

Department of Earth & Environmental Sciences

2010

OCTOBER 2010

Cheers from the Department Chair

Alumni and Friends of UNO Earth and Environmental Sciences:

Here we are once again with one more completed orbit under our belt. It has, however, admittedly been a much more turbulent and at times uncertain celestial ride than the one that we reported about this time last vear. Most of vou are probably very aware of the continuing state financial issues and the implications for higher education. Budget shortfalls in the State during the last several years have led to large-scale budget cuts and as I write this we are anticipating that the University will be faced with a mid-year budget cut for 2010 and possibly a very large budgetary reduction during the next fiscal year. I cannot deny that these cuts have resulted in a lot of bumps, and some serious bruises for the University and consequently our Department. We are very likely headed into some even more challenging days but despite the many difficulties I am happy to report to you that EES is still managing quite We continue to graduate some truly fabulous students and are fortunate to have contributing faculty who are dedicated to providing a high caliber academic envi-

With the continuing societal need to find and utilize natural resources and solve our many environmental problems it is perhaps no surprise that the number of students turning to our Department for education continues to rise. The latest tally provided by our undergraduate coordinator Kraig Derstler shows that we are carrying approximately 130 undergraduate majors, quite an increase from the pre-2005 days of approximately 50 majors. Noteworthy too is that for the fifth year in a

row we met the minimum requirement for the number of graduating students imposed by the Board of Regents, a trend that we intend to and should be able to continue as we move into the coming decade.



Department Chair, Dr. Mark Kulp

During the last year undergraduates from our Department have moved on into graduate programs or found employment with private corporations, non-profit organizations, and many state and federal agencies. Our graduate program continues to do equally as well. As you will see in this newsletter some of our students are becoming guite adept at securing outside scholarships and fellowships, being invited on industry-led field trips and programs, presenting the results of their research at professional meetings, and finding employment. This past fall we welcomed an incoming graduate stu-



dent body with some of the highest GRE and GPA's we have seen in the last decade, coming from such places as Kentucky, Pennsylvania, California, Michigan, Nepal, and of course Louisiana. We are all quite proud of our students and the many things that they have accomplished.

With the increased number of students in our Department comes increased demand on the faculty. If there is one area in which we are currently hurting the most it is that we have too few faculty. With only 8 full-time faculty and no near-term possibility of hiring additional faculty we are all working to the maximum to engage the students in the range of courses they need, conduct research, and secure outside funding. The realization that our faculty numbers will not increase soon, coupled with recent changes in the State-mandated requirements of higher education, has forced us to once again redesign our curriculum from the framework that I described last year. Although we do not yet know all of the details of the changes I can assure you that the goal will be to create an even stronger, leaner EES. The upcoming changes will enable our students to more efficiently enter and exit our program and yet provide the options that will allow our students to excel in programs and places of employment beyond the walls of UNO.

I hope you enjoy reading the newsletter and learning about the things that our students and faculty are currently undertaking. We definitely enjoy hearing from all of you and if you have not provided recent updates please get in touch as soon as possible. Best wishes for the coming year.

POINTS OF INTEREST

- Current Faculty and student info.
- Catch up with Alumni and former UNO Faculty.
- Scholarships and Awards
- Student organizations
- Contributions

Dr. Mark Kulp, Dept. Chair, Associate Professor



Structural Geology class at Mt Cheaha Alabama





Class trip to Mt. Cheaha Alabama

What a range of events this past year. The most significant of these for me, took place a mere 7 days ago with the birth of my son Jonah Tyler on October 5. As I write this he and mom are at home and doing extremely well. The next several months promise to be quite the whirlwind for the whole family. I'm very happy that we are half way through the semester right now and already am anxiously awaiting some holiday break time! I'm thinking that during the next several weeks I'll start introducing to him some fundamentals such as facies and Walthers Law. I figure that by early 2011 he'll be ready for maximum flooding surfaces and backstepping parasequences, with start up as an independent in late 2012. I'll let you know how that is going in the next newsletter.

The other most significant event was one that touched us all in some capacity, the BP oil spill. I will long remember an April Sunday afternoon phone call from an associate press writer during a drive back from an Ouachitas stratigraphy trip. I had not seen any news in the previous four days and he was calling to find out if I thought that the Deepwater

Horizon could be releasing oil and whether it would impact the Louisiana shorelines. I had heard about the rig fire just before we left for the field trip but had no idea that there was concern for an oil release during the ensuing days. A student on her trusty Iphone coupled with five minutes on the phone to the reporter and I knew that we could be in for something big. Little did I realize at that point in time exactly how big this could be and what was about to unfold for those of us involved in Louisiana coastal zone science and politics. By early May, oil mapping and clean up efforts were all in full swing and the next 4 months of the summer became a blur as I was involved as both a responder to the spill, evaluating oil impacts, and an academician with a fundamental interest in the science of the Louisiana coastal zone. It was quite the learning experience and I'm obviously happy to see that the impact was not as immediately apocalyptic as has had been por-

Otherwise during the last year life for me continued on as an associate professor and chair of the Department, two roles that keep me quite busy. Sometimes I

find myself walking down the hallway and talking to a student, thinking the whole time that they are just a half a meter behind--only to then realize I'm actually about 5 m's in front of them. It seems that I'm always moving fast these days. With regard to students I was quite happy to have Dane Fischer and Scott Wessels finish up their masters projects this past summer on active faulting in the lower Pearl River and the Holocene Mississippi incised valley fill, respectively. Both found employment in the industry and are doing quite well last time I spoke to them; Scott is in Houston doing some geophysical processing and well monitoring and Dane is working out of Pittsburgh as a project manager on some black shale wells. Next in line is Mary Ellison who is going to be finishing up soon with her work on the St. Bernard marsh evolution and she is currently in the process of looking for gainful employment (hint, hint!).

I'm extremely excited, I decided to take on quite a number of new faces this year.
(Continued on page 10)

Dr. Ioannis Georgiou, Assistant Professor

Field inspection prior to campaign at Cubits Gap Splay in February of 2010 (Dr. Alex Kolker - left, and Dr. loannis Georgiou - Another year went by, and it is with great pleasure that I contribute to this newsletter again. We have spent time in the field, at the Birdfoot's delta in Plaquemines, deployed instrumentation in the Cat Island channel

south of Cat Island, as well as the backbarrier of the Chandeleurs, and we have since analyzed field data collected from these deployments, along with several million data points simulated by computer models. My lab has maintained momentum with the help of a steady stream of funding in the last year, and in the process added new graduate students as part of the team. In the past year or so, I have been actively con-

tinuing a cooperative agreement with the United States Geological Survey (USGS) Coastal Marine Program. This (renewable) multiyear program will help us understand further the dynamics of modern and episodic sedimentation in river dominated systems, and help identify event driven responses during flood years. In addition, in barrier and interior shorelines including wetlands, we are investigating the impact of storms, and the transformation of the resulting forces on sediment transport and associated impacts. Finally, we are trying to better understand and quantify the exchange and transport between coastal, marine, and back-barrier bays and sounds as a result of synoptic and mesoscale atmospheric forcing. All of this ongoing work will lead to a better understanding of how these systems will respond to sea-level-rise and storms in a changing regime. My lab has recently completed a study within the Barataria Estuary, and tested the feasibility of using multiple diversions for restoration using computer simulations with a multi-dimensional approach as well as played a supporting role to the District Army Corps of Engineers by collecting time-dependent hydrologic, and hydrographic information within the central wetlands in St. Bernard Parish, as part of the Mississippi River Gulf Outlet ecosystem restoration study. have completed a scientific report in collaboration with the

USGS during a comprehensive study of the Chandeleur Islands Holocene evolution, and associated physical processes driving modern change and response to storms. I maintain an active collaborative research component in the Mississippi River, with investigators from the Texas Institute of Geosciences (Dr. Mead Allison), and from two Louisiana Universities; these topics include under-

standing river response processes, and examining flow dynamics near extraction points along the river, in an attempt to better understand sand dynamics near future diversions; this is accomplished by utilizing both field observations and numerical modeling. Over the summer, the University received federal funds from the Northern Gulf Institute, and my lab will be performing monthly cruises to understand particulate concentrations in coastal waters, explore their optical properties, and investigate longitudinal density gradients from inland waters to the shelf, in an attempt to explain setup and destruction mechanisms for stratified waters.

Presently, there are four masters and one doctoral student in my lab, as well as an undergraduate researcher. Chris Esposito is continuing his research in the modern delta, studying the sediment dynamics of an active crevasse splay in the Cubit's Gap subdelta of the Mississippi River. The field expedition during the April flood, which involved eight people, four boats, and a long list of field instrumentation, has left Chris with a large dataset for analysis after several days in the field. We are planning to visit the site again during low flow in the Fall of 2010, to collect additional data that would provide analogues for sedimentation in receiving basins as a result of planned river diversions.

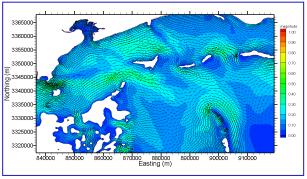
Jenni Schindler (below) is continuing her research on estuarine dynamics as a func-



tion of barrier island transgression. Following data recovered from the field this past summer, Jenni is in the process of analyzing the data recovered, and using the results to implement a numerihydrodynamic cal model for the study area (southeast Louisiana, Mississippi and Alabama). Presently. she is going through

the model validation and will soon be simulating specific scenarios to test her hypothesis.

Kevin Trosclair, a new grad student who joined my lab this fall, will study wave en-



Ebb current magnitude (color bar in m/s), and direction (vector), from numerical model FVCOM, used to simulate tidal dynamics in Mississippi and Chandeleur Sound.

ergy propagation and transmission at salt marsh edges. He will do so with a combination of field work, scheduled to start this cold front season, as well as through the implementation of mathematical and numerical models. Kevin will investigate if the ability of vegetated wetlands on wave energy and surge exhibit linear properties as a function of distance from the marsh edge, and their dependency on vegetation type, geomorphology and geometry of marsh edge, resulting grain and form characteristics and drag forces. Kevin has received Louisiana Sea Grant funding through the Coastal Science Assistantship Program, operated by Louisiana Sea Grant Office with funds from the Office of Coastal Protection and Restoration (OCPR).

Alison Sleath Grzegorzewski is conducting research to help understand and simulate event driven morphological response of barrier islands and headlands during storms. Alison is in the process of writing her doctoral prospectus, and forming a dissertation committee, and is taking her last course this semester.

Finally, Robin Schroeder, a new transfer masters student will be studying the resuspension properties of fine sediments in the vicinity of south Lake Pontchartrain and within Bayou St. John, in New Orleans. She will study the likely change in the tidal flushing after hydrologic change, and the resulting implications on local habitat as part of a proposed restoration proposal.

Kevin Trosclair (above), and Chris Esposito (below), during the field campaign at Cubits Gap in April of 2010.



A.A.P.G. UNO, Student Chapter

After the re-activation of The Student Chapter of the American Association of Petroleum Geologists (AAPG) at The University of New Orleans in the Spring of 2009, the chapter has participated in a wide variety of events. Within the university the Society has hosted several guest lecturers. The first in the Fall of 2009 was Dr. Rudy Slingerland from Pennsylvania State University who presented a lecture on "How River Deltas Work: The Patterns and Dynamics of Distributive Fluvial Systems". This was a widely popular talk within the department, and one of the best turn-outs of the year. In the Spring of 2010 the chapter hosted two lecturers: Dr. Gail Ashley from Rutgers University, and Martin Perlmutter from Chevron. Dr. Ashley's topic was "The Sedimentary Record of Human Evolution", and like Dr. Slingerland's lecture, was very popular in this multidisciplinary department. Mr. Perlmutter's lecture was titled "The Influence of High Frequency Climate Variability on Paleoclimate Interpretation". The expenses of Mr. Perlmutter's visit was shared by the Department and The New Orleans Geological Society (NOGS) and as a result, a large group of students attended the luncheon provided by NOGS to listen to another lecture by Mr. Perlmutter. In the Fall of 2010, the chapter has hosted one lecturer so far: Dr. Tim Herbert from Brown University. He presented his research on "The Ice-Age Climate Experiment". Overall, our lecture series has been quite successful with high attendance rates. In other news, the 2010 AAPG Annual Conference and Exhibition was in New Orleans in April. Many students (both undergraduate and graduate) attended this conference, presenting their research and volunteering behind the scenes. For the future, the chapter is attempting to involve more local geologists and allow more interaction between students and the guest lecturer. As always, the chapter seeks to expand student employment opportunities and maintain connections with local companies, organizations, and other geological groups. Andrew Ranson, Student Chapter President

2010 OFFICERS: Andrew Ranson, President; Kristen Camp, Vice President; Kevin Trosclair, Secretary; Chris Esposito, Treasurer

invasive fishes. My main re-

search focus involves the use

of multivariate statistics to de-

termine how fish assemblages

change over time and space in

response to both natural and

approach has allowed me to

identify those issues that most

influence local fishes and fish-

eries which, in turn, help direct

recovery and conservation ef-

forts. With our long-term eco-

logical database we can com-

pare historical trends with cur-

rent events to determine if the

aquatic ecosystem has been

Deepwater Horizon oil spill is a

perfect (if depressing) example

of the value of the baseline

data the NRL collects. We are

currently involved with multiple

oil spill related projects funded

by numerous agencies includ-

ing the National Science Foun-

dation, Louisiana Sea Grant,

and the Northern Gulf Institute.

The grant from the National

Science Foundation is particu-

larly interesting because it in-

volves multiple collaborations

both within and outside of EES.

The research involves combin-

ing pre-oil spill ecological data

with geological data on sub-

strates and habitats to create

an all-inclusive map of re-

sources in the Gulf of Mexico

that may be affected by the oil

spill. Dr. Mark Kulp and his

research team will deal with the

geological side of the work

while Meg O'Connell at the

Pontchartrain Institute for Envi-

ronmental Sciences will be in

significantly impacted.

anthropogenic factors.

Dr. Martin (Marty) O'Connell, Graduate Coordinator and Assistant Professor

charge of combining the two data sets into one while also managing EES students (including EES undergraduate



Jenny Wolff, above) to find more data from various online sources. Finally, Dr. Chris Jenkins at the University of Colorado at Boulder will model the resulting data to produce the maps and coverage. For the other research projects, NRL Operations Manager Chris Schieble and Laboratory Manager Twyla Herrington have been working extra hard during this chaotic period to not only keep up with the oil spill situation but also keep our standard sampling efforts on track. Our hope is that our ongoing research will help accurately assess the true impacts of the oil spill on the fishes and fisheries we study here in southeastern Louisiana.

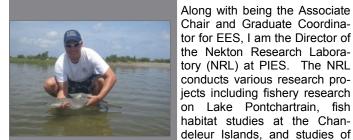
Since the last EES Newsletter, Sunny Brogan successfully defended her thesis in January 2010. The title of her thesis was: "Red drum (Sciaenops ocellatus) habitat use in an urban system; behavior of reintroduced fish in Bayou St. John, New Orleans." One of the major findings of Sunny's research was that this popular game species could survive in an impacted urban waterway, which is encouraging for future attempts to restore this local fishery. After finishing her thesis, Sunny successfully procured a job with the LSU Ag Center and is working on helping the coastal bait fish industry.

Many of my current graduate students had their research

efforts curtailed during 2010 due to the oil spill. Senior Ph.D. student Jonathan McKenzie had tagged over 50 lemon sharks at the Chandeleur Islands in 2009 and had hoped to recapture a few in 2010 to assess their growth. Because of the oil spill, though, our efforts to get to the Islands were delayed by numerous entities and incidents involved with the oil spill. Though delayed, our hope is that these research efforts can be completed this fall. Chris Davis (below) is also working on lemon sharks and will be defending his thesis this fall. His thesis research involved studying the diet of this species while it utilized nursery habitats. Chris was awarded the Student Choice and Recognition Award for the Best Oral Presentation at the 2010 Graduate Student Symposium in Ocean Springs, Mississippi at the Gulf Coast Research Laboratory. Symposium was hosted by The Marine and Estuarine Graduate Student Association and is an annual forum for graduate students from local universities to present their research findings. The title of the winning presentation was "Diet of Young Lemon Sharks within a Nursery at the Chandeleur Islands, Louisiana". Another M.Sc. student,



Rebecca Cope (above), has collected important baseline data on larval fishes, shrimp, and blue crabs from the natural passes that enter Lake Pontchartrain. While the original purpose of Rebecca's thesis research was to better understand how the closing of the Mississippi River Gulf Outlet



John McKenzie



Celeste Espinedo



Chris Davis



Shane Abeare

The Chandeleur Island Lemon Shark Nursery Habitat and the Deepwater Horizon Oil Spill, Chris Davis, Graduate Student



Lemon sharks (Negaprion brevirostris) use shallow coastal waters with seagrass beds and mangrove fringed habitats as nursery grounds. Young N. brevirostris use these highly productive habitats as nurseries because they typically contain large amounts of prey items that fulfill their extensive food and growth requirements. Recent surveys conducted by the Nekton Research Laboratory (NRL) of the University of New Orleans have confirmed that the Chandeleur Islands. Louisiana contain nursery habitats for N. brevirostris. During the summer of 2010, Chris Schieble (NRL Senior Research Biologist), Jon

McKenzie (EES Ph.D. student), and myself (EES Masters student) conducted two monthly sampling trips in May and August to determine the extent of damage to marine and wildlife habitats due to the oil spill. The Deepwater Horizon Oil Spill occurred on April 20, 2010 after the rig exploded resulting in 780×10³ m³ of crude oil leaking out into the Gulf of Mexico. The Chandeleur Islands experienced occurrences of oil throughout the summer which prevented sampling trips in June and July. One of our research goals was to determine if there were any detrimental effects on fish assemblages at the Chandeleur Islands especially young lemon sharks recently born in the pupping grounds.

A total of 25 young *N. brevirostris* were captured in May with another 15 captured in August. Lemon sharks appear to have not been significantly impacted by the oil spill with young still occurring at the Chandeleur Islands nursery habitat, but long-term effects still need to be investigated. During sampling in May, we observed protective boom throughout the islands including absorbent boom that was full of oil lying in the marsh. We also observed the formation of small oil sheens as we disturbed the bottom while wading in the water. During sampling in August, we witnessed a great

deal of protective boom laying on the shoreline unmaintained, large tar balls on beaches, increased turbidity in the water which occurred in conjunction with the construction of the Louisiana sand berm, and the discontinuation of our research by federal agencies. It was certainly a trying summer for research in the Nekton Research Lab especially at the Chandeleur Islands to determine the effects of the oil spill but we continue our commitment to environmental research at this vital ecosystem. The Chandeleur Islands are a resilient, but fragile environment that requires coastal restoration and management that ensures its viability as a lemon shark nursery habitat for the future.





would affect the densities of larval organisms in the Rigolets and Chef Menteur Pass, these data have now become important measures of the local aquatic ecosystem's health prior to the oil spill. Rebecca was also awarded a Shell Minority and Women in Science Scholarship based on her grades and research experience. New Ph.D. student Will Stein (above) is studying the fish assemblages on the Orleans Parish Landbridge (the marshy area between New Orleans and Slidell). Will is particularly interested in juvenile tarpon and how they use these habitats, but the oil spill may have reduced or eliminated the number of small tarpon reaching these

Landbridge habitats. Our hope is that Will's research next year will better determine how and if the oil spill played a role in any reductions of fish numbers in this area.

Other NRL graduate students that were less impacted by the oil spill include Ph.D. student Celeste Espinedo who is studying how an invasive fish, the Rio Grande cichlid, interacts with native fishes. This non-native fish has been associated with declines of native fishes in the New Orleans area and Celeste's work will examine the actual behavioral mechanisms that determine why the invader is succeeding at the cost of native species. Shane Abeare, another NRL Ph.D. student, has just returned from an excursion to southwestern Madagascar where he hopes to study native fisheries along one of the biggest coral reefs in the world. Based on his preliminary work in 2010, Shane's largest concern for the fishery is the pressure put on juvenile coral

reef species by large beach seining activities. More locally, M.Sc. student Patrick Smith (below) is expanding on Sunny Brogan's Bayou St. John redfish work and recently won a Louisiana Department of Wildlife and Fisheries student research grant to purchase equipment for his studies. Patrick plans on assessing whether the redfish are behaving differently than wild redfish while confined in Bayou St. John and he hopes to also obtain a better understanding of the food resources that may or may not be available in the system for this species.





Dr. Mostofa Sarwar, Professor, Geophysical Research for Oil and Gas Exploration

This is late October, 2010. We are very close to Halloween. A cruel monster of budget cut has been hanging like a Damocles' Sword over the ghoulinfested campus of the University of New Orleans. We need strong support from our alumni in the form of petitions to save our Department and the University. The excellent work by faculty and students puts us in a relatively better situation than many other departments; still we need awareness and actions so that we are not harmed. I am teaching a lot of courses. Recently I presented a paper in the annual meeting of GCAGS 2010 at San Antonio. My paper (with two more coauthors) is published in the Transaction of GCAGS, 2010. This summer, I presented an invited talk on Deepwater Horizon Oil Spill at the University of Innsbruck in Austria. I am supervising two graduate students on seismic interpretations. At my end, I am improvising some seismic inversion techniques I developed earlier.

This summer, I had an excellent time in teaching courses at Innsbruck Summer Program. It has been very gratifying. I came across to many students from different universities of USA and abroad. The glacier field trip on the Alps Mountain that I supervised was, like before, a never ending excitement, an intellectual awakening, and a terrifying experience to see the receding glacier.

During this summer, I gave finishing touch to three books of poems, which I wrote over the years. They will be published in Bengali (my native language). The English titles are as follows: (1) Transcripts of Intimate Moments; (2) Pathology of Depraved Transfiguration; and (3) Schizophrenic Rhapsody from a Coveted Exile. I experimented with post-modernist styles and norms such as magical realism, embedded loops, inter-

twining space-time continuum etc.

Family is doing great. Dr. Syeda Sarwar, M.D., my wife, is still at VA Hospital practicing medicine. Turhan Sarwar, our eldest son, now twenty five and about to graduate as a Doctor of Jurisprudence (with a minor in finance) from the University of Pennsylvania recently engaged with Kathy, an M.D. student at Johns Hopkins Medical School. They met each other when they were undergraduates at Harvard. Kathy's father is a professor of cardiology at Harvard and mother is the Vice-Provost of Northeastern University. Arush Sarwar (18 yrs old), our second son, is now a sophomore at Harvard and concentrating in mathematics and economics. Our little daughter Shaina (16 yrs old) is a senior. She is busy as the President of the graduating class and also spends most of her time sending applications to colleges. No wonder, our life is beautiful.

Sigma Gamma Epsilon SGE

It has been five long years, but the Honor Society for Earth Sciences, Sigma Gamma Epsilon, has finally been reinstated since its dissolution after Hurricane Katrina. Former graduate student, TJ Brown, worked tirelessly to contact the national office, gather the appropriate information, and with the help of undergraduate Michele Dellinger, enlisted 11 other students from with the EES department to reestablish the student chapter (Gamma Omicron) by the end of the 2010 spring semester. In order to be eligible for SGE, undergraduate students must have a 2.7 cumulative GPA, as well as a 3.0 GPA in EES curriculum. In addition, all students (both graduate and undergraduate) must have completed 10 semester hours in EES classes, and be in good standing within their departments and the university.

As a member of SGE, students are eligible for scholarships, awards, will receive and submit articles to "The Compass" (SGE's national publication), and are given the opportunity to attend the National Conference. There, students will have the opportunity to attend lectures, meet fellow professionals, and may be able to display their own research.

Anyone who would like to contact SGE with school or community volunteer opportunities, or anyone wishing to apply for SGE, please contact Michele Dellinger at sge.uno@gmail.com. Please take a moment to recognize the members of SGE:

President - Michele Dellinger, undergraduate;
Vice President- Christopher Mark Johnson, undergraduate;
Secretary- Jennifer Brizzolara, undergraduate;
Treasurer- Kristen Camp, graduate

Undergraduate Members: Kimberly Clark, Michael Pizzolato, Blaise Pezold, Brittney Lemelle, Angela Scheuer, Karen Marchal, Robert Clark, John Dupre, Arnaud Kerisit, Leah Frizzel, Luke Smaha, Jennifer Olszewski, Leah Sossmon, Nigel Long, Krisztian Megyeri

Graduate Members: Andrew Ranson, Mary Ellison, Sara Moore, Chris Esposito



Dr. Royhan Gani, Assistant Professor

I joined University of New Orleans in fall, 2008 as Assistant Professor at the Earth & Environment Sciences department.

I'm actively involved in ACS-PRF (Petroleum Research Fund) and industry-supported research on facies architecture, reservoir analog, ichnology, and sequence stratigraphy of clastic

strata. Although my research experience spans from continental fluvial to deep-marine depositional environments, I particularly works on shallow-marine Cretaceous strata in the Western Interior Seaway.

My StrataMax (stratigraphy maximum) lab is now up and running, which is a cutting-edge PC-based workstation lab with 3D visualization capability, to investigate subsurface geology in a maximum way. A software grant (1.5 million dollars) from Landmark was instrumental to this effort. In addition, we also have these software: Kingdom, RiverTools, Nueralog, ArcGIS, and ENVI. This lab also has a GPR system (with 100 MHz and 250 MHz antennas) to acquire, process, and interpret shallow subsurface geology.

Currently, three graduate students are working in my lab. PhD student Hiranya Sahoo is investigating stratigraphic compartmentalization of Cretaceous coastal-plain deposits of the Blackhawk Formation (Wasatch Plateau, Utah), which is an outcrop analog for producing tight-gas reservoirs in the adjacent Uinta and Piceance Basins. MS student Andrew Ranson is also working on the same rocks to investigate the complex land-ocean interplay in shoreline successions, where fully-marine strata transition stratigraphically upward into fully-continental strata. These researches could be important for a coastal city like New Orleans, for example, to predict subsurface lithology and associated subsidence. MS student Prabhat Neupane (co-advised by Nahid Gani) is involved in the Ethiopian Plateau research in understanding incision history of the plateau

I teamed up with my wife, Nahid Gani, Assistant Professor-Research at EES, to study the birthplace of all human beings, the East African Rift System, to understand the geological controls on human evolution during early Pliocene. Particularly, we are investigating Ethiopian Plateau to understand the link among tectonic uplift, climate change, and hominin evolution. This research in currently supported by NSF and Louisiana Board of Regent. To learn more about my academic activities, please visit my webpage: http://ees.uno.edu/Gani_Royhan/index.html



Graduate Student Prabhat Neupane is involved in the Ethiopian Plateau research in understanding incision history of the plateau.



Grad student Hiranya Sahoo (above) and Andrew Ranson (below) at Wasatch Plates Likeb



At present I am an Assistant Professor -Research at EES, integrating tectonic geomorphology, structural Geology, and remote Sensing-GIS.

I am fascinated by the processes responsible for shaping the Earth. My research focus is to explore the constraints (structural, tectonic, geomorphologic, climate) on landscape evolution and their geologic implications in areas with various tectonic setting. I integrate field surveying, remote sensing-GIS techniques, thermochronology, paleoaltimetry, structural analysis, quantitative stream profile analysis to understand landscape evolution through

Dr. Nahid Gani, Assistant Professor-Research

time and space. My research is currently focused primarily on the Ethiopian Plateau, East Africa.

Tectonics -climate-incision coupling in the Ethiopian Plateau:

The evolution of the Blue Nile and Tekeze drainages on the Ethiopian Plateau is crucial to unraveling Cenozoic tectonoclimatic history of the region, particularly because the region has long been used as a natural laboratory to understand the geodynamics of continental rifting and the evolution of hominins. However, the study of incision history of the Ethiopian Plateau is still in its infancy. The goal of this research (funded by NSF and Board of Regent grants) is to investigate the topographic evolution of the Ethiopian Plateau relating to geodynamics and paleoclimate of the region. The tectonic information, particularly for the late Cenozoic, that I am interested to explore from quantitative geomorphology, structural geology, lowtemperature thermochronology, and paleoaltimetry could aid in understanding how the dynamic landscape of East Africa controlled paleoclimate of the region and created a highly-variable spatial and temporal physiography that acted as a perfect cradle for hominin evolution. Quantitative geomorphology, using remote sensing data and GIS, aids to quantify incision which puts tighter constrains on the plateau evolution through extracting tectonic and/or climatic signals from this incised landscape. I am also investigating cooling ages of apatite grains using U-Th/He thermochronology (in collaboration with Dr. Matthijs van Soest at Arizona State University) to constrain plateau incision through time and space. In collaboration with Dr. David Rowley at the University of Chicago, I am also using stable isotopebased paleoaltimetry and geochronology of basalts to unravel uplift history of the Ethiopian Plateau in both time and space. One undergraduate (Leah Sossamon) and one MS student (Prabhat Neupane) are currently working on this project. Undergraduate Michele Dellinger also worked on this project. For more on my research, visit: http://www.ees.uno.edu/ Gani Nahid/index.html



Dr. Patricia Williams, Coordinator, Toxicology Research Laboratories, Pontchartrain Institute for Environmental Sciences.

I participate in graduate education and research in both the Departments of Earth and Environmental Sci-

ences and Civil and Environmental Engineering. I offer consultation in the area of toxicology in my role as Coordinator for Toxicology Research Laboratories of the Pontchartrain Institute for Environmental Sciences. I teach three courses within the Department of Earth and Environmental Sciences: Toxicology and Human Health, Toxicology of Coastal Organisms, and Ecotoxicology. Toxicology and Human Health (EES4096/4096G) is taught in the Fall and focuses on the basic principles of toxicology with applications to the impact of toxic agents on human health. Toxicology of Coastal Organisms (EES 6096) discusses the significance of seabirds and fishes as bioindicators of coastal and marine pollution. This Fall semester the focus of the course is the Deepwater Horizon Oil Spill and its impact on coastal wildlife. Ecotoxicology (EES 4096/4096G) will be taught in the Spring semester (2011) and discusses the interconnections between ecologic health and human health with overlap of their exposures to many of the same contaminants. This Spring much study will focus on the impact of the Deepwater Horizon Oil Spill and other sentinel oil spills on

the physical environments that overlap for humans and wildlife.

Every fish kill has a causedetermining the cause requires investigation of all of the potential underlying factors. Caution must be taken not to reach premature conclusions. Depletion of dissolved oxygen, infectious disease agents, excessive water temperature, toxic algal blooms, and toxic pollution can all cause widespread mortalities of fish. However, toxic pollution of waters alone can induce depletion of dissolved oxygen with further induction of toxic algal blooms and lowering of immune competence in fish rendering them susceptible to infectious agents. Toxic pollution alone can cause necrosis of the gills in fish causing reduced oxygen transport with subsequent hypoxia or anoxia leading to death of the fish. A complete assessment must be made to determine the actual cause of a fish kill. Careful observation, data gathering, and sampling procedures including sediment, water column, fish gills, liver, and muscle and fat tissue must be performed. In situations where the identity of the toxic agents are known, knowledge of the toxicology and metabolism of the agents is imperative to determine whether to test for the parent compound or metabolites and in which organ or tissue. Superficial determinations without such scientific investigation can mask the underlying cause of a fish kill and result in potential human hazards, contamination of the water supply, harmful residues in fish flesh, or damage to the ecosystem.

Toxicology is the study of the harmful effects of toxicants on living organisms and is important to the interpretation of fish kills. The dose, dose rate, and duration of exposure to a toxic agent are important determinants of the toxicity of an agent. Acute effects may occur rapidly as a result of a short term exposure to a highly toxic agent or to a high concentration of a toxic agent. Acute effects are severe and usually include mortality in fish. Highly toxic substances or high concentrations of less toxic contaminants commonly kill fish of all species and sizes. However the entry of sublethal levels of toxicants through the food chain may also cause fish kills. Such chronic exposures may take time to exhibit as fish kills and do not affect a particular life stage.

(For further information see the "Field Manual for the Investigation of Fish Kills" ed. Meyer and Barclay, US Fish and Wildlife Service, Washington, DC, 1990)

ROCKTOBERFEST II, 2010

Rocktoberfest II, is an informal reunion of UNO Geology alumni and former faculty. It was held this year October 8

& 9 at the homes of William and Renee Ryan and Dr. Bill and Kathleen Ward in Boerne, Texas. There were about 40 people in attendance including Dr. Lou Fernandez, who was in from San Bernadino, CA. A group of current UNO graduate students also joined the party. Many of the attendees were in San Antonio for the GCAGS convention which was being held that week. Special thanks to our hosts, the Wards, and the other San Antonio area alumni, William and Renee Ryan, Diane Hyatt, Paul Sunby. Also thanks to Toby Roesler for providing the UNO "swag". Plans are already being discussed for RFIII to be held in New Orleans in 2012. Go to www.unogas.org for info and photos.

Find us on Facebook: University of New Orleans Geology and Geophysics Alumni http://www.facebook.com/group.php?gid=157308854288498&v=wall

Stairs back row: Janice Gregory Sloan, William Ryan, Keith Radecker, John Scheldt, Arlene Faustermann, Bob Aston, Chris Caravella Stairs front row: Carl Young, Jose Sequeira, Robin Broussard, Taffy Foxx Dineen, Diane Hyatt, Emily Taylor, Renee Ryan, Kim Montegut, Wes Cantwell, Frank Sheppard, Bryan Stephens, Paul Sunby. Ground back row: Sheila Ross, Kay Plavidal, Dr Bill Ward, Dr Lou Fernandez, Jenel Hazlett, Kathy Ward, Toby Roesler. Ground front row: Current UNO grads Chris Cook, Charles Chaisson, Ben Kirkland, Jordyn Spizale and Andrew Ranson.





The MP2 Research Group is the only bas-

tion of hard rock geology in Earth and Envi-

ronmental Sciences and continues to be a

very active program. MP² stands for Miner-

alogy, Pegmatology, and Petrology (http://

pegmatology.uno.edu/). Our specialty is

Pegmatology - the investigation of pegma-

tites, including their mineralogy, geochem-

istry and genesis. We continue our col-

laboration with the Gemological Institute of

America in research on gem minerals, especially tourmaline. We are actively involved in field research on pegmatites. Skip

and Karen returned to Namibia and col-

adventures.

Miner's Lamp Stove

Panasque Portugal

UNO Research Professor *Karen Webber *Alexander Falster invited lecturers at a pegmatite confer-

MP² Research Group

*Dr. William (Skip) Simmons,

ence in Bilboa, Spain and participated on a field trip to visit pegmatites in Spain and Portugal. This trip included an underground tour of the famous Panasqueira tungsten mine.

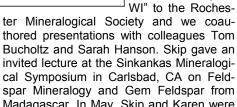
In June the MP2 research group conducted the 9th annual Pegmatite Workshop in Poland, Maine. The Workshop is a weeklong short course on pegmatites that includes lectures and daily fieldtrips to Maine's most famous pegmatites (http://



Karen and Frank underground

lected samples from the Erongo pegmatites and have presented several talks on our Last fall Skip was invited to present a plenary lecture at the XII Brazilian Geochemistry Congress on "State of the Art Concepts on Pegmatite Genesis" in Ouro Preto, Brazil. Last Spring Al Falster presented a talk on "High Aluminum Titanite from a Mafic Dike in the

Wausau Complex,



Madagascar. In May, Skip and Karen were The sampling crew. Notice Al's glasses!

homepage.mac.com/rasprague/ PegShop/intro.html). Our textbook for the workshop, *Pegmatology*, continues to be popular. The course is a great opportunity for students to learn about the latest developments in pegmatite research and investigate pegmatites first hand with pegmatite experts The workshop has been very successful since its inception and has attracted several hundred participants, including students, miners, and professionals from Brazil, Italy, Spain, Portugal, Germany, Sweden, Canada, Argentina, Australia and Russia. Donations to support student attendance of the workshop are always welcome.

In August The MP² Group attended the International Mineralogical Association meeting in Budapest, Hungry. Skip gave an invited presentation on "Mn-rich yellow tourmaline: conditions of formation and implications for peg-

matite petrogenesis" in the session From Gemstones to Cellphones." Karen was an invited session chair and also gave a presentation on "Origin of the Mn-enriched NYF-type pegmatites in the Searchlight granitepegmatite-aplite District, Clark Co., Nevada." Al Falster also gave a talk on "Anomalous LCT-type, Ta enrichments in NYF-type

Pegmatites of the Nine Mile pluton in the Wausau Syenite Complex, Wausau, WI."

Masters candidates:

Kristen Camp



Mineralogy and Geo-

chemistry of Anorogenic Granitic Pegmatites Associated with the White Mountain Intrusive Suite, New Hampshire

TJ Brown



Geology & Geo-

chemistry of the Kingman Feldspar, Rare Metals and Wagon Bow Pegmatites, Arizona (Graduated, Summer 2010)

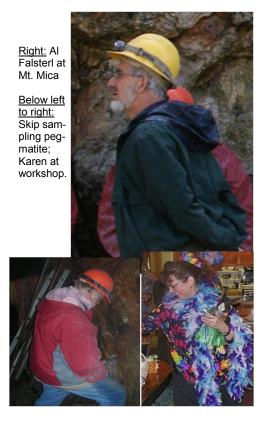
Jonathan South—PhD Candidate



NYF Pegmatites and

Granites of the Llano District, Llano Co., Texas

Pegmatites Rule!



The Dinosaur Man, Dr. Kraig Derstler, Associate Professor



This has been an interesting year. As Mark mentioned, our department's undergraduate program is thriving despite UNO's (and Louisiana's) everspiraling financial and political trauma. Our standing crop of EES majors continues to grow. We have roughly 130 majors at the moment, plus several dozen others who have inquired about changing to EES major. It is my privilege to work with such an enthusiastic, motivated, teeming group of students. On the research front, I have split my time between Cretaceous dinosaurs and Cambro-Ordovician invertebrates. Several colleagues have joined me to study the hadrosaur mummies that my expeditions have collected over the past two decades. UNO's preparation lab is still recovering from Katrina, so some of the material has been farmed

out to other labs. So even if the worstcase happens and UNO collapses, this particular project will continue.

I worked on three particularly cool vertebrate fossils in summer 2010. First, I reconstructed a huge turtle *Basilemys* from hundred of scraps scattered through a Late Cretaceous cravasse splay in Montana. To the best of my knowledge, this is the first time anyone tested the notion that an individual skeleton could recovered from shattered, scattered remains. I left a large hole in the ground and massive heaps of overburden, but by gosh, we now have a beautiful specimen of a rare turtle.

The second fossil is a Hell Creek mammal SKELETON of *Didelphodon* that we excavated in 2005. Colleagues reconstructed the fossil last year and it is now part of the research collections in Houston. I am principle investigator on the project and we are currently mount-



ing a cast of this unique fossil at UNO.

Third, we excavated the leg of a monster, trophy-sized hadrosaurian dinosaur in Montana last summer. All



we found was a single leg, but is a monster. Normal adults of this animal are 25-30 feet long, from nose to tail. This leg belonged animal that was roughly 50 feet in length! It is one of the largest hadrosaurs ever found. Anywhere. It is currently being prepared at a lab in Colorado, and it will be delivered to New Orleans sometime next year.

I am in the early stages of planning for summer 2011. If you are interested in helping, it may be possible to restart the UNO expedition series, rather than having me lead expeditions for other institutions (as I have done for the past several years).

Kulp (continued)



Mary Ellison, B.S. Boston University

Jordyn Spizale -B.S. LSU



Ben Kirkland -B.S. U. of Kentucky

John LaBold -B.S. West Chester University



Dillion Asher -PhD Student, B.S. Virginia Polytech, M.S.U. Southern Miss



and
Ross Rearhard,
B.S. UNO

Except for Dillion, who is a Ph.D. student, the rest will be working on M.S. degrees and we are currently in the process of allocating projects to each of them. There are plenty of things to be done and all we need to do is narrow the range of possibilities. I've been extremely fortunate to work with a number of talented students during my time at UNO and similarly anticipate great things from this group of fresh faces.

The rest of the Coastal Research Laboratory such as Phil McCarty, Mike Brown and Dallon Weathers are all doing well. The group continues to be extremely busy with a wide range of field projects and have produced some really nice datasets and results during the last year. Life and the science continue to be a blast!

Phil McCarty, right; Mike Brown, below and Dallon Weather, lower right.







Student Scholarships and Awards

2009-2010

New Orleans Geological Society Memorial Foundation, Jules and Olga Braunstein Senior Scholarship Award: Jennifer Brizzolara

New Orleans Geological Society Memorial Foundation, Jules and Olga Braunstein Junior Scholarship Award:
Krisztian Megyeri

New Orleans Geological Society Memorial Foundation Scholarship Award: Christopher Esposito

New Orleans Geological Society Memorial Foundation Richard W. "Dick"

Boebel Graduate Award: Hiranya Sahoo

Geology/Geophysics Research Grant for Graduate Students:
Kristen Camp, Rebecca Cope, Christopher Davis, Mary Ellison, Celeste Espineda, Christopher Esposito, Jon McKenzie, Prabhat Neupane, Hiranya Sahoo, Jennifer Schindler, Patrick Smith and William Stein.

Olga Braunstein Scholarship for EES Undergraduates: Seth Watkins, Michele Dellinger, Chris(Mark) Johnson, Derik Gonzales

Olga & Jules Braunstein Undergraduate Service Award: Leah Sossamon

<u>Chevron Geology Graduate Student</u> <u>Scholarship:</u> Andrew Ranson

<u>Exxon Earth Science Minority Scholar-ship:</u> Malcolm Toregano, Gordon Borne

<u>ExxonMobil Global Geoscience Award:</u> Hiranya Sahoo

<u>Shell Minority and Women in Science</u> <u>Award:</u> Mary Ellison, Jennifer Schindler, Rebecca Rafferty and Rebecca Cope.

Student Choice & Recognition Award for Best Oral Presentation 2010 Gradu-

<u>ate Student Symposium:</u> Christopher Davis

2010 SGS Graduate Student Scholarship: Christopher Esposito

AAPG 2010 Student Grant: Hiranya Sahoo

Gulf Coast Section Society for Sedimentary Geology, 2010 Ed Picou Fellowship Grant: Hiranya Sahoo

<u>Anchor QEA Scholarship:</u> Jennifer Schindler

<u>UNO Full Graduate Deans' Scholar-ship:</u> Jennifer Schindler

Dr. Gordon P. Boutwell Jr. Memorial Scholarship from the Louisiana Solid Waste Association: Leah Sossamon

American Federation Scholarship-South Central Federation: TJ Brown

AAPG SCLS and Leadership Days:
Andrew Ranson

Graduate School Scholarship
Awards 2009-2010: Shane Abeare,
Jennifer Schindler, Dane Fischer

Frank L. Dautriel Memorial Scholarship from the Louisiana Environmental Health Association: Seth Watkins



Top: Mineral Auction Below: EES Christmas Potluck



EES Alumni News

Ann Prendergast Graves, BS Earth Science and MBA. Living and working in Houston with my husband, Carl, and two children: Claire (12) and Parker (10). With only brief exception, I have worked for publicly traded E&P Companies my entire career: I joined LL&E in '91; was acquired by Burlington Resources (and relocated to Houston) in '97, and was acquired by Conoco Phillips in '06. After a brief sabbatical (i.e., Soccer Mom for a blissful Summer), I joined Lyondell Chemical (formerly ARCO Chemical) in '07; was acquired by a Russian Industrialist 12mos later; and participated in the filing of one of the largest Chapter 11 Bankruptcies in history 12-mos after that. During Lyondell's emergence from Chapter 11, I was offered a position with the recently IPO'd Cobalt International Energy and joined in March of this year; where we work our West Africa Blocks diligently as we await the end of the moratorium and the opportunity to focus on our GOM prospects as well!

Charles W Wickstrom: My wife, Carolyn, and I are still in Tulsa, OK. Drilling horizontal wells and shooting 3D seismic. I am Managing Member of Spyglass Energy Group, LLC and Alliance Geophysical, LLC. Presently working the Mid-Continent and Illinois Basin. A special hello to Bill Ward, Doy Zachery is working with us on field trips to Miss and Ord outcrops in OK, AR and KS. He said to tell you hello. Life is good! All the best.

Randy Stilwel, MS,1980. I Christine and I have entered a wonderful new phase in our lives — Grandparenthood! Two grandsons born this year with another due early 2011. We are really getting into this spoiling business. Finally has me starting to think about retirement and building a new swing set and tree house out here on our country acre. Until then I will continue to squeeze oil out of Permian Basin fields with CO2. In my spare time I enjoy coaching Special Olympics basketball, softball and track for our youngest son, Nolan's, team.

Ellen Metzger, BS 1977 and David Metzger BS 1977 Ellen is Professor of Geology and Director of Science Education at San Jose State University. We have enjoyed living in San Jose for the past 20 years.

<u>Emmanuel J. Russo, BS Earth</u> <u>Science / Geophysics</u>. It's been an interesting/complex (cont on page12)

Alumni News (continued)

life full of little "stories" (the anthology is titled: Truth is Stranger and More Entertaining than Fiction). I'm not taking life to seriously and enjoying the process. I am considering moving to South America to keep it interesting.

Jeff Spencer, MS 1982. I left Black Pool Energy in April to go Midstates Petro-We primarily work the Wilcox trend of south-central Louisiana. I worked with several of the Midstates' engineers back in my "formative" years at Amoco-New Orleans! I'm busy with my oilfield history hobby and currently serving as the vice-president for the Petroleum History Institute and was the 2010 (and will be the 2011) co-chair for our annual Oil History Symposium. See our website: www.petroleumhistory.org. Family is doing great! Daughters are 13 and 16. Linda and I just celebrated our 30th wedding anniversary.

Lynne Kurilovitch, BS 1979, MS 1992. I create and teach online courses for the Master of Science Teaching department at New Mexico Tech. Currently I have Renewable Energy and Water as a Resource. Since I have the Energy Crisis and the water crisis covered, next I will do one on the third world crisis - the food crisis. I made more money when I was a student in 1976! Working as an adjunct professor is rewarding, but that's about the only benefit they offer. I also have a great husband and cat, neither of them are working right now either, so things are challenging. Enjoyed seeing many of you at the Ward's in 2007. Perhaps we can do that again sometime. In the meantime, let's all keep on rockin'!

Omar O. Akbar, Master in Geology 2005. My current employer is Saudi Aramco and I am employed as Exploration & Production Database Services Division Administrator.

Robby Robert Vaughn, Spring 09. Working for Schlumberger / Western Geco as a Seismic Engineer in Houston. The family is doing really well, Beatrice is about to be four and Hardie just turned one. I am planning to start a graduate program in Fall 2010, so am really excited to get back in the classroom, even if only part-time. Stephen Byrns. We recently moved and are in the process of building a house in Pahang Malaysia which is nearly completed. Once we move into the new house I will update.

<u>Susan Bathke.</u> I have an 11 year old daughter in 6th grade, and my husband works in the Marine Safety Division of the US Coast Guard. I am teaching Geosystems which is a technology based Earth Science course for juniors and seniors.

David (BS 1985) and Margarite (Stargardter) Salley (BS 1986). I am founding partner of Salley, Hite, & Mercer, LLC law firm and continue to practice law full time. Margarite does not work, other than the full time job that is taking care of all aspects of the Salley household and children, which David concedes is much harder than his job. David and Margarite are looking forward to their "empty nest lifestyle" next year after their youngest child, Sarah. graduates and moves on the college.

<u>David P. Broadbridge</u>. I am currently living and working in Covington, LA and continue to prospect for oil and gas in south Louisiana. If any of the Alumni are in Covington please come and visit. New Wave Dave

Ellen Clark BS 1985 MS 2002 Geology and Geophysics. Working on the Northshore for Chevron as the geophysicist at Tahiti, Blind Faith and Petronius – they keep me pretty busy. Recently took over the recruiting duties from Paul Pizzo and hope to increase the UNO alumni population. My family is doing well including 3 grandchildren – yikes that makes me feel old!

Frank Sheppard. Here's my update. I am back in the wonderful state of Texas.....loving life in the Heights, working as a geophysical consultant with Noble Energy. New job, new dog, new girlfriend, new life.....might as well change it all out at once!

<u>Jennifer Roberts, MS 2009.</u> Since graduating I have been working as Watershed Coordinator with Bayou Land Resource Conservation & Development Council www.bayoulandrcd.org). I am always up for talking, scheming, planning and working with other folks, especially those that are science-minded.

Robert W Lauderdale, attended grad school 77-79. Worked til 88 for "Big Oil" and got laid off. Been largely on my own since, selling deals, wellsite work, and occasional office consulting gigs. Currently doing all right working in Alaska, tho family ties have suffered as usual.

Martin Klein IV, Fall 2004. The last 6 years I have been working for DQSI LLC processing seismic data, creating and georeferencing maps, developing software programs, conducting environmental studies and writing contracts. Roxanne(Molinary) and I moved to Covington in 2007 and were married on the westbank in 2008. A massive cyst was removed from my spine requiring 5 surgeries between 2008 and 2009, preventing me from sitting for 6 months. My father passed away on March 17 of this year. Roxanne and I plan to have children in the next two years.

Michael J Gallagher. Hi to everyone. I hope this finds everyone doing well. All is well with me. The family is happy and

healthy. My two daughters, Katie (w/ daughter 2 ½) & Anne, are working professionals and happily married with great husbands. My son, Patrick, is finishing at Loyola Law School this year. Dianne still works, but is looking to ease off a little. ENI petroleum, the company I am working for closed NOLA office in August and moved to Houston. I am now commuting between NOLA & Houston. I work deepwater GOM. I do see some of the UNO gang socially and also at business and geologic society meetings. I only have very good memories of the people and experiences in the Geology Department at UNO.

Michael Staines, BS Earth Science 1984. I have been with Amoco and then BP since graduating from UNO. Am married to Kim for 26 years and have 3 children. Danielle will graduate from Texas Tech University in May, Michael is in his 2nd year at Texas A&M, and Sarah is in middle school in Katy.

Noelle Chalona, BS Geology 2003. I was working for Delta Consultants but hated it. Working in Hammond at State Farm yes, this is right, to be near my kids. I have been married since 2003 and have two daughters, Eva (6), and Emily (3), and a one-year-old Doberman, Sascha

Paul Credo, BS Aug 1977. Currently with Halliburton Energy Services, Inc. as a Global Technical Advisor (Petrophysicist). Married with 2 sons and 3 dogs.

<u>Sean Kerrin, BS Degree in Geology</u> <u>May 2007.</u> I am currently a Master's Student candidate at LSU and will be finishing my Master's degree in Geology December 2010. My thesis entails an indepth study of the Miocene seismic stratigraphy within the Ross Sea of Antarctica.

Erica Plaisance, B.S.Earth and Environmental Science: Environmental Science and Policy, Spring 2009. I recently returned to the New Orleans area. I am happy to say that I have started a career in my field of study with United States Risk Management. The hands-on experience, travel and perks are all wonderful. It is my goal to return to school to pursue a Master's Degree in either Environmental Science or Environmental Engineering by Fall 2011.

John C Scheldt, MS 12/76. Still plugging away at El Paso drilling horizontal wells in North Louisiana. Hoping the price of natural gas rises a little so we don't see a repeat downturn like the 80s and 90s. It's hard to retire when I'm having so much fun second-guessing this industry.

Sirel White, Bachelors of Electrical Engineering -2000, Masters of Geophysics-2006. Directly after graduating, I started working for ExxonMobil and am

currently working for them in their IT department supporting Geologists and Geophysicists with their software and hardware needs. I have been able to travel all over the world and have been very fortunate to have the educational and life experiences that I received from UNO.

Wesley Cantwell, attended Graduate program 1983-1987:

I'm still plying the trade in the petroleum industry, a vocation I've enjoyed since the good ole UNO days. I was living large in New Orleans until Katrina dealt her vicious blow. Her wrath and penecontemporaneous" events led to my move to Houston in 2006, where I have been living and playing since, mostly. Caught up in the ripple effects of the BP rig explosion and ensuing GOM moratorium, I've been on temporary assignment to California; land of sun, fun, faults, rocks, grapes, nuts, and Lou Fernandez. Thanks to Bill and Renee Ryan and Bill and Kathy Ward (and unsung heroes) for hosting two UNO reunion extravaganzas over the past three years. It was good seeing old friends, and spreading stories about those that weren't there to defend themselves.

Former Faculty

William Busch: I spent most of the past year working on our house on the Oregon coast (45 5.532' N, 123 59.464' W). With it just about complete, I can turn my attention to some science, working on projects from last year's IODP cruise to the equatorial Pacific and coastal erosion issues in the nearby village of Neskowin. Aside from that I have spent my time watching some great storms, listening to barking sea lions, and getting a glimpse of the green flash at sunset.

Lou Fernandez: In July of 2009 I finally retired. I had planned to retire in 2008 but the President of our university asked me to stay on another year since the search for my successor had failed. Staying on the extra year gave me 18 years at CSUSB (California Sate University San Bernardino), 3 years as Dean and 15 years as Provost and Vice President for Academic Affairs. It was a good run but it was time to hang up the spikes. Since retiring I can say, in all honesty, that I have done very little...that is what I thought retirement was all

about. After taking it easy for about 2 quarters I let the chair of the geology department talk me into volunteering (that means for no pay) to teach an introductory geology course. Although I taught when I first came to CSUSB, the last time I taught intro geology was when I was chair of geology at UNO (1983-85). Since becoming a full time administrator the only course I have taught was Igneous Petrology. Well, in short, it really ate my lunch. Hard to believe that teaching an intro course would take as much time as it did. All in all, I am glad I did it because it convinced me that having chosen to retire rather than going back to teaching was the right move. Don't get me wrong, I have always loved teaching, but after being out of the classroom for some 20 or so years, it was really hard to get back in the groove. Sad to say, it was time to let the next generation take over. The only other thing I will add is that I just got back from 2 weeks in New Zealand. It is a beautiful country with some wonderfully hospitable people. To boot, the geology is great...many active volcanoes, geothermal springs and geysers and even some nice metamorphics. Unfortunately three days before heading home we were rudely awakened (at 4;30 am) by a 7.1 earthquake whose epicenter was only 20 or so miles west of us. As expected I have received emails from a number of friends all basically saying the same thing...why would a "California" geologist have to go to New Zealand to experience a major earthquake? Fortunately none in my group were hurt although riding out the guake on the 8th floor of a hotel left a number of my friends swearing that they would never travel with a geologist again unless they could get a "zero seismicity" guaranty. I guess I will be travelling by myself for awhile.

J. O. (Joe) Snowden, Faculty: 1969 – 1990; Department Chair: 1985 – 1990: Since the last newsletter, I have gotten married and bought a 120-year old restored Victorian home in Denison, Texas. My wife, Lucretia, is Dean of the School of Arts and Sciences at Southeastern Oklahoma State University. Fortunately for me, she loves antiques! A Saints fan since the early days at Tulane stadium, when Skip Simmons,

Lou Fernandez, Al Weidie and I had season tickets. I was thrilled to see them win the Super Bowl this year! Although it has been 20 years since I left UNO, I still miss the faculty colleagues and magnificent students who made the Department of Earth Sciences, Geology and Geophysics, and now Earth and Environmental Sciences, such a very special place. William Ward: I am still leading a lot of field trips into Canyon Lake Gorge for Master Naturalist groups, geological societies, and university geology classes. Also doing a little further geology in that area for Southwest Research Institute. After she retired from Our Lady of the Lady University, Kathy has been volunteering with an educational program at the Cibolo Nature Center. We both are highly involved in the Native Plant Society of Texas, and I continue to write a newspaper column on native plants twice a month for the Boerne Star. We just returned from a trip to the Amazon of Peru. What a fluvial system!

In Memory Of: Richard Barr

Richard Barr, one of our early graduate students during the 1970s, passed away October 15, 2010, at his home near Boerne, Texas. He was diagnosed with lung cancer in 2007, and for three and a half years Richard amazed his doctors with his determination to live. He became known among his family and close friends as the Miracle Man for his ability to bounce back after several medical setbacks.

Richard and his wife Beverly came to UNO after Richard earned his BS at New Mexico State University. As I recall, Richard and Beverly were high school sweethearts in Silver City, NM. I remember that they were a polite, sincere young couple, and Beverly obviously was Richard's soul mate and supporter even then. She continued in that role throughout the rest of his life.

Richard was Skip Simmons' first graduate student. He spent three months mapping an area rich in sulfide ores in Zacatecas, Mexico. After completing his MS in 1976, Richard was hired by Exxon to explore for uranium in South Texas. Later he worked in Exxon offices in Albuquerque, Kingsville, and Midland.

For the 1988-89 Newsletter, Richard wrote from Midland, "Scott Wilson, a land man, and I are in a partnership with UTI Energy Corp. of Philadelphia, PA. We are generating deep gas prospects in SE New Mexico and are loving it! Family is doing very well. Between coaching soccer, YMCA, Indian Guides and Princesses, I still shoot skeet, hunt, fish, etc." Richard's professional career with his business partner Scott Wilson was highly successful.

Richard and Bev moved to the Texas Hill Country in 2006. A few days before Richard died, Lou Fernandez and I had a chance to visit him in his beautiful house in the limestone hills east of Boerne. He welcomed us with his famous broad smile.

Bill Ward

EES MINORITY SCIENCE EDUCATION PROGRAM

The summer of 2010 a total of 17 minority high school students participated in the UNO Geoscience Minority Program. This program, which began in this department in 1974, offered 2 trips during the summer of 2010, one in Utah and one in Louisiana. The goal is to provide quality classroom and field experiences to high school minority students in order to interest them in pursuing a career in the earth sciences. This program has experienced changes and grown through time. METALS (Minority Education Through Traveling and Learning in the Sciences), an NSF grant, is the latest form that it has taken. METALS, consists of a four year partnership between four Universities: The University of New Orleans, The University of Texas at El Paso, San Francisco State University, and Purdue University. The Geoscience Minority Program is coordinated for EES by Dinah Maygarden, and Heather Egger, UNO Research Associates, as well other important contributors, including Greg Jones of ExxonMobil, Dr. Ivan Gill from the UNO Education Department, talented area teachers and EES graduate students. The UNO Geoscience Minority Program is funded by the National Science Foundation, ExxonMobil, Shell and other donors. (continued on page xx)

The 13 day METALS trip in June, took students to Southern Utah to explore and study geological features in and around National Parks. A total of 30 high school students traveled to Utah, led by a team of professors, research associates, graduate and undergraduate university students and volunteers. The students worked in teams to answer geological questions posed to them out in the field, while camping and traveling together. Students report furthering and gaining new interests in the earth sciences, challenging themselves in new ways, and making lifelong friends. Program facilitators make every effort to maintain contact with the students and mentor them through their high school careers toward collegiate study in the sciences.

In addition, an eight day EES Geoscience Minority Program was offered in Louisiana in July 2010, sponsored by ExxonMobil and other generous contributors. This program took six local and one out-of-state student to varied locations to learn about Louisiana's coastal and upland geological features. Students stayed at UNO's new Coastal and Education Research Facility (CERF) in the marshes of New Orleans East, as well as visiting the salt domes and oil and gas features of central Louisiana. In addition, students traveled to the Old River Control Structure, analyzing how man attempts to control the massive river system flowing through our state.

The summer of 2011 will bring the METALS program to Louisiana for two consecutive weeks. UNO/EES and other participating Universities are now in the planning stages to conduct this exciting trip exploring the Mississippi Delta and associated challenges. To view a full history and learn more about the current program, please visit http://ees.uno.edu/map (presently being updated) or email dmaygard@uno.edu or hlgordon@uno.edu





The department is in particular need of contributions to replace our aging vans. Both are out of service and this is causing a hardship to EES especially with regards to field trips. Monetary donations or a donation of a particular vehicle

would be welcome.

Donations and Gifts to EES

The Department of Earth and Environmental Sciences has thrived in large part because of the support of our alumni and friends. Monetary contributions have allowed teaching, research, and scholarship programs within the Department to flourish during periods when state support wavers. Permanent support to the Department has been established with the creation of endowed accounts from which the interest is used to support a specific purpose. These accounts are managed by the UNO Foundation and include:

William W. Craig Memorial Award (No. 80696): an award for students who display excellence in teaching earth science

Jennifer R. Miller Memorial Award (No. 80711): an award for graduate students who display research excellence in environmental geology

Jules and Olga Braunstein Undergraduate Scholarship (No. 80351): merit-based scholarships for undergraduate geology and geophysics majors

Geology and Geophysics Research Fund (No. 80633):a fund to support graduate student thesis research.

The Department maintains the Geology and Geophysics Foundation Fund (No. 90243) which is used to support special projects, such as the purchase of vans, departmental seminars, special events and faculty and student travel.

Contribution to any of these funds is greatly appreciated. The preferred form of donations is a check that is payable to the **UNO Foundation** and **sent to the Department Office.** If you want to target a specific fund, please indicate the name or number of the fund on the check.

Kristen Camp, Graduate Student



In May 2009, I graduated from UNO with a Bachelor of Science, university honors and departmental

honors in Geology and completed an undergraduate honors thesis entitled, "Geochemical Evolution of Pegmatites as Monitored by Select Indicator Elements". After dedicating a great deal of time and gaining so much knowledge from earning my bachelor's, I decided to return to UNO for my Master of Science in Geology to get that same feeling of accomplishment.

I am currently in my second year at UNO under the guidance of the best advisors ever, Dr. William B. Simmons and Alexander U. Falster, and working on my master's thesis entitled, "Mineralogy and Geochemistry of the Anorogenic Intrusive Pegmatites Associated with the White Mountain Intrusive Suite, New Hampshire". I am an active member of the MP² research team and SEES as well as the Vice President of AAPG and secretary/ treasurer of SGE honors society. My main interests in geology include crystallography, gemology, and pegmatite mineralogy, geochemistry, and petrogenesis.

Being a southern girl born and raised in New Orleans, I innately love this city and its rich, diverse culture, but I am ready for a change of scenery! Sometime in the near future, I hope to land an amazing job somewhere up north that allows me to spend the day playing with rocks, traveling and making a difference in this world.





Beach Sweep 2010

The Society for Earth and Environmental Sciences (SEES) is a student organization in the EES department committed to providing a framework of knowledge and networking for students interested in Earth and Environmental Sciences. improving the general academic welfare of the UNO students and fostering awareness of Earth and Environmental Sciences in the community. In addition, SEES works to improve the community through various volunteer activities, such as the annual Pontchartrain Beach Sweep in coordination with Ocean Conservancy, student outreach events at UNO and Earth Week activities in conjunction with local high school students. Throughout the semester, SEES sponsors guest lectures and social mixers with the American Association of Petroleum Geologists student chapter at UNO.

Our new board was elected in May of 2010. Serving as President, Leah Sossamon; Vice President, Sara Moore; Secretary, Jennifer Brizzolara; Treasurer, Derik Gonzales. We are led under the guidance of our faculty advisor, Dr. William (Skip) Simmons.

Our most significant fundraiser, the 35th annual Mineral Auction, will be held on November 5 at 7:00pm in the Geology and Psychology building at UNO, room 1000. This event allows students to create and maintain relationships with professionals



SEES members

in the geological field as well as provides the biggest resource of funding to the organization throughout the year. Other fundraising events take place such as weekly popcorn and



Our esteemed auctioneers

pickle sale in the department and a spring carwash held locally in the neighboring community. The funds raised help support yearly field trips to areas of geological significance for the purpose of gaining hands-on experience in the field and alleviating the pressures of academic responsibility.

For information regarding membership, making donations or upcoming events, please email sees_uno@yahoo.com.

This Years

Mineral

Auction

Friday,

Nov 5th 7pm

Geology/

Psychology

Building

Room 1000.