

Newsletter 2005

Department of Geology East Carolina University

FROM THE CHAIR

Dear friends and colleagues,

I am happy to report that the past year in the Geology Department has been both interesting and productive. We welcomed a new faculty member, Mike O'Driscoll in August 2004. Mike tells you a little about himself and his interests within this newsletter. Suffice for me to say that he adds valuable expertise to our hydrology/environmental component of the department and its programs.

The other highlight of the year was the move of our research labs and core processing/storage facilities from Terrania (the Old Cafeteria Building) to brand new, custom-built facilities in the Flanagan Building (formerly occupied by Chemistry) immediately adjacent to the Graham Building. These new facilities are great. If you are in town, please pop in to visit and I would be very happy to give a guided tour.

As you can imagine the move was not a simple affair. Jim Watson and Jason Jomp did an excellent job in orchestrating and effecting the move. Contributions such as these are sometimes overlooked and go without recognition. So I just want to say, "Many, many thanks" for your very, very valuable work. Several student volunteers provided some of the muscle, so thank you also to Heather Hutchinson, Jeb Rosenberger, Dave Twamley, Dave Foster and Jennifer Smith. If there are other people I have not mentioned, then I apologize up-front but thank them also.

I want to mention another of Jim Watson's contributions to the department. Sandwiched in between fieldwork in South America and the Outer Banks, last summer Jim found the time and energy to drive around North Carolina in a flat-bed truck to select and transport large rock specimens to be placed in the Flanagan Building courtyard. Several alumni helped Jim in his quest and they also deserve our thanks. The rock garden provides a very geological motif to the Flanagan Building, which is home to several academic programs. Not only that, the rocks were so carefully chosen that they will be valuable teaching specimens for several courses.

It is good every now and then to recognize that a department cannot be successful without the input of all of its members. So thank you Jim Watson, Dare Merritt and Dorothea Ames for helping the faculty and students achieve their goals.

My very best regards,

Steve Culver
March 2005

Contributors July 1, 2003-June 30, 2004

Geology Alumni Account, C.Q. Brown Scholarship Account, Century Fund

Hobbs, Upchurch & Associates
 Scott Snyder
 John F. Hinnant
 Wells Barker
 Adam Hummell
 Kevin Lincicum
 Alan Pinnix and Lynn Sutton
 Gerald R. Ferguson
 Newmont Mining Corp.
 Patrick Mallette
 Student Store (royalties from Daniel Gall coursepack)
 " " (royalties from Terri Woods coursepack)
 Mark Williams
 James Harrison
 Scott Hartness
 Triangle Sand Products
 Charles Woodul, III
 Will Doar
 Chad and Adrienne Leinbach
 David Reid
 James Coble
 AFMS Scholarship Foundation (scholarship funds from Richard Dayvault)
 Sara Matyiko Ricci
 Sigma Gamma Epsilon

Expenditures July 1, 2003-June 30, 2004

Geology Alumni Account, C.Q. Brown Scholarship Account

Name	Description	Amount
Michael Dail	Educational scholarship	\$500
Michael Hale	Educational scholarship	\$500
AGI	Academic Associate Membership	\$150
USPS	Postage for newsletter	\$155.40
Richard Spruill	Receptions for 2 faculty candidates	\$312.94
Dare Merritt	Coffee urn for department	\$43.11
Jims Liquid Waste	Porta-Jon	\$53.50
J.P. Walsh	Moving expenses	\$1000.00
ECU Printing	Newsletter	\$221.25
Kristen Frye	Travel to GSA (DC)	\$110.00
Sarah Rice	Travel to GSA (DC)	\$184.50
Kevin Burdette	Travel to GSA (DC)	\$157.50
John Cooper	Travel to GSA (DC)	\$174.50
Peter Parham	Travel to GSA (DC)	\$184.50
Dare Merritt	Drinks/ice for graduation luncheon	\$12.71
Piedmont Office Sup	Paper goods for department events	\$46.36
Clifton Whitfield	Travel to GSA (Seattle)	\$800.00
Lance Tully	Travel to GSA (Seattle)	\$800.00
Kevin Burdette	Travel to GSA (Seattle)	\$1055.26
Manuel Lourenco	Memorial Contribution	\$100.00

B.S. Graduates

Spring 2004
 David Foster
 Erin Hemric

Summer 2004
 Kristen Frye
 David Mercer

Fall 2004
 Michael Dail
 Gabe Dough
 Michael Hale
 Adrian Little
 Connie Markward
 Ben Summers

M.S. Graduates

Spring 2004
 John Cooper
 James Frank
 Christopher Smith
 David Vance
 Clifton Whitfield

Summer 2004
 Irene Abbene
 Leah Fuller
 Lance Tully

Fall 2004
 Francesco Cataldo

New Faculty Profile: Michael O'Driscoll

As a child I grew up in the city of Stamford, CT, about 30 miles from New York City. My dad is from Ireland and moved us back there when I was about 10. This was my first chance to live in the countryside. We lived at the foot of the Slieve Mish Mountains, overlooking Tralee Bay on the Southwest Coast of Ireland. Here I became interested in geology. When I was a teenager we moved back to the U.S. and after high school I joined the U.S. Navy to see the world (I fell for those Navy commercials). I fixed airplanes for four years on the USS America and in my travels throughout Europe, Africa, and the Middle East I visited many geological wonders, such as the Alps, the Dead Sea, the Nile River. These trips inspired me to pursue a geology degree using the G.I. Bill. After my honorable discharge I completed my B.S. in Geology at University of Connecticut. Then I took some time off from school to work as an environmental consultant in the New York City area remediating leaking underground storage tanks and supervising asbestos removal projects, this provided me with some practical environmental experience and some spending money for graduate school. I started graduate school at Penn State University in 1997 and finished up in 2004. I worked on several interesting hydrology projects there focused on acid rain effects on Appalachian streams, stable isotope tracers for estimating groundwater recharge, wastewater reuse by irrigation, methods for determining wetland recharge, and quantifying stream-groundwater interactions in karst settings.

I am interested in the interactions between surface water bodies and ground water systems. Ground-water exchange has significant effects on the physical hydrology, chemistry, and ecology of lake, river, and wetland systems. An improved understanding of their connections and exchanges can improve water resources management and policy. In the past I have used piezometers, stable isotopes, water temperature and geochemistry to quantify wetland and stream-ground water interactions in carbonate valleys of the Valley and Ridge Province and sandstone/shale catchments within the Appalachian Plateau Province of central Pennsylvania. My future work will aim to quantify the relationships between wetlands, rivers, and groundwater systems in North Carolina's Coastal Plain.



As a new faculty member I am very excited about the opportunities here at ECU and my goal is to develop a strong research program focused on the hydrology of the coastal plain. Since coming to ECU this fall I have kept very busy starting up a research program, submitting proposals and manuscripts, presenting at meetings, and developing and teaching classes. This is a great place to be for someone interested in hydrology. This year I've been involved in an interesting coastal plain project guided by Stan Riggs and focused on the geological, ecological, and hydrological dynamics of Merchants Millpond State Park. Dave Mallinson and I have just begun a project looking at how the Tar River interacts with the underlying surficial aquifer using ground penetrating radar. My most recent funded research is focused on quantifying how land-use changes in the Greenville area are affecting groundwater inputs to streams, based on variations in stable isotopes in storm runoff. This work will tie in to a larger study in collaboration with Mark Brinson in the Biology Department focusing on how urban development is affecting the hydrology and ecology of coastal plain streams. It is amazing how many great hydrological research opportunities there are in the surrounding area.

On the teaching front I have enjoyed my first semester. I started my first class in the new Flanagan "Smart Classroom" this spring. This year I'll be teaching Dynamic Earth, Environmental Geology, and I have developed a new hydrology course that will be offered during spring semesters entitled "Geohydrology of Drainage Basins." This course focuses on surface water hydrology and complements Richard Spruill's "Ground Water Hydrology" course. This spring I have begun to instrument the ECU Otter Creek Natural Area, located near Falkland, NC, with hydrological monitoring equipment. We are using Otter Creek as an outdoor field lab for hydrology class and students are very excited about the hands-on learning experiences we have had there. It is a neat site and I'd be glad to show it to anyone that is interested. Cheers, Mike.

Faculty News

Terri Woods

Fall semester I focused on teaching at the college level, and with respect to science education in the public schools. I have been active in "Teachers and Scientists Collaborating (TASC)", participating in workshops and visiting K-8 teachers in their classrooms. This program emphasizes a hands-on approach to science that both the teachers and students are really getting excited about. With a scientist they have met and can call on the teachers are less reluctant to venture with their students into the "undiscovered country" of experimentation and interpretation of observations. I also reviewed some science textbooks, getting some of my colleagues involved in the process. We were aghast at the many factual errors routinely included in these books, especially at the middle-school level. Finally, I participated in DPI's effort to provide high-school earth science teachers with a framework and exercises on which to base their courses. At the college level, I switched to a new book for Oceanography, which required that I redo my Course Pack to change over the hundreds of page and figure numbers to match the new text. I also got my website going, for the first time updating it myself. It has basic information about my research but also all my oceanography and physical geology lectures and some of the exercises for these classes. My MS students will be interested to see some of their work highlighted. Finally, I have been doing some science. Delynda Tolen-Mehlhop, Don Neal and I got Delynda's thesis published in *Southeastern Geology* this year and I am finally putting together an initial manuscript summarizing the results of some of my groundwater work in the Southeastern Coastal Plain of NC.

Richard Mauger

Lucy and I have three dogs, two huskies and a black chow mix. We walk them each day rain or shine. I'm awaiting a microprobe session at VPI (in May, I hope) to finish up some mineralogical details on the Italian Mt., Colorado, scapolite skarn project. Cl/Br ratios in the scapolite suggest that the parental brine for the metasomatism came from dissolution of halite. The only logical source is the Eagle evaporite basin to the north. Brine flow toward the Italian Mt. area was driven by two different factors.

Extensive release of CO_2 from dissolving and reacting limestone provided bubbles to the brine, lowering the fluid density and driving brine flow upward toward discharge points in the Italian Mt area. Second, since late Eocene time, surface elevations in the Eagle Basin have been substantially lowered by subsurface dissolution of halite. Thus during Eocene and Oligocene time, surface elevations in the basin would have been much higher than today and high enough to have driven subsurface brine flows southward toward the Italian Mt. area. Today, evaporites in the Eagle Basin are almost exclusively gypsum. Halite has survived only at depth in the basin.

The microprobe session will also contribute to studies of a "white rock" that I collected many years ago in Chihuahua. I made some progress in mineral ID and genesis, but many phases were still unknown. Recently, tobermorite and thaumasite have been identified. These are rare minerals in geology, but are very prominent in the Portland cement/concrete literature. Evidently this white rock started as a block of Cretaceous limestone that was emplaced in a major volcanic vent and shallow intrusion. Magmatic heating decomposed the original calcite, leaving a very reactive residue of minerals similar to those in Portland cement. Subsequently, an influx of water initiated a sequence of reactions that to some extent emulated hydration reactions that occur as Portland cement cures to concrete.

Steve Culver

Once more I had an enjoyable year; mixing administration, teaching and service means that life is never boring. But if I waxed lyrical here about administration, that would be boring. So I'll concentrate on my research. I've been advising or coadvising several graduate students who continue to contribute in many positive ways to our knowledge of the geologic development of coastal North Carolina. Two of these students went on to do PhD's last year and two more gainfully employed in geology. We spent a fun but hard three weeks at the coast last summer working on Ocracoke Island, Core Banks, Core Sound and Cedar Island. This field work is the basis for several thesis projects being undertaken this year funded through the US Geological Survey.

I also received help from two graduate students and two undergraduates on a project, funded by the Petroleum Research Fund, to investigate a new statistical approach to recognize large-scale patterns of diversity and community structure. This work involves an ecologist and a statistician at the Smithsonian Institution; the students have had the opportunity, not only to work closely with these researchers, but also to visit and explore the "behind the scenes" Smithsonian that is off limits to the general public.

Finally, I must note that we beat *Geography* again last year in a co-ed soccer match but unfortunately, we lost to *Biology*. As losers we have challenged *Biology* this year. With Mike O'Driscoll, who grew up playing hurling and Gaelic football, on the team this year. I'm expecting victory. No pressure, Mike, but it's up to you!

My very best wishes to all our alumni, old and new.

Stephen B. Harper

On the teaching front, my typical teaching semester still includes 2 sections of *Dynamic Earth (Geology 1500)* and 1 section of *Environmental Geology (Geology 1700)*. As has been the case since I first arrived in the *Geology* Department in 1992, part of my teaching duties still include training and mentoring our *Graduate Teaching Assistants* to teach *Geology 1501* labs. Our departmental curriculum still has me teaching *Geomorphology (Geology 5000-5001)* every other spring semester, which includes the current spring semester of 2005. During the first weekend in March I took the 7 students in my *Geomorphology* class on a weekend field trip to see the *Peeks Creek* debris flow and other landslides that occurred in September of 2004 in southwestern NC. We will go on a second weekend field trip to the *Outer Banks* during the second weekend of April.

I will be in the teaching rotation for the *UNC System-wide Geology Field School* in *New Mexico* and *Colorado* in May 2005 for the seventh straight year and will be teaching at the *Abiquiu* and *Taos, NM* sites and then carry the students over to *Cuba, NM*. For the 2005 field course, we will have 35 students enrolled in the summer geology field course from 4 universities in *North Carolina (ECU, UNC-W, UNC-CH, and WCU)*, 2 universities in *Virginia (JMU and GMU)*, and one student from the *University of Pittsburgh*. With the help of my old *JMU* connections we will have 14 students from *JMU* at the 2005 edition of our *Summer Geology Field Course*. This will be the 41st year of the *UNC System-wide Summer Geology Field Course*, which had its original beginnings as strictly a *UNC-CH* endeavor in 1965, located out of *Fort Burgwin Research Center* at *Rancho de Taos, NM*. In honor of our 41st anniversary, *Richard Spruill*, who guided the field course in its transition from the original *UNC-CH* field course to the system-wide field course, will teach the *Abiquiu, NM* field exercise along with *Scott Eaton (JMU)*, *Melanie Busch (UNC-CH)*, and myself. Many important contributions have been made by *Dr. Spruill* and *Dr. Mauger* here at *ECU* and its original founder *Dr. David Dunn* (formerly at *UNC-CH* and now retired from *University of Texas at Dallas*) during these 41 years!

I received my 4th teaching grant stipend since 2000 for ~\$7800 from the *Office of the Provost* at *ECU* plus \$925 expense funds to purchase a high end *Nikon* slide scanner. The grant is to create a series of *Photo-based Field Trips* on the department *WEB* site for *Geology 1500, 1501, and 1700*. I continue to be a passionate field and landscape "film" photographer. I have also photographed all faculty, staff, and students to create a "Photo Board" across from the department office and on the department *WEB* site.

My primary research interest is evaluating the role of mass wasting and surface and sub-surface dissolution in the evolution of tower karst in coastal areas of *Krabi* and *Phang Nga* Provinces along the southwest coast of *Thailand*. I am also looking for approaches to date high sea level stands along the western coast of *Thailand*, indicated by notches 3-5 meters higher than modern notches. My focus on the high notches is on the "exterior" tufa stalactites that have grown down from the visor of the high notches. I recently received an email from a fellow named *John Gray*, who is the original kayaker of *Phang Nga Bay* in *Thailand*. He has agreed to take me around in his boat and kayaks to many places that I have never been able to get to. So, I am very excited about this possibility for July-August. During my travels around *Krabi* and *Phang Nga Bay*, I will be looking for tsunami deposits from the December 26, 2004 *Tsunami Event*. I have a potential tsunami deposit, collected in 1999 at *Ao Nang*, that yielded a radiocarbon age of ~600 years BP. So, I am curious to see if I can find deposits with similar characteristics from the 2004 *Tsunami Event* since there are no reliable historical records for southern *Thailand*.

As for other travel plans for the summer of 2005, I would like to visit *Yunnan Province* in southwest *China* to check out the pinnacle karst in the *Stone Forest (Shilin)* just east of *Kunming* and explore the upper *Mekong River Basin*.

Also, I would like to return to Ha Long Bay in north Vietnam to see more tower karst there that I did not get to see in 2002. Perhaps a bit ambitious!!!

Dave Lawrence

Last summer I got to visit more fault zone localities in the cliffs of the Pleistocene glacial deposits of Puget Sound, and some older faults that cut the Tertiary mudstones of the Olympic Mountains. What a region to have rapidly growing cities.

I also spent some time last summer evaluating the region around Great Falls, SC, as a research area, and in the fall wrote a successful USGS-EDMAP grant proposal to fund David Foster's thesis project in the area. He'll be doing some detailed mapping of faults and shear zones in the eastern half of the pluton, where there are some pretty amazing outcrops. A diversion of the Catawba River for power generation has exposed the rocky river-bed for several kilometers. Just to make things really interesting, the pluton sits very near the intersection between three exotic terranes: the Carolina, Charlotte, and Silverstreet. This summer I'll be teaching summer school, as well as getting down to Great Falls to advise David, and to go hunting for some good outcrops near the terrane boundaries.

During this spring I've had a good time teaching Field Methods; the Hot Springs field trip will be the weekend of April 14-17. I also have been teaching Geophysics; I've added a short component on ground penetrating radar, but so far the cable has not cooperated for lab. Mallinson has a new one on order, so we may be able to re-schedule. Aren't black boxes wonderful?

Reide Corbett

Spring has sprung and another semester winds down. This year has been quite a roller coaster ride. I have been focusing much of my time on a couple new research projects and moving into our new space in Flanagan. I imagine you will hear a lot about this new space...and for good reason, it is really nice. We have moved our geochemistry laboratory into the new lab. We have also moved in quite a lot of new equipment. Walsh, Mallinson, and I were successful in bringing in close to half a million dollars for new lab and field equipment to help build our coastal research program. We purchased a new ICP-Optical Emission Spectrometer and UV Spec for the geochem lab, two new high purity germanium detectors, an additional 8 alpha spectrometers, and a low-background beta counter for the Environmental Radioactivity Measurement Laboratory, and are in the process of purchasing some field instruments for evaluating real-time sediment processes. This additional equipment will really boost our capabilities for research and education in marine geology.

My group was still active in work off the Mississippi delta this year. In fact, we had a little seed money from the National Science Foundation to evaluate the potential sediment remobilization on the shelf adjacent to the Delta in response to Hurricane Ivan. That was a really great cruise and our data (although preliminary) is very interesting, indicating two separate mechanisms for sediment delivery to different regions of the shelf (more to come). Our work with the USDA and the Neuse River nitrogen work is still on-going and moving forward. We hope to install some shallow wells this summer and begin evaluating the subsurface transport of nitrogen in the shallow groundwater and hyporheic zone. Finally, a group of us are starting a new project funded by NOAA to evaluate the shore-zone modification in response to sea level rise in North Carolina estuaries. This should be a very interesting and obviously relevant project that we will work on over the next 3 years...stay tuned.

I am still teaching the same courses as previous years and really enjoying it. The introductory oceanography course can really be rewarding when you see the light bulb turn on in a student's eyes. I had a pretty good class in the fall and I think they liked it as much as I did. This spring I am teaching my graduate Biogeochemistry course. The exciting thing this semester is that I have added a 3 day field trip with the combined efforts of O'Driscoll and Walsh. We are all currently teaching graduate courses that are related, so we put together a combined fieldtrip that actually starts today (April 1). We will essentially drive the entire Roanoke drainage basin (from headwaters to estuary) discussing water, sediments, and carbon/nutrients along the way. Should be exciting!

I hope your year has been equally rewarding and I look forward to seeing many of you at the annual Pig Pickn!

J.P. Walsh

It has been an exciting year, but very challenging. In the Fall, I taught Sedimentology for Dr. Rigsby. The students performed well, and it was difficult to quench their thirst for knowledge. We had a great fieldtrip to Shackleford Banks where we conducted surficial sampling and measured elevation profiles. This Spring, I am instructing a new graduate course called Land-Sea Interactions. In this class we are investigating the transport and storage of water, sediments, and solutes from mountains to sea in the Albemarle-Pamlico dispersal system. In conjunction with Reide Corbett's Biogeochemistry class and Mike O'Driscoll's Surface-Water Hydrology class, we had a fieldtrip to examine the Roanoke River from the Blue Ridge to Albemarle Sound (April 1-3). Also this spring, I had a research cruise of the coast of New Zealand. Two ECU Geology grad students and my wife (who was responsible for the web site) also came to sea. This research is aimed at understanding the fate of fluvially derived sediment on the continental slope. Please check out our web site to learn more about the research project: www.coastal.geology.ecu.edu/nz.

Don Neal

It is hard to believe another year has come and gone. Things don't seem to change much, just the faces. I am still plugging away at deciphering the geology of West Virginia but not as rigorously as in the past. My students keep me coming back to various aspects of Appalachian geology. Last spring I had two students finish up their master's: John Cooper working on the Ste. Genevieve in southwestern Virginia and Clif Whitfield working on the Little Stone Gap formation also in southwestern Virginia. Since then John has taken a job with Power Resources looking for uranium in Wyoming and Clif is working for NC DENR in Winston-Salem as an inspector for erosion and sediment control sites, dams, and mines. Sarah Rice is slated to finish up her thesis on Ordovician chert from southwestern Virginia this semester. She is already employed by an outfit in Alexandria, Virginia, doing environmental work. Erin Must, a current grad student is just starting a project on the Berea Sandstone in West Virginia. This should be fun. I am also drawn to the coastal plain of North Carolina. Kristen Frye, another grad student, is starting a project on the geology of the Carolina Stone Quarry in Craven County. It is producing a phosphatic rock (hard to say right now if it is a limestone or a sandstone), a somewhat mouldic limestone, and some marl. It, too, looks like an interesting project. As you can see, I am keeping busy.

As Terri reported above, Delynda Tolen-Mehlhop, Terri and I got Delynda's thesis published in *Southeastern Geology*. I don't think *Southeastern Geology* recognized my name as it probably would not have been published. I have never had any luck with them. I am still involved in GSA as Secretary-Treasurer of the Southeastern Section. We had a very good, although small, meeting in Biloxi this spring. The section meeting will be in Knoxville next spring so plan to give a paper and join other alums. It promises to be a good meeting. Next week is the biennial convention of Sigma Gamma Epsilon. I come to the end of my second term as National President and will relinquish my gavel. It has been a good ride but I will be glad to become Past-President.

For now this is all I can muster in the way of news. I am always glad to hear from you even if I don't respond to all of my email. Keep well.

Dave Mallinson

My work with the North Carolina Coastal Geology Cooperative (NCCGC) is still occupying most of my research time. For those of who don't know, this is the USGS-funded research program to define the Quaternary evolution of the North Carolina coastal system. We have recently made some very exciting and significant discoveries. The first is the recognition of an early Pleistocene high that may be controlling the location of Cape Hatteras, and represents an ancient shoreline and perhaps a cape. Next, we have discovered that the Outer Banks are much younger in general, than previously thought, and have collapsed at least twice during the last 6,000 years, in response to sea level and paleoclimate changes. We have also been using new dating methods (optically stimulated luminescence), combined with ground penetrating radar data to define the age and sea level significance of paleoshorelines on the North Carolina coastal plain. Finally, J.P. Walsh and I purchased a multibeam bathymetry system and have great plans for that in the near future, including mapping inlets, and mapping the shelf edge to evaluate the potential for upper slope failure, mass-wasting events and tsunamis.

Stanley R. Riggs, Distinguished Research Professor

I am still actively involved in the ECU/USGS/NCGS North Carolina Coastal Geology Cooperative Program. This major research program deals with the origin and evolutionary development of the NE NC coastal system during the Quaternary glacial and interglacial episodes. This multiyear program involves about 20-25 ECU geology faculty, staff, and students, along with about 6 USGS and 3 NCGS personnel, and several faculty from the U of Delaware and Virginia Institute of Marine Science. We are now in our fifth year and have received funding and support from the US Geological Survey, US National Park Service, US Fish and Wildlife Service, US Army Corps of Engineers, NC Division of Coastal Management, NC Dept. of Transportation, NC Division of State Parks, and NC Sea Grant. The program continues to be very productive. I have been involved in numerous workshops and lectures to the NC Dept. of Transportation, NC. Division of Coastal Management, Cape Hatteras National Seashore, Cape Lookout National Seashore, and the NC Senate and House Committees on the Environment and Natural Resources. We are getting ready to drill 6 more deep core holes on the Pamlico-Albemarle Peninsula--we now have 19 between Kitty Hawk and Cape Lookout. These cores are being drilled on sites defined in the seismic and ground-penetrating radar data. Last summer's field program took us from Ocracoke Island down through Core Banks and Core Sound. This summer's field program will be doing last minute work for the series of books that we are preparing on the NC coastal system.

To keep up with the ECU-USGS-NCGS research program, visit both the ECU geology and the USGS websites—some of our progress reports are now on the ECU website (www.ecu.edu/geology/coastal.html; <http://woodshole.er.usgs.gov/project-pages/northcarolina/>). We always look forward to hearing from each of you, or better yet, come out in the field with us—get your feet muddy and your gills wet before they permanently dry out!

Cheers, Stan Riggs

Catherine Rigsby

This year has been a very different kind of year for me. I was catapulted into the position of "Chair of the Faculty" (I had been Vice Chair) after the elected chair resigned and have spent an unbelievable amount of time representing the faculty to the university administration and leading the Faculty Senate. Even so, I have managed to squeeze in a bit of teaching and research.

"Sediment Transport and Depositional Processes" was great in the Fall. The class had more CRM students than in the past and, from all counts, everyone learned much. Our Cape Lookout field trip was awesome (as usual) - even the unexpected afternoon "march" through pounding rain. I was impressed with the way everyone took the adverse conditions in stride. Please check out the field trip photos <http://core.ecu.edu/geology/Rigsbyc/images/CapeLookout2004/CapeLookoutIndexPage.html>.

Field work in the Rio Hauncane valley, Peru, went well last summer (photos from this and other field projects/trips are available at <http://core.ecu.edu/geology/Rigsbyc/images/PhotoGalleries.html>). Jim Watson managed to take a couple weeks away from the coast and from managing the Flanagan move-in and join us in South America. He was a great asset in the field - not to mention fun! He was very good at picking tiny gastropods from outcrops of lake sediments and passable at rowing a small inflatable boat loaded with surveying equipment across rivers. But, for those who didn't know, he is also fluent in SO, he was excellent with our Peruvian and Bolivian colleagues and seemed to have great fun talking with everyone he met. I hope he gets to come out in the field with us again!

In the Fall I attended another meeting in China (this time in the ancient walled city of Xi'an and in March I presented an overview of my South American research at meeting in Miramar, Argentina. Both of these meetings gave me a chance to meet new international colleagues and to work on developing new projects. Yes, I'm still waiting to hear about funding for the Tibet project. If funding comes through, Erin Hemric and I will spend a month or so this summer in the Lake Qinghai basin (mostly in working in the Rio Buha valley). We're keeping our fingers crossed . . .

Student news: Renee Farabaugh is getting married (yes, to John) this spring. And Pattie Baucom recently took a new job (after a +/-6 month sabbatical snow boarding in Colorado!) with an environmental firm.

I hope everyone is doing well and welcome news from your all!

How you can support ECU Geology

You now have three ways in which you can support the Geology educational programs at ECU.

First, you can contribute to the Alumni account. Annual contributions from many of you keep this account hovering in the \$7500 range. Every year we use around \$3000 to send graduate students to conferences to present the results of their research.

Secondly, you can contribute to the C.Q. Brown account. A portion of the interest from this account is used each year as a scholarship for the strongest rising senior in our undergraduate program.

Third, you can contribute to our Century account. We opened this account in 2004 with a long-term goal of accumulating \$250,000. The total is currently \$8500. Its purpose is to provide for the long-term security of the department should state budget reductions or other unforeseen eventualities ever threaten our well-being.

Hopefully, you can see that we have a plan to cover various aspects of our needs through these three accounts. Your contributions would clearly be welcomed, but I would also appreciate any thoughts you might have about how we can improve our fund-raising efforts.

Thanks to all.

Steve Culver
Chair



ATTENTION ALUMNI: SGE needs your help!

We are selling t-shirts again to raise funds for the annual Pig Pickin'. This year, we will also be selling Koozies (similar to left image).

Our t-shirt design for this year will have a tsunami theme. The Koozie will commemorate the 2005 Pig Pickin' on the front, and will also have a dedication to the memory of Jean Lowry on the back.

Pricing:

Short sleeve* - \$12 (with one Koozie \$15)

Long sleeve* - \$18 (with one Koozie \$21)

Additional Koozies - \$5 ea.

*Add \$1 for XXL size

ADD \$5.00 for shipping and postage

For more information and how to order, please send an e-mail to the current SGE president (Erin Hemric) at <emh1027@mail.ecu.edu>. Orders should be pre-paid.

Pick up your order at the pig pickin' and save on the shipping cost if you order by April 15, 2005.

Send orders to:

Sigma Gamma Epsilon
Department of Geology
East Carolina University
Greenville, NC 27858-4353

Everyone is invited to the annual
Geology Department
Pig Pickin'

Afternoon of May 7, 2004

Richard Spruill's Back 40

If you need directions, call the Department Office
at 252-328-6360.