

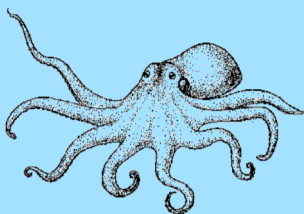
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Grice Marine Laboratory  
205 Fort Johnson Rd.  
Charleston, SC 29412  
843.953.9200

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

Graduate Program in  
Marine Biology  
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## ALGAE, CLIMATE AND THE “SMELL OF THE OCEAN”

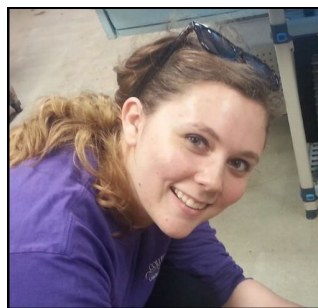
What do beer and wine flavors and global climate cycles have in common? A small molecule called dimethylsulfide, or DMS. This molecule is one of the current research foci of Peter Lee, a CofC researcher based at the Hollings Marine Lab. After earning a Bachelor of Science at the University of Auckland in New Zealand, Peter carried out Master’s research on the role of dimethylsulfoxide, (DMSO), in the formation of DMS in wine. In beer and wine, too much DMS contributes to “skunk” odors. DMSO, which can be present at higher concentrations than DMS, is converted to DMS by enzymes in saliva, effectively adding to the “skunk” flavors.



The same techniques used for measuring DMS and DMSO in beer and wine can be used to measure them in seawater, which helped Lee to complete a PhD in Oceanography at the Université du Québec à Rimouski, in eastern Canada. DMS at just the right concentration is one of the compounds responsible for the “smell of the ocean” that one gets when taking a deep breath of a sea-breeze at the beach. DMS produced in the ocean is also an important precursor for the aerosols required for cloud formation in marine environments. Understanding the processes controlling the production and degradation of DMSO as a precursor to DMS in seawater was the central theme of Lee’s PhD research.

*(Continued on page 7)*

## GML WELCOMES NEW STAFF



**Madison Edwards** joined the GML staff in March 2015 as the administrative specialist. She hails from Hilton Head Island and is a recent graduate of the College of Charleston. She provides administrative support to both GML and the GPMB, including managing the social media accounts and attending HML Science Board meetings. She manages the application process for the REU program, as well as assisting with applications for the GPMB. Her job duties include maintaining the dorms, assisting with CORAL, recruiting for the GPMB, as well as general office management. When she is not at work, you can find her emphatically cheering on the Dallas Cowboys and US Men’s soccer team or watching Netflix with her cat, Shaka Zulu.



**Greg Townsley** joined the GML staff in June 2014 as the lab manager. Originally from Ohio, he moved to Charleston in 1989, just before Hurricane Hugo hit. He has a BS in Zoology from The Ohio State University and an MS in Environmental Studies from the University of Charleston, South Carolina. Previously, Greg worked for SCDNR, the National Park Service, and the US Forest Service. Before joining GML he spent four years at Utah State University as the Facility Manager of an algae biofuel research facility. His job duties as Lab Manager are numerous and varied. Suffice it to say that he “wears many hats!” In his free time he enjoys working on home improvement projects, cooking, photography, and numerous outdoor activities.

## GRADUATE RESEARCH COLLOQUIUM

The 18th annual Marine Biology Student Research Colloquium was held on September 19th and 20th, 2014. The colloquium featured keynote speaker Dean Grubbs, an elasmobranch ecologist and Assistant Director of Research at the Florida State University Coastal and Marine Laboratory, as well as an associate research faculty member. Grubb's research focuses on ichthyology and marine ecology with an emphasis on the biology of exploited estuarine and marine fishes. He gave two addresses at this year's colloquium: "Endangered Sawfish and Deep-sea Sixgill Sharks: Using Modern Telemetry to Study Very Large Elasmobranch Fishes" and "Peer Review, Waning Scientific Skepticism and the Danger of Losing Credibility: Lessons from Shark Management and

Conservation Efforts." Fourteen marine biology graduate students gave oral presentations. Alyssa Demko received the best oral presentation award and Mark Lehtonen received the best poster presentation award. Seventeen students presented posters of their thesis research this year. The colloquium concluded with a cookout and lowcountry boil for students, faculty, and colloquium attendees at the Marshland's House outdoor classroom.



*Dean Grubbs, PhD  
Florida State  
University*

### Grice Marine Lab Staff

#### Bob Podolsky

GML Director & Assoc.  
Professor of Biology

#### Craig Plante

GPMB Director &  
Professor of Biology

#### Shelly Brew

Administrative  
Coordinator

#### Madison Edwards

Administrative  
Specialist

#### Greg Townsley

Laboratory Manager

#### Peter Meier

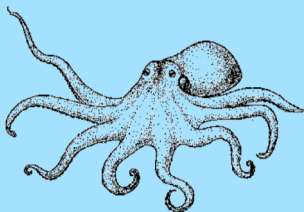
Marine Operations  
Manager

#### Emily Phillips

Laboratory Assistant

#### Kristy Hill

Molecular Core Facility  
Manager



## GEORGE D. GRICE, JR. LECTURE



*Mark Martindale, PhD  
University of Florida*

On April 10, 2015, Mark Martindale from the University of Florida gave the 7th annual George D. Grice, Jr. Lecture, a special Ft. Johnson seminar that honors the contributions of the Grice family to marine science. Martindale's talk, "Developmental Constraints and the Pattern of Animal Evolution," covered his work on correlation between genomic and morphological complexity in the evolution of animal form. Martindale's research covers a broad range of topics in the evolution of development, including the timing of cell fate specification, the evolution of novelty and complexity, and the relationship between development and regeneration. As an unplanned bonus, his partner Elaine Seaver gave the Department of Biology seminar the same week!

## SUMMER REU PROGRAM

In summer 2014, Fort Johnson once again welcomed ten undergraduate research interns from around the world. These students were selected from a highly competitive pool of applicants to participate in our NSF-sponsored Research Experiences for Undergraduates (REU) summer program. Working with scientists from among our Fort Johnson partners as part of the research theme, "Marine Organism Health: Resilience and Response to Environmental Change", the interns pursued research questions in physiology, toxicology, parasitology, ecology, molecular biology, and biochemistry using diverse marine organisms, including fish, crabs, seaweed, snapping shrimp, sea urchins, alligators, sharks, and parasites. Interns also participated in workshops, field trips, and social events, providing numerous opportunities for networking with scientists, graduate students, and other undergraduate students. Additionally, the interns participated in the Science Communication Workshop Series (SCICOM), through which they gained new skills for communicating their science to professional, peer, and public audiences. The workshops, led by science writer and environmentalist Carolyn Sotka, focused on how to take advantage of opportunities to publicize work, including the use of social media tools. To complete their summer experience, the interns gave oral presentations and wrote research papers based on their data. Thanks to everyone who made the 2014 program a success! To learn more, visit our website [reu.cofc.edu](http://reu.cofc.edu).



*REU intern Dakeishla Diaz*

## FOLLY BEACH CHRISTMAS PARADE

The Marine Biology Graduate Student Association (MBGSA) entered a float in the Folly Beach Christmas Parade for the fifth year in a row. The *R/V Chamberlain* was decked out with wreaths, garland, and other decorations, along with our mascot "Octoclaus" - a giant hand-made octopus with a Santa beard and hat sitting on top of the cabin. Marine Operations Manager Pete Meier, with the help of his canine sidekick Maggie, pulled the float, while graduate students rode on the back deck of the vessel, throwing candy to all of the kids in the crowd. The MBGSA float was a huge hit, and won "Best Beach Themed Float!"



"Octoclaus" perches atop the GPMB 2014 Float

## IMPROVEMENTS TO THE WET LAB



New water storage tanks

The new tank system in the wet lab is now operational. Our old storage tanks, circa 1980s, were replaced with two new 500-gallon polyethylene storage tanks. We installed a new filtration system that will make our sea water much cleaner. It will also eliminate some of the issues we had with bacteria, algae, and diatom build-up. Water is now filtered through a 10  $\mu\text{m}$  cartridge filter, activated carbon and a UV sterilization filter. The wet lab continues to be used at near capacity with studies of spotted seatrout (*Cynoscion nebulosus*), blue crab and diamondback terrapin (*Callinectes sapidus/Malaclemys terrapin*), sea spider (*Tanystylum orbiculare*), snapping shrimp (*Alpheus heterochaelis*) and invasive algae (*Gracillaria vermiculophylla*).

## BUILDING A BOG GARDEN

Graduate students Rebecca Balazs and Sharleen Johnson have been working to make the Grice Marine Lab campus a bit more beautiful and sustainable this year. The HVAC unit on the GML main building's roof produces condensate at rates up to a gallon per minute in summer. This water was pooling near the building's foundation at its output point, potentially causing damage to the building. The solution to this problem came in the form of a new pond and native plant wetland garden, which was designed by Balazs, Johnson, and GML Lab Manager Greg Townsley with help from CofC Physical Plant. The project is funded by a CofC Office of Sustainability ECOllective grant. Water is piped from the HVAC system to a pond, from the pond to an acidic bog, which will be home to native carnivorous plants, and finally to a lined wetland area with native, water-loving plant species. The garden will eventually feature plant identification signs with art by College of Charleston Biology student Elsa Cousins, as well as interpretive signage designed to educate the public on sustainable garden practices, native plants, and wetland ecosystems. This project became a reality due to generous volunteer work from over thirty GPMB students throughout February and March. To see continued progress on this garden, "like" Grice Green Teaching Garden on Facebook!



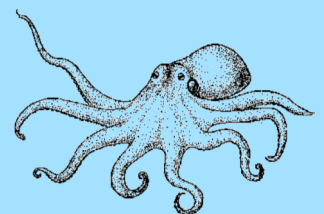
Graduate students Hannah Bouchillon and Chris Mealey assist with the planting process

Be sure to Like  
us on Facebook!

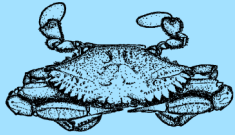
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## RECENT GPMB DEGREES



Grice Logbook is available online at <http://gricemarinelab.cofc.edu/about-the-laboratory/grice-newsletter>

**Melissa Bernhard** — The Effects of PPAR $\gamma$ /RXR $\alpha$  Signaling Via *in ovo* Tributyltin Exposure on Development of the American Alligator, *Alligator mississippiensis* (Advisor: Satomi Kohno)

**Vanessa Bezy** — Olive Ridley Sea Turtle (*Lepidochelys olivacea*) Embryo Mortality as a Function of the Nest Microbial Community at Ostional, Costa Rica (Advisor: Craig Plante)

**Catherine Bridges** — The Cloning and Characterization of GFP-like Proteins from the Abnormally Pink Pigmented Tissues of *Porites lobate* (Advisor: Sylvia Galloway)

**David Coles** — Dusk Transition in Sub-Tropical Reef Fish Communities Off of North and South Carolina (Advisor: Marcel Reichert)

**Callie Crawford** — Skeletal Anatomy in the Chondrichthyan Tree of Life (Advisor: Gavin Naylor)

**Sarah Doty** — Feeding Ecology of Invasive Lionfish in Biscayne National Park, Florida (Advisor: Gorka Sancho)

**Amanda Kelly** — Age, Growth, and Reproduction of Gray Triggerfish *Balistes capricus* Off the Southeastern U.S. Atlantic Coast (Advisor: Virginia Shervette)

**Nicole Kollars** — The Evolutionary Ecology of the Non-Native Seaweed *Gracilaria vermiculophylla* and its Association with the Native Decorator Polychaete *Diopatra cuprea* (Advisor: Erik Sotka)

**Jacqueline Leidig** — Genetic Population Structure

of Black Drum (*Pogonias cromis*) in U.S. Waters (Advisor: Virginia Shervette)

**Adam Lytton** — Age Validation of the North Atlantic Stock of *Polyprion americanus*, Using Bomb Radiocarbon ( $C^{14}$ ), and New Estimates of Life History Parameters (Advisor: Marcel Reichert)

**Rebecca Mortenson** — Development of a Sandwich Hybridization Assay for the Identification of Red Drum, *Sciaenops ocellatus*, Eggs: A Novel Tool for Fishery Research and Management (Advisor: Dianne Greenfield)

**Michelle Reed** — The Influence of Macronutrient Form on the Spatial and Seasonal Variability of Phytoplankton and Bacterial Assemblages in Four Coastal South Carolina Systems (Advisor: Dianne Greenfield)

**Jason Smith** — Effects of Irradiance Levels on the Abundance of Ice-Binding Protein Transcripts in the Sea-Ice Diatom, *Fragilariopsis cylindrus* (Advisor: Mike Janech)

**Meredith Smylie** — Patterns of Mercury Uptake with Respect to Life History, Diet, Environment, and Health of the Estuarine Predator Longnose Gar, *Lepisosteus osseus* (Advisor: Virginia Shervette)

**Leslie Wickes** — The Effect of Acidified Water on the Cold-Water Coral, *Lophelia pertusa*: Distribution in the Southern California Bight and Analysis of Skeletal Dissolution (Advisor: Peter Etnoyer)

## STUDENT AWARDS

**Rebecca Balazs**—Joanna Deep Water Fellowship (Spring 2015)

**Hayley DeHart**—Joanna Deep Water Fellowship (Spring 2015)

**Alyssa Demko**— CofC Graduate Poster Session 1st Place Mathematics & Science (Spring 2014), National Science Foundation Graduate Research Fellowship (Spring 2014), CofC Graduate Student Association Research Grant (Spring 2014), 1st Place Oral Presentation GPMB Colloquium (Fall 2014)

**Becca Derex** — Graduate Scholars Award (Fall 2014)

**Drew Duckett** — 2nd Place Poster at GPMB Colloquium (Fall 2014)

**Liz Duermit** — Best Student Poster at Southern Division American Fisheries Society meeting (Spring 2014), Slocum-Lunz Grant (Summer 2014), 2nd Place Oral Presentation at GPMB Colloquium (Fall 2014), Outstanding Oral Presentation at Benthic Ecology Meeting 2015

**Robin Frede**— Slocum-Lunz Grant (Spring 2014), Harry Hampton Wildlife Fund/Guy Harvey Ocean Foundation Scholarship (Fall 2014), Graduate Scholars Award (Fall 2014)

**Courtney Gerstenmaier** — Presidential Research Award (Spring 2014), Knauss Fellowship

**Whitney Heuring**— Presidential Research Award (Summer 2014), Graduate Scholars Award (Fall 2014)

**Sharleen Johnson** — Harry Hampton Wildlife Fund/Guy Harvey Ocean Foundation Scholarship (Fall 2014), McLeod-Frampton Award (Spring 2015)

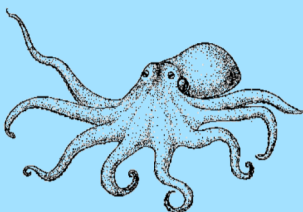
**Mark Lehtonen** — Presidential Research Award (Spring 2014), 1st Place Poster at GPMB Colloquium (Fall 2014)

**Nicole McNabb** — NSF East Asia and Pacific Summer Institutes for U.S. Graduate Students Fellowship (Summer 2015)

(Continued on page 8)



Graduate Students Robin Frede and Sharleen Johnson receiving Guy Harvey scholarships



## FACULTY NOTES

**Burnett Lab:** The Burnett lab group travelled to Austin, TX in January 2014 for the Annual Meeting of the Society for Integrative and Comparative Biology, at which former graduate student Anna Tommerdahl gave an oral presentation of her recently defended thesis research “Respiratory Properties of Hemocyanin from Wild and Aquacultured Penaeid Shrimp.” At the same meeting, current graduate students Rebecca Derex, Sarah Song, and Jason Wang also presented research posters as did former REU intern Christian Millan-Hernandez and postdoctoral fellow Jillian Johnson. The summer Grice REU program brought undergraduate intern Bernard Akem to the Burnett lab, where he examined the impacts of low oxygen on the concentration and oligomeric forms of hemocyanin in the Atlantic mud crab. With support from an NSF East Asia Pacific Summer Institute (EAPSI) Fellowship, Jason Wang spent two summer months at the National Dong Hwa University in Taiwan investigating biochemical and molecular responses of shrimp to nitrite. In 2014 the lab also welcomed a new member, GPMB student Mark Lehtonen. Mark’s presentation on his research “The Effect of Hypercapnic Hypoxia on Performance in the Atlantic Blue Crab” earned first place at the 2014 GPMB Colloquium Poster Competition. Lou Burnett was elected President of the Society for Integrative and Comparative Biology; he will serve as President-Elect in 2015-2016, then President for two years. The year also brought big changes when Jill, her husband Nat Johnson (a GPMB graduate), and son Anders welcomed baby brother Hagan into the world. In another important transition, the Johnson family moved to Groton CT, where Nat landed a job at Pfizer Pharmaceuticals. Jill continues her postdoctoral work remotely, using bioinformatic analysis of RNA sequencing data to identify and quantify changes in the synthesis of hemocyanin in shrimp and crabs. Congrats to all!

**McElroy Lab:** Eric McElroy was on sabbatical this year, however things are still moving along. In collaboration with the de Buron lab, the McElroy lab plunged further into the study of how parasites impact their host’s physiological performance capacity. McElroy and de Buron published a new meta-analysis of the published literature on parasite impacts on host performance in the *Journal of Parasitology* and this work should serve as a foundation for future studies in this area. The results of the meta-analysis were presented at the Society for Inte-

grative and Comparative Biology in West Palm Beach, FL, the Southeastern Society for Parasitology in Statesboro, GA, and the Eastern Fish Health Workshop in Charleston, SC. Undergraduate Andrew George graduated in May, is now pursuing a PhD at the University of Chicago with Mark Westneat, and recently had his undergraduate work published in *Parasitology Research*. Undergraduate Carissa James also graduated in May and is pursuing a PhD in the Department of Translational Biology, Medicine and Health at Virginia Tech. MES student Courtney Heuring is planning for another summer of catching horned lizards on the dunes at several local beaches; lizards were quite abundant last summer and so she hopes for another successful field season. MES student Leeann Haselden is testing the effects of cold temperature on swimming performance and survival in spotted seatrout. Testing should be completed in late April 2015. In summer 2015, five new undergraduates will join the McElroy lab studying both fish-parasite interactions and horned lizard ecology.

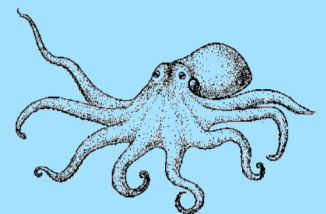
**Plante Lab:** The Plante lab continues to focus efforts on the microbial ecology of marine sediments. Recent research has examined the role of neutral processes, particularly disturbance and passive dispersal, on community assembly of microalgae on sand- and mudflats. This collaborative effort with Martin Jones of the CofC Math Dept. originated with the summer project of former REU intern, Virginia Flear. Another former REU intern, Luis Rivera-Garcia is also involved in the project, taking on the task of characterizing the diatom assemblage composition of these habitats using molecular techniques. More applied work includes CofC undergraduate Aubrey Butcher’s study characterizing the effects of sand renourishment at Folly Beach on benthic microalgal communities and the time course of their recovery. More recently, in collaboration with SC-DNR, Aubrey and lab technician Kristy Hill have started a similar project in conjunction with the Tybee Island (Georgia) renourishment project. In early 2014, GPMB student Vanessa Bezy finished her study of mass nesting events (arribadas) of the olive ridley sea turtle in Costa Rica, testing whether the high bacterial or fungal loads caused by the abundant broken eggs during arribadas contribute to the low hatching success at these beaches. Vanessa graduated in May and is currently a PhD student at UNC-Chapel Hill as an NSF-GRFP fellow. CofC undergraduate Morgan Larimer is continuing the

(Continued on page 6)



**Graduate student Hayley DeHart pulls in a sandbar shark in order to record its measurements for the Naylor Lab**

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## FACULTY NOTES (CONT.)

(Continued from page 5)

analysis of Vanessa's samples to characterize the microbial community composition of the nests and determine whether known pathogens might account for turtle embryo mortality.

**Podolsky Lab:** The Podolsky laboratory focuses on the ecology and evolution of marine invertebrates, particularly at early life-history stages. In the last few years we have turned attention to the problem of ocean acidification (OA), focusing on its effects on two distinct life-history stages: gamete fertilization and larval development. CofC undergraduate Tess Dooley is conducting research to address whether multi-individual spawnings reduce the effects of OA relative to single-pair spawnings by increasing the probability of OA-resistant pairings, and to test whether genetic variation exists for sensitivity of fertilization to OA. In the process she has uncovered a novel pattern, that multi-male spawnings achieve lower fertilization success than the average of single-male spawnings, suggesting some form of male-male interaction. Emily Hall, an REU student from SUNY-ESF, conducted parallel studies to test for genetic variation in sensitivity of larval development to OA, and in the process discovered a positive relationship between OA and fluctuating asymmetry in larval skeletal dimensions. For her research Emily won a best student poster award at the SICB conference. We also began to work out measurements of larval respiration for larvae incubated under high and low CO<sub>2</sub> conditions. CofC undergraduate Justin Skinner has been examining patterns of sexual size dimorphism and differential male mating success in a local pycnogonid species, finding that in males (which fertilize and carry eggs collected from females) larger individuals have higher mating success, while females have larger legs (where ovaries are located). Dr. Podolsky also enjoyed directing our summer REU program for the first time and working, in collaboration with environmental writer and educator Carolyn Sotka, on professional development and communication activities with an awesome group of REU interns.

**Sancho Lab:** GPMB student Ashley Shaw successfully defended her thesis titled "Dietary Niche Overlap of an Estuarine Predatory Fish Community in South Carolina Assessed by Stable Isotope Analysis" and is now working for SCDNR. Sarah Doty (GPMB student) finished analyzing stomach samples from lionfish collected in Key Biscayne National Park in Florida and, with the help of Erik Sotka, did genetic bar-coding of unidentified prey to determine their identity (mostly gobies!). Sarah Doty, Kelsey Yetsko (CofC undergraduate stu-

dent), and Alison Deary (CofC undergraduate alumnus, now VIMS PhD Program) all gave talks on their research results (on lionfish, killifish, and tuna, respectively) at the South-eastern Chapter Meeting of the American Fisheries Society in Charleston. Gorka Sancho attended the Ocean Sciences Meeting in Honolulu where he presented his research results on hydrothermal vent fish surveys done in collaboration with Javier Escartin (CNRS-France), Rafael Garcie (U de Girona — Spain), and Jessica Miller (CofC undergraduate). Rachel Basset (MES student) joined the Lab and will be working with SCDNR-MARMAP to provide fisheries research opportunities to four CofC undergraduate students, who will be working on the effects of marine protected areas on various fish species off the Charleston shelf waters, as part of a newly funded SC SeaGrant project.

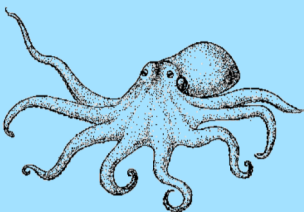


*Graduate student Alyssa Demko with feeding strips for her experiment in the Sotka Lab*

**Sotka Lab:** The Sotka lab continued its work on the evolutionary ecology of seaweeds and herbivores. Nicole Kollars successfully defended her thesis in summer 2014 and began her PhD in Ecology and Evolution at UC Davis. Courtney Gerstenmaier successfully defended her thesis December 2014 and started a Knauss Fellowship, working at the interface between the Smithsonian and NOAA. Alyssa Demko continues to work on latitudinal gradients in seaweed chemical defenses. Meredith Smylie left a technician position in the lab for the cold weather but well-funded walls of Yale as a senior research technician. Stacy Krueger-

(Continued on page 7)

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## ALGAE, CLIMATE AND THE “SMELL OF THE OCEAN”(CONT.)

(Continued from page 1)

Upon finishing his PhD, Lee spent 2 years in Bozeman, Montana, as a post-doctoral fellow at Montana State University investigating the sulfur biogeochemistry of permanently ice-covered lakes in Antarctica, a research topic that he continues to work on through collaborations with researchers at the University of Tennessee, Knoxville. In 2003, Peter moved to Charleston to work with CofC Professor Jack DiTullio on DMS biogeochemistry and phytoplankton ecophysiology in the context of changing global climate and oceans. Lee was recently awarded a RUI grant from the NSF to study the role of vitamin B<sub>12</sub> in the production of DMS precursors in phytoplankton and the degradation of DMS by bacteria and archaea in the ocean. This study involves both CofC undergraduates and graduate students from the

GPMB program, and includes colleagues from MUSC and NIST-Charleston. He also recently received a MRI grant from the NSF for the purchase of a sea-going Proton-Transfer-Reaction Mass Spectrometer, which will provide an advanced and more sensitive ability to measure volatile compounds such as DMS, as well as simultaneously measuring other climatically important volatile compounds such as ammonia and isoprene in real-time during oceanographic expeditions. When he is not researching, Lee spends time with his dog Missy at his home on Johns Island. His hobbies include sailing, hunting, saltwater fishing, and building train and plane models.



*Peter Lee, admires the new mass spectrometer*

## FACULTY NOTES (CONT.)

(Continued from page 6)

Hadfield made trips to SiMBIO (Knoxville, TN) and NC State for collaborations and spearheaded analyses of the invasion history of the invasive seaweed *Gracilaria vermiculophylla*. REU student Connon Thomas (U. Syracuse) and Academic Magnet High School student Hannah Waddell joined the lab. One of the most important accomplishments was the inception of

a collaboration with Patriots Point Education Center. The science and scientists of the Sotka lab and their work with *Gracilaria* are reaching elementary school kids throughout the state. To learn more, please visit <http://www.patriotspointsciencespotlight.com/the-sotka-lab.html>, as well as <http://www.patriotspointsciencespotlight.com/lamps.html> for details.

## STUDENT AWARDS (CONT.)

(Continued from page 4)

**Chris Mealey** — Slocum-Lunz Grant (Spring 2014), 1st Place at CofC Graduate School 3-Minute Thesis Competition (Fall 2014)

**Megan Meek** — Graduate Scholars Award (Fall 2014)

**Bec Mortenson** — Graduate Scholars Award (Fall 2014)

**Nicole Schanke** — Presidential Research Award (Spring 2014)

**Sarah Song** — Graduate Scholars Award (Fall 2014)

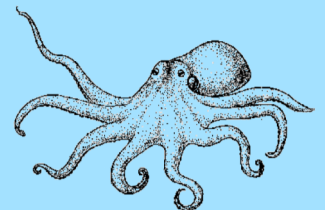
**A.J. Turner** — American Museum of Natural History Lerner-Gray Memorial Fund for Marine Research (Spring 2014), Joanna Deepwater Fellowship (Summer 2014), College of Charleston Graduate School Research Grant (Spring 2014)

**Jason Wang**—Sigma Xi Grants in Aid of Research (Spring 2015), NSF East Asia and Pacific Summer institutes for U.S. Graduate Students (Spring 2014)

**Hope Wertz**— McLeod-Frampton Graduate Scholarship (Spring 2014)



*Graduate student Mark Lehtonen receives 1st place for his poster presentation at the GPMB Colloquium*



## ALUMNI NOTES



*Julian Burgos with his family  
in front of Mount Esja  
in Iceland*

**Julian M. Burgos (2000)** After finishing my Master's degree at the College of Charleston, I moved to Seattle and got a PhD in Aquatic and Fishery Science from the University of Washington. There, I worked describing spatial patterns of walleye pollock using acoustics. Then I did a post-doc at the Alaska Fishery Science Center, working on recruitment variability in snow crab in the Bering Sea. In 2009 I was hired by the Marine Research Institute (MRI) in Reykjavik, Iceland, to work on the CoralFISH project, an Europe-wide project studying the interaction between cold-water coral reefs and commercial fisheries. My current work includes mapping benthic habitats in the Icelandic shelf, modeling the distribution of cold-water corals and other vulnerable marine habitats, and mapping the activity of commercial fisheries and other anthropogenic activities. Our aim is the conservation of benthic habitats and biodiversity. On the personal level, I am married to Nancy. We have a son, Elias, who is seven years old and a fluent Icelandic speaker. Our Icelandic, on the other hand, is terrible.

**David McLean (1988)** I moved to Charleston to study at the Grice Lab and have never left the city since. After Grice, I worked for several years at MUSC in a research lab and at the S.C. Lions Eye Bank, studied for several years at MUSC for my doctorate (molecular and cellular biology and pathobiology) and post-doctorate (bioinformatics), worked on the biology faculty at Claflin University (commuting to Orangeburg) and back at CofC Biology as adjunct faculty. Unfortunately unable to obtain independent funding at Claflin and unemployed in the ongoing economic recession, I'm now actively volunteering with several local organizations. I principally volunteer for the USFWS and the Cape Romain NWR conducting birding surveys on Bulls Island (check out my blog "Birding Bulls" at [birding-bulls.blogspot.com](http://birding-bulls.blogspot.com)). While working at MUSC, I met and married a beautiful Charleston lady, Nan, and I have a daughter, Ann, who is now a

high school junior and taking college campus tours.

**John Robinson (2006)** After graduating from the College of Charleston, I received a PhD in Genetics from the University of Georgia. I then worked as a postdoctoral researcher with Dr. Greg Moyer in the USFWS Conservation Genetics lab in Warm Springs, GA and for Dr. Mike Hickerson at the City College of New York. In January of 2014, I accepted a position with the Genetics lab at the South Carolina Department of Natural Resources. This position has allowed me to return to Charleston and has given me the opportunity to serve as adjunct faculty for the Graduate Program in Marine Biology. My research to date has focused on developing, testing and applying population genetic methods to estimate demographic parameters in natural populations. Current projects in the SCDNR Genetics lab include developing an environmental DNA (eDNA) monitoring tool for populations of a threatened freshwater sunfish, evaluating the genetic impacts of stock enhancement using computer simulations, and characterizing population structure and effective population size in a wide variety of commercially and recreationally important marine species.

**Kristin Stover (2012)** After graduating from the College of Charleston, I moved up to Providence, Rhode Island to start a PhD program in the Ecology and Evolutionary Biology Department at Brown University. My dissertation explores the effects of increased mass on the biomechanics of locomotion, using wild and domestic turkeys as a model. I have had the opportunity at Brown to utilize some exciting visualization techniques, such as X-ray Reconstruction of Moving Morphology (XROMM). I am currently teaching human gross anatomy at the Brown Alpert Medical School to first year students. Last spring, Peter Feltman (2012) and I went back to Charleston to get married where we met. I have been a regular attendee at Society of Integrative and Comparative Biology conferences where I always look forward to catching up with many College of Charleston folks each year!

## GML SOCIAL MEDIA

Here at GML we are making an effort to ramp up our social media presence. You can help us by sending alumni updates, lab pictures, etc. to Madison Edwards at [mnedward1@cofc.edu](mailto:mnedward1@cofc.edu). Be sure to follow us on Facebook and Twitter, as well as our blog!



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