



Marine Extension Newsletter – April 2009

Volume 1, Issue 2

Success Stories

Bryan Fluech -- In an effort to engage and excite underprivileged youth about marine science, Bryan has been working with Manatee Middle School in East Naples to host and instruct an 8-week afterschool marine dissection program for migrant farm worker students. 4-H provided funding to support the program, and the education coordinator from Rookery Bay NERR is providing assistance. The goals of the program are to increase student's knowledge of representative marine taxonomic groups while enhancing their science process skills through the use



of dissection, classroom activities, and field experiences. The program has also served as an opportunity to expose students to different marine career choices related to the content being studied. Nine students are enrolled in the program and they have dissected a sea anemone, squid, sea star, blue crab, and a spiny dogfish. Following the dissections, students will be taken on two field trips to collect, identify, and classify the specimens they catch using seine nets and an otter trawl. Each student is required to keep a journal to record notes, sketch and label their dissected specimens and reflect on their involvement in the program. Besides the journals, student progress will be assessed using pre/post test scores and a post-program evaluation. The program was featured on the front page of the Neapolitan Section of the Naples Daily News- <http://www.naplesnews.com/news/2009/mar/28/turning-oh-gross-so-cool-scientists-using-marine-/>

Maia McGuire -- Formal educators (K-12 teachers) have many demands on their time and often have limited resources available to them. This makes it challenging for teachers to find hands-on classroom or field activities to use with their students. In February, 2009, Maia partnered with the UF/Whitey Laboratory for Marine Biosciences' educator to hold a teacher workshop. Seventeen teachers from thirteen schools/institutions participated in the 4-hour workshop (where they learned about marine invertebrates), a classroom lab teaching the connection between the sense of smell and the sense of taste, plankton sampling, and a series of beach activities including beach slope profiling, long-shore current measurement and sand analysis. Teachers were told about Florida's marine educators' collecting permit and were given information about upcoming collecting permit trainings. Teachers were given CDs which contained additional curricula and resources. All of the teachers indicated on post-workshop

evaluations that they had learned new information and would be able to use some of the activities with their students. One teacher commented that it was an “excellent workshop with a lot of useful information to take back to the classroom and put to use.”

Chris Verlinde – A unique new coastal field station has been established. The Navarre Beach Marine Science Station, located at the Navarre Beach Park in Santa Rosa County, is operated in a partnership with the Santa Rosa County Board of County Commissioners and the SRC School Board. The facility will be the focal point of marine, natural resource and watershed education for Northwest Florida K-16 students, 4-H members, scout groups and the community for years to come. The SRC School Board will manage the science station. Charlene Mauro will be the marine science station teacher and Chris Verlinde of Florida Sea Grant Extension is a partner of the science station and will assist in the development of classes and community programs. High School and dual enrollment marine science classes and community events will be offered. Support from the community, the SRC school board and the SRC Board of County Commissioners has been phenomenal and the success of the program will be evident throughout the community. Funding was obtained in the form of: a Gulf of Mexico Alliance Environmental Education Grant, a Toyota Tapestry Grant and a Florida Sea Extension Enhancement Grant. Navarre Beach Park offers 130 acres of sandy white beaches, lush wetlands, and native vegetation. One-third of the park is completely undeveloped and will remain in its natural state. Located on the Santa Rosa Island, a barrier Island, this is an ideal location along the coasts of the Gulf of Mexico and the Santa Rosa Sound for a marine science program.

Chris Verlinde and Andrew Diller -- coordinated and taught at the 3rd annual 7th grade fishing field trip with Woodlawn Beach Middle School. Working with Coach Pete Della Ratta and many volunteers from the community, they provided activities for more than 300 seventh graders over three days. Activities included: boating safety, eat an estuary, marine explorations, a touch tank, water quality, mosquito control and two stations that included hands-on fishing in the pier at Shoreline Park South in Gulf Breeze. Pete is a great influence on these students (and an awesome supporter of our marine programs in the Northwestern Panhandle!) and fishing is incorporated in all classes leading up to the fishing field trip. The following is from one of the students, written in English class: “Yesterday, my class went on our only field trip this year, fishing. Our 7th grade fishing trip highlighted a great year. The breeze blew and the sun beat down, burning every face unprotected. The waves rolled by fiercely and not many fish bit, though I had fun anyways. Boat safety tips sank in our brains, and then we made edible estuaries with delicious vanilla pudding and sweet brown sugar. Our group, fascinated by the water experiments, loved that station. Amazed when walking the beach, we learned new things about what we usually see. Above all, the trip educated me on awesome things.”

Chris Verlinde -- coordinated the annual Seagrass Awareness Celebration on April 4th at Shoreline Park South, with many hands-on activities to learn about seagrass, estuaries and local natural resources. Activities included: make a shark tooth necklace, eat an estuary, seagrass coloring pages, fish painting, know-your-limits fishing game, backyard bass casting, an Easter egg hunt, a touch tank, kayaking, seining and a shark character. Local natural resource agencies and groups also participated. More than 150 children and adults attended this annual event.

Leslie Sturmer -- An entertaining celebrity chef seafood event was held on March 23, 2009 in Bryson Hall on Chippewa Square, Savannah, Georgia. "Romancing the Clam" featured professional chefs from all across the country demonstrating their favorite regional clam recipes. Lucky guests at the evening tasting had the opportunity to try them all. The event was the brainchild of the East Coast and Pacific Coast Shellfish Growers Associations. Leslie Sturmer served on the organizing committee. Nine chefs cooked clams grown by shellfish farmers in their respective states from Massachusetts to Florida and a west coast entry from Washington. Individual chefs prepared their dishes in a filming session during the day. The resulting DVD and recipes cards will be given away to seafood distributors around the U.S. so their customers can learn how to prepare clam dishes. The goal of the event was to raise awareness of farm raised clams as sustainable, nutritious and delicious seafood. In addition, a raw bar, hosted by the Cedar Key Aquaculture Association, featured hard clams on the half shell from six states along the east coast. Results of a sensory evaluation conducted at the UF Aquatic Foods Products Lab prior to the event were revealed. Steve Otwell provided attendees with an evaluation form like the UF expert panel used to complete so they were able to compare their tastes with the experts. This was not a competition, but rather an opportunity to make people aware that clams like oysters may have different characteristics and flavors from one growing location to another. The following day, Steve presented the results of the product characterization at the 101st annual meeting of the National Shellfisheries Association. Three presentations were also given by Sturmer, Chuck Adams, LeRoy Creswell and John Scarpa (Harbor Branch Oceanographic Institute at FAU) on sunray venus clam culture and market evaluation; three other presentations were given by Sturmer, Scarpa and Shirley Baker (UF Fisheries and Aquatic Sciences Program) on the use of hybridization for improvement of hard clam production.

Betty Staugler and Joy Hazell -- Betty and Joy recently secured a Florida Sea Grant Extension Enhancement Grant for "Blue Crab Trap Removal Exercise and Development of Guidelines for Statewide Crab Trap Removal." They conducted, in cooperation with the area's commercial crabbers, a volunteer blue crab trap removal exercise and training day on Monday, April 6, 2009 in Charlotte Harbor. A goal of the removal exercise was to build local capacity among commercial fishers to conduct future cleanup events. Seven commercial crabbers and 12 agency personnel, including 5 Sea Grant agents, collaborated to remove 21 derelict crab traps from the Peace River. The participants completed a post event survey and 100% stated they would participate in additional cleanups. There was also a 29% increase in participant's ability to recognize derelict crab traps and everyone agreed they were willing and able to be a resource to other groups wishing to conduct cleanup events. The clean up was followed by a Train the Trainer event to increase participants ability to conduct cleanups, become resources for and/or organize clean ups in their geographic area. 100% of participants increased their knowledge of crab trap cleanup protocols. 71% stated they will use the knowledge gained during the training and removal exercise to build capacity in their region and 100% stated they could now be a resource in their geographic area.

Bob Swett -- The NOAA Coastal Services Center's (CSC) new "Digital Coast in Action" web site (<http://www.csc.noaa.gov/digitalcoast/action/index.html>) shows how data and tools are used to address coastal management issues. Florida Sea Grant's recently developed spatial decision-support

system (SDSS) to analyze safety risk for recreational boating is one of only nine US projects currently highlighted on the CSC web site. The Florida Fish and Wildlife Conservation Commission (FWC) successfully applied the SDSS to Martin County waterways, resulting in adoption of a rule specifying the locations, types, and characteristics of boating regulatory areas in the Intracoastal and Okeechobee Waterways. FWC and FSG currently are applying the SDSS in Palm Beach County.

Bill Mahan -- In mid-March, schools of diseased silver mullet began showing up in the Indian Creek Area a popular fishing spot in Franklin County. The Board of County Commissioners requested that Bill contact the local residents about the fish and find out what is happening. He contacted Carlo Martinez and Roy Yanong at the UF/IFAS Tropical Aquaculture Laboratory in Ruskin, who put him in touch with Catalina Brown, FWC's Fish Kill Hotline Coordinator. Ms. Brown arranged for fresh fish samples to be collected and sent to the FWC Fish & Wildlife Research Institute in St. Petersburg. Bill is waiting for the final histopathology and DNA sequencing results on the fish. However, it is believed the fish have a fungus infection caused by *Aphanomyces invadans*. There have been a number of documented outbreaks of this fish disease around the state. It is typically caused by environmental stress weakening the fish's immune system.

The UF Oyster Industry Lab recently passed its FL Department of Health inspection. As a result, the lab can continue to conduct water quality analyses for the County's seafood industry. In addition, the lab participated in FDA's Annual Shellfish Split Sample Proficiency Program. This program compares a lab's results with other lab results as part of their standardization program. Finally, Charlene Burke, Director of the lab traveled to the Annual International Boston Seafood Conference to assist local & state seafood processors and the FL Department of Agriculture and Consumer Services to promote FL seafood.

Andrew Diller and Chris Verlinde -- promoted the Florida Clean Boater Program at the Pensacola Boat Show on April 3-6. Attendees visiting the Florida Sea Grant Clean Boating booth had the opportunity to take the Clean Boating Pledge to protect Florida waterways. Over 200 people signed the pledge and received bilge socks to prevent oil and gasoline from entering the water and seat cushion PFD's. More than 100 youth also received PFD's to promote safety as well as Clean Boating. The Clean Boating Program is part of the Clean Boating Partnership which includes the Marine Industries Association of Florida, Florida Sea Grant, the Florida Department of Environmental Protection, and the US Coast Guard Sea Partners Program.

Andrew also taught aquaponics to 31 people as part of the Victory Gardens program series created by the Escambia County Extension Office. The program introduced aquaponics, described various systems, and demonstrated the Escambia County Extension experimental aquaponics system. Post-workshop evaluations indicated 100% of participants learned new techniques and that 100% intended to use information they learned in their aquaculture/aquaponic activities.

Chuck Adams -- assisted in the development of a survey methodology, with Sherry Larkin (Food Resource & Economics Department) and Steve Otwell, to assess the impact of the mislabeling of grouper

products on Florida consumers. This effort is being funded by the Gulf and South Atlantic Fisheries Foundation in response to recent high profile incidents of product mislabeling concerning grouper. Given the strong media coverage of these events and the legal action taken against a growing number of seafood suppliers and restaurants, the seafood industry would like to develop a product integrity program for reef fish products in the southeast US region. The project will help collect the information needed to design and implement such a program. The survey will involve a telephone administered questionnaire. The survey will collect 400 completed responses from households in Florida. The data will provide insight into how mislabeling events have impacted the perception of grouper products by the consuming public in Florida, how the perception of other seafood products has been impacted, and what information would better convince consumers they are getting the seafood they demanded. To date the survey has been completed and the analysis will be initiating soon. In addition to the survey, focus group meetings will be held with industry representatives and consumers in 4 different locations in Florida. The information collected at these focus group meetings will help design a product integrity program. The findings from the survey and the focus group meetings will be presented at the 2009 Annual Southeastern Fisheries Association Convention in Key West.

Upcoming Events

Bryan Fluech -- will attend the Florida Marine Science Educators Association (FMSEA) annual conference in Sarasota, FL May 15-17 and deliver a presentation on his efforts to expand the Monofilament Recovery and Recycling Program (MRRP) through the use of personal-sized fishing line recycle bins. He received a \$10,000 grant from Fish Florida to raise awareness about the impacts certain fishing and boating practices can have on dolphins and is collaborating with Mote Marine Laboratory's Sarasota Dolphin Research Program on the project. Part of the grant funded the construction of 1,000 personal sized fishing line recycling bins from used tennis ball cans collected from local tennis centers. The cans have MRRP stickers on them reminding people to recycle their fishing line as well as educational information about impacts of discarded fishing line and dolphin-friendly fishing practices. Bryan has been handing out the bins to anglers and boaters in his County since January. The grant also paid for the creation of 3 retractable banners that highlight how boaters and anglers can minimize impacts on dolphins. Bryan's session will provide an overview of the program, how it is being assessed, and will be an opportunity for participants to make and take away their own bin.

Maia McGuire -- Flagler County volunteers will be teaching manatee programs to 8 kindergarten, 21 first grade and 8 second grade classes in April and May, 2009. They will reach approximately 650 students with these 30-45 minute programs!

Leslie Sturmer -- The 6th annual CLAMerica Celebration, selected as one of the top 20 events for July in the southeastern U.S. by the Southeast Tourism Society, will be held on the 4th in Cedar Key. Hosted by the Cedar Key Aquaculture Association and the UF Shellfish Extension Program, this food festival celebrates the positive economical and environmental impact of clam farming in the area. CLAMerica features educational and "clammy" activities for all ages.

Bob Swett -- The Florida Sea Grant Boating and Waterway Management Work Action Group (Swett/Ankersen) will meet in Cedar Key on May 21 and 22. The purpose of the meeting is to plan for boating/waterway related extension activities and product development. Participating Florida Sea Grant agents (Fluech, Hazell, Krinsky, Staugler, Verlinde) will be accompanied by a local person with whom they work on boating/waterways issues (for example, a county or municipal government colleague, or someone from an NGO or industry). A representative from the Florida Fish and Wildlife Conservation Commission's Boating and Waterway Section also will attend. Contact Bob Swett for further information (rswett@ufl.edu).

Chuck Adams -- The assessment of the FWC and WCIND-funded study on the economic impacts associated with artificial reef use in SW Florida is scheduled to be completed by October 2009. During early 2009, three large surveys will be implemented for the various segments of the general boating public and commercial for-hire sectors that utilized artificial reefs. The need to be addressed will be providing for a better understanding of the economic role that artificial reef programs play in coastal economies. The audience will be county and statewide reef managers, related industry sectors, and the general boating public. The approach used will be survey implementation and IMPLAN analysis, which will utilize the survey data to determine the economic impacts. Collaborators will include UF faculty (Bob Swett and Sherry Larkin), FSG marine agents in Lee, Charlotte, Sarasota, Manatee, and Pinellas Counties, and the county reef coordinators in the target counties. The primary impact will be to educate local and state-level decision makers regarding the benefits associated with investing in artificial reefs. This effort is continuing.

Bill Mahan -- The Franklin County Board of County Commissioners have requested that Bill organize a public workshop on pending U.S. Food & Drug Administration/Interstate Shellfish Sanitation Conference *Vibrio vulnificus* and *Vibrio parahaemolyticus* regulations that will result in major changes in how Florida's oyster industry operates. Bill is working with Steve Otwell, FSF Seafood Specialist to organize the workshop. The tentative date & time for the workshop is May 12th, at 6:00 – 8:00 PM.

Bill also is working with UF IFAS Shellfish Aquaculture Agent Leslie Sturmer to have a miniature clam farm on display during the FSU Coastal Marine Lab's Open House on Saturday, April 18th from 10:00 AM–3:00 PM. The goal of the display is to educate and promote the County's clam aquaculture industry.