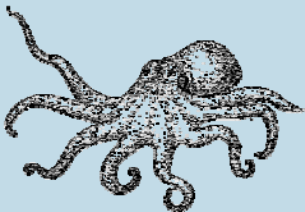


Inside this Issue:

Green Garden	2
Lab Renovations	2
GPMB Degrees	3
Student Awards	3
REU	3
Faculty Notes	4
Colloquium	5
Grice Lecture	6
Alumni Notes	6
New Boat	8

Grice Marine Laboratory  
205 Fort Johnson Rd.  
Charleston, SC 29412  
843-953-9200  
[grice.cofc.edu](http://grice.cofc.edu)

Graduate Program in  
Marine Biology  
[cofc.edu/marine](http://cofc.edu/marine)



## GRICE MARINE LABORATORY APPOINTS NEW DIRECTOR



*Dr. Robert Podolsky*

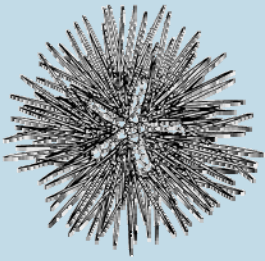
In January 2012, Dr. Robert Podolsky was appointed as the new director of the Grice Marine Laboratory. Bob has been an Assistant Professor in the Biology Department and a resident of the Grice Lab since 2005. He got his undergraduate degree from Princeton University, graduate degrees from the University of Florida and University of Washington, and post-doctoral training at Stanford University. Bob's research interests are in the ecology and evolution of early life-history stages of marine invertebrates. He teaches an upper level course on the Biology of Invertebrates and a sophomore-level introductory course in Biodiversity, Ecology, and Conservation Biology. Bob is a veteran of research experience at a number of field stations around the world, including the Friday Harbor Laboratories, Hopkins Marine Station, the Lizard Island Research Station, and McMurdo Station in Antarctica. He says, "Having benefitted from time at other research labs I consider it a great honor and opportunity to effect positive change for the faculty, staff, and students who contribute to the life of the Grice Lab." He lives on James Island with his wife, Dr. Allison Welch of the Biology Department, their two children Anya and Rowan, and their cat Chuva.

## NEW PROFESSOR LOOKS INTO EVOLUTION OF SHARKS AND RAYS

Gavin Naylor, who recently moved to the College of Charleston from Florida State University, is broadly interested in how organisms evolve novel features. He studies sharks and rays. His work involves molecular genetics and comparative anatomy. He uses DNA sequence information obtained from specimens sampled in the field to estimate who is related to whom. He also subjects entire specimens to CT scanning to explore their internal anatomy. The molecular work is done on campus at the Hollings Marine Laboratory while the CT scanning work is done using the Somatom 64 whole body spiral scanner at the Medical University of South Carolina. Gavin returned in March from a two-week field trip to Taiwan where he was collecting deep water sharks, skates and rays with Nicolas Straube, a researcher in his group. Gavin will be heading to Mauritius in May and South Africa in early June to collect samples and specimens that occur in the southwest Indian Ocean. The Naylor lab is looking for undergraduate students to help build a website that will feature interactive 3D models of the skeletons of each of the major evolutionary lineages, scientific illustrations of all species of sharks and rays described to date, interactive range maps for each species, and summary information of the natural history of each species.



*Dr. Nicolas Straube and Dr. Gavin Naylor*



## GREEN TEACHING GARDEN



*Students working in the GTG*

The Marine Biology Graduate Student Association (MSGSA) has been working hard on the Green Teaching Garden (GTG) project supported by the Grice Foundation and the Office of Sustainability ECOLlective Fund. The initial grant (\$5,660) was awarded for the installation of two rainwater harvesting systems and four raised beds centered around a rain garden. The primary rainwater collection system includes a large 1550 gallon cistern storage tank. The second type collects rainwater in a series of connected rain barrels. About 5,000 gallons of water will be recovered annually to water

the raised bed garden. Overflow from rain events will be routed to the rain garden and help to minimize stormwater runoff. The second grant (\$3325) supports the GTG Coordinator, GPMB student Sammi Smoot. The GTG events serve as an educational outreach tool to demonstrate sustainable methods of urban gardening, managing rainwater, and reducing stormwater runoff. The rainwater harvesting systems were designed in collaboration with the Ashley Cooper Stormwater Education Consortium, a partnership to implement a regional, watershed-scale stormwater runoff education strategy in the Charleston urbanized area. Because ultimately all water leads to the ocean, these issues have a significant impact on the coastal ecosystems, the focus of our research at Grice.

The GTG Coordinator initiated multiple work days associated with the GTG installation. Spearheaded by the MBSGA, the set-up, planting, maintenance, and harvesting of the garden and associated rainwater collections systems has been a collaborative effort by multiple student groups. Elementary students painted marine organisms on the rain barrels and a mural contest was held to decorate the large cistern. CofC undergrad Troy Ganz won the contest and the mural was completed in April. A Rain Garden Workshop was conducted. Plans are underway to design educational kiosks and incorporate the garden into lab tours.

Visit us online!

[grice.cofc.edu](http://grice.cofc.edu)

or

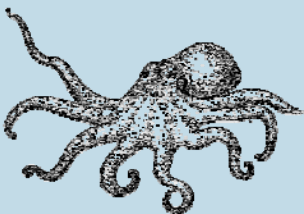
[cofc.edu/marine](http://cofc.edu/marine)

## GML RENOVATIONS

The National Science Foundation (NSF) Biological Field Station and Marine Laboratories (FSML) program awarded \$341,285 to the Grice Marine Laboratory for facility improvements. The College has contributed an additional \$144,000 to assist with the renovations of research spaces. In December 2011, the renovations began in the Podolsky and Plante laboratories with the replacement of casework and a fume hood. A second fume hood was upgraded to a Class II biological safety cabinet for bacterial and molecular research. In the Collections Prep Room, some casework was replaced and a new fume hood and three ventilation snorkels were installed. These snorkels will allow researchers to work on preserved specimens outside of a standard fume hood. This spring the focus has shifted to the Sotka and Strand laboratories. Both of the fume hoods will be replaced along with all the casework and island work benches. Other improvements will include a conference table for lab meetings and two student work stations. Additional storage covered with white board material will be added to assist with active discussions about current and proposed research. The work in this lab is scheduled to be completed by May 2012, at which time attention will turn to the Sancho laboratory.



*GML Collections room*



## GPMB DEGREES

**Katie Bazan** - Persistent Organic Pollutants in Shark Blood Plasma from Estuaries Along the Southeast U.S. Coast. (Advisor: John Kucklick)

**Jonathan Craft** - A Diffuse Coevolutionary Arms Race Among Herbivorous Sea Urchins and Chemically-Rich Seaweeds. (Advisor: Erik Sotka)

**Nathaniel Johnson** - Characterization of the Bacterial Properties that Impair Respiration in the Atlantic Blue Crab, *Callinectes sapidus*. (Advisor: Karen Burnett)

**Ryan Joyce** - Nekton Use of Intertidal Eastern Oyster Reefs (*Crassostrea virginica*) in South Carolina Estuaries. (Advisor: Peter Kingsley-Smith)

**David Shiffman** - Feeding Ecology of the Sandbar Shark (*Carcharhinus plumbeus*) in South Carolina Estuaries Using  $\delta^{13}\text{C}$  and  $\delta^{15}\text{N}$  Stable Isotope Analysis. (Advisor: Gorka Sancho)

**Mark Stratton** - An Ecosystem Perspective: Temporal Analysis of the Reef Fish Assemblage in Southeast U.S. Atlantic Continental Shelf Waters. (Advisor: Marcel Reichert)

**Chuck Tucker** - Reproductive Analysis of Southern and Gulf Flounders (*Paralichthys lethostigma* and *P. albigutta*) in South Carolina Based on Scuba Surveys. (Advisor: Marcel Reichert)

**Drew Wham** - Molecular Genetics of the Coral Holobiont. (Advisor: Phil Dustan)

## STUDENT AWARDS

**Vanessa Bezy**—Student travel award from International Sea Turtle Society; CofC Graduate Research Award

**Peter Feltman**—CofC Dept. of Biology Travel Award; CofC GPMB Travel Award; CofC Graduate School Presentation Grant; Carolina Lowcountry and Atlantic Travel Award

**Leah Fisher**—Joanna Deep Water Foundation Fellowship; PADI Foundation Research Grant; Charleston Scientific and Cultural Ed. Fund Research Grant; Honorable Mention, NSF Graduate Research Fellowship; Runner-Up Best Student Poster Award, Southeast Regional Sea Turtle Meeting; Student Travel Grant from International Sea Turtle Society

**Weatherly Meadors**—McLeod-Frampton Scholarship

**Sammi Smoot**—Joanna Deep Water Foundation Fellowship

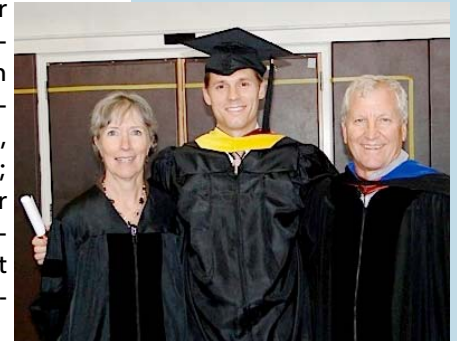
**Kristin Stover**—Best Oral Presentation, CofC Research Colloquium

**Anna Tommerdahl**—Phi Kappa Phi Love of Learning Scholarship

### GPMB students gave presentations at research conferences:

Poster Presentation: Cameron Doll, Leah Fisher, Kristin Stover

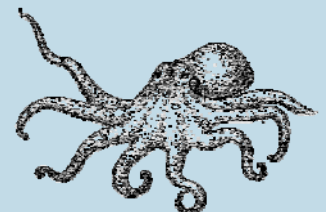
Oral Presentation: Michelle D'Aguillo, Casey Darling, Peter Feltman, Leah Fisher, Jacob Kendrick, Tim O'Donnell, Jena Wirth



**GPMB graduate Nat Johnson with advisor Dr. Karen Burnett and committee member Dr. Lou Burnett**

## SUMMER 2011 REU

Armed with a new round of funding from the National Science Foundation, the Fort Johnson Undergraduate Summer Research Program was back again for Summer 2011, centered on the theme "Marine Organism Health: Resilience and Response to Environmental Change." Interns selected to participate in the Program lived in the GML dorms while conducting independent research projects, attending lectures and field trips, and building skills in professional oral presentations and scientific writing. Research projects were mentored by scientists from the five Fort Johnson partners, including the College of Charleston's GML, the Marine Biomedical and Environmental Sciences Program of the Medical University of South Carolina, NOAA's Center for Coastal Ecosystem Health and Biomolecular Research, the National Institute of Standards and Technology, and the Marine Resources Research Institute of the SC Department of Natural Resources. The 2011 Program included an exciting new set of exercises in communicating science to audiences such as congressional representatives, the press, and the public. Interns teamed with Upward Bound high school students to develop Prezi presentations ([www.Prezi.com](http://www.Prezi.com)) that aimed to excite and educate middle-school classes about climate change research. The 2011 Program participants also joined with the College's McNair Scholars to develop short videos designed to engage public support for undergraduate research. At the end of the summer, the interns left Fort Johnson with new skills in research and communication and with an appreciation for the importance of using those skills in combination to capture public support for science and science education.



## FACULTY NOTES

**Burnett Lab:** Nat Johnson earned his M.S. degree last fall and is now employed at Immunologix in Charleston. Former postdoc Kristin Hardy is now an assistant professor at Cal Poly San Luis Obispo and former postdoc Natasha Sharp works at Guild Associates of Charleston. Former student Kolo Rathburn is a legislative assistant for U.S. Senator Roger Wicker of Mississippi, but continues to work to get his thesis work published. The lab received NSF funding to work on the influences of carbon dioxide on the responses of crustaceans to low environmental oxygen. These studies will involve performance measures of crustacean activity using treadmills and analysis of responses from the molecular to the whole organism. Students Casey Darling, Evan Sherer, Kristin Stover, and Anna Tommerdahl continue their masters research. The lab welcomes grad students Becca Derex and Sarah Song to the group.



**GPMB students Adopt-A-Highway Road Cleanup**

**deBuron Lab:** The world of parasites is still going strong as is the lab's collaboration with the SCDNR. They have discovered a third parasite species new to science in the spotted seatrout. Paul Cosmann (GPMB) has kept looking into the association of parasites with the health of seatrout. Jen Hein (MES) joined the lab, supported by a NERR/Sea Grant fellowship, to study an invasive worm of the American eel in our estuaries. Senior researcher Iva Dyková from the Czech Academy of Science's Institute of Parasitology visited the lab on a Fulbright Fellowship. MIMES DNR REU student Sharamie Ware and CofC SURF Zach Adkins (under Eric McElroy's mentorship) both worked on myxozoans infecting the flesh of seatrout, while Isabel Boersma (CofC) ventured into the world of red drum by studying gonads infected with philometrids. The lab published 4 papers and gave 7 talks, of which undergraduate Carrie Umberger, under Eric McElroy's co-mentorship, won best paper at our annual regional parasitology meeting. Her work was also judged to be

one of the four best posters at the recent international fish parasite symposium in Chile. The year ended on a nice note with Rachel Rein (MES) successfully defending her internship on the anisakids of pygmy sperm whales.

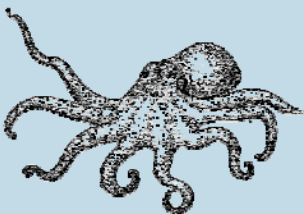
**DiTullio Lab:** The DiTullio lab was recently awarded a new 3 year NSF grant involving *TRacing Algal Carbon Export in the Ross Sea (TRACERS)*. The two month Antarctic field season aboard the RV/IB *Nathaniel B. Palmer* will occur in February-March 2013. Last autumn (October, 2011), oceanographers Peter Lee, Jack DiTullio and graduate student Jacob Kendrick sailed from Honolulu to Western Samoa aboard the R/V *Kilo Moana* along with scientists from Woods Hole Oceanographic Institution. The researchers investigated the role of trace metals in affecting protease production within microbial cells and their influence on carbon fluxes in the South Pacific Ocean. During the equatorial transect, Dr. Lee and Mr. Kendrick successfully attained honorary *shellback* status. This summer the same team (along with two new members) will investigate the role of viruses in terminating the spring coccolithophorid bloom in the North Atlantic. This cruise will represent the maiden voyage for the lab's shipboard research van. The R/V *Knorr* will sail from the Azores on June 15 and arrive in Reykjavik, Iceland on July 15, 2012. Two students graduated from our lab this past year including Ms. Barbara (Bobbie) Lyon who defended her Ph.D. dissertation (MBES Program at MUSC) last fall and Ms. Jennifer Bennett who will complete her M.S. in Marine Biology (CofC) this May. Ms. Bennett recently returned from an Antarctic research cruise and has just started a Knauss Fellowship in Washington DC. Dr. Lyon published part of her dissertation in *Plant Physiology* and will begin a post-doctoral fellowship at the University of East Anglia, UK. The lab also bid a farewell adieu to post-doctoral investigator Dr. Jenny Davis who relocated to Morehead City, NC.

**Harold Lab:** There are several research projects concerning systematics, evolution, and ecology of fishes in progress in Tony Harold's lab. Michelle D'Aguillo (second year GPMB graduate student) is studying trophic biology of estuarine gobies, with an emphasis on *Gobiosoma bosc*. Two undergraduate students are also working on research projects. Dan

(Continued on page 6)



**Carly Altizer prepares for a dive**



## RESEARCH COLLOQUIUM 2011

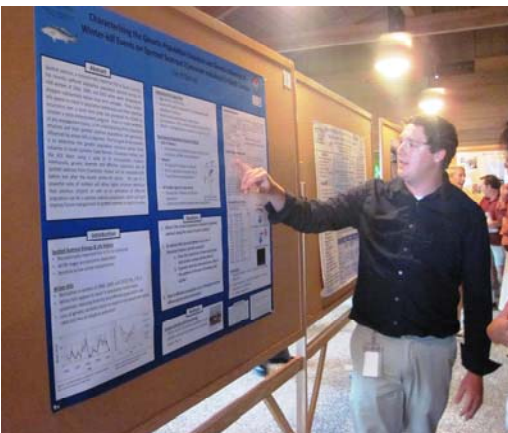
The 15<sup>th</sup> annual Marine Biology Student Research Colloquium was held on September 23 and 24, 2011. The colloquium featured keynote speaker Dr. John



**Dr. John Bruno**  
UNC Chapel Hill  
2011 Research Colloquium  
keynote speaker

Bruno, a marine ecologist and Associate Professor at The University of North Carolina at Chapel Hill. John's research focuses on marine biodiversity, coral reef ecology and conservation, and the impacts of climate change on marine ecosystems. He gave two addresses at this year's colloquium: "Changes in Caribbean reef communities: patterns, causes and mitigation" and "Impacts of climate change on ocean ecosystems." John's research takes him to Belize, the Bahamas, Cuba, and the Galapagos Islands. In his spare time, John blogs about the ocean on SeaMonster, a website that he also co-developed.

Thirteen marine biology and environmental studies students gave oral presentations of their research at this year's colloquium. Oral presentations are evaluated by a panel of judges on the basis of: 1) scientific content based on the articulation of the problem, soundness of hypothesis



**Tim O'Donnell won Best Poster Presentation**

testing, methodology, and analyses; 2) oral and visual quality of the delivery; and 3) demonstration of confidence and depth of understanding of the material. Kristin Stover received the best oral presentation award for her talk "Performance changes when exposed to varying oxygen levels in the Atlantic blue crab, *Callinectes sapidus* Rathbun." Stover's research focuses on the Atlantic blue crab, an important commercial and recreational fishing species that resides in the estuarine waters of the Atlantic Ocean and Gulf of Mexico. This estuarine organism faces daily and seasonal fluctuations in salinity, temperature, dissolved oxygen, and pH. Stover is testing the blue crab's ability to perform continuous activity and resist fatigue under hypoxia, a common environmental stressor. Results show that fatigue was reached after 6 h of walking for crabs in normoxic seawater, 4 h in 50% air saturation and 2 h in hypoxia (20% air saturation). Additionally, fatigue-resisting behaviors increased from the initial time point by 0.910 behaviors per h in normoxia, 4.075 in 50% air saturation, and 13.821 in hypoxia. The results indicate that under low oxygen conditions performance is decreased and fatigue is reached more quickly as the level of hypoxia intensifies.

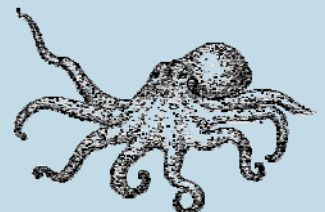
Seventeen students presented posters of their thesis research this year. Tim O'Donnell received the best poster presentation award for his research "Characterizing the genetic population structure and genetic influences of winter-kill events in spotted seatrout (*Cynoscion nebulosus*) in South Carolina." The colloquium concluded with a cookout and Low-country Boil for students, professors, and attendees at the Marshlands's House outdoor classroom.



Grice Logbook is  
available on-line at  
[grice.cofc.edu](http://grice.cofc.edu)



**Kristin Stover won Best Oral Presentation Award**



## FACULTY NOTES

(Continued from page 4)

Zurlo is working on a dietary study of the invasive Red Lionfish (*Pterois volitans*), based on samples from Biscayne Bay and funded by the National Park Service. Ian Kelmartin is studying the life history characteristics, including age-length relationships, of the American Eel (*Anguilla rostrata*). Ian is conducting his research at the Marine Resources Research Institute (SCDNR) in Bill Roumillat's lab and under his supervision. Norma Salcedo, adjunct instructor in Biology, is continuing her research on South American loracariid catfishes and has recently published a morphological and molecular systematic study of *Chaetostoma* in the journal *Copeia*. Manuscripts in preparation based on some long-term projects in the Harold lab include a study of geographic variation in the Indo-Pacific deep-sea hatchet fish, *Polypnus triphanos*, and a report on an unusual bregmacerotid from the eastern Mediterranean Sea.

**Owens Lab:** Leah Fisher won second place for her poster on Loggerhead behavior at the first ever Southeast Regional Sea Turtle Conference at Jekyll Island, GA.

Four people from the Fort Johnson community (Vanessa Bezy a first year student, Dr. Jennifer Keller from NIST, Fisher and Owens) represented South Carolina at the 32nd International Sea Turtle Symposium in Huatulco, Oaxaca, Mexico. Jeff Schwenter (GPMB graduate), Al Segars (adjunct professor), and Dave Owens just completed their sixth turtle rodeo spring break at the Keys Marine Lab where they collaborate with Florida FWS and NMFS in loggerhead reproductive studies. After more than 200 captures over the years they were very disappointed to be "blown out of the water" due to unusually strong winds after only two adult males were captured and worked up. They do plan to return again next year to take up the cause.

**Plante Lab:** The main focus of the lab is the microbial ecology of marine sediments. Recent efforts have centered on the role of deposit feeding and tidal resuspension in structuring benthic microalgal communities. A portion of this research was published in the journal *Marine Ecology Progress Series* with co-authors Emily Frank (former REU student) and lab technician Tricia Roth. CofC undergrads Jessica Lewis and Sydney Ramsey assisted with this and other work. During the 2011 summer, REU intern Virginia Fleer continued this work by testing whether neutral community models could be used to describe the community structure of benthic microalgae in Grice Cove intertidal sediments. Early results, which were presented at the *Benthic Ecology Meeting* in Norfolk, VA, suggest that random (neutral)

(Continued on page 7)

## GEORGE D. GRICE, JR. LECTURE



Dr. Ann Pabst

On April 6<sup>th</sup> 2012, Dr. Ann Pabst of UNC-Wilmington presented the 5<sup>th</sup> annual George D. Grice, Jr. Lecture, which honors the contributions of the Grice family to the marine sciences. Dr. Pabst, who studies mammalian adaptations to life in the sea, talked about "Building a Deep-Diving Mammal: Insights into the Functional Morphology of Cetaceans through the Investigation of Strandings." She also led a discussion of professional issues with students from our Graduate Program in Marine Biology.

## ALUMNI NOTES

**Larry DeLancey (1985):** Larry continues to work at the SCDNR at Fort Johnson. He feels extremely fortunate to have been employed in the Crustacean Monitoring/Management realm his entire career. Larry has worked on diverse subjects such as the surf zone ecosystem (thesis), octopus (1st job), shrimp, blue crabs, and horseshoe crabs. He has lived on Folly Beach for 18 years.

**Megan Kent (2010):** Meggie is currently employed by James Cook University [Australia] and their industry partner MBD Energy as their senior research worker for

(Continued on page 7)



GPMB students and Dr. Jack DiTullio on an Oceanography class harbor cruise

Alumni, please let us know what you are up to!  
marine@cofc.edu



## FACULTY NOTES

*(Continued from page 6)*

dispersal due to tidal mixing may trump more classical niche-assembly factors. A second focus deals with antimicrobial compounds produced by benthic bacteria and will characterize the ecological role of antagonistic interactions among microbes. Whitney Hook (GPMB student) is employing culturing and molecular biological techniques to identify antibiotic producers from marine sediments, and will use microcosm experiments to determine how interference competition influences community structure. A new line of research focuses on the microbiology of beach sands. New GPMB student Vanessa Bezy plans to study mass nesting events (arribadas) of the olive ridley sea turtle in Costa Rica. She will determine whether the high microbial load caused by the abundant broken eggs during arribadas contributes to the low hatching success at these beaches.

**Podolsky Lab:** The Podolsky lab focuses on the ecology and evolution of early life-history stages of marine invertebrates. Grad student Sammi Smoot is continuing work on anti-microbial properties of egg masses that are deposited under conditions with different microbial loads. Last summer she completed experiments at their field site in Friday Harbor, WA looking at effects of different habitats and deposition substrates on the antibiotic properties of egg mass extracts. Undergrad Shannon Hoy is working with Sammi to characterize bacterial communities on these egg masses. Grad student Daniel Fernandes published a paper in JEMBE on the effects on embryo development in egg masses of changes in oxygen availability from photosynthetic deposition substrates. Undergrads Diego Castro and Bradley Watson have been examining the effects of ocean acidification on sperm swimming and respiration, respectively. They presented their work at the SICB meeting in Charleston, where Diego won the Best Student Poster award in the Division of Invertebrate Biology. Undergrad Lauren Christians is continuing Diego's work on acidification and sperm motility and also analyzing video of sperm motility under different temperature and viscosity conditions.

*(Continued on page 8)*

## ALUMNI NOTES

*(Continued from page 6)*

biochemical profiling of microalgae, a subproject within the Advanced Manufacturing CRC Project "Bio-carbon capture and sequestration using microalgal strains." Their primary focus is to develop microalgae-for-biodiesel technology, but they are also studying strains for use in agriculture and as nutraceuticals. She intends to return to the USA in a year or so to work or pursue a PhD.

**Tim Zimmerman (1992):** Tim is an Assistant Professor of Science Education at Rutgers University. His research focuses on learning and teaching of ocean sciences concepts. In particular, he seeks to understand the nature of learning across formal and informal science contexts. Researching learning during informal learning experiences at aquariums, salt marshes, and other aquatic environments through the design and testing of Internet-based desktop and mobile computing technologies, this work fundamentally seeks to understand the role of science learning as it relates to environmental decision-making about marine environmental problems. He has developed marine science curricula and conducted learning research in conjunction with several organizations and institutions including the National Geographic Society, the NOAA, the Monterey Bay and New York Aquariums, and the Massachusetts Audubon Society. His research is currently supported by three NSF grants. When not working, he spends time with his partner Christene and 9-month-old baby Autumn.



**Relay Race at the Second Annual  
Grice Marine-ival**

### Grice Marine Lab Staff

#### Bob Podolsky

GML Director &  
Assistant Professor of  
Biology

#### Craig Plante

GPMB Director &  
Professor of Biology

#### Shelly Brew

Administrative  
Assistant

#### Sarah Oakes

Laboratory Manager

#### Peter Meier

Marine Operations  
Manager

#### Tricia Roth

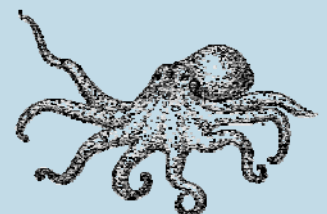
Molecular Core  
Facility Manager

#### Gail Meyers

Administrative  
Specialist

#### Emily Phillips

Laboratory Assistant



## FACULTY NOTES

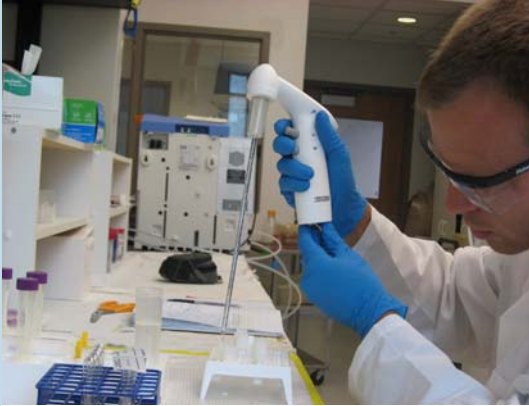
(Continued from page 7)

**Sancho Lab:** The fish ecology lab has been busy with multiple research projects. Ashley Shaw (GPMB) spent the fall collecting tissue samples with the SCDNR in-shore fisheries group from sharks, rays and bony fishes in Bull's Bay and running stable isotope samples at Skidaway Institute of Oceanography in order to characterize trophic ecology of this high salinity estuary. Sarah Doty (GPMB), in collaboration with the SCDNR artificial reef group, has been collecting lionfish from artificial reefs off South Carolina in order to study the diet of this invasive species when inhabiting these man-made structures. Finally Kelsey Yetsko (CofC undergraduate), in collaboration with Dr. Eric McElroy from the Biology Department, has been experimenting with the Grice Fish Flume in order to compare performances of two species of mummichugs found in Charleston estuaries (*Fundulus heteroclitus* and *F. majalis*).

**Sotka Lab:** The Sotka lab began an NSF-funded collaboration with Dr. Jeb Byers at the University of Georgia to explore the ecological impacts of a non-native seaweed *Gracilaria vermiculophylla* on southeastern US estuaries. Nicole Kollars is a new graduate student that is spearheading this local effort. Jonathan Craft successfully defended his thesis and is now pursuing a Ph.D. at James Cook University in Townsville, Australia. Anna Manyak successfully defended her thesis and is now a Sea Grant Fellow in Washington, D.C. working in NOAA's Marine Debris program. Tina Bell continues her postdoctoral research on the phylogenetics and population genetics of nearshore species. During summer 2011, the lab benefited from visiting researchers (Ceiwen Pease, University of New South Wales; Wilmelie Cruz, University of Puerto Rico) and resident undergraduate researchers (Sydney Ramsey and Courtney Gerstenmaier,

CofC). The lab researchers continue to pursue field projects in South Carolina, North Carolina, Virginia and Massachusetts.

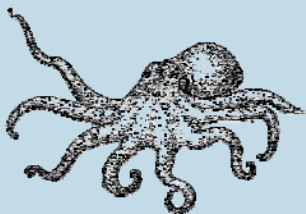
**Strand Lab:** This year the lab welcomes a new postdoc, Yana Wieckowski. Her main responsibilities are to an NSF-sponsored project (shared with CofC faculty Matt Rutter and Courtney Murren) addressing effects of mutations upon the model plant species, *Arabidopsis thaliana*. In addition, they have added three undergraduate students, Scott Landreth, Hanna Vann, and Thomas Fussell, all of whom are supporting *Arabidopsis* research. The Strand lab continues with an NSF sponsored, long-term project to characterize root biology in terrestrial forest ecosystems in the context of increasing levels of atmospheric CO<sub>2</sub>. Finally, they continue to investigate power analyses associated with population genetic inference; notably this work includes collaborations with Erik Sotka at GML and Tanya Darden and Mike Denson at SCDNR.



GPMB student Cameron Doll



Kayaking on Charleston Harbor



## DEEP SEA PURSUIT

In July 2011, Grice Marine Lab received a donation of a 31' Pursuit 310C center console deep hull offshore fishing vessel from David Sneddon of Bluffton, SC. The boat is powered by twin Yamaha 250hp outboards and is equipped with electronics including GPS and radar that will be used to enhance our offshore research capabilities. Possible projects will include side scan sonar mapping of the continental shelf as well as mark and recapture studies of pelagic fish. Thanks to Mr. Sneddon for this generous gift!

