TIDINGS

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Coastal and Marine Laboratory

FSU Coastal & Marine Laboratory

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FSUCML BUSY THIS SUMMER ON LOCAL AND REMOTE OYSTER REEFS

BY DR. DAVID KIMBRO

My lab is broadly interested in how large predators can help protect important habitats like oyster reefs by preventing smaller animals from eating all the oysters. I'm sure you can agree that we don't need anything competing with people to eat oysters! It's also important to keep enough oysters on the reef to filter water and provide habitat for lots of fishes and invertebrates, because these processes help keep estuaries healthy, and healthy estuaries support critical economic and recreational activities along our coastline.

Because 90% of the oyster reefs in the world were either eaten (they taste really good) or dredged away (they are a pain for boats to get around), we are specifically studying whether predator-prey interactions determine how the remaining 10% of our oyster reefs operate. For example, it turns out that large predators such as fish and big crabs can protect oysters either by eating the smaller snails and crabs that consume the oysters or by scaring the snails and crabs enough to spoil their appetites for oysters.

Oyster reef. Alligator Harbor, FL

Why should it matter whether the large predators eat or scare the smaller predators, as long as the oysters don't get eaten? Since oysters are sessile, they can't run away from their predators, but they can stop filtering water when predators are around in order to avoid producing a signal that can give away their location. So if there are lots of oyster predators around, even if they are scared and not actually eating oysters, they may still keep oysters from filtering water. And, the amount of water that oysters filter matters, because filtration can remove excess nutrients from the water, helping to prevent algal blooms and low oxygen conditions in coastal waters (bad for fish and other animals). This potential link between predators and nutrient cycling and whether it operates the same way in different places is why we, along with researchers from the University of Georgia, University of North Carolina at Chapel Hill, and the Gulf of Maine Research Institute, are out studying reefs from Florida to Virginia.

If we can understand why more oysters survive in certain locations and how these oysters affect nutrient cycling differently in different locations, then we can better target our restoration dollars when trying to recover the other 90% of our oyster reefs, thereby getting the biggest bang for our buck.

With funding from the National Science Foundation, we are using large-scale surveys and big-messy field experiments this summer to establish linkages between predators (from sharks to toadfish) and the important services that oyster reefs provide. Please follow the progress of this research by either visiting our online blog at WFSU (www.wfsu.org/blog-coastal-health/) or by watching a documentary that is being televised by WFSU throughout the month of July.

FSUCML JOINS SCIENTIFIC BOATING SAFETY ASSOCIATION

The Florida State University Coastal and Marine Laboratory recently joined the Scientific Boating Safety Association (SBSA, scientificboating.org). The SBSA is a non-profit organization dedicated to facilitating safe boating practices among those using boats for research and training. A major advantage of taking the course is to have reciprocity with other SBSA institutions. Starting in the Fall, FSUCML will provide fundamental training in boating knowledge and skills in a three day workshop. Dates for these workshops will be posted on the FSUCML website soon.

NEWS BRIEFS

• Intern from Spain follows in the footsteps of Bob Paine. For more on her research… **Page 4**

• Come to the Conservation Lecture Series on the second Thursday each month. For a schedule of speakers… **Page 5**

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MESSAGE FROM THE DIRECTOR

THE DWH OIL SPILL ONE YEAR LATER

Earth Day, celebrated on April 20th since 1970, is a day we pause to reflect on the sheer beauty and magnificence of the world around us. Last year, the 40th anniversary of Earth Day was marred by an explosion at sea that killed 11 men and precipitated the largest accidental oil spill in history. As we reached the 41st anniversary of Earth Day and the 1st for the collapse of Deepwater Horizon oil platform, we reflected on what we've learned in the past 12 months. We learned that despite 41 years of good intentions, we still have a long way to go to ensure that terrestrial and marine ecosystems continue to provide the services we take for granted and on which we depend entirely for our wellbeing. We learned that dispersants, despite keeping millions of gallons of oil from reaching the shore, have created problems in the deep sea that are only now coming to light. We learned just how much we care about this part of our world, from the Big Bend to the Big Easy, and how much we want to protect the few pristine areas we have left and restore those that have taken the brunt of our disregard. If there is any good that came from this immense spill, it is that it focused a bright light on what we stand to lose through carelessness.

Scientists at FSU, from the campus to the lab, have focused on oil-related research since the first few days of the spill, collaborating on studies funded by the National Science Foundation and by BP through the Florida Institute of Oceanography (a consortium of Florida universities) and the Northern Gulf Institute (a consortium of Gulf universities from Louisiana to Florida), to evaluate how the spill affected the structure and function of the northeastern Gulf of Mexico. BP, through the Gulf of Mexico Research Initiative, provided over $50 million nationwide towards this effort, and is set to add another $460 million to the mix to establish four to eight research centers in the Gulf of Mexico that will address spill-related research over the next 10 years. Those centers will address the physical and chemical attributes of the spill; the environmental effects of the petroleum/dispersant system on the sea floor, water column, coastal waters, beach sediments, wetlands, marshes, and organisms; the science of ecosystem recovery; the technological advances to improve response, mitigation, detection, characterization, and remediation associated with oil spills and gas releases; as well as research that focuses on public health.

While the effort will clearly be great to understand every aspect and nuance of the spill, the work will be for naught if the information is left on the cutting room floor while policies and laws are enacted that undermine ongoing conservation and environmental protection efforts.

Felicia A Coleman

FSUCML's Mission is to conduct research on environmental issues in the coastal and marine ecosystems of the northeastern Gulf of Mexico that leads to sound policy decisions.

ADMINISTRATION & STAFF

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Dr. Randall Hughes
Dr. Christopher Koenig
Dr. Dean Grubbs
Dr. David Kimbro

FACILITIES

Dennis Tinsley
Bobby Henderson
Bob Williams
Mark Daniels
Dan Overlin
Linda Messer

MARINE OPERATIONS

Diving Safety Officer: Alex Chequer
Dive Technician: Sonja Bridges
Boat Captain: Capt. Roxanne Weglinski

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NEWS AND NOTES:

FSUCML OPEN HOUSE: Despite the threat of booming thunderstorms and wind that could knock a tent into the next county, over 800 of you made the trek to the FSUCML on Saturday, April 16th for the 2011 Open House. By all measures, we did not disappoint. The faculty, students, and local and state conservation agencies put on a show that grabbed your attention, tickled your fancy, and delighted your senses. Thanks to all the people and organizations who put up the wonderful displays, gave those great "In the Know" talks, donated their time and energy, and in general, contributed to the great day we had out here! We'd also like to thanks the IGA in Carrabelle, The Winn Dixie in Crawfordville, Seidler Productions, Home Town BP in Carrabelle, SummerCamp, The Wharf Express, and the Florida Highway Patrol Auxiliary, Troop H for their help and support. We'll see you again in 2013!

NEW FACES AT THE LAB: This year at the Lab we said goodbye to some old friends—those who retired, **Frank Lindamood**, carpenter and resident philosopher, and **Margaret McMullen**, receptionist—and those who moved on to new places, **Dr. Kevin Craig** who now works for the National Oceanic and Atmospheric Administration (NOAA) and **Dr. Chris Stallings**, a former postdoctoral associate, who took a faculty position at the University of South Florida. And, we welcomed new ones—**Dan Overlin,** carpenter, and **Alex Chequer,** our new Diving Safety Officer. Also, **Dr. Mark E. Hay** (**Georgia Institute of Technology**) joined our FSUCML Scientific Advisory Board. We're happy to have such great people on our side.

VISITORS TO THE LAB:

FOR EDUCATION: Leaving behind the grey skies and rain of Scotland for, well, the grey skies and rain of north Florida in spring, Dr. Tara Marshall and Dr. Lindsay McPherson of the **University of Aberdeen** arrived at the FSUCML with twelve undergraduates in tow to learn about Florida ecosystems. In just a little over a week, they hit several warm-temperate environments throughout Franklin and Wakulla counties, visiting dunes on St. George Island with Dr. Tom Miller (FSU, Biological Sciences), seagrass beds at Port St. Joe, oyster reefs, and freshwater wetlands at St. Marks Wildlife Refuge, while building their sampling method skills with the help of Dr. Bill Herrnkind (FSU Professor Emeritus). The two Aberdeen professors intend to bring a new group every year through 2015. We're looking forward to their next four visits.

Students and professors from the University of Aberdeen in St. Joe Bay looking at a horseshoe crab.

We've had many other classes visit us as well. Dr. Catherine Teare Keller (**University of Georgia**) brought students to survey the coastal flora and fauna while Dr. Harlan Hendricks' (**Columbus State University**) class studied the regional marine invertebrate fauna. Dr. Tom Manning's chemistry class (**Valdosta State University)**, Dr. William Birkhead's biology class (**Columbus State University)**, and Richard Heard's invertebrate zoology class (**University of Southern Mississippi**) all had field trips here too. In addition, several adult programs were led at the lab, one by Rosalyn Kilcollins (**Apalachicola National Estuarine Research Reserve**) and Barbara Shoplock (**SATS, FSU**) for a **Florida Master Naturalist Coastal Systems** class; and the other by **Tallahassee Community College's Ecotourism Institute.** A dozen **Navarre High School** students, who were enrolled in a college-level marine biology and oceanography course at **Pensacola State College,** also visited the lab with Charlene Mauro and Tami McConnell (**Navarre Beach Science Center**).

FOR RESEARCH: Throughout the year we've had a steady stream of visiting researchers, most of whom have been coming for years. Dr. Peter Auster (**University of Connecticut**), the *2010-2011 FSU William R. and Lenore Mote Eminent Scholar*, took up residence at the lab for the fall semester to study fishes on offshore reefs and teach a course in the *Conservation of Exploited Species* in the Biology Department, returning in June to continue his research. Dr. Craig Sherman (**Deakin University**, Australia) conducted breeding experiments on the commercially-important hard clam, *Mercenaria mercenaria*, to identify the genetic benefits of mate choice; Dr. Jennifer Cherrier (**Florida A&M University)** continued her work on the interaction of phytoplankton and bacteria in the ocean; and Dr. Stan Kunigelis (**Lincoln Memorial University**) continued a multi-year zooplankton survey of the Apalachicola Estuar. Additionally, Celine Artero (**L'Universit'e Antilles-Guyane**) came from Guadeloupe in the French West Indies to participate in fieldwork on the spawning of goliath grouper with Dr. Chris Koenig; Dr.Shala Hankison's group (**Ohio Wesleyan University**) studied behavioral and genetic effects of mate choice in sailfin mollies; Dr. Paul Spitzer, an independent researcher, was here studying loons; Leslie Sturmer (**UF/IFAS**) returned to research clam aquaculture; and Gregory McCormick (**Florida Fish and Wildlife Research Institute**) conducted seagrass monitoring with Kent Smith (**FWC**). Though technically not visitors, FSU faculty from the main campus continued to use the lab for their research. These include: Dr. David Thistle, (**FSU**) who studies oxygen production by benthic microalgae and Dr. Markus Huettel's group, **(FSU)** that examined oxygen availability on the sea floor this summer.

RESEARCH HIGHLIGHT: BAYMOUTH BAR STUDY

BY CRISTINA LIMA MARTÍNEZ

Cristina Lima Martínez is a visiting researcher from Vigo-Galicia, Spain.

Dr. Kimbro and I are conducting an ecological community study on a 40K m2– sandbar called Baymouth Bar located in Alligator Point, Florida. Our research is based on a paper written by Robert Paine in 1963. Paine studied the trophic relationships between eight species of gastropods and their gastropod/bivalve prey in the same location. Almost fifty years later, we are repeating the same monthly surveys to see how the abundance of and relationships among the different species have changed through time.

Cristina and volunteers monitoring the gastropods in BMB.

Largest Predator, Horse conch (34cm)

So far, we have found more than 81 species living in the sandbar, which supports Dr. Paine's original assertion that this area is one of the more diverse sandbars in the world. Similar to Dr. Paine's results, we have found that this biodiversity is still largely organized by a predatory gastropod (*Pleuroploca gigantean*, Horse Conch), which is one of the largest predatory gastropods in the world. Now that we have established an updated baseline about this community, we will use experiments to examine the extent to which the Horse Conch structures this community by consuming its prey versus scaring its prey.

HIGH SCHOOL AND UNDERGRADUATE RESEARCH AT FSUCML

We're always thrilled to have high school students involved in research here. This year, two **Lincoln High School** students, Lauren Jones and Austin Gelin, worked with Dr. Kimbro. Austin also worked with Dr. Hughes as did Prathyusha Pamidi (**Rickards High School International Baccalaureate Program**) and Elyse Sachs, a **Conestoga High School** (PA) student who is attending FSU this fall. Also working with Dr. Hughes were FSU undergraduate students, Nohelia Orozco, Jessica Stanfield, Austin Heil, Chris Rajan, Ashley Dillon, and Phil Langdon as well as Kelly Rooker (**Bridgewater College**) and Kristin Berger (**Rochester Institute of Technology**). Evan Pettis, Alexa Davis, Phil Langdon (FSU) all worked with Dr. Kimbro, and Amanda Woolsey (FSU) worked with Dr. Koenig. For the third year in a row, undergraduates from **Oberlin College** made their winter trek from the snows of Ohio to the FSUCML to work on research projects with our faculty. The five Oberlinites were Sophia Durant, Ben Garfinkel, Lida Wise, Hope Goodrich, and Vanessa Gusman. Sophie, Ben, Lida, and Hope worked with Dr. Hughes and Dr. Kimbro examining consumer-prey interactions and the role of consumer behavior in sand flat, oyster reef, and salt marsh communities. Vanessa worked with Dr. Koenig studying the life history of goliath grouper, a critically endangered species. Vanessa became so enthralled that she returned for the summer so she could go in the field to help tag a few 400-lb fish.

Last were the **FSU Marine Biology Certificate Program** students. Three conducted their research in the Florida Keys: Nate Levine studied whether the size of Caribbean spiny lobsters is affected by occupying crevice shelters with red grouper; Samantha Stokes evaluated disease transfer from marine invertebrates to a marine sponge; and Amy Morgan studied regeneration rates of healthy and diseased sponges. Miriam Ojima went to **Auburn University** to study geotactic responses of the comb jelly to variation in dissolved oxygen. Mariah Pfleger studied temporal and spatial distributions, movement patterns and habitat of sharks and rays in Virginia lagoons. Kyle Roebuck took a look at predator-prey relationship between crown conch and stone crabs.

GRADUATE SPOTLIGHT: ESTUARY RESEARCH

BY MOLLIE A. TAYLOR

Mollie A. Taylor is a Master's student in Ecology and Evolution at FSU. Her graduate advisor is Dr. Don Levitan.

Bottom trawling in Apalachicola Bay for juvenile spot

Estuaries are, most simply put, where rivers meet the sea. Due to this connectivity, not all estuaries are created equal. Environmental characteristics, such as salinity, temperature, nutrient load, and turbidity, are highly variable within estuaries and are influenced by the timing and duration of river flow, rainfall, and tidal cycles. Upstream modifications to a watershed (water diversions, waste water runoff, etc.) have a major impact on estuaries and how they function as habitat for aquatic organisms. Estuaries are important for human consideration because they serve as essential nursery grounds for commercially and recreationally important species. These nursery habitats provide juvenile fishes with a respite from predation, an abundance of nutrients, and decreased competition for resources, therefore promoting rapid growth and increased survival to adulthood. As I stated earlier, not all estuaries are created equal, therefore not all estuaries provide the same quality nursery habitat.

It is the focus of my research to determine how nursery habitat quality changes spatially (with distance from a river) and seasonally (with changes in freshwater input and temperature) in Apalachicola Bay. This study will provide a better understanding of how environmental conditions contribute to high quality nursery habitat, thus allowing for rapid assessment of other important nurseries and promoting successful management.

Talk, Talk and More Talks!

LUNCH BUNCH:

The Lunch Bunch is an informal gathering at the lab during the Fall and Spring Semesters where scientists, natural resource managers, as well as others researchers and specialists from throughout the region come together at the FSUCML to discuss pressing scientific and management issues with our scientists. Typically, the guest gives a short presentation, which is followed by a long question and answer session. Through these discussions, the speaker and audience can explore areas for research and management interactions and collaborations.

Over the past year, we heard from **Dr. Lia Chasar (U.S. Geological Survey)** who discussed the intrusion of the DwH oil spill through coastal and marine food webs using radiocarbon and stable isotopic signatures; **Dr. Kelly Watson** (**FSU Department of Geography),** who provided a fascinating look at tupelo honey production on the Chipola and Apalachicola Rivers by examining the incorporation of local knowledge in rural land-use planning, conservation, and livelihood preservation; **Dr. Craig Sherman (Deakin University, Australia)** discussed local adaptation in a clonal sea anemone; and doctoral student **Karen Bareford (FSU Urban and Regional Planning Department)** discussed implementing coastal and marine spatial planning in Florida.

We look forward to starting up the Lunch Bunch series in the fall.

WRITERS' AND ARTISTS' SERIES

Last year we had four fantastic nature writers' workshops with local authors, Sue Cerulean, Diane Roberts, Mary Jane Ryals, and Janisse Ray, where participants developed their skills incorporating nature into their literary work. Since these events were such a success, we're planning on having more writing workshops this fall and adding to the mix an environmental artists' series, too. Nothing is set in stone yet, but keep your eye on our Outreach page for more adult education opportunities at the FSUCML.

FOR MORE INFORMATION:

on our Adult Programs or Lecture Series, visit:
http://marinelab.fsu.edu/outreach/

And you can follow us on Facebook:
http://www.facebook.com/FSUCML

THIS YEAR'S CONSERVATION LECTURE SERIES:

The FSUCML Conservation Lecture Series is regular monthly, event that typically occurs in the evening on the second Thursday of each month. We do take advantage of special opportunities and have other lectures whenever the opportunity arises.

- ***January 13*** - **Dr. Jeff Chanton**, Professor of Oceanography, Florida State University—
  "Sea Level Rise: The Climatic Causes and the Effects"
- ***February 10*** - **Dr. Peter C. Frederick**, Department of Wildlife Ecology & Conservation, University of Florida
  "Fires, Floods and Heavy Metal - Restoration of Wading Bird Populations in the Everglades"
- ***March 10*** - **Dr. Craig Osenberg**, Department of Biology, University of Florida—
  "Oil Spills, Marine Reserves, and Coral Reefs: Why all the Debate?"
- ***April 14*** - **Dr. Bill Pine**, Department of Wildlife Ecology & Conservation, University of Florida—
  "The Effects of Historical Fishing and Contemporary Water Allocation Disputes on Gulf Sturgeon in Florida"
- ***May 12*** - **Dr. Jim Gelsleichter**, Department of Biology, University of North Florida—
  "Fish and Oil Don't Mix: Exploring The Effects of Oil Spill-Related Pollutants and Other Environmental Contaminants on Fish Populations"
- ***June 9*** - **Dr. John Carlson**, Research Fishery Biologist, National Marine Fisheries Service, Panama City Lab—
  "Conservation and Recovery Efforts for Smalltooth Sawfish: The First Endangered Marine Fish in the US"
- ***July 14*** - **Adam Warwick**, Wildlife Biologist, Tate's Hell Forestry Office—
  "Bears of the Forgotten Coast"
- ***August 11*** - **Fran C. James**, Professor Emerita of Biological Sciences—
  "The History and Natural History of Dog Island"

Dog Island is the easternmost barrier island off the panhandle of Florida. A review of its history and natural history can tell us how human and natural forces have shaped its present condition and what it may be like in the future. Today, it is an ecological treasure.

- ***September 8*** - **Dr. Markus Huettel**, Professor of Oceanography, Florida State University—
  Topic TBA
- ***October 13*** – **Dr. Brian Silliman**, Department of Biology, University of Florida –
  "Gators as Apex Predators in Southeast Atlantic Marshes"
- ***November 10*** - **Chuck Hess**, Department of Biological Sciences, Florida State University—
  "Listening to Birds: What Woodpeckers Tell Us about Forest Management"

THE MARINE LAB IS GETTING A NEW RESEARCH VESSEL

The R/V Seminole, which was renamed **The R/V Callinectes** just before its untimely decommissioning, served as our primary research vessel for nearly three decades. Before she came to us, she had a lurid history of running drugs along the coast and was seized by the state, which is how we acquired her. But, after many years of dedicated service to scientific research, her wooden frame deteriorated into papery filaments, leaving just the fiber glass shell holding the boat's shape. In April 2010, she finally retired. For the time being, we have been able to use smaller vessels, including the **FV Fluid Motion,** thanks to the generosity of Brad Nowell of **Nowell Contracting and Development, Inc**. Last fall, **Dr. Kirby Kemper,** FSU Vice President for Research, came up with $1.4 million to put toward the design and construction of a new vessel. It didn't take long for Captain Rosanne Weglinski to spring into action to make the dream a reality. After several meetings with interested faculty, including a charette with the marine architect, Andy Lebet of **Dejong and Lebet** (Jacksonville, FL), we were well underway to outlining the kind of boat we wanted.

This June, we finished the specifications for the new vessel, a 57-ft catamaran hull (24-ft beam, twin screw diesel engines, capable of doing 20 knots). It will be custom-tailored for research in the coastal to offshore waters of the Gulf of Mexico, with far more space and greater stability than the **RV Callinectes.** One of its better features is modular design of the work desk. This will allow for easy adaption of the vessel to suit the specific needs of individual research projects. With this design, scientists will "not be limited by the boat, only by their thoughts," boat captain, **Captain Rosanne Weglinski** explains.

Most of the research in the new boat's future will involve 3-4 night excursions along the continental shelf of the Gulf of Mexico. D**r. Kevin Speer (FSU Department of Earth, Ocean and Atmospheric Science)** plans to use the vessel to conduct monthly hydrographic research cruises 17 miles offshore on the US Air Force tower N7 to collect water quality data that can be used to create a large-scale ecosystem model of the Florida Big Bend Region. **Dr. Chris Koenig and Dr. Felicia Coleman (FSUCML) w**ill use the new vessel to study the ecology of reef fish 100 miles offshore along the edge of the continental shelf. They are particularly interested in documenting sound production and other fish behaviors within marine reserves. **Dr. Dean Grubbs (FSUCML)** expects to pursue his studies of sharks in deep and slope waters of the Gulf as part of his ongoing research on the effects of oil on top-level predators.

Now that we've finished the specifications, we're waiting to find out who will build the boat. We're all excited about the prospect of the new research vessel and will keep you up-to-date with more information about its progress.

EDUCATION AT THE LAB

Dr. Randall Hughes taught a new undergraduate course, "Marine Biodiversity and Conservation in Florida" at the lab this summer. The class focused on key concepts of conservation biology as they pertain to local coastal resource issues in the Florida Panhandle. Students learned about habitat alteration and management through field trips to Tall Timbers Research Station and the Apalachicola National Forest. They had the chance to watch the tagging of two 7-day old red cockaded woodpeckers and a Florida black bear, and then try their hands as oystermen (and women) in Apalachicola Bay. Through all this, students were introduced to multiple viewpoints as well as the pros and cons of different management strategies. Perhaps as importantly, they learned about the variety of career options open to graduates with a biology degree.

Dr. Christopher Koenig taught for the second time, "Field Marine Science." Last summer, students studied the relationship between seepage (groundwater that seeps up from the seafloor) rate and chemical characteristics (particularly nutrients—levels of nitrogen and phosphorous compounds) and abundance and diversity of fishes and macro-invertebrates in the seagrass beds off the Marine Lab and Lanark. They found high abundance and diversity in areas where seepage rates were very high and nutrient concentrations were relatively low, but low diversity and abundance where nutrients were high, regardless of seepage rates. This summer, the class looked at this relationship and attempted to determine the source of the high nutrient concentrations. There is a complex interaction between high nutrient concentrations and a loss of seagrass habitat. Elements of this relationship include hyper stimulation of algal growth and loss of algae-grazing animals which results in diminished light to the seagrass and eventually die-off of seagrass beds.

Dr. Dean Grubbs also led a new international course in the Bahamas called, "From Corals to Sharks: Tropical Marine Biology." Students first focused on general marine biology at the Cape Eleuthra Institute, followed by a field-intensive eight-day stay at the Bimini Biological Field Station. There, students learned about sharks and their relatives through a variety of excursions including shark dives, mangrove nursery tours, long-lining, and gillnetting.

Lastly, **Dr. Bill Herrnkind's** six year, NSF-funded "Marine Ecology for Teachers" course, which gave pre-service teachers the opportunity to practice the scientific inquiry process in a marine environmental setting, finished this summer as well.

SCIENTIFIC PAPERS:

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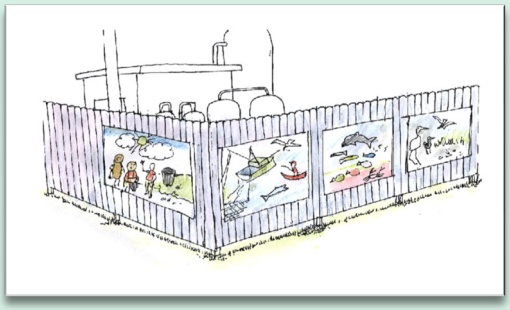
NEW PROJECTS AROUND THE LAB

We're always dreaming up new ways to improve the FSUCML. Using the donations received by our generous supporters, our intent is to make the lab more inviting to the general public, while making sure our ongoing research can carry on unimpeded. Marvin Cook, owner of **Wilderness Graphics** developed a long-range plan for installing kiosks and other information centers around the lab. Creating more public outreach and local communication channels is very important to us. We want to encourage more people, from local residents and students to passersby on the highway, to visit and get a better idea of our ongoing research and findings, as well as a clearer understanding of the ecological richness of this area.



Artist's sketch of the stockade fence with murals

Our first project is a stockade fence built in an L-shape along the left side of the entrance, just past the main gate. On the fence, which is 32 feet per side, we will hang six murals—three on each side. Most of these will be painted by students from local schools, and will be based on themes such as local ecology communities, cultural benefits of the Gulf and Bay, conservation and ways to help care for the region and its wildlife.

We hope to start hanging these murals soon after students return to school in the fall. After this project, our next goal is to install kiosks describing different habitats, key species, and research projects and to build an accessible 20 x 30 ft. open deck over the shoreline that can be used to support outdoor programs for school groups, tours, and meetings.

A longer term project is to build an interpretive trail leading into long leaf pine habitat on the "North 70," including information about local ecology and ongoing research. Tours of the lab are already available on Thursday by appointment, and can be arranged by calling Kathy Houck at (850) 697-4137. We look forward to welcoming more visitors to the FSUCML in the near future and would like to thank all of you for your help in supporting these efforts.

THANKS TO THE FRIENDS OF THE LAB!

CONCHS ($25-$99)

Darrel & Nancy Acker
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Vicki Spitzer
Frank Lindamood

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VOLUNTEERS

July 2010-June 2011

Samantha Bosman
Paul Bridges
Alicia Brown
Amanda Daughtry
Bob Ellis
Emily Field
Hanna Garland
Kelly Kingon
Amie Lentner
Justin Lewis
Cristina Lima Martínez
Christin Meilink
Margaret McMullen
Althea Moore
Evan Pettis
Tanya Rogers

VOLUNTEERS – CONTINUED

Robert Seidler
Austin Standley
Jennifer Standley
Dennis Swanson
Mollie Taylor
Hannah Tinsley
Chelsie Wagner
Robyn Zerebecki

Also, Charlene Mauro and Tami McConnell of the Navarre Beach Science Center and their wonderful students:

Katie Captain
Justin Cooper
Katy Dennis
Logan Gray
Anna Kerr
Emily Layne
Emily Libert
Jessica Marshall
Kevin Maye
Brean Maynard
Fiona Southwell
Thomas Vatter

THERE ARE MANY WAYS YOU CAN GIVE TO THE FSU COASTAL & MARINE LAB…

…and we can always use your help. If you're able to donate your time, please contact Sharon Thoman at sthoman@fsu.edu or call (850) 697-4120 to learn more about volunteering at the Lab; and, if you'd like to donate financially, please see the next page for more information about making a contribution.

GIVING TO THE MARINE LAB!

BECOME A FRIEND OF THE FSU COASTAL AND MARINE LABORATORY!

Join a group of dedicated people who support our mission! You can help us by making a private tax-deductible gift. Gifts of any amount are important, whether it's for our general operations and improvements or to an endowment dedicated to providing scholarships to undergraduate and graduate students for research.

If you are interested, there are several ways to do so:

1) You can donate the old-fashion way by printing this page and mailing it into us at the address below…
2) Or you can donate the new-fangled way, **online**! Just go to https://one.fsu.edu/community/sslpage.aspx?pid=665 on the FSU Foundation's secure website, **select *Coastal and Marine Lab* from the "Designation" drop down menu under Donation Information**; and make your contribution to the FSUCML.

We truly appreciate your generosity and support!

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May we acknowledge you in our newsletter? Yes:____ No:____

Are you interested in becoming a volunteer? Yes:____ No:____

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The Florida State University Coastal and Marine Laboratory
c/o Kathy Houck
3618 Coastal Highway
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For more information about making donations, please contact Nancy Smilowitz, by phone at (850) 644-9324 or by email at nsmilowi@mailer.fsu.edu.