

Friends of the University of Georgia Marine Institute

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Sapelo Island, Georgia, USA

Martha Odum

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Welcome New Members!



Dear Friends

So much has happened since the last newsletter that I hope there is room to squeeze in everything. Without further ado let's jump right in with a quick summary.

- 1) In February 2009, we said good-bye to Jon, Jane, and Oren Garbisch. Jon encouraged me to start the Friends group so I must admit I felt a bit lost when he said he was leaving for a new job at the University of Nebraska. Jon was our go-to-guy and he could fix anything. My interview with Jon is on page two.
- 2) In October 2008 The Friends Graduate Student Research Award was presented to Eleanor Gardner – read all about Eleanor's work on coastal influences on fossilization.
- 3) The Friends Undergraduate Summer Interns stories and photos begin on page four.
- 4) Two buildings at the MI (the old Administration/Dormitory Building and the Greenhouse) were nominated and selected for The Georgia Trust for Historic Preservation's 2008 *Places in Peril*. One of the outcomes of that selection was *Project Sapelo*, an amazing event that occurred in September of 2008 where volunteers and professionals helped mothball the old Administration/Dormitory Building.

5) Since Jon's departure there has been a reorganization of the UGAMI staff. That said, I must give a shout out to Jimmy Ammons, the new manager of the MI—Jimmy worked for many years as the MI Maintenance Manager. He has become a friend indeed by working with us on the Greenhouse Project and the Sears House Project. With his help we've accomplished so much. Our reservations now go through the capable hands of Gracie Townsend and I'm grateful to Barbara Price (in the photo right on Nanny Goat Beach with her dog Rosie) for minding our accounts.

6) Last but not least, it's a privilege to name The Volunteers of the Year. Yep, two people truly deserve major recognition for their hard work.

Thank you dear Friends for making the 2008–2009 a fun and productive time. Special thanks for all the donations and to the work gangs for all the sweat equity. I appreciate you all and look forward to more good times in 2010! Enjoy the news!

BR

Beth Richardson, President of the Friends of the Marine Institute



Barbara Price and Rosie on Nanny Goat Beach

Catching Up with Our Good Friend, Jon Garbisch



Oren and Jon Garbisch at their farewell party.

“Working with the Friends as they have grown to a functional group has been an excellent learning experience. The Cedar Point Biological Station doesn’t have a friends group yet, but I’m confident my experience with the Friends of UGAMI will be really helpful.” —JG

Q. You were the Program Coordinator at UGAMI for 12 years and now you and your family have started a new life in Nebraska. Tell us about your new job.

A. I am the Associate Director of the Cedar Point Biological Station (CPBS) at the University of Nebraska - Lincoln (UNL). My new position has many of the same components of my job on Sapelo but more authority to adjust the annual budget, manage personnel, directly pursue development opportunities, and to creatively expand how the facility is used. I am coming into a program of existing

summer session courses offered through the UN—School of Biological Sciences—four 3-week sessions, each with two 4-credit courses, and I’m responsible for making sure those classes run smoothly. I am on main campus in Lincoln most of the year and out at the station near Ogallala, NE, May to August.

Q. Reflecting on your time at UGAMI, what are the accomplishments you are the most proud of?

A. Everything takes a team effort, so I don’t believe I was individually responsible for any of the accomplishments UGAMI achieved over the past 12 years. I think what I would ask myself: how do you measure improved access to the island and the Marine Institute? So my personal measures probably look at having reached 60 groups visiting each year and 40-60 researchers using the Island each year as my best collaborative accomplishment. I would also add that I am proud of the diversity of users in that group - though I do think it could be expanded much further. The greater the diversity of users, the greater our diversity of supporters will be. In that context, I would like to believe I helped a bit in acquiring the ~\$3 million plus that has been spent on improvements and upgrades to the UGAMI facility while I was there.

Q. If you had one wish for the Marine Institute what would that be?

A. In general that’s easy, but just one wish, hmmm ...I think that for the Marine Institute to survive 50 years into the future, the user base needs to see continued expansion and diversification. I think the current level of undergraduate student use (short term visits), use by both resident and visiting researchers might be hard to expand a lot but it is easily maintained at current levels. I also believe that additional efforts in informal education of adult groups as well as in house courses specifically taught by UGA faculty are essential to continued growth. Informal education might be as simple as 15 minutes of outreach to every tourist that sets foot on Sapelo Island. There are some 30,000 plus every year. I’ve always felt the greater public in Georgia and even most of UGA and the University System know way too little about the Marine Institute and its mission. More exposure means more support and ultimately more control over the future of the Institute. I really hope the Friends see continued growth. Membership that is 4-5 times greater would open a number of opportunities to support the Marine Institute that require the horse power of a much larger group.

Jon says “Cedar Point could use more outside researchers, so if any of you are thinking “wow I could look at xxxx out there” please contact me. Check out: <http://cedarpoint.unl.edu>.”

Thanks, Jon, for keeping in touch. We miss you and look forward to your visits to UGAMI.
—Beth Richardson

UGAMI

Wish List

HELP US KEEP MOVING WITH:

Gas-powered golf carts

Club Cars

EZ-Go

Kawasaki Mule.

Chevy Suburbans

1990-present

Pickup trucks

Donate your vehicles to the Marine Institute (in usable or repairable condition) and get a tax write-off.

Meet Eleanor Gardner

Recipient of The Friends Graduate Student Research Award



Eleanor Gardner prepares bone arrays in the UGAMI wet lab.

My research interests center on the field of avian taphonomy/paleontology. For my thesis project, “Linking macro- and micro-level taphonomic alteration in avian bones as a function of age, sex, and environment,” I am investigating the roles of age, sex, and depositional environment on the weathering and degradation rates of modern bird bones. To more precisely interpret the avian fossil record, paleontologists need a better understanding of the taphonomic (biological, physical, and mineralogical) changes modern bird bones undergo in the varying types of depositional environments where avian fossils are found. However, relatively few studies have been conducted on modern birds. Thus, the main goal of my study is to develop a more detailed knowledge of the taphonomic processes that affect bird bones prior to fossilization. Currently, I am assessing how classical macro-level (external bone) weathering patterns are

correlated with taphonomic changes at the micro-level (within bone) in different sexes and ages of birds in a variety of coastal environments.

Over the past two years, I have observed the taphonomic processes affecting 72 different bird carcasses placed in both siliciclastic and carbonate marine sanctuaries in Georgia and Florida. The UGA Marine Institute on Sapelo Island, Georgia, has been an ideal place to work because the island is relatively pristine and undisturbed, and it has several different kinds of depositional environments in a fairly small area. The Rookery Bay National Estuarine Research Reserve near Naples, Florida, and the John Pennekamp

Eleanor Gardner is a MS candidate in the Department of Geology at UGA. Her major professor is Dr. Sally Walker. Eleanor wrote to us to say thanks and to tell us about her project on Sapelo Island.



Eleanor Gardner and her field associate Justin Miller set out arrays at a Sapelo marsh study site.

Coral Reef State Park in Key Largo, Florida, have also provided unique field sites for my research project.

Without the generous support of the Friends of the UGA Marine Institute Graduate Student Research Award, I would not have been able to complete my work on Sapelo Island. The grant enabled me to visit the Sapelo field sites every two months for a yearlong period, helping especially to defray the costs of travel and lodging. I am truly grateful for the financial support of the Friends of UGAMI in my research efforts.

—Eleanor Gardner

Keep us posted on your progress. My special thanks to Bill Miller and Wyatt Anderson for reading all the award applications and for selecting Eleanor's project.

—Beth Richardson

Friends-supported Summer Interns Share Their Experiences

Summer interns make a vital contribution to the mission of the Marine Institute. Directed by Dr Melissa Booth with assistance from her technician Mario Muscarella, the 2009 summer interns Jennifer Willis, Hannah Farish and Warren Crabb got their feet wet more than once. Jennifer (from UGA) and Hannah (from Berry College) were sponsored by the Friends. Their stories follow.

Dear Friends of UGAMI,

I would love to thank all of you for the amazing opportunity you gave me this summer. Sapelo Island is one of the most beautiful places I have ever been and I am still in awe of my experience there. The advice I received from the individuals I worked with I will carry with me my entire professional career. My experience on Sapelo, the project I worked on, and the knowledge I gained about marine environments has/will help me become a much better scientist.



Jennifer Willis kayaking on Blackbeard Creek

My experience on Sapelo Island was not initially what I thought it was going to be and by no means was it a disappointment. As a Senior Water and Soil Resources Major at UGA I came to the island with a strong field background expecting to do more fieldwork. It was a welcome surprise when I found out I was going to be able to develop lab skills I had only heard professors talk about. Getting used to the lab and the techniques made the first weeks a bit intimidating, but the

members of Dr. Booth's Lab could not have been better in taking time out to explain the importance of certain procedures. By the time I left in August, many of the procedures in the lab had become second nature to me and my overall confidence level in working in a lab setting had greatly increased.

The project I worked on was developing a filtration system based upon a system used at other field stations in the United States. The purpose of the filtration system was to better track numbers of viral and

bacterial production during tidal periods. Three sites surrounding Sapelo Island were selected: Sapelo Sound, Altamaha River, and Doboy Sound. The overall concept of this project is that the samples taken from the sites would lead to the determination of

carbon flux in the overall system. Thus expanding the information with further studies accomplished on similar sites. The project required a lot of background information that was found in previously published scientific papers as well as many lab procedures that followed concise directions so the work area was not contaminated. The project required long nights of filtering and was well worth the loss of sleep because the specific procedures that were developed were new for this region and very exciting. This project required a lot of 'thinking

outside the box' on our parts and was a new approach for me in the precise world of science.

Coming from a natural resource background I knew the basics about marine environments. After spending a summer on Sapelo, I may not consider myself an expert but I do know far more than I thought I would by the time I left the island. I have realized the importance of bacteria in the marine environment and the influence each one has on the increasing amount of carbon in the atmosphere due to the sheer abundance of the species. I have a whole notebook filled with information that I learned this summer—concepts that I didn't know really existed.

This internship was such a great opportunity for me and really exposed me to the world of hard research. My only regret is that I couldn't stay longer. I truly believe that the best way to learn is by doing and this summer I learned far more than I could have sitting in a classroom 8 hours a day. The overall program helped me learn about myself and what I really want to work for, revealed new ideas and experiences that I would have not gotten in a regular school setting, and allowed me to meet a large group of intelligent scientists who really care about science and the environment like me. I would like to thank everyone for giving me this great opportunity. I will truly never forget the time and experience I had on Sapelo.

Sincerely,

Jennifer Lee Willis
*University of Georgia
Senior, Water and Soil Resources Major
Warnell School of Forestry and Natural Resources*

Dr Melissa Booth (front left), and technician Mario Muscarella (front right), with undergraduate summer interns Jennifer Willis, Hannah Farish and Warren Crabb on the Marine Institute's historic turkey fountain.



Undergraduate summer interns Hannah Farish, Warren Crabb and Jennifer Willis experience marsh madness.



Students interested in the intern program can e-mail Dr. Melissa Booth for more info: booth@uga.edu.

Would you like to sponsor an intern? Contact Beth Richardson at beth@plantbio.uga.edu.

Interview with Summer Intern, Hannah Farish

Q Hannah, describe your experience in conducting research at the UGA Marine Institute on Sapelo Island.

A I had a wonderful experience on the island. I was surrounded by a network of scholars who took their work seriously. I loved being around working and living science for a period of two months. I feel that I walked away from the island not only with a great deal of knowledge concerning scientific procedures but also in how to live on a fairly primitive island.

Q What project were you working on?

A I was assisting Dr. Mary Doherty for most of the summer. She was designing primers to target a special carbon-recycling gene called *pcaC*, which is found in the estuaries around the island. I not only helped problem solve during the project but also helped extract the DNA and RNA that was needed for QRT PCR. QRT PCR would help us eventually quantify the number of *pcaC* copies that the estuaries contained.

Q What did you learn about the marine environment that you didn't know before your time on Sapelo? And, do you now share that information with others?

A I did not know that life in an estuary would be so diverse. Not only were there fiddler crabs and dolphins patrolling the beach, but also freshwater alligators! On the other hand I learned a great deal about microorganisms. Before coming to the island, I did not have any previous experience with extracting DNA or RNA from microbes. I also had little comprehension about their importance to everyday life. They are so diverse and well prepared for changes in the environment, which attests to the amount of time they have spent evolving. Observing the excitement that other scientists had for these small galaxies of life spurred me on to learn more. A whole new world was revealed to me on the island. How could I not share that with anyone?

Q Would you recommend the summer internship program to other students?

A Yes I would. It was an experience like none other. There is not a lot to do on the island but research, sleep, research, go to the beach and talk about your research with others. It took a while for me to get used to the excessive amount of "alone time" you have on the island. But I was lucky and had great coworkers/housemates that helped the time pass until we went back to the lab. Not only did I learn more from those two months than any other summer program I have completed, but I also experienced an untouched, marine sanctuary and I would never forfeit that.

Q How can we improve the program?

A I wish I were a little more prepared for the solitary aspects of the island. I was probably informed of it, and in all actuality I do not even think that having someone tell me would have prepared me. It simply takes a while to get used to. You have to know how to survive with no TV, no Internet and no cell phone service. After two weeks though you barely miss it.

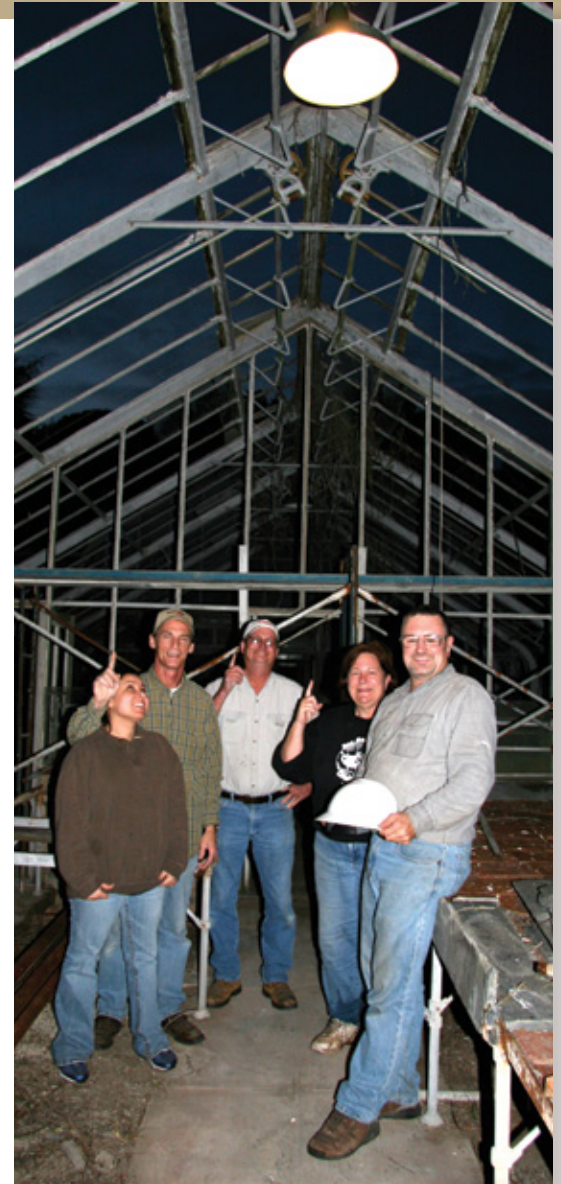
Phil Crocker and Randy Adkins are Our Volunteers of the Year!

With their help we're making great progress on the greenhouse

Once a year the Dalton Sunday School Group comes to Sapelo to stay at the Reynolds Mansion. On a bright and sunny day in February of 2008 a few of them were adventurous and stopped by to see the work we were doing on the greenhouse. When they arrived at the greenhouse they got a grand tour of the place from Nancy Beckemeyer (last years volunteer of the year). In the group was **Phil Crocker**, an electrical engineer for Shaw, Inc. He walked into the greenhouse and fell in love with the project. He said he could get the electrical work donated. We didn't hear from Phil for a few months but when we did he had secured both the labor and materials for the complete electrical restoration of the greenhouse! General Electric donated the electrical hardware and parts, and H&E Electric Company owned by Rusty Hopper sent their electrician **Randy Adkins**. Everything was lined up and ready to go.

I'd like to recognize **Phil** and **Randy** as our *Volunteers of the Year* for all their hard work, sweat equity, kindness and good cheer (and they're good cooks, too). Thank you for restoring the power! Slowly but surely the lights are coming back on—one room at a time and it's a glorious sight!

It has been 30+ years since the lights have been on in the greenhouse. (l-r) Randy's daughter Jamie Gregory, Randy Adkins, Jimmy Ammons (UGAMI facilities manager), Nancy Beckemeyer, and Phil Crocker.



Members of the Friends of Sapelo Linda Daniels , Ethel Wilson, Linda Wood and JD Daniels worked with Friends of the Marine Institute members Lloyd Dunn, Nancy Beckemeyer and new volunteer Julie Hogg.

Our Volunteers Rock! ...and Saw, Trim, and Haul!



So far we've had two work weekends in 2010 for the greenhouse project and members of the Friends of Sapelo have pitched in to help. They are workaholics and we've had a great time getting to know them. Some of them have also joined the Friends of UGAMI. We greatly appreciate their help and look forward to doing more projects together.

Daniel Saucedo and his partner Christine Ewers worked their magic with the chainsaws. Daniel calls this photo - Bonnie & Clyde meets the Texas chainsaw massacre.



Project Sapelo: 9/29/08

Volunteers and sponsors participated in **Project Sapelo**, a hands-on workday to stabilize the old dorm/administration building at the Marine Institute. The project was a partnership with the Board of Regents of the University System of Georgia, UGA, the Georgia Trust for Historic Preservation, the Dept. of Natural Resources, and the Friends of the Marine Institute. This building (nominated by Ken Thomas) and the greenhouse (nominated by Nancy Beckemeyer and Beth Richardson) were on the GA Trust for Historic Preservation's 2008 list of *Places in Peril*.

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 and Give Special Thanks to All Our Members
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