan Keohane	1997		
Laura Heberlig	1997		
Brian Kortz	1998		
Carolyn Ryder	1999		



The James Lindsay Dyson ’33 Geology Award recipients clockwise from upper left: William Hudacek ’10 with Professor Malinconico, Laura Bochner ’10 with Professor Lawrence and Hillary White ’10, Joanna Morabito ’08 with Professor Hovis and Andrew Mott ’08, and Nancy Parker ’09 with Professor Sunderlin.



CONCLUSION

At last ! The newsletter is completed. A very special thanks to all of you who have contributed and your patience in seeing this newsletter come together.

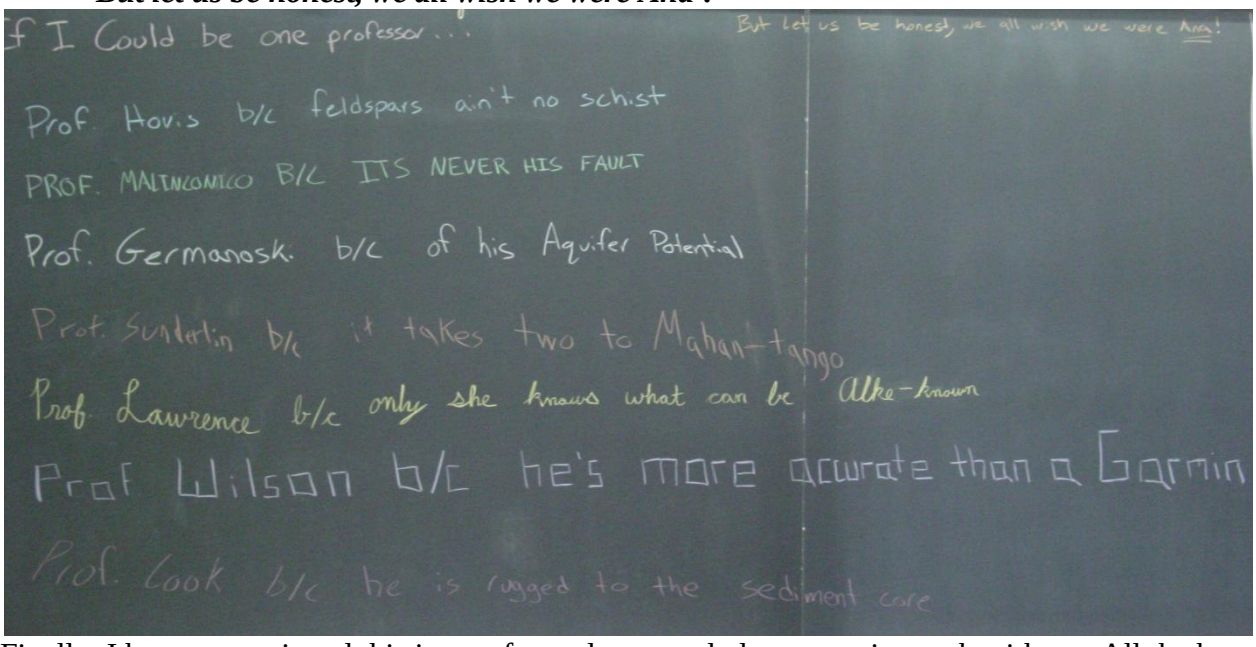
To sum up what had been mentioned before, the past three years were significant and exciting. Working with new faculty and most importantly with the students (the core reason that I am here) is always exciting. They are my sons and daughters and they are always a joy to be with. Outside of work, I am still actively involved with the International Student of Lafayette College and this year, I will be hosting 2 newcomers from Nepal and China.

On the homefront, husband Don and daughter, Sam are both doing well. Sam spent her whole summer in Singapore and Batam (Indonesia) to visit family and friends. She is in 11th grade and already looking at colleges, how time flies!. I asked myself where is that sweet child that I used to carry in my arms?

But before I conclude, I would like to share with you what the students wrote on the blackboard after their long night of studying. This was what they come up with :-

If I could be a professor……

Prof. Hovis because feldspars ain't no schist
Prof. Malinconico because it's never his FAULT
Prof. Germanoski because of his Aquifer Potential
Prof. Sunderlin because it takes two to Mahan-Tango
Prof. Lawrence because ONLY she knows what can be Alke-known
Prof. Wilson because he is MORE accurate than a Garmin
Prof. Cook because he is rugged to the sediment core
But let us be honest, we all wish we were Ana !



Finally, I hope you enjoyed this issue of newsletter, and please stay in touch with us. All the best to all of you.

Ana Meyerson
Secretary for the Dept. of Geology & Environmental GeoSciences

CLASS FIELD TRIPS

Clockwise from upper left: Students in Geology 210 (Hydrogeology) listening to Professor Germanoski identifying the local geology in preparation for the 24 hour pump test (Oct 2009); Students in Geology 317 (Structural Geology) mapping the geology of the north nose of the Sheep Mountain Anticline in the Bighorn Basin of Wyoming (Oct 2009); Students in Geology 205 (Oceanography) collecting estuarine data along the Raritan River, NJ (Oct 2009).

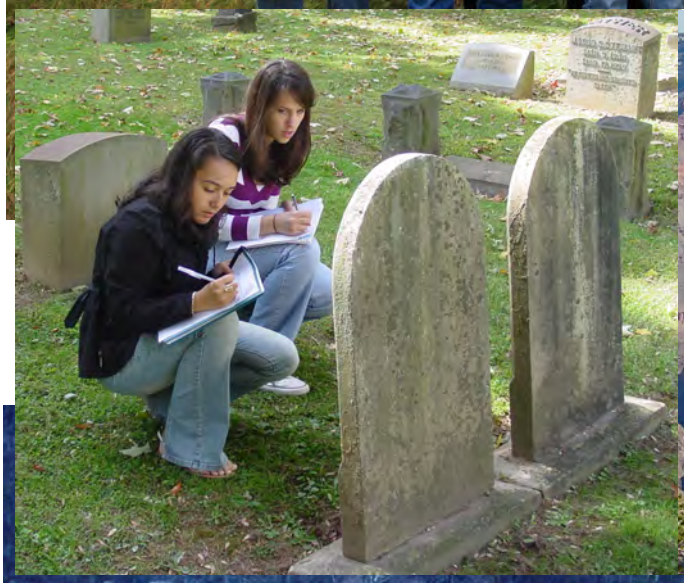
CLASS FIELD TRIPS

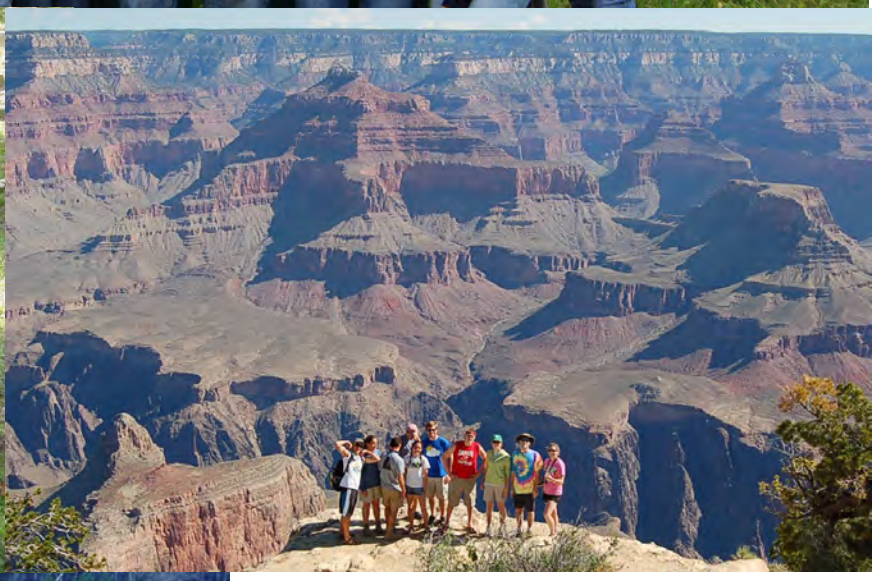
Clockwise from below: Students in Geology 200 (Mineralogy) pose in front of the tye-died elephant near Wissahickon Park (Sept. 2008); Students in Geology 110 (Environmental Geology) learn about the construction of Merrill Creek Reservoir, Harmony Twp. New Jersey (March, 2008); Students in Geology 215 (Sedimentology) measuring stratigraphic sections in the Newark Basin, near Frenchtown, NJ (Oct. 2008); Geology 300 (Earth Surface Processes) students integrating widht and depth measurements along the Bushkill Creek, near Tatamy, PA (May 2009).

CLASS FIELD TRIPS

Clockwise from below: Students in Geology 200 (Oceanography) enjoy a dip in the Atlantic, after a day of beach profiling (Sept, 2009); Maricate Conlon ‘11, in Ireland during the JMU field Camp (July 2009); William Hudacek ’10, Using the Betsy Seisgun during Geology 322 (Environmental Geophysics) (April 2008); Professor Wilson with Geology 100 (Fire to Ice: An introduction to Geology) students at Ringing Rocks Park, Bucks County, PA (Nov. 2009).

CLASS FIELD TRIPS



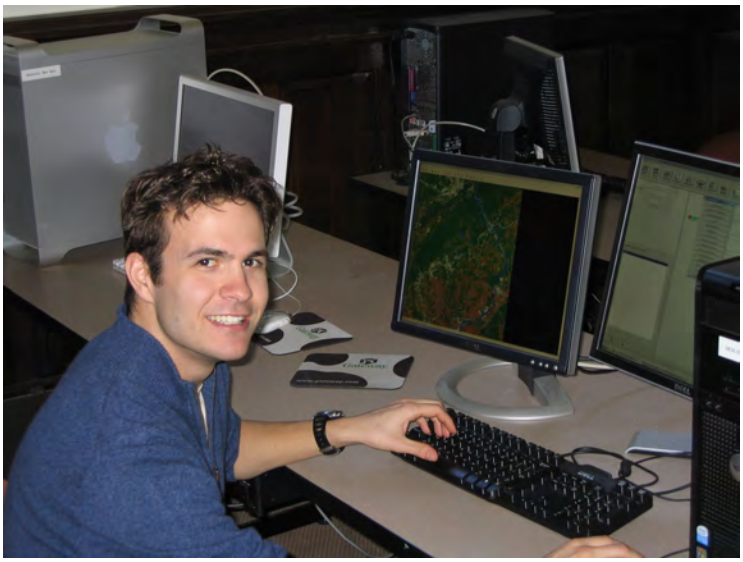


Clockwise from lower left: Students in Geology 130 (Dinosaurs, Darwin and Deep Time) leaning back to see the Delaware Water Gap (March 2009); Arielle Reyes '13 (left) and Monica Scisorek '13, identifying weathering rates on tombstones in Geology 115 (Earth's Climate: Past and Present (September 2009); Geology 229 (Geographic Information Systems in the Geosciences) at Kroboth Farms in Nazareth, PA learning about GPS enables farm equipment (October 2009); Students in Geology 160 (From A{Arches} to Z{Zion}: the Geology of the National Parks) posing at the south rim of the Grand Canyon (June 2009).

Student Researchers

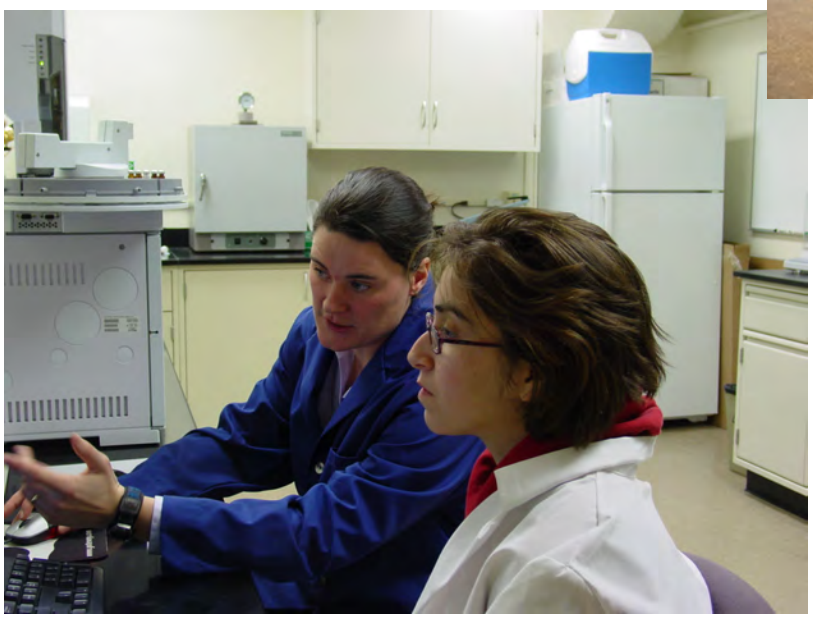
William Hudacek '10, with Dr. Malinconico

Professor Lawrence with Hilary White '10, Melissa Larsen '09, Nancy Parker '09, and Laura Bochner '10 at the 2009 NEGSA meeting in Portland, Maine



Matthew Harhen '08 working on Land Classifications

Andrew Mott '07, and Joanna Morabito '08, on the campus of Cambridge University



Laura Bochner '10 with Professor Lawrence in the Paleoclimatology Lab

Eric Ricci '08, in Denali National Park, Alaska

Wyoming Trip

Geology Club

The Geology Club traveled to Rickets Glen State Park for a spring field trip this past year (top three photos). In addition, they also toured the Sterling Hill Mine (middle right photo) in Ogdensburg, New Jersey. Other trips have included a camping trip to Bear Mountain State Park in New York, Hiking trips to the Delaware Water Gap, and a trip to Ringing Rocks park, with a chance to see a Polo match (bottom two photos). Students meet weekly to plan trips, talk about the geology classes, and to have a movie night. Movies often are the geology movies that hollywood likes to produce, including Dante's Peak, Day After Tomorrow, and Volcano.

Brown Bag Speakers
Department of Geology & Environmental Geosciences
Lafayette College, 2006-2009

Fall - 2006

Ken Foreman, Marine Biology Lab, Wood Hole Oceanographic Institution **Sept. 27**
Disruption Of The Global Nitrogen Cycle: An Underappreciated Threat To The Coastal Zone And A Novel Approach To N-Mitigation In Groundwater-Fed Estuaries

Faculty, Department Of Geology & Environmental Geosciences **Oct. 13**
Life After Lafayette

Philip Neuhoff, University Of Florida **Oct. 20**
Porosity Is Where You Find It: How Fluids Flow And React In Vesicular Lavas

Karl Flessa, Arizona State University **Nov. 10**
Putting The Dead To Work: Conservation Paleobiology Of The Colorado River Delta

Bill Metropolis, Harvard University Mineral Museum **Dec. 1**
Minerals With A Story

Spring - 2007

Guy Hovis, Lafayette College **Feb. 2**
Just To Whet Your Apatite: Potsdam DE, Cambridge UK, And Western USA

Allister Rees, University Of Arizona **Feb. 7**
The Real Jurassic Park? Data Collection And Integration

Matthew Gorring, Montclair State University **Feb. 16**
Ridge Collision Tectonics And Volcanism In The Southern Patagonian Andes

Matthew Fantle, Pennsylvania State University **Feb. 23**
Seawater Evolution In The Cenozoic: What We Know And Why We Care

Patricia Kelly, University Of North Carolina At Wilmington **Mar. 5**
NAGT Distinguished Speaker

The Arms Race From A Snail's Perspective: Evolution Of The Naticid Gastropod Predator-Prey System (Noon)

Evolution And Creation: Conflicting Or Compatible? (4 PM Public Lecture)

Faculty, Department Of Geology & Environmental Geosciences **Mar. 23**
Pizza And Rocks

Stephen Pryor, Exxon-Mobile **Mar. 30**
Taking On The World's Toughest Energy Challenges

Maureen Feineman, Pennsylvania State University **Apr. 6**
Slab Or Mantle: What Melts In A Subduction Zone?

Colleen Sullivan '03, University Of Vermont **Apr. 13**
Cosmogenic Erosion Rates And Landscape Evolution Of The Blue Ridge Escarpment

Don Barber, Bryn Mawr College **Apr. 20**
Mid-To-Late Holocene Shoreline Change Near Cape Lookout, North Carolina

Brian Schubert '04, University of Binghamton **Apr. 27**
Long-Term Survival Of Microorganisms In Fluid Inclusions In Halite

Fall - 2007

Gary Jaroslow, Woods Hole **Sept. 14**
Exploring The 3-Dimensional Realm Of The Ocean: Modern Oceanographic Techniques

Larry Malinconico, Lafayette College **Sept. 21**
Geology Of National Parks Course Presentation

Kira Lawrence, Lafayette College (Biology Department Lecture) **Sept. 28**
Into The Icehouse: What Ocean Algae Tell Us About The Glaciation Of The Northern Hemisphere

Geology Department Staff **Oct. 19**
What To Do With My Life???

Jon Woodruff, WHOI **Oct. 26**
Tempests In The Sand: Hurricane Reconstructions From The Geologic Record

Lisa Gilbert, Geophysicist, Williams College **Nov. 2**
The Formation And Evolution Of Super-Fast Spread Ocean Crust

Spring - 2008

David Sunderlin, Lafayette College **Feb. 1**
The Far North In Deep Time: Developing The Story Of Cretaceous Alaska

Walter Payne, Pennsylvania DEP **Feb. 8**
Act 2 In Pennsylvania - Brownfield Recycling By The Numbers

Laura Heberlig Lautz '98 **Feb. 15**
SUNY College Of Environmental Science And Forestry, Syracuse
Streambed Controls On Water, Heat And Solute Fluxes Between Surface And Ground Water

Liz Sikes, Rutgers University **Feb. 29**
Ocean Temperature And Circulation Changes On The South Tasman Rise Since The Last Glaciation

Philip Scalesi, Bridgewater State College (Evening Lecture) **Mar. 7**
The Adventures Of A Mineral Collector

Bob Kopp, Princeton University **Mar. 28**
Tracing Biological Magnetism In Sediments: From Modern Bacteria To Ancient Global Warming

Jim Pizzuto, University Of Delaware **Apr. 4**
River Restoration And Fluvial Geomorphology

Steve Peters, Lehigh University **Apr. 11**
Arsenic In Groundwaters Of Pennsylvania And New Jersey: The Conspiracy Of Appalachian Tectonics And Aqueous Geochemistry

Ellen Currano **Apr. 18**
The Pennsylvania State University And The Smithsonian Institution
Increased Insect Herbivory During Global Warming Events In The Paleocene And Eocene Of The Bighorn Basin, Wyoming

Dana Emerson Cartwright '03, New Jersey DEP **Apr. 25**
Life After Lafayette: Post-Graduate Adventures For The Geologically Minded

Tim White, The Pennsylvania State University **May 2**
Paleosol-Siderite Applications To Paleoclimatology, Stratigraphy, And Tectonic Reconstructions

Fall - 2008

Darren Gravely, University Of Auckland, New Zealand **Sept. 5**
Frontiers Abroad Programs: (1)Study The Geology Of New Zealand And (2) Earth System Study Of Science In New Zealand

Nancy Parker, Laura Bochner, Aaron Medford - Holden Ferry & - David Newman, **Sept. 19**
Lafayette College
From Alaska To Washington To The Mesozoic

Catherine Riihimaki, Drew University **Sept. 26**
Climate Change And Landscape Evolution In The Rocky Mountains

Brian McDonald, Bryan McAtee - William Hudacek, Matthew Dempsky, **Oct. 10**
Lafayette College
From Purple Mountain's Majesty To Fruited Plains And Shining Sea

Cailyn Nichol '06, Hatch - Mott - MacDonald **Oct. 17**
Geology As A Profession: It Actually Exists

Roy Schlische, Rutgers University **Oct. 24**
Structural Geology And Tectonics Of The Mesozoic Rift System Of Eastern North America With An Emphasis On The Newark And Fundy Basins

Guy Hovis, Lafayette College **Oct. 31**
Research, Rocks, And The Roadway: Recent Geological Experiences

Deborah Katchen '03, Lazar Middle School, Montville Board Of Education **Nov. 7**
Life After College: What Can I Do With My Degree?

Chris Voci, O'Brien & Gere **Nov. 14**
Ground Water Accelerated In Situ Biodegradation At Pennsylvania Superfund Site

Ryan Baxter, PASDA, Penn State University **Nov. 21**
Downloads, Map Viewers And Web Services: Data Access At Pennsylvania's Spatial Data Clearinghouse

Spring - 2009

Faculty, Department Of Geology And Environmental Geosciences, Lafayette College **Jan. 30**
Life During And After Lafayette

William D'Andrea, University Of Massachusetts - Amherst **Feb. 6**
Trans-Fats, Climate Change and Human Migration: A 6,000 Year Temperature Record from Lake Sediments of SW Greenland

Dru Germanoski, Lafayette College **Feb. 13**
New Zealand: Active Tectonics, Glaciers, Braided Rivers, and Bungee Jumping

Arlo Weil, Bryn Mawr College **Feb.20**
Moving Towards a Viable 4-D Model for Fold-Thrust Belt Evolution: A Multidisciplinary Investigation of the Wyoming Salient

David Quammen, Montana State University **Feb. 27**
Darwin Against Himself: Caution Versus Honesty in the Life of a Reluctant Revolutionary

John Brady, Smith College **Mar. 6**
Why the Moon is White

Ellen Herman, Bucknell University **Mar. 27**
Sediment and Storms in Karst Systems

Jack Conrad, American Museum of Natural History **Apr. 3**
Mosaic Evolution of Squamata

Rob Jacob, Bucknell University **Apr. 7**
Where Does the Water Go? Ground Penetrating Radar Measurements to Non-invasively Observe Subsurface Hydrologic Processes After Rainstorms

Sheri White, Woods Hole Oceanographic Institute **Apr. 17**
Illuminating the Deep: Using Laser Raman Spectroscopy to Explore Seafoor Environments

William Armstrong, Boart Longyear Engineering **Apr. 24**
My Career As A Hydro-Geologist: Or How I Came To Sell Holes In The Ground

George Elling, Financial Consultant and Mineral Curator **May 1**
Minerals and Memorabilia From The Franklin And Sterling Hill Mines

Fall 2009

Darren Gravely, Aukland University **Sept. 5**
Frontiers Abroad Semester Programmes in New Zealand: Field and Research-Based Education for Geology and Earth Systems Students

Bob Libutti '02 **Sept. 18**
From Tectonics to Tectonics

Dept. of Geology and Environmental Geosciences, Lafayette College **Sept. 25**
What To Do With My Life???

Laura Bochner & Maricate Conlon & Billy Hudacek, Lafayette College **Oct. 2**
From the Carboniferous to Carbon: Summer Experiences from Ireland to Pennsylvania

Charles Epifanio, University of Delaware **Oct. 16**
Transport Of Blue Crab Larvae In The Middle Atlantic Bight: A Wet And Windy Journey

Alfredo Cahuas '86 **Oct. 22**
Challenges & Opportunities in the Renewable Energy Sector

Steven Whitmeyer, James Madison University **Oct. 30**
Modern Methods of Field Geology: From the Outcrop to 4-D Visualization

Larry Malinconico and David Sunderlin, Lafayette College **Nov. 6**
2009 National Parks Course Memories

Jay Parrish, Pennsylvania Geological Survey **Nov. 13**
Recent Developments in Carbon Capture and Sequestration in Pennsylvania

J. J. Foley & Bryan McAtee & Brain McDonald, Lafayette College **Nov. 20**
New Zealand Experiences, Spring 2009

12/4 Guy Hovis, Lafayette College **Dec. 4**
Geology Student Research: Fat Feldspars

NEWS FROM ALUMNI

Please note that all contact information has been removed for safety reasons. If you would like to contact someone, please contact us by phone (610-330-5193) or email (geology@lafayette.edu), and we will try to connect you

Herbert Buck Sproat '37
Passed away February 28, 2005.

Robert P. Wagner '42
Passed away in July 2005.

William E. Howard '43
Everything is okay. I celebrated my 89th birthday with family.

Jim Lindermuth '49
Have a son, Jamie, who with his wife, Leah, have two children, Caroline and Gracie. Have one daughter, Kimmie, who with her husband, Tom, also have two children, Olivia and Annie. Bottomline, I have four sweet, adorable, loving granddaughters, ranging from one to eight years old. I am long retired and in the antiques business.

Arthur Panzini '49
Still alive and kicking. Age is catching up, hands unsteady, heart slowing down, back a problem. Being revisited by problems acquired in South Pacific Islands.

From the Department: We are saddened to tell you that Art passed away in April of 2009.

Carl H. Roberts '50
Enjoying retirement but watching with much interest the drilling in PA & NY into the Morcellus shale for natural gas . I've done well site geology on hundreds of Orlskany wells. The Morcellus section was a pain in the butt because of gas blow outs and caving hole problems. Recoverable reserves are still unknown until more production history is known.

Earl F. Snyder '50
Passed away and family misses him very much.

Robert G. Becker '51
I am doing okay although my wife of almost 50 years died rather suddenly in May. We had decided to move to a continuing care facility in Medford, NJ, near here. And I am still planning that for a January move. I have many friends there. My family is well and the granddaughters (4) are growing up and involved in all sorts of activities. My traveling has stopped for now – temporarily I hope. Moving after 32 years in one place isn't easy, I'm finding out.

Alonzo E. Tull '52

I am semi-retired in the field of Financial Planning. I could write a book on my History in oil wells and your Department 's helping Geology learned when I was there. Good luck !

James Diaz '53

Retired in 2005, sold Geotechnical Firm to employees. Goofing off doing yard work and spending most of winters in Florida. Four children out of nest and on their own and two grandchildren…all doing well. My wife, Harriet, and I are enjoying the golden years.

Harvey Detwiler '53

No changes to report. Still retired in Florida with most of travel to visit family in Georgia and Montana. Get to Europe when I can.

Richard Berry '55

Technically, I am a Mining Engineering alum but I took every course that the Geology Department offered (except paleontology – but Dr. Beerbower gave me a reading list and some counseling on that subject). You have no doubt put all this nickel knowledge together and figured that I graduated in 1955 (next to last graduating class from mining engineering). Mining Engineering and geology were housed in Markle Hall at that time. My last time on campus I was surprised to find that Markle Hall is now devoted to administration.

Since last year I have had a successful hip replacement surgery. There were some complications that slowed recovery but all is going well now. This month is the first year anniversary of a very successful hip replacement and the third year of an equally successful knee replacement (both on left leg). The need for these goes back to a skiing accident in Norway in the late sixties. I sort of retired in 2001 from the Department of Geological Sciences at San Diego State University. I claim I only retired from doing the things I didn't want to do anymore. Others claim that I keep flunking retirement. I continue to do research and publish but at a much slower rate than before retirement. I also find it supports my laziness to publish with co-authors who do all the work of preparing the paper for final submission. I could send literature citations but I doubt that anyone would be seriously interested . My wife (JoAnne) and I like to travel. A year and a half ago we went to the Netherlands and Belgium. Soon we will be leaving for France and Spain. Because our grandchildren are scattered from California to Arizona to Maryland to Connecticut, JoAnne and I do quite a bit of traveling in the United States. Our grand kids range in age from four to a grandson and granddaughter in college. We have a dozen altogether. I am typing this form from my office in SDSU. The office is small but luxurious for a professor who has been retired for 7 years. I remain active in the Presbyterian Church. Lafayette was more closely tied to the Presbyterian Church in 1955 than it is now. That contact lead to membership in the denomination and my commitment has grown over the years.

H. Richard Eisenbeis '56

Have finally retired after 14 years as an exploration geophysicist with the Kennicott Copper and the Phelps Dodge corporations, plus 30 years of university teaching at UT EI Paso, Marshall University, and Colorado State University. Also had the opportunity to teach graduate courses in Germany, France, and Morocco.

I'm currently completing a summer home outside of Philipsburg, Montana which I expect will be finished by August 2008. Would very much enjoy having my Lafayette classmates drop by for a visit should they be in the vicinity. Best fly fishing in US is available within 15 minutes of my front door. I'll continue to live in Denver from November until April.

Rudi Prusok '57

Still trying to keep up with the developments in geological thought with what I learned fifty years ago, and so I attended the 54th annual meeting of the Institute on Lake Superior Geology, held this year in Marquette, Michigan, where I live. Kennecott Minerals plans to dig a sulfide mine here, so check out the geology of that endeavor. I'm also still retired from teaching German language and literature at Northern Michigan University in this town, but my tradition of shooting festivals, and so now I'm the archivist of an arms library for the American Single Shot Rifle Association. Anyone interested in any aspect of guns or competitive shooting (sometimes strange bedfellows) is invited to contact me.

Walt Kostenbader Jr '58

No major changes from last response celebrated our 50th in 2005 with a Spain Trip. Visit Lafayette library frequently. A few football games. Planning a trip to Alaska soon. Spent 15 months there while in US Army 1952-54. Still " do geology " while " driving bye ?? "

Ronald C. Parker '58

Hard to believe 50 years have passed since those kinder, gentler days when Ann and Alex served ice cold draft beer at the PD, Pop's Place created enormous sandwiches, the CHT and Yonell's Oyster House were nearby watering holes and the Circlon, downtown on Center Square, was the place you took your parents for dinner.

Frederick Nagle, Jr '58

Dr. Frederick Nagle, Jr died in November 5, 2005

Frank W. Fletcher '59

Since retiring from Susquehanna University, I have been busier than ever. This past March I gave a poster presentation at the Northeastern Section of The Geological Society of America on Catskill stratigraphy in southeastern New York and northeastern Pennsylvania. Additionally, I have been involved in efforts to protect the groundwater supply of the Virginia Coastal Plain. To this end, I have established at new website www.groundwatervirginia.org. My wife Joan and I are still traveling. We are planning a barge trip on the Danube this coming Spring and visits to Vienna, Linz, Buda and Pest, and Prague.

Thomas Kessler '59

Retired in 2001 from Lehigh Portland Cement Company as a Geologist. Prior to that worked as geologist for Alpha Portland Cement Company and Fuller Co (now F.L. Schmidt), conducted limestone exploration in Guatemala, Bolivia, Egypt, Saudi Arabia, Thailand, Pakistan, Malaysia, and Philippine Islands.

Elton S. Goff ’59
Retired Air Force Colonel.

Richard Weisberg ’60
I retired in January 2005. Currently, I keep busy providing a significant amount of pro bono legal counsel to community groups in the water law area, with a primary emphasis on compliance with the Clean Water Act.

Robert J. Leyden ‘60
Passed away on May 4, 2008

Fred McDowell ’61
In fall 2005 I retired after 37 years as a Research Scientist in the Dept. of Geological Sciences at the University of Texas at Austin. In academia retirement is a relative term, and I have been spending considerable time in my office, trying to wrap up projects that remain unfinished. Recently, the geological Society of America published my digital map compilation of 11 graduate student mapping studies supervised by myself and others in the Sierra Madre Occidental volcanic province of western Mexico (think copper Canyon). There are enough manuscripts etc. remaining to be written to keep me occupied for a few more years yet.

Taylor H. Henry ’61
Lost my first wife in 2004. Remarried in September 2008 to Carol Smith. Daughter expecting in November, my first grandson. Retired and hope to travel.

Richard Inhoffer ’63
Since retiring in 1998, I have been substitute teaching and coaching at a local high school. Competed in The World Senior Ice Hockey tournament in Santa Rosa, California in July 2008.

Richard Fink ‘66
The natural resources business is so good, I keep delaying my retirement. I am currently General Manager – Acquisitions and Development for Cleveland-Cliffs. Basically, I get to travel all over the world (mainly South America and Australia) evaluating potential iron ore and coal properties. I look at everything from operating mines to brownfield sites and Greenfield exploration projects. It is simply amazing that after all the hard times in the mining industry, I get to finish my career with such a fun and rewarding job.

William Turner ‘67
Still living in Bethlehem (since 1975!) Took early retirement after 15 years at Bethlehem Steel, 7 or 8 at Westmoreland Coal & nearly 20 with EDS (Electronic Data Systems) Proud grandpa of 2 great granddaughters. My second son just returned from a year teaching in China (near Shanghai). Nancy is still working for Lehigh Cement Co. looking forward to retirement soon. Best to all ! Call anytime, I am in the book.

Bob C. Smith '67

Bob and his wife Gloria have been providing play day care for their youngest granddaughter for 15 months and are looking forward to the next 15 months. She shows a strong interest in nature including flowers and rocks. She also doesn't seem to mind helping with quality control on home grown blueberries, raspberries, grapes,…..

Perhaps because of shortage of geologists, Bob has been able to select consulting jobs that interest him. This past year, they have pertained to black shale geochemistry, serpentinite-hosted in mineral resources, aggregate quarries, cement, "acid rock", and as in groundwater. Some geochemical work he did with John H. Barnes on predicting serpentinite bedrock suitability for rare flora restoration will be published shortly. Bob continues to work on Te and PGE minerals in Pennsylvania.

Reed Engle '67

I have already retired and out of office starting July 15, 2007.

Charles E. Bartberger '67

Exploration Geologist for Questar Exploration and Production , Denver, Co. Developing prospects and drilling wells in Green River & powder river basins Wyoming & Williston Basin, North Dakota. Preparing paper on basin-center gas in Eastern greater Green River Basin, SW WY, for Rocky Mountain Association of Geologists, AAPG Convention in Denver, June 2009 and for submission to AAPG Bulletin.

Gregory E. Huelsenbeck '68

After 31 years of teaching at the elementary level. I retired in '06. My many hobbies and interests keep me busy. These included restoring a 79'MG Midget reloading for and shooting various weapons, collecting tropical fish spinning, weaving and oxy-acetylene welding. I haven't burned the house down yet. My wife of 34 years, Andrea takes general music in Chandler, AZ. Two of my children are also teachers. Carly, 29, teaches in Manhattan, NY and Erin, 24, teaches Math in Chandler, AZ. I would like to correspond with three former classmates: - Richard Jakubecy, William Getty, Richard Schofield.

Richard Schofield '68

I am still teaching at McMurry University but in the Biology Department now. I still enjoy going out on those field trips. Been married now 36 years and one kid graduated from college and another will soon follow – I hope !

Al Owens '68

I graduated in '68 under the tutelage of Dr. Montgomery for the most part, though Dick Faas and others played an important role in my career. The background from the geology department, especially mineralogy, sedimentology and other key areas led me to a career in water treatment and water chemistry. Eventually I became the owner of a major consulting firm in this field, with customers all over the world. Major industrial customers included corporations such as Chevron, General Motors, Domino Sugar, Hess Oil, Alcoa and many others. It would probably

be surprising to many geology majors that terms such as calcite vs aragonite, amorphous silica, pyro-phosphates vs meta-phosphates, Goethe vs magnetite all have major significance in determining the cause of failures (and successes) in large industrial equipment ! This is ***active*** geology on a minor level vs worldwide events, but important to the success and failure of many operating systems for major industries! Good luck geology majors ----more than just oil and mineral exploration wait for you out there!

David W. Baker '68

I am beginning my 8th year in retirement, I taught earth and environmental science for over 30 years at James I. O'Neill High School, in my hometown. My wife, Sharon and I volunteer at the local outdoor science museum, and are still active in several professional educational organizations. We travel frequently. I enjoy nature photography and we enjoy birdwatching wherever our travels take us. We have 2 wonderful children – Brian Baker and Christine Trieste, and 6 grandchildren. Brian Baker & Diane's children – Riley, Jackson and Marley. Christine & Christopher's children – Tyler, Ryan and Emily. We were back at Lafayette College in June '08 to celebrate our 40th Reunion.

Charles Frederick Wall '69

For the last 10 years I have been working for the Shaw Group Inc. a global provider of engineering construction, consulting, and fabrication services in the environmental, infrastructure, energy, and chemicals markets. I am a senior Program Manager in the Environmental & Infrastructure Division. I have managed large ($20M to $100M) programs for both government and commercial clients. Most recently I served as the General Manager for Shaw Arabia Ltd. in Riyadh, Saudi Arabia, performing environmental and infrastructure projects. My wife Jeanne and I reside in Alpharetta Georgia. We have four children, three gainfully employed and the youngest starting school in California. We recently acquired a small horse farm in rural Georgia and are looking forward to building a home and retiring there – but not yet.

Hal Ewald '69

My wife, Carol and I still living in Colorado for now. We may move back east soon. I am still doing geology consulting and will be in Bakersfield California for a few months working with companies there. Carol will also go there to be with me in a corporate apartment.
My collection of trilobites has expanded to over a thousand, so my home office is spilling over with those and other fossils as well as computer workstations, etc. I became a grandfather for the first time in August 2007. (Part of the reason we may move back east). Both of our kids and their husbands live in the New York City area. Hope all is well with the folks at the Geology Department.

Dean Lausten '71

As many of you know, the oil and gas business is booming – never had so much fun. I have been very fortunate to have enthusiastic partners willing to risk money to find new reserves. Am doing less consulting and more work on projects with direct involvement in CO and KS. 3D Seismic has enabled us to increase the success rate to upwards o 50%, from the 20% margin when using 2d seismic. Drilling technology is now enabling the explorationist to explore

laterally with the drill bit. While not perfect yet, it provides a means to exploit naturally fractured and better reservoirs away from the vertical hole. The technology is still very costly and still in the developmental stage. My advice to new grads is to seek out new technology that can more fully develop our oil and gas reservoirs in place, once found. We still leave the majority of the deposit in the ground. We need better drilling technology and understanding of the chemistry of the system to maximize production over the life of the field. A chemical engineer with vision and a strong geological background will go along way in our business.

John Rehm '73

Still consulting in Geology in Salem, Oregon, but Betsy and I are more preoccupied with grown and growing children. Anticipating son, Jonathan's wedding to Cherry, next summer. Daughter Catherine just moved up to Portland to be out on her own. Son, Daniel, in High School just got back from a music trip to the Olympics. He brought a piece of the Great Wall from a construction site (looks like basalt). He knows what I like ! Up for this Fall, camping in yellow colors of the Cascades and upteen Marching band competitions, day and night. On Lafayette and Go Crew!

James Momary '73

No Changes

Marty Hall '74

Regarding what I do for a living, nothing much has changed recently. I have been in the geophysical exploration industry since graduating, and have been fortunate to see much of the world while working in this business. Since 2002 I have been U.S. Marketing / Sales Manager for PGS Onshore, which is major global land/marine seismic exploration company headquartered in Houston and Oslo. Our clients are mostly O&G E&P companies – we acquire the data to assist them in determining where to drill next. I represent our data acquisition services to those companies in the U.S. Most of our U.S. presence is west of the Mississippi (including Alaska), though we occasionally do projects ' back east ", even once in a great while in the Appalachian Basin (including Pennsylvania) where the Marcellus Shale has become a very important natural gas play. Feel free to check out the company web page (www.pgs.com) for more information.

My family (I am widowed) still lives in Colorado (since 1981), though the kids no longer live at home. My son is a manager at the Grand Lodge in Crested Butte, a ski resort in central Colorado. My daughter is a Junior at the University of Colorado plus working a couple of part time jobs. By the way, if any of the Geology majors looking for summer work and don't mind long hours, doing physical work, and getting dirty, probably in the west, feel free to have them email me and I'll forward their interest to the appropriate person in our company. For those graduating, there's information on the webpage for resume submission.

Tim Rigsby '74

I am currently working for ION Geophysical as Senior Vice President of Seabed Solutions in Houston, Texas. I've been married for 27 years and have three daughters, the oldest of which graduated with a masters degree in accounting from Texas A&M, the next one is a senior at Texas State studying education and the youngest is a senior in high school and actively considering which school she will attend next year. One of our favorite family activities has

been to travel to Honduras on mission trips over the last five summers. In addition to providing a medical clinic and children's activities, our team drills water wells in remote villages where there previously was no access to clean water. It has been a real joy to work with my daughters who have been willing to drill alongside their dad and experience the excitement in the village when the pump is set and clean water flows.

Bob Von Rhee '75

As a graduate of class 1975 (AB Geology) I was just comparing notes with another geologist about how much we enjoyed the small class size and department. During my fours years at Lafayette College geology we actually built relationships with the faculty and these effectively enhanced our learning experience. I remain manager of KVR Energy, LLC here in Tulsa which I've been doing since 2004. I'm also a Research Associate with the University of Tulsa's Geology Department. In 2006 I co-instructed an upper level course called "Entrepreneurial Geology". Our class was about 60/40 geologists/engineers and it was a challenge to present applied geology merged with petroleum engineering and business economics. Who woulda' thought. Actually these days the petroleum geologist has some of the finest technology and scientific applications to work with than ever before. The search for oil and gas is more difficult than ever, and these days the "tools" are better than ever. It's an exciting industry, and despite calls of " peak oil " qualified geoscientist will be demand in this business for a long time to come. My wife, Pam, and I have moved to the country where she's founded what I call 'nano-agriculture" of lavender and blackberries! We call it "Kadashan Farms". We've got four of our own horses, and board three more. This, plus keeping up a little 30 acre place keeps me out of the bars! It's been a few years since Lafayette, but I still remember the brown bag luncheon when Dr. Guy Hovis presented a talk on – that's right – feldspars, as part of his initial interview before being hired. It was clear to us students at that time that he was the best candidate – hands down. I see that we were right!

Lisa K. " Rusty " Goetz '75

I am still working in the Oil and Gas industry here in Houston, Texas. In June of 2007, I retired from Conoco Phillips (international exploration) after 30 years and in July 2007, I went to work for Marathon Oil Company. I am now working on North American new venture exploration. I have had the opportunity to get involved in Appalachian geology again and have actually dugout some of the maps I saved from my Lafayette days. September was a lousy month. My husband of 25 years (and a geologist for 60 years) Lewis C. Markley, passed away after brief illness. A week later Hurricane Ike hit Houston. Fortunately my house and business were only " kissed " by the storm and both now back to near normal. With my husband's death, I now find myself owner-operator of a few small oil leases in southern Oklahoma and I have a lot of brushing up to an independent well operations and mid continent geology.

Peter Zwart '75

We still live in Houston, TX with Eileen working for the school districts as a Physical therapist and myself as the CFO for our Gulf of Mexico Exploration and Production business for BP. Our son Jonathan is now 23 and having graduated from UNC, Chapel Hill, now works in NYC for Goldman Sachs and our son Brian is 21 and in his junior year at the University of Texas in Petroleum Engineering. Everyone is healthy and all is well.

Ellen Raber ’76

I have now been at Lawrence Livermore National Laboratory for 25 years. Previously, I was the Department Head for Environmental Protection, responsible for hazardous and radioactive waste, groundwater restoration (we are a Superfund site) and regulatory compliance. I am now supporting Homeland Security as Program Manager for Chemical, Biological, Radiological, Explosives Countermeasures. Some very interesting work for a geochemist ! Best to all !!

David M. Albala ’78

Not much to report back here in Duke. I am extremely busy doing robotic surgery for prostate and kidney cancer. I am scheduled to go overseas this fall and operate in Australia, China, and Chile. I did make it back to my reunion at Lafayette and it was great to see Guy and Larry. Hope all is well…..

Billie (Elizabeth Moore) Ingraham ‘80

I am doing well here in Danville, PA. I have three wonderful children, Herbert 21, is an aerospace engineer at Syracuse, Caitlin, 18, is a freshman at Villanova ; and Megan, 14 is a freshman in High School. My husband, Herb ’82 is the director of the Dept. of Ophthalmology at Geisinger. Work-wise, I am a fitness trainer at our local community center, teaching Spin and Toning Classes. In my spare time, I am a Girl Scout and Boy Scout leader, teach knitting, sewing, and quilting, and donate some of my pieces to the local children’s hospital. I am the chair of the Diocesan Catholic Girl Scout Committee and work on a regional committee as well.

David Spears ’81

After graduating from Lafayette, I got a Master’s degree at Virginia Tech and then spent eight years working for Chevron on the Gulf Coast. During that time I met and married my wife, Jennifer, with whom I now have three children: Jessica (married and expecting her first child), Evan (a freshman at William & Mary), and Anna (a sophomore in high school). In 1991, we moved to a small farm in Virginia and I began working for the state geological survey doing mineral resource studies on coal, natural gas, and metals. In 2005 I took a state government policy job working across the street from the state capitol in Richmond, where I now write safety and environmental regulations relating to mining and drilling. Virginia has taken a leading role in the debate on offshore drilling in the Atlantic, and I’m right in the middle of all that. When I’m not working, I enjoy vegetable gardening (organic, of course), birding, hiking, backpacking and fishing. Virginia is a great state for all of those activities. Come visit!

Phoebe Griffith

I am still teaching 3rd – 8th grade science at the Mead School in Stamford, CT and loving it (even though I don’t get to teach as much geology as I’d like!). We live in Cos Cob, a section of Greenwich, CT and love that, too. I ride my bike chance I get….even in the winter if weather permits. I’ve done almost 4,000 miles in the last 18 months!

Carol Mann '83

Much of my life is the same. Working for Dynamic Graphics, Inc. for the last 20 (yes, 20 !) years ! I've been a project manager the last five years. My primary focus has been directional drilling and well planning software, geared at aiming to bridge the gap between the G&G side of the oil/gas industry and the Drilling side. We've been bringing our expertise in geologic modeling and 3D/4D visualization to the industry …. so it's been a very exciting time for me. After hanging around with geologists and geophysicists for so many years, I never knew I would learn so much about drilling side of the industry. Always fun to learn new things ! This last year, I've been focused back again on our 4D visualization and earth modeling software, working with clients to design new features…so lots to keep me busy. Plus it's included lots of travel this year, including Aberdeen and France, so that's been fun too.

On the personal side of things, my daughter Julia started high school this year, and my son Nick started middle school…lots of new adventures there as well. My husband Andy and I celebrate our 20th anniversary this year as well ! Plus I've entered the 21st century and have a facebook page….so feel free to find me there, folks! Can't wait to read about everyone else!

Margie Bose '83

We have lived in Woburn, MA for 6.5 years now. Since we married in 1990, we have bounced around the world a few times: London (90-92), Pasadena, CA (92-97), India (97-2000), Pasadena (00-02), and finally Woburn, MA since July 2002. It is really nice to be near my parents and a brother, sister and cousin with their families all in greater Boston.

Abigail, now is 131/2 , is in her third and final year at a nearby private school. She is planning to attend Woburn High School for grades 9-12. She does well at school both academically and socially and enjoys playing soccer, basketball, and lacrosse teams.

Working with Emmanuel Gospel Center since 2006 (**www.egc.org**), Bobby is EGC's Education Coordinator for GUMNet (Global Urban Ministries Network), which seeks to be a community of global cities and urban ministries that give and receive from each other. He also teaches missions and theology courses as an adjunct faculty at Gordon-Conwell Seminary's Boston Campus (CUME).

I have been working 5 years now as Operations Manager at a small non-profit in Woburn, Social Capital Inc. (**www.socialcapitalinc.org**). It's only 25 hours per week. So I have time to volunteer & spend time with Abi. We are active members at Grace Chapel, Lexington, MA, hosting a multi-ethnic small group in our home.

Carol – Anne (Cammy) Morse Taddeo '84

I got married nearly 4 years ago, to Art Taddeo, and now happily part of a large Italian family. We honeymooned in Tuscany, and it was fantastic. We live in Pepperell, MA, a lovely New England town, with friendly neighbors, and enough land for a real vegetable garden, and lots of flower beds. We're enjoying the outdoors at every opportunity, with sea kayaking, rock climbing, mountain biking, hiking, camping, snowshoeing and skiing. We've had some great vacations in the past few years – most recently kayaking with whales in the Saguanay (Quebec) fjord last August, and kayaking and hiking/camping in the Pacific Northwest/Olympics/Gulf Islands last July. I'm still employed by ENSR, an environmental consulting company based in Westford, MA (I'm in the HQ). I've just reached my 19 year mark with the company, and love the people I work with. The work itself has its moments, but the people make the difference.

We went public, through our holding company, AECOM about a year ago, but it hasn't really changed things. Work has given me the opportunity to so some great traveling – my husband and I spent the end of last year working in Malaysia for 9 weeks (he works for ENSR as well) – visiting Thailand, Sarawak (Borneo), Bali, Singapore, and seeing much of Malaysia in the process. All in all, it has been a good five years. Hope all is well with the rest of you.

Sarah Johnson Trombetta '84

I am in my 19th year working for TRC Environmental Corporation in Windsor, CT as a Senior Hydrogeologist. Living in Middlefield, CT with my husband and my 13 year twins who keep me very busy.

Carolyn Hutton Durgin '85

Nothing is new with me these days. I am looking forward to the newsletter. It is always good to hear what people are up to.

Larry McTiernan…..'87

I'm still here in Roux Associates in the Boston area, coming up on my 20th year. Still cleaning up hazardous waste sites and doing other environmental management work. Family is well, with my oldest just starting high school. Likelihood of another geologist in the family is not looking so good. Spend lots of time in various church activities. Boston – area folks can check us out at www.gsbc.net

Jason Kelsey '90

I continue to serve as the Director of the Program in Environmental Science at Muhlenberg College in Allentown. We've managed to expand the program substantially, with students filling our classes and laboratories. Although teaching and administration keeps me busy, my research on the toxicology and remediation of soil pollutants continues at a satisfying pace. Life is busy otherwise; my two sons (6 and 3 years old) are a source of joy and exhaustion, and my second career (unpaid) as a musician provides inspiration and additional fatigue. Greetings and best wishes to all. I'd love to hear from you – feel free to contact me at kelsey@muhlenberg.edu. You can find out about me at
http://www.muhlenberg.edu/depts/interdis/envisci/faculty/index.html

Peter Cocheo '91

I am in my 14th year teaching Earth Science. For the past 8 years, I've been working at Richard R. Green High School teaching in Manhattan. I also serve as the Coordinator of student affairs and as Varsity softball coach. I currently live in Brooklyn.

Mary (Papadopoulos) Reilly '92

No Changes

John Coykendall '92

Our second child, Kate, was born on 7/1/08. Her big brother, Jake, is now 2.5 years old and enjoying being a big brother. We are still living in Westport, CT and I am still a Partner with Deloitte Consulting.

Jennifer (Moyer) Taylor '94

I have been the manager of Medford, NJ office of Brinkerhoff Environmental Services for the past eight years. We are a professional environmental consulting firm primarily providing services at sites in NJ, NY and PA. I am the proud mother of two boys (ages 1 and 4) and have been married now for 7 years. My husband and I recently traveled to Arizona for a brief trip, and headed to Florida in June with the family. All for now – looking forward to hearing about others from the Geology Department.

Shannon Brennan Hansen '95

Hello from the gateway to the Adirondacks where myself and my family (3 boys and husband) hiked in Lake Placid early October of this year. We found plenty of garnet up this way and I gave a mini-lesson to the boys!

Professionally, I returned to work after some family leave time t his fall. I recently became a Nationally Board Certified Teacher and I'm teaching Chemistry at Ballston Spa High School. I love the classroom and enjoy the kids.

Personally, parenthood is a lot of fun ! 2 of my boys are now in school (ages 7 and 5) and the youngest is 2 years old. My husband and I are lovin' life and having a ball with all that comes with being the parents of 3 fun-loving boys. We are lucky enough to have a family house on Lake George, so spend most of the summer boating and fishing. The boys love it.

With my free time (other than sleep!) I started a non-profit community improvement group that focuses on making our village more accessible for outside opportunities for all ages and abilities. We recently put together an effort for an all volunteer community built playground for all-ages and abilities playground and raised nearly $200,000. Needless, to say it was quite an undertaking!! We will be looking at sidewalks and dog parks next as the community has pointed us in that direction. You can see great pix if you visit the website at www.fansofballstonspa.org

Stacy (Walter) Silva '00

I am still living in Harleysville, PA with my husband, Jeremy (class of '00) and our son, Grayson (2 y/o). Currently, I am working part-time as a preschool teacher and enjoying being a mom. I have also been staying busy with volunteer work with a local environmental conservancy organization and my start – up photography business, Eidetic Photography. Hope this finds everyone back at Van Wickle doing well!

Ian Burley '01

Began this year as a first year teacher, teaching 10-12th grade Earth Science at Souderton Area High School in Souderton Area School District. I teach a Meteorology, Astronomy and Geology course. In May, I received a Masters of Education from Kutztown University.

Robert Libuttti '02

Hi everyone. After graduation in 2002, I moved to Boston where I worked at the Harvard Mineralogical Museum with Bill Metropolis. Say " hi " to him if you see him in the halls of Van Wickle. I stayed there for just shy of two years, had a great time at the museum, and really fell in love with Cambridge / Boston. In the fall of 2004 I entered the Master of Architecture program at the University of Pennsylvania, School of Design. During my time there I met a lot of great people, learned a lot and was generally stressed out for three years. During my first

summer, I spent 2 months traveling Japan with 15 other students, from Kyoto to Tokyo, Osaka, Nara, Okinawa, Kanazawa, Awaji, Kobe, Takayama, Koyasan, and more. During my second summer, I won a 3 month internship at Takenaka Corporation in Osaka. It was another amazing experience, living in the dorm with 140 other first year employees, site visits, strange dances. At that point, the seed had been planted and upon graduation, I moved to Kawasaki, Kanagawa, Japan. Kawasaki is to Tokyo what Jersey City is to New York City, It's just across the Tamagawa. I'm working for Pelli Clarke Pelli, Japan/Jun Mitsui & Associates, often putting in 100= hours of overtime a month. The work is tough, life isn't easy, but it's great. I've met so many new friends, and seen so many new things and places. It's going to be a really memorable chapter in my personal story. Hope everyone is doing well.

Abbey Santoro – Goff '02

I recently had a son, born on June 30th 2007 and I am working part-time as a Guidance Counselor for the private school where I was a former teacher. I am living and working in Northern NJ.

Andrew Fields '02

I am a Sr. Geologist with PT MineServe International in Freeport, Indonesia, and I am responsible for running sampling and drilling programs which are inline with the companies objective of finding and developing mineral resources; culturally and professionally it is very rewarding.

Since the last update I have moved down the hill, away from the mines; not necessarily a good thing since I really enjoyed life in Tembagapura, but when outside exploration started up a again in '07, I expressed an interest. I am able to see the rest of the island, a benefit of the job. Most people do not venture far from the mine and the facilities in place to support the operation. I, too was not inclined to venture outside the sphere of the company, it is so difficult to get around, very few flights are available and flight schedules vary, then when you arrive as a tourist what do you really do??? Having a job to do and a logistics department to get you in and out on your schedule makes it easy and there is someone always looking out for you. I passed through Singapore on my way home for field break. One of these days I need to make it up to Lafayette to use the saws, trim up some of my samples.

Cheers!

Dana (Emerson) Cartwright '03

I was married in November 2005 and my husband, Eddie and I are currently living in New Hope, PA. I am still working at the New Jersey Dept. of Environmental Protection in the Division of Watershed Management but I am applying to several different Masters Degree Programs for Fall 2009. I am looking to pursue a program in International Relations and Environmental Policy but I guess I won't know where I'll end up until next winter/early spring.

Annie Newmeister DiMauro '03

All is well in Odenton, Maryland. I am going into my 4th year of teaching preschool on Fort Meade. Nothing like a bunch of little kids running around you in the morning, to get you going for the day. I really enjoy it because I know that everyday will be different. My husband, Steve DiMauro ('02) and I bought a house almost two years ago and now we have a new addition to our family. His name is Harper. He is a Goldendoodle puppy and he'll be a year in November. We try to get out every weekend with the dog to go hiking or check out the local farmer's

market. Life is busy and I am looking forward to the fall air which is right around the corner. I hope that geology students are just as cool as they were during my time at Lafayette.

Kristin Valvanis '03

Got my Masters in Education from Rutgers in May 2005. Taught at Brayton Elemenatry School in Summit, NJ from September 2005 through June 2008 when my love of the outdoors took over and I decided to hike the Appalachian Trail. Set off southbound from Mt. Katahdin in Maine on August 10, 2008 with two friends with AP experience. They showed me the ropes for one week and left. Though I'm on my own, the trail is well-traveled and I'm meeting great people. I average between 10 and 20 miles daily. Climbed Mt. Washington – awesome! At the time I am writing this entry, currently in Rutland, VT but will reach Dalton, MA on September 22.

Trisha (Slemmer) Dimmick '04….

On November 5, 2005 I got married to Paul Dimmick (Class of '05). We lived in Bethlehem for a short time, as we were both going to Lehigh for graduate school. After Lafayette , I was working on getting my teaching certificate and an M. Ed while teaching earth and space science at Easton Area High School. Five years later, I am still at Easton teaching the same subject. I am enjoying the students and teachers I work with as well as the school traditions. I have been getting involved in many school committees/activities over the last few years which is keeping me quite busy. Paul is still at Lehigh working on his Ph.D in chemical engineering. Last spring (2007) we bought our first house in Palmer Township, Easton, and we greatly enjoying homeownership. We immediately bought a boston terrier puppy, Zeke, to add to our house, and we loved him so much we bought another boston terrier, Zoe, a year later. Also, in December, we will be welcoming our first baby, a boy ! We have been anxiously preparing for this new addition.

Christopher Holland '04

Recently engaged in May 2008 to Monica Tavares a graduate of GWU law in DC. We met in my junior year at the shore and are tentatively scheduled to be married July '09. I am currently running a successful health care consulting business in Conshohocken, PA. Our future plans are to move to the suburbs of Philadelphia and start a family.

Kristen Woods '04

I am currently living in Boston, MA and working as the PROSTARS Administrator at Boston University. PROSTARS is a program that is run through the Physics Department and is funded by a National Science Fund grant to promote retention and success of undergraduate students in the Science, Technology, Engineering and Mathematic (STEM) fields at Boston University. We also work with community colleges in the area, as well as K-12 teachers and students, through community outreach programs that encourage science-based learning and careers.

Before taking this position, I worked as a Staff Geologist for an environmental consulting firm for 2 years right after graduating from Lafayette. I also spent 2 years working with at-risk teens at a private, non-profit school in NJ as a Math and Science instructor. In my free time, I completed a 200-hr vinyasa yoga teacher training and I am now a certified yoga instructor.

Brian Schubert '04

Aloha from Hawaii! Things have been quite busy recently! I got married in July, defended my dissertation at the start of the fall semester, and moved to Hawaii with my wife in October for a post-doctoral position at the University of Hawaii on Oahu! I am being trained in stable isotopes under the supervision of Dr. Hope Jahren, who just relocated here from John Hopkins this summer (when I applied for the position, it was going to be at John Hopkins). When I went on the Lafayette Geology trip to Hawaii, I never thought I would be living here!

Elizabeth K. Cassidy '05

All is well. I am happy to announce that I am recently engaged to Jeremy Cook (also class of '05) and we have moved to Warwick, NY where I have begun work as a land attorney. I just started work at Jacobowitz and Gubits in Orange and Sullivan County New York.

Virginia Foulkrod '05

I've completed law school and I am living in White Plains, NY.

Christina (Enea) Helms '06

Since graduating in 2006, I have been working for EarthRes Group, Inc. (ERG) in Pipersville, PA (just north of Doylestown). ERG is an Environmental Engineering and Science (consulting) group comprised of engineers, geologists, and environmental scientists. Our areas of expertise include Solid Waste Management, Mining & Mineral Processing Management, Environmental & Civil Engineering, Geology & Hydrogeology, Investigation & Remediation Services, Regulatory Compliance & Permitting, Wastewater Management, and Air Quality. I primarily work on Mining, Geology, and Hydrogeology investigations – although my work may vary from day to day into different areas – which makes it very interesting and definitely a great learning environment!. There are number of senior Professional Geologists and a handful of younger staff who just received their PG licenses, so I look forward to preparing for that in about 2 years. I enjoy a good balance of days in the field and the office. I really do enjoy my job!

Personally, I was married to Jim Helms '06 (BS Mechanical Engineer) in August 2008. He is also enjoying his job, working as a Project Manager for Layne Christensen Company, since graduation. We purchased our first home and have been quite busy working on it ! We feel very lucky to have great jobs and to be living in such a beautiful area.

Erik Person '06

I hope everything is going well with you and the department. I have recently accepted a job as a Geologist at Kleinfelder in it's Exxon Mobil Division. I am also attending the University of Pennsylvania for my Masters of Science in Applied Geosciences in the concentration of Hydrogeology.

Joanna Morabito '08

I am currently pursuing my Masters degree at SUNY Stony Brook.