

Fall 2001

Rocky Gator

Department of Geology, University of Florida



Mud In-Data Out, page 3

Inside this Issue

Geology Gems.....	2
Mud In-Data Out	3
Alumni News	4
Faculty News	5
Student News	6
Geology Club	7
Let Us Know Where You Are	8

The Chair's Corner

Greetings from Gainesville. As the semester draws to a close, we can finally say that all teaching and research functions of the Department are now located in Williamson Hall. We still have a bit of work to do over the semester break, but basically we are finally done. It has been a long three years, and I have learned a lot about the construction/renovation business—that I hope to never have to use again! In the end, however, all's well that ends well, and certainly there is no comparison between the quality of space we now occupy and what we left behind in Turlington Hall. Not to mention the fact that we gained almost 20,000 square feet of additional teaching, research, and office space.

Although we are looking forward to completing our first year in Williamson, we are not looking forward to dealing with the budget reductions that will be

See Chair, page 2

Geology Gems

The Department gratefully acknowledges the individual and corporate donors listed below who have made contributions to the Department through the University of Florida Foundation during the 2000-2001 fiscal year. Although we believe it is accurate, please inform the Department as soon as possible if there are errors or omissions. The Department relies more and more on gifts from its alumni and friends to move our program into the upper echelons of Geology programs. For those interested in providing direct financial support through gifts to the Anniversary Fund, the mechanism is the same as for regular contributions with no minimum value for any individual contribution. Consequently, we are able to pool all contributions, regardless of size, to increase the size of our endowment. If you wish to have your contribution earmarked solely for the Fund, just indicate this on any correspondence that accompanies your gift. If you wish to contribute appreciated assets rather than cash or its equivalents, please contact the Department directly, or Ms. Jennifer Denault at the UF Foundation. Thanks again to all.

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Geology Grad Donates to LUECI

Land Use and Environmental Change Institute (LUECI) Director Mark Brenner (center right), accompanied by geology faculty David Hodell (center left) and Jason Curtis (right), receives a \$25,000 check from Gary Myers (left). Myers, who sits on the college's development council, graduated from CLAS in 1974 with a BS in geology.

Chair, *continued from page 1*

forced on us by the state's declining revenue situation. As I write this, we do not know the final amounts that we will have to return. At the levels being discussed by the University's administration, however, we would be forced to cancel a substantial number of classes and deny reappointment to as many as 20 graduate students. Such reductions would, of course, be catastrophic for

both our instructional and research programs.

Although we will not be able to pass through this period unscathed, we are more fortunate than many programs because of the financial support provided over the past few years by so many of you. In fact, the only thing that really stands between us and the draconian measures that some departments are fac-

ing is the income from our endowments. All of us, faculty, students, and staff, are more grateful than ever for the loyal support we have received. With your continued support, we will weather this period of retrenchment and look forward to better days ahead.

Best wishes to you all
Paul Mueller

Mud In-Data Out

LUECI/FLIPER Lab Established for Sediment Core Collection, Analysis, and Interpretation

Contributed by David Hodell and Mark Brenner

A joint venture among the departments of Geological Sciences, Geography, and Anthropology, with cooperation from the Center for Latin American Studies has led to the establishment of a new center for the study of complex interactions among climate, environment, and humans over historic and pre-historic time scales. It seems you can't start a new program these days without a good acronym, so LUECI (pronounced Lucy) was born. The Land Use and Environmental Change Institute is headquartered in

Williamson Hall under the direction of Dr. Mark Brenner.

FLIPER (FLorida Institute of Paleo-Environmental Research) is a LUECI research facility that was established in Geological Sciences to address a broad range of basic and applied paleoenvironmental questions, particularly in tropical and sub-tropical regions. Topics investigated include: 1) human impacts on aquatic ecosystems, 2) watershed deforestation and soil erosion, 3) past climate changes, including the frequency of extreme events

such as droughts, floods, and hurricanes, 4) the role of climate change in the evolution of ancient civilizations, and 5) other paleorecords of global change such as volcanic eruptions.

The raw material for FLIPER investigations is sediment from lakes, wetlands, bogs, and oceans. Sediment cores contain physical, chemical, and biological information that can be used to provide high-resolution "reconstructions" of past environmental changes. Deciphering the rich environmental history preserved in mud requires a suite of analytical methods. The FLIPER motto, "Mud In-Data Out," expresses our aim to provide students and faculty with a comprehensive set of field equipment and laboratory instrumentation to retrieve, analyze, and interpret the paleoenvironmental record preserved in sediments. These analyses are conducted in the FLIPER lab, which occupies over 2000 ft² of newly renovated space in Williamson Hall Room 157. The laboratory is organized as a series of modular stations with state-of-the-art instrumentation and training provided by a full-time staff member.

FLIPER's mission starts with field work that

requires boats, motors, and coring devices to retrieve sediment cores from sites all over the world. With a generous gift from Gary Myers (class of 1974), we are assembling a mobile coring platform to be named the R/V Elliott after Gary's son. It will permit us to take long, Kullenberg-style piston cores in water depths up to several hundred meters. Once cores are retrieved and brought back to the laboratory, they are kept in our new core storage refrigerator (4°C) to prevent sediment drying. The laboratory includes stations for sediment description, core splitting, photography, X-radiography, sampling, and various analyses.

Our main goals for FLIPER are to provide a stimulating intellectual environment for the interdisciplinary exchange of ideas and to make available a comprehensive set of analytical tools for state-of-the-art paleoenvironmental research. We hope that the laboratory will attract faculty and students from departments and colleges throughout the University of Florida because study of the human dimensions of environmental change requires an interdisciplinary approach. To answer complex environmental questions, geologists are

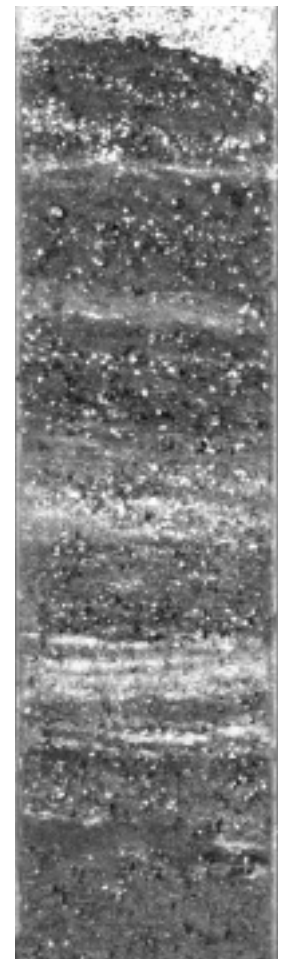
The raw material for FLIPER investigations is sediment from lakes, wetlands, bogs, and oceans.

increasingly collaborating with climate modelers, statisticians, meteorologists, climatologists, soil scientists, botanists, zoologists, ecologists, engineers, and anthropologists. Much of our fieldwork is conducted in foreign countries, and FLIPER is committed to enhancing collaboration and training of our international colleagues and students.

For more information about LUECI and FLIPER, visit our web page at: <http://www.clas.ufl.edu/users/mrosenme/LUECI> and <http://www.clas.ufl.edu/users/mrosenme/FLIPER>.



Coring devices retrieve sediment cores from sites all over the world.





Postdoctorate Mike Hartley and project supervisor Dr. David Foster on the lofty peaks of Australia's outback where they were conducting a geology study. *Siller's Lookout, Mount Painter Region, Northern Flinders Ranges, South Australia. Photo by Mike Hartley.*

Alumni News

Chris Bayliss (MS '01) has returned to Jacksonville and is now employed by Handex, an environmental consulting firm with offices throughout the eastern US. "I'll be working under William Kelly, another UF grad and doing a lot of field work."

Mervin Dale (MS'95) has been promoted from field geologist to assistant project manager for multiple environmental cleanup projects for the U.S. Navy. "My largest project involves utilization of some of the latest technology for screening soil and groundwater for petroleum and/or chlorinated contaminants. The system is called Membrane Interface Probe with Soil Conductivity (MIP/SC) and it is tied to a direct push technology (DPT) drill rig. The site we are investigating is about 20 acres and it used to be a bulk fuel storage facility."

Greg Mead, (PhD'95) has accepted a position as Visiting Asst. Professor of Geology in the Natural Sciences Department at University of North Florida. "I'm the first full time geologist here, and I am finding it quite a challenge to get their geology-teaching program started up from scratch." Greg can be contacted at:

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gmead@unf.edu

Faculty News

Sharing Expertise

In July and October 2001, **Ray G. Thomas** participated in Florida Department of Education meetings to review test items for the Florida Comprehensive Achievement Test (FCAT) Science. As a member of the FCAT Science Expert Panel, Ray shared his scientific expertise and insight to insure this test reflected accurate scientific information. The test's goal is to evaluate critical thinking skills and encourage meaningful learning of science as set forth in the State's curriculum framework (Sunshine State Standards).

Elizabeth G. (Cramer) Rice (BS 86) was recently sworn in as president of The Florida Bar Young Lawyers Division (YLD). Liz is only the second woman to hold the position in the history of the YLD. During her term as president, Liz plans to focus on encouraging law firms to implement quality of life and diversity and gender sensitivity initiatives; improving communications with the YLD's affiliates and 17,959 members through its website (flayld.org) and list serve capabilities; and completing an informational directory of the state's circuit court judges. Liz currently is a shareholder in the Tampa office of Stearns Weaver Miller Weissler Alhadeff & Sitterson, P.A. She resides in Tampa with her husband Ed and their two daughters, Alex (4 years old) and Erin (2 years old).

Robert Yeats retired from Oregon State University's Department of Geosciences in 1997. "Since then, I have become a partner in Earth Consultants International, a firm specializing in Geological Hazards. In 2001, I completed an outreach book for the general public, *Living with Earthquakes in California—A Survivors Guide* (Oregon State University Press)."

Naldrett Elected President of GSA

Courtesy Professor Anthony Naldrett was elected President of the Geological Society of America last month. Tony, who holds the rank of University Professor Emeritus (of Geology) at the University of Toronto, recently moved to Gainesville with his wife Galina Rylkova, who holds a faculty appointment in the Department of Germanic and Slavic Languages. Tony was immediately pressed into public service upon his arrival by agreeing to give not only a departmental seminar, but also the principal address at this year's College Convocation. Tony did a marvelous job of integrating his personal experiences as a Canadian emigrant working in the mining industry who moved on to receive his Ph.D. from Queen's University and ultimately was elected a Fellow in the Royal Society of Canada. This gave a clear message to the students about life, hard work, and goals. To the extent his duties will allow, we look forward to having Tony as a regular contributor to our department.

Perfit's Away

Mike Perfit is on sabbatical this year and started his whirl-wind tour of the globe by working at the Monterey Bay Aquarium Research Institute (MBARI) in California for three months. While he was there he finally had a chance to tour Yosemite National Park. During the Spring term he plans to spend three months at the Institut de Physique du Globe in Paris investigating the causes of magmatism on the East Pacific Rise.

Project Kaleidoscope

Ellen Martin is one of two UF professors nominated and accepted into Project Kaleidoscope (PK). PK is an national alliance of individuals, institutions, and organizations committed to strengthening undergraduate education in science, mathematics, engineering, and technology. The alliance conducts annual meetings and summer workshops where ideas and experiences are exchanged

Jaeger in Norway

In late October, **John Jaeger** spoke at a conference entitled "Changes in Climate and Environment at High Latitudes" at the Norwegian Polar Institute in Tromsø, Norway. John's presentation was entitled "Determining Limits on the Temporal Resolution of Paleoenvironmental Records in High-Latitude Marine Sediments in the Gulf of Alaska." This talk presented material that forms the basis of a proposed Integrated Ocean Drilling Program project in the Gulf of Alaska to explore the relationship between tectonic processes and climate change.

Student News

Michelle Cooper is at sea on Woods Hole's R/V Atlantis with the ALVIN submersible and their new autonomous underwater vehicle, ABE. They are currently imaging and sampling the flanks of the spreading ridge that erupted in 1991 where off-axis volcanism may have occurred.

John Chadwick was awarded one of the prestigious Dissertation Fellowships for the spring semester from the College of Liberal Arts and Sciences. He plans to use this money to travel to the UK to conduct hafnium isotopic analyses that will help him complete his thesis research on hotspot-ridge interactions on the Juan de Fuca Ridge.

Helen Evans (MS'01) (Doctoral Student in Geophysics) won the University Women's Club Scholarship in 2001. She also received the Visiting Fellowship at the Institute for Rock Magnetism in Minneapolis during February 2002.

Susan Kulp went on a research cruise to the Juan de Fuca Ridge from July 11th to August 3rd. Her tasks included retrieving rock core samples collected from the sea floor. "This was truly a unique experience for me and I am grateful for the opportunity to experience life and science at sea."



Susan Kulp collecting the basalt chips picked up from the sea floor. These were eventually used for geochemical analysis.

Fall 2001 New Graduate Students

David Buck, University of North Carolina, B.A., 1996
Michelle Cooper, University of Nebraska, B.S., 2001
Eric Davis, University of Georgia, B.S., 2001
Brandy DeArmond, University of S. Florida, B.S., 2001
Dana Ehret, Richard Stockton College of New Jersey, B.S., 2001
LisaMarie Erickson, University of Wisconsin, B.S., 2001
Helen Evans, University of Florida, M.S., 2001
Joann Labs, University of Florida, M.S., 2001
Jennifer Martin, Western Kentucky University, B.S., 1997
Virginia Newman, University of Michigan, B.A., 1997
John Spearman, University of Michigan, B.S., 2001
Brooke Sprouse, Furman University, B.S., 1999



Annual Fall Florida-Georgia Coastal Plain-Piedmont Hydrogeology field Trip. Students in this year's Groundwater Geology Class (GLY 5827) are from six countries, five University of Florida Departments, and three University Colleges. Picture looking south across the Altamaha River (by Karl Hopensperger, Teaching Assistant).

Steve Volpe went in the "field" August 21st to September 24th on a research cruise to the Galapagos Islands. The cruise was aboard Scripps Institute of Oceanography's R/V Reville. "We did a great deal of mapping and dredging on the western and southwestern sides of the westernmost islands, Fernandina and Isabela. The sights and experiences were fantastic and I could not have asked for a better crew to sail with."

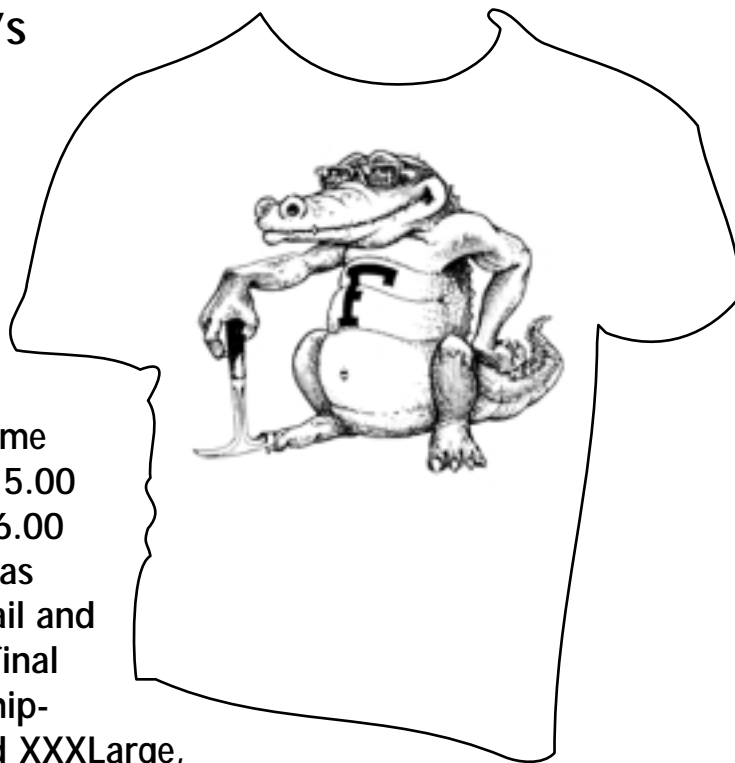


The resident technician, Gene Pillard, and Steve Volpe attach the pinger to the dredge cable. The pinger is used to determine how far the dredge is from the bottom.

Support the University of Florida's **Geology Club**

Purchase a T-shirt featuring our very own **Rocky Gator**

The shirt is white and Rocky is sporting some fresh Kelly Green highlights! The cost is \$15.00 total. To place your order, please send a \$6.00 non-refundable deposit. When your shirt has arrived, we will notify you by phone or email and your shirt will be sent upon receipt of the final \$9.00: \$6.00 for the shirt and \$3.00 for shipping/handling. Note: for sizes XXLarge and XXXLarge, the cost will be an additional \$2.00. If you have any questions, please contact the Geology Club Secretary, Todd Petrie, tpetrie@ufl.edu.



Order Form (Please Print)

T Shirt Size	Price Per Shirt	Quantity	Price
Small	\$12		
Medium	\$12		
Large	\$12		
XLarge	\$12		
XXLarge	\$14		
XXXLarge	\$14		
Subtotal=			
Shipping/Handling=			\$3.00
Total=			

Contact Information

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Day Phone: _____
Evening Phone: _____
Email: _____

Let Us Know Where You Are

Name (including maiden name):	Degree:	Year of Graduation:
Address:		
City:	State:	Zip:
Email:	Webpage:	
Day Phone:	Evening Phone:	
News/Announcement:		
Employer:	Job Title:	
Business Address:		
City:	State:	Zip:



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The "new" Rocky Gator

You will notice a new look to this fall's edition of the newsletter. We are now working with the College's publications office to upgrade all of our media presentations from web sites to newsletters. This edition of the *RG* is our first collaboration. Hope you like it.

*Special thanks in preparing this issue to
Sandy Newcomb and Jane Dominguez.*

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