



# Tidings

*A publication of the Florida State University Coastal & Marine Laboratory*

## Administration & Support Staff

Director: Dr. Felicia Coleman

Assoc Dir: Dr. Todd Engstrom

Business Mgr: Dama Murphy

Dir Asst: Maranda Marxsen

Secretary: Sharon Thoman

## Facilities

Fac Mgr: Dennis Tinsley

Seawater System: Mark Daniels

Gen Maint: Bobby Henderson

Carpenter: Frank Lindamood

Custodian: Linda Messer

## Academic Diving Program

Coordinator: Mike Lavender

Diving Supervisor: Joel Valdez

Diving Supervisor: John Kiwala

## Resident Faculty

Dr. Dean Grubbs

Dr. Kevin Craig

## Post-Doctoral Associates

Dr. Laura Petes

Dr. Chris Stallings

## Security

Stan Thomas

Dave Matthews

Frederick Hunter

## A Wealth of Marine Biologists

What a great fall for the Lab!

First, the Florida State University Coastal and Marine Laboratory was delighted to host "HerrnFest"—a celebration in honor of **Dr. William "Doc" Herrnkind**. On Saturday 18 August 2007, over 80 of Doc's former students, colleagues, friends, and admirers gathered at the Lab for a retirement bash to recognize his many accomplishments as a teacher and scientist. A morning fishing tournament was followed by an afternoon HerrnRoast and an evening low country boil. Roasters included former students from the 1960's, 70's, 80's, 90's, and 2000's. (For more HerrnFest pictures visit our website: <http://www.marinelab.fsu.edu/herrnfest.html>)

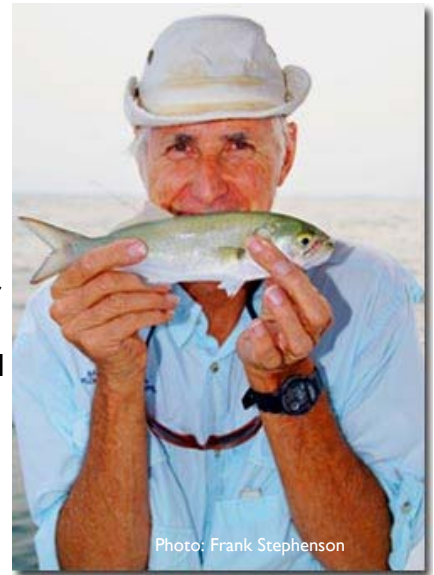


Photo: Frank Stephenson



Photo: Laura Petes

Then we had the pleasure of a visit from **Dr. Bob Paine**, University of Washington, renown for his influence on the field of community ecology. He came to FSUCML to revisit Alligator Harbor—site of his dissertation research (University of Michigan) on brachiopods and predatory gastropods. In field trips to his former study sites, Bob was joined by many eager field assistants from the ranks of the FSU and FSUCML faculty, grad students, and staff. He also delivered a lecture at the Lab, "*Field experiments on multi-species competitive interactions: lessons from a coralline algal assemblage*," from his research on Tatoosh, a remote island off the coast of Washington. The lecture was attended by a standing room only crowd.

# Message from the Director

As if our celebration of “**Doc**” **Herrnkind** and the extended visit by **Dr. Bob Paine** didn’t provide enough excitement for the Lab this fall, we are especially gratified to welcome two new faculty, **Dr. Dean Grubbs** and **Dr. Kevin Craig**, two new postdocs, **Dr. Laura Petes** and **Dr. Chris Stallings**, and a new associate director, **Dr. Todd Engstrom**, to the Lab. (Please take a little time to read their bios below or visit our website <http://www.marinelab.fsu.edu/staff/index.html> for more information.) This significant swelling of our ranks is the culmination of months of job descriptions, interviews, and negotiations, and it represents a major investment by Florida State University in the Lab. Not entirely new, but now co-located at the Lab are **Mike Lavender** and **Joel Valdez** from the Academic Diving Program. The entire staff rallied to welcome them and squeeze them into their new digs at the Lab. Everyone has hit the ground running and the Lab is abuzz with grant proposals, equipment requests, and facilities upgrades. Hold on to your hat! If this is any indication of what the future holds for the FSUCML, then it looks pretty good from here.

---

## Kevin Craig, Faculty

Originally from North Carolina, Kevin received his undergraduate degree from North Carolina State University and his Ph.D. from Duke University. Kevin’s research addresses population and community level consequences for fish of human-induced alterations of marine systems. Currently, he is investigating the effects of nutrient loading and associated hypoxia (oxygen deficiency) on fish communities of near-shore continental shelves (Gulf of Mexico) and coastal estuaries (Neuse River, NC) to provide the basis for informed policy decisions. Kevin lives in Crawfordville with his wife, Tara, and two daughters, Taylor and Riley.



---

## Dean Grubbs, Faculty

For Dean re-locating to the Lab is something of a homecoming. He grew up in Perry, Florida, and has a deep appreciation for the biological diversity of the north Gulf coast. His primary research interests are in ichthyology and marine ecology with emphasis on the biology of exploited estuarine and marine fishes. Much of his research seeks to fill specific knowledge gaps necessary for management of fisheries resources, especially coastal sharks, but his diverse background includes projects that on terrestrial reptiles and teleost fishes such as the alligator gar. Dean received his undergraduate degree from University of Miami and his Ph.D. from the College of William and Mary’s Virginia Institute of Marine Science.



### **Laura Petes, Postdoctoral Associate**

Laura's main research interest is how stress affects marine invertebrates. Her previous research in Oregon found that rocky intertidal mussels under stress exhibit life-history trade-offs, allocating energy away from growth and reproduction and towards costly physiological defenses. At FSUCML, she is performing field and laboratory experiments to study how changes in freshwater input into Apalachicola Bay, Florida, affect oyster populations, particularly oyster survival, growth, reproduction, and disease. Laura earned her undergraduate degree from Cornell University and her Ph.D. from Oregon State University.

---



### **Chris Stallings, Postdoctoral Associate**

A clear understanding of the factors that regulate marine fish populations and structure their communities is the main goal of Chris' research. His work on coral-reef fishes in the Caribbean and the Bahamas indicates that management and conservation efforts would benefit from a holistic approach, such as ecosystem-based management and marine reserves. Chris is especially interested in initiating studies of the population dynamics of gag grouper and aspects of seagrass beds in the northern Gulf of Mexico at the FSUCML. He received his undergraduate degree from East Carolina University, his masters from San Francisco State University, and his Ph.D. from Oregon State University. Chris lives in Crawfordville with his wife, MJ—a science teacher at Riversprings Middle School.

---



### **Todd Engstrom, Associate Director**

Todd has fairly deep roots in north Florida. After receiving his masters and Ph.D. from Florida State University, he was staff ecologist at Tall Timbers Research Station (1990-2002) and director of the Greenwood Project for The Nature Conservancy (2002-2005). His research interests at the Florida State University Coastal and Marine Laboratory include: reintroduction of fire into fire-dependent, but long fire suppressed pine forests, the search for and conservation biology of the ivory-billed woodpecker, trans-Gulf bird migration, and geographic patterns of bird species richness within the longleaf pine ecosystem. Todd's wife, Kim, is the director of educational services at WFSU, and son Dawson is a 5th grader at Hawk's Rise Elementary School.



## Research Highlights

By Felicia Coleman, FSUCML

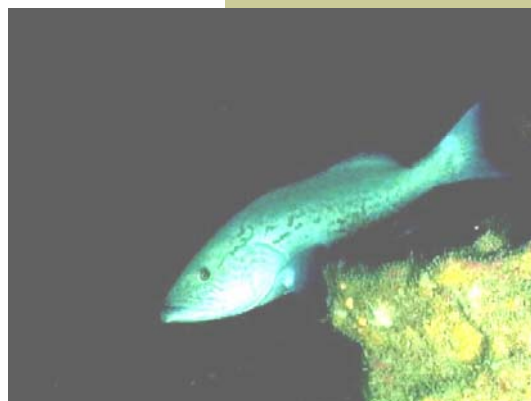
One of the more biologically diverse and highly productive marine systems in the southeastern United States is right outside our back door. Inshore is a complex of seagrass meadows, saltmarshes, oyster reef, and mudflats, while offshore are coral, rock, and sponge reefs surrounded by a veneer of sand. Despite the fact that this region has been fished for over 100 years, the relationship of habitat to fishery production has received little attention.

Figuring out the linkages among habitats is the focus of the FSUCML Reef Fish Ecology group headed by **Chris Koenig** and **Felicia Coleman** and including **Jimmy Nelson**, **Chris Stallings**, **Laura Petes**, and **Nate Jue**. The model species is gag, a grouper that depends on diverse habitats (open ocean, seagrass, offshore reefs) during different life stages, and is important ecologically as a top-level predator and economically as one of the most sought after species in the Gulf of Mexico.

What this group discovered working in marine reserves in the heart of grouper spawning grounds, is that marine reserves allow fish to grow larger, become more abundant, and recover from overfishing of males. Having fewer males in the population does not bode well for the production of new fish. This finding is complicated by the fact that the behavior of fishermen to particular management practices is just as important in understanding how management works as determining the biological response of the fish themselves, based on collaborations with scientists at Duke University. Indeed, the initial recovery in these areas was rapidly diminished by extensive poaching.

By Greg Herbert:, University of South Florida

We're conducting several studies involving the FSUCML The first is an investigation of evolutionary arms races between predators and prey, and we're studying this from the perspective of the speed and power of attack behaviors in predatory marine gastropods. The FSUCML has been a focal point of our recent work because of the diversity and abundance of mollusks in the area and the ability to conduct experiments using the facilities. The second study relates to the evolution of benthic invertebrate communities of the tropical and subtropical western Atlantic in response to environmental changes spanning the last five million years. Most of the work has been conducted so far on fossil communities, and we're now starting to shift our attention to diversity and community structure patterns in modern, anthropogenically altered communities.



## FSUCML Lecture Series: Second Thursday of the Month

### Summer-Fall 2007

- 12 July 2007 **Marcus Huettel**, Florida State University, “Waves, sands, and algal blooms—How coastal sand beds can affect water quality”
- 9 August 2007 **Laura Petes**, FSU Coastal and Marine Lab, “Bivalves under fire: how stress affects shellfish”
- 13 Sept. 2007 **Joseph Donoghue**, Florida State University, “Sea-level rise, coastal erosion, and the future of the Florida coast”
- 11 Oct. 2007 **Don Levitan**, Florida State University, “Has anyone seen my date? The consequences of being rare in the sea”
- 25 Oct. 2007 **Robert Paine**, University of Washington, “Field experiments on multi-species competitive interactions: lessons from a coralline algal assemblage”

### Spring 2008

- 14 Feb. 2008 **Bruce Menge**, Oregon St. Univ., “Coastal ecosystems: windows into ecological consequences of global warming?”
- 21 Mar. 2008 **Brian Helmuth**, University of South Carolina, “Ecological forecasting of intertidal ecosystems: triaging the train wreck of climate change” This is one of the Elsie B. Newell Seminars sponsored by Sea Grant Florida. *NOTE:* this lecture will be held on a Friday, not the normal 2nd Thursday of the month.
- 10 Apr. 2008 **TBA**
- 8 May 2008 **TBA**

Check our website for dates of these speakers at: <http://www.marinelab.fsu.edu/outreach.html#lecture>

## Academic Courses, Non-credit Workshops, and Short Courses

FSUCML is hosting several academic courses this spring and early summer. **Biology of Fishes** (FSUCML and Dept. Biological Science) to be taught by *Chris Koenig* and *Felicia Coleman*. This course is designed to provide an overview of the systematics, morphology, ecology, behavior, physiology, and life history of the most diverse group of vertebrates on earth, the fishes. *Bill Herrnkind* (Dept. Biological Science) will teach **Research for Teachers—Inquiry in Marine Ecology**, which provides research experience for pre-service K-12 teachers to use and apply the scientific inquiry process in a marine environmental setting. **Biogeochemical Field Methods**, a hands-on approach to quantify environmental parameters and microbial processes that are important to the ecology of coastal marine environments, and provide students with a tool-kit of relevant field and laboratory techniques will be taught by *Joel Kostka* (Dept. Oceanography). The Academic Diving Program will offer **AAUS Scientific Diving: Methods for Scientists** and non-credit courses **NAUI First Aid, Risk Management, Drysuit Diver, Nitrox Diver, Equipment Repair and Maintenance**, and **Rescue Diver Certification**. Other courses are in the process of development. Please check our website for updates.

## Saturday-at-the-Sea Report—by Barbara Shoplock

Saturday-at-the-Sea (SATS), an environmental education program run through FSU's Office of Science Teaching Activities (Department of Biological Science), is in its twenty-third year of operation at the FSUCML. This educational marine biology program is offered free of charge to Florida's middle school students and provides hands-on opportunities for children to learn about the coastal marine environment, the creatures that live there, and the complex relationships that exist between the two. A major goal of the programs offered to students is to create a connection to their local environments, as well to introduce science as a potential career choice. This year, SATS offered its programs to over 1500 children within a 9 county region of Florida. Other programs run in conjunction with SATS are the SATS Summer Camps (upper middle and high school students) and Sea-to-Sea (elementary school students). SATS also participates in UF's Master Naturalist Adult Programs

In November, SATS was recognized via the prestigious **National Coastal America Partnership Award** for its participation in the Florida Dept. of Environmental Protection's "Learning in Florida's Environment (LIFE)" Education Program, which uses science to introduce local students to their surrounding environments. SATS is a key partner in the original Franklin County LIFE site, launched in 2004. Nine statewide programs have grown out of this model site. SATS' participation has expanded to include a partnership with the LIFE program of Wakulla County.

For more information on the SATS programs, please visit our website: <http://www.marinelab.fsu.edu/sas/index.html>



SATS coordinator, Barb Shoplock (lower left), is astounded, simply astounded, at marine biological diversity.

## Academic Diving Program Report-by Mike Lavender

This fall the Academic Diving Program (ADP) moved from its on campus location to the Florida State University Coastal and Marine Lab. In addition to moving the dive locker and the administrative offices, ADP staff taught the scientific diving course (BSC 4934/5936), a comprehensive course that trains students in the method and theory of underwater data collection following the standards and procedures of the American Academy of Underwater Science.

The move to the FSUCML has enabled ADP to more effectively support the increased research activity being carried out at the laboratory. For example, ADP has begun our second year of support of the Red Tide project undertaken in conjunction with the Northern Gulf Institute (NGI) and the FSU Dept. of Oceanography. The Red Tide project is a multi-disciplinary study aimed at systematically sampling the water column for traces of red tide. At the same time researchers from the FSU Dept. of Oceanography are collecting ocean current data through the use of an array of acoustic doppler current profilers deployed on the sea floor. The results of this project will give researchers better insight into what triggers a red tide bloom as well as an increased ability to track its movement.



*Students in the scientific diving class gear up for their drysuit training dives on the R/V Seminole.*



**You Make the Difference! Become a Friend of the FSUCML.**

Join a dedicated group of people interested in our efforts to understand the ecology and physical processes responsible for making this region so biologically diverse. You can help us by making a private tax deductible gift. Gifts of any amount are important, whether it's for one of our membership levels that support general operations or a specific item on our wish list.

**YES. I WOULD LIKE TO BECOME A FRIEND OF THE FSUCML.**

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_



**Membership Levels**

Student	\$ 5	<input type="checkbox"/>
Single	\$ 20	<input type="checkbox"/>
Family	\$ 35	<input type="checkbox"/>
Sponsor	\$ 100	<input type="checkbox"/>
Benefactor	\$1000	<input type="checkbox"/>

**From our current wish list:**

- Lecture sponsorship—\$100 per lecture
- Dorm Bunk Bed—\$500
- Research Scholarships for undergrads—\$2000 per student per semester