



GRAY'S REEF NATIONAL MARINE SANCTUARY

SANCTUARY PROGRAM REPORT

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A report for the Sanctuary Advisory Council and Sanctuary Constituents

Reporting period: October – December 2009

Habitat Protection Sought

Superintendent George Sedberry traveled to St. Augustine, FL to meet with the St. Augustine Rotary Club, officials from the St. Augustine Lighthouse Museum, and the South Anastasia Community Association. There is great interest among civic groups in this area in obtaining additional protection for natural and cultural marine resources of northeast Florida. Ideas have been floated for eventually creating a new National Marine Sanctuary, for expanding Gray's Reef and for finding other ways to protect this area of rich marine and coastal habitat. The area being discussed includes several deep offshore sinkholes noted for their marine life and several freshwater spring-fed outflows. George gave presentations to the groups on marine fish, their habitats, marine protected areas and connectivity among these entities off the southeast coast of the U.S.

New Degree Program

Several professors from the Savannah College of Art and Design (SCAD) have approached Gray's Reef to participate in development of a Master of Arts degree in scientific illustration. This program would begin in the first quarter of 2011.

The most ambitious plan is to have a 10-week field, lecture, lab and studio course that would include scuba certification of students, and overview of marine biology and Gray's Reef, classes and labs on specimen collection and underwater scientific observation methods. The class would include student projects that illustrate a species at Gray's Reef, along with information on the taxonomy, morphology, ecology and importance of the species. Part of the class would be dive observations of the species at Gray's Reef, with students creating a habitat or seascape illustration or sculpture of their project species in its habitat. The course will be lead by visiting professor Mark Schultz (<http://www.kingfeatures.com/features/comics/pvaliant/about.htm> ; http://www.kitchenandhansen.com/client_shultz.html), with participation by SCAD faculty and Gray's Reef staff.

ROVs in Education

Education Coordinator Cathy Sakas has been working with 32 high school juniors from area private and public schools building remotely operated vehicles, ROVs. The building workshop is sponsored by Gray's Reef and the Savannah Science Seminar program.

The first session introduced the students, their parents, and their teachers to Gray's Reef through video and PowerPoint presentations. Sakas included a discussion on the acoustic fish tagging project, water quality monitoring, marine spatial planning, and ocean acidification as well as the fauna and mega fauna of the sanctuary.

Students in this program compete for the privilege of membership. The Seminar is designed to introduce students to various professions through working with the area businesses and organizations on various projects. New partner, Georgia Tech Savannah Campus hosted the workshop.

The final session, a spirited competition between student teams took place Jan. 27.

Fluorescent Red Dye Helps Ocean Scientists By Orlando Montoya Updated: 3 months ago

SAVANNAH, Ga. — Scientists poured about 50 gallons of a fluorescent and non-toxic red dye into Altamaha River this weekend to study how much the river's nutrients and contaminants are reaching Gray's Reef National Marine Sanctuary.



Researchers poured red dye into the mouth of the Altamaha River. The dye is not toxic and residents shouldn't be alarmed by it. (photo Greg McFall)

Scientists say that they were surprised by how visible the red dye kept, even as far away as seven miles from the release location of uninhabited Wolf Island near Darien.

By looking at how far down and where the dye travels, the scientists, who represent Georgia Southern University and Gray's Reef National Marine Sanctuary, hope to become smarter about how onshore activities affect offshore sea life.

The scientists could have tracked the dye farther, but rough seas forced them back to shore seven-hours into the experiment. They were pleased the dye didn't sink. The fluorescent coloring dispersed evenly in the water column.

Gray's Reef National Marine Sanctuary is about 17 miles off Georgia's coast and is a federally-protected natural treasure. Onshore nutrients and contaminants affect the reef, but it's not well understood exactly how. Scientists hope to make another offshore trip to track the dye with fluorimeters on Friday.

It's the first time such dye tracking has taken place near Gray's Reef.

New Publications:

R. Ruzicka and D. F. Gleason, 2009. Sponge community structure and anti-predator defenses on temperate reefs of the South Atlantic Bight. *Journal of Experimental Marine Biology and Ecology*, Volume 380, Pages 36-46