



GRAY'S REEF NATIONAL MARINE SANCTUARY SANCTUARY PROGRAM REPORT

REPORTING PERIOD JANUARY-MARCH 2010



Gray's Reef National Marine Sanctuary Advisory Council
10 Ocean Science Circle
Savannah, GA 31411

Members

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Non-living Resources Research

Will Berson, Vice-chair
Georgia Conservation

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K-12 Education

LTJG Nathan Downend
U.S. Coast Guard

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Living Resources Research

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Charter/commercial fishing

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University Education

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NOAA Fisheries Southeast Region

Sgt. Doug Lewis
Georgia DNR Law Enforcement

Kellie Parr
Sport Diving

Al Samuels
NOAA OLE

Buddy Sullivan
Sapelo Island NERR

Tim Tarver
Sport Fishing

Spud Woodward
Georgia DNR Coastal Resources Division



RESOURCE PROTECTION & MANAGEMENT

Spearfishing Ban Effective in Gray's Reef

The rule prohibiting all spearfishing gear in Gray's Reef NMS became effective on Monday, March 22. The Final Rule was published in the *Federal Register* on February 19. The prohibition is expected to provide protection to the fishes and natural live-bottom community for which the sanctuary was designated. The new regulation also facilitates enforcement of an existing prohibition against the use of powerheads within the sanctuary.

Interest in Northeast Florida Sanctuary on the Rise

There is a growing interest among various stakeholders in the possibility of establishing a new sanctuary, or expanding Gray's Reef, to cover an area of the marine environment off northeast Florida. The area could potentially include parts of the Critical Habitat Area for North Atlantic right whales, reef fish spawning sites and several known sink holes and offshore freshwater springs. Gray's Reef staff held meetings with several Florida groups including NOAA's Guana Tolomato Matanzas National Estuarine Research Reserve (GTMNERR), near St. Augustine, Fla., the St. Augustine Lighthouse and Museum, Friends of Matanzas, and the Anastasia Community Association.

Regional Cooperation Sought

Staff attended a joint regional meeting between the Office of National Marine Sanctuaries and the National Marine Fisheries Service in Miami, FL in February. The meeting explored how the two agencies can work more closely together and resulted in a list of action items for both groups.

Research Area Progress

A Draft Environmental Impact Statement, Proposed Rule and Action Plans for designation of a research area in GRNMS have been submitted to Sanctuary headquarters for review and clearance. Staff hope for a release of the documents in May. A comment period of 90 days would follow release with several public meetings.

SCIENCE & EXPLORATION

Mapping and Aging Deep Corals

The NOAA Coral Reef Conservation Program has funded the following study proposed by Superintendent George Sedberry: "Growth rates in deep-sea stlyasterid corals off the southeastern U.S." Corals will be collected on an upcoming cruise aboard the NOAA Fisheries Research Vessel PISCES.



Wreckfish and red bream associated with rocky coral habitat on the Blake Plateau.

The cruise is aimed at using the ship's fisheries acoustic system to measure fish biomass and daily movements of fish on deep-sea coral mounds and coral habitat in depths from 400-600 m east of Gray's Reef. Several fish species of commercial interest are thought to associate with coral habitats during the day and move up into the water column at night to feed. The sonar systems aboard the PISCES will enable researchers to map coral features and to track fish movements in relation to those features. Scientists will use a remotely-operative vehicle with video and still cameras to confirm fish and coral identifications and to ground-truth abundance and biomass estimates. The ROV and a grab sampler will also be used to sample corals for determining age and growth rates and contaminant levels.

Samples will add to an existing database on fish and invertebrate communities along a "Latitude 31-30" transect that extends from the Sapelo Island

National Estuarine Research Reserve, through Gray's Reef National Marine Sanctuary, and out into the South Atlantic Fishery Management Council's proposed deep-sea coral Habitat Area of Particular Concern. The goal of the collections and database is to describe changes in fauna and contaminant levels as they change with depth, distance offshore and bottom type.

Along with existing collections, the samples will be aged using isotope analyses conducted by research partner Dr. Fred Andrus at the University of Alabama. The funding (\$50,000) will also support a minority research assistant. The cruise is expected to take place April 8-14.

Aquarius to Resume Operations

Deputy Superintendent and Line Office Diving Officer Greg McFall participated in the Aquarius Technical Advisory Committee in Key Largo, FL. The committee was convened to review the new operations manual for the Aquarius undersea lab and to discuss the future of the program. The committee was comprised of experts in saturation diving and users of Aquarius who all reviewed the new documentation and recommended that Aquarius be able to resume operations.

2010 Foster Research Cruise

Gray's Reef staff are gearing up for the 2010 research cruise aboard the NOAA Ship *Nancy Foster*. There will be two separate legs totaling 20 days at sea. During the first mission, the cruise will support continuation of the acoustic fish tagging study. Georgia DNR will support this mission using the R/V *Marguerite* to sample grouper and snapper. Dr. Scott Noakes will join part of the cruise to continue CO₂ investigations. On the second mission, Dr. Danny Gleason will conduct ongoing studies into invertebrate communities, and Dr. Peter Auster and Laura Kracker will build upon fish predation studies begun in 2008.

The cruise will be supported by every member of the GRNMS staff, many of whom will be sailing with the ship. Captains Todd Recicar and Chad Meckley will operate small boats to support fishing operations, personnel transfer and media visits. As in past years, support from partners is critical for the missions' success. Numerous

education and outreach activities are planned for the cruise. Check <http://sanctuaries.noaa.gov/> for the mission log during the cruise. An open house will be held in Savannah aboard the *Nancy Foster* on May 31st from 10 am-2 pm.



Onboard the R/V *Nancy Foster* preparing for dive operations.

Papers & Projects

A paper – *NOAA in the 21st Century* – has been submitted for inclusion in the proceedings of the National Association of Environmental Professionals (NAEP) Conference. The paper - co-authored by NOAA PPI's Steve Kokkinakis, NOAA Fisheries' David Keys, and GRNMS' Becky Shortland – will be presented at the April conference in Atlanta during the first-ever NAEP Conference Oceans Panel. The key focus of the presentation and paper is Coastal and Marine Spatial Planning. David Keys led the effort.

Graduate research assistant, CJ Carroll participated in a research cruise aboard the *Delaware II*, which sailed out of Woods Hole, MA. The cruise was funded by the NOAA Living Marine Resources Cooperative Science Center and provided for students to participate in research at sea. While the weather was not very cooperative, several trawls were completed in Hudson Canyon and off the coast of Norfolk, VA.

Carroll presented a poster titled “Acoustic telemetry used to track red snapper, gag grouper, red grouper, and scamp grouper in Gray’s Reef National Marine Sanctuary” at the recent BEM/SEERS conference. The poster was co-authored by Sarah Fangman, Greg McFall, Matt Kendall, and Matt Ogburn.

Superintendent George Sedberry presented a seminar at the University of Georgia on “Research at Gray’s Reef National Marine Sanctuary: Making the Connections to the Past, the Future and Regional Ecosystem Management”. While there he

met with cooperating researchers at the University to plan ways to enhance collection and use of the data on dissolved carbon dioxide, which is measured at the data buoy at Gray’s Reef (one of only three places in the U.S.). These data will be important for monitoring ocean acidification.

Sedberry also presented a lecture to a College of Charleston Geology Department class (Oceanographic Research). He gave a presentation on “Ecosystem Mapping for Management and Conservation off the Coast of South Carolina and Georgia”.

Education Coordinator Cathy Sakas is working on a preserve American Initiative grant to collect oral histories from traditional coastal fishing communities. The final project will have several components to it that will include still images, video-recorded interviews of multi-generational commercial fishers as well as a summary of archived commercial landings.

OUTREACH

Film Festival Scheduled

Dates for the seventh annual Gray’s Reef Ocean Film Festival are set for Sept. 17-19 with films to be shown at Trustees Theater in downtown Savannah, GA. A panel of community members including John Duren, Mike Sullivan, Karen Grainey, Mary Landers, Fitz Haile, Stephen Hooten and Reed Bohne are currently reviewing the submitted films. Submissions are taken through May 15.



Gray’s Reef’s Ocean Film Festival is a popular annual event which draws attention to ocean issues

The Savannah Ocean Experience Organization (SAVOX), made up of Education Coordinator Cathy Sakas, Howard Morrison and Court Atkins, is organizing an ocean issues solutions think-tank and community event for the week following the film festival. The week may also include lectures and outdoor themed activities. All events are funding dependent.

Outreach Opportunities Explored

Superintendent George Sedberry, Education Coordinator Cathy Sakas and Outreach & Communications Coordinator Gail Krueger were part of two days of meetings to discuss potential Savannah-area outreach location options. All options-- from a brick and mortar visitors' center to signage and kiosks—are possibilities for consideration. Community leaders attended day two of the meetings and gave input on partnership opportunities. Cheryl Oliver and Matt Stout from headquarters and a team for Facilities Programming, San Antonio, TX, were also in attendance. Facilities Programming will write a summary of the meetings for Gray's Reef as part of the planning process.

Website Updated

The revised Gray's Reef website is now up and running after several years of effort on the part of site and headquarters staff.

Other Outreach & Events

The Georgia Department of Natural Resources law enforcement rangers hosted an outreach event at Bass Pro in January on behalf of Gray's Reef. Their outreach efforts stem from our agreement with Georgia law enforcement officials through NOAA's Joint Enforcement Agreement.

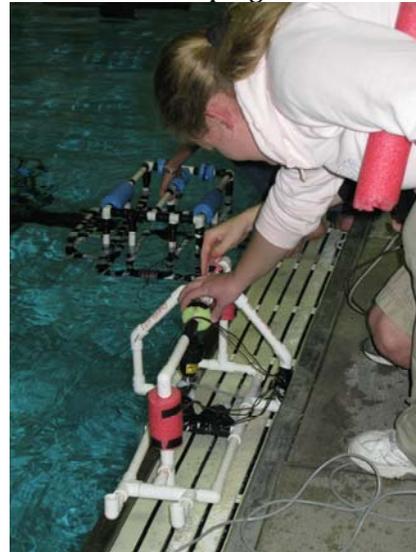
Outreach and Communications Coordinator Gail Krueger and Administrative and Volunteer Coordinator Jody Patterson attended the quarterly meeting of the Georgia Education and Outreach Group. The group, made up of staff from various state and federal agencies, coordinates education and outreach events among partners. The January meeting looked ahead to various conferences with the goal of sharing expenses where possible and creating a sustainability umbrella group.

The Office of National Marine Sanctuaries outreach team now has regularly scheduled phone conference calls to discuss communications topics.

EDUCATION

Building & Testing ROVs

Education Coordinator Cathy Sakas worked with 32 high school juniors from area private and public schools in the first of three three-hour sessions building remotely operated vehicles, ROVs. The building workshop is sponsored by Gray's Reef and the Savannah Science Seminar program.



Students from the Savannah Science Seminar participate in the ROV building workshop.

Sakas also conducted a nine-hour ROV Building Workshop for Educators at partner facility Georgia Aquarium in Atlanta. Teachers participated in the workshop to learn how to teach their students to build ROVs and will hopefully participate in the Gray's Reef Southeast Regional MATE ROV Competition that will take Saturday, April 24. Top winners from that regional go on to compete in the Ranger Class at the international competition that will take place in Hilo, Hawai'i in June. The team from Georgia Tech Savannah Campus has already been accepted to the international competition for the Explorer Class. Last year they took top honors in the prestigious design category of that class.

Rivers to Reefs Flow Onward

The popular Rivers to Reefs educator workshops will continue this summer thanks to a \$63K grant awarded to the sanctuary and partners. Since 2004, the workshops have been collaborations between Gray's Reef and Georgia Aquarium. With this award from the

Georgia Teacher Quality Grant, the funding will allow inclusion of support from science staff at Skidaway Institute of Oceanography and a robust evaluation component provided by staff at Armstrong-Atlantic State University. The two 2010 R to R cruises are scheduled for June 13-18 and July 11-16.

Educator Mini-Cruises Kick Off

Two Saturday educator cruises have been conducted. Up to eight teachers can participate in each cruise during which they investigate organisms collected in a try net. They also learn to determine the water's turbidity with Secchi disks and to collect samples with Niskin tubes. They conduct tests on the samples for dissolved oxygen and pH and salinity. Additionally the participants learn about issues of ocean acidification, marine debris and non-point source pollution from watersheds as well as overfishing. Educators are given information about Gray's Reef's water quality monitoring program and acoustic fish tagging project. Each of the participants came away from the cruise with a better appreciation for the research that is conducted through NOAA and specifically at Gray's Reef.

Kudos to Cathy

Education Coordinator Cathy Sakas was selected as the 2010-2012 Director of Georgia for the Center for Ocean Science Education Excellence, Southeast. She will share responsibilities of oversight of programs with Directors from South Carolina and North Carolina.

VOLUNTEERS & COMMUNITY INVOLVEMENT

New Programs

Volunteer Coordinator Jody Patterson rolled out the announcement for new volunteer opportunities encouraging stewardship within the sanctuary and surrounding marine environment. Potential volunteer opportunities include: Team Ocean Diver and Boater Corps, the G.R.E.A.T. Program (Gray's Reef Eco-Ambassador Team for K-12 schools and youth groups), and an Event and Outreach Corp. Contact jody.patterson@noaa.gov for more information on these programs.

Events

Staff and volunteers participated in the Savannah International Boat show in February. The Gray's Reef booth had video of the sanctuary, information about the spearfishing ban and about invasive

lionfish as well as a volunteer signup sheet. We had plenty of foot traffic with many people stopping to talk about lionfish and a handful to talk about the spearfishing ban.

Outreach events in April will include staff and volunteer participation in the City of Savannah's Earth Day Festival, April 17; the Savannah College of Art and Design's (SCAD) Sidewalk Arts Festival, April 24; and SCAD's Sand Arts Festival April 30.

HOMEPORT

Vessel Work

The R4106, also known as the *Joe Ferguson*, spent two weeks in the ship yard while an onboard generator was installed. The generator will allow us to accommodate our users who require a greater amount of power than we can currently provide. While the 41' catamaran was up on blocks other work including spot painting the hull, applying anti-fouling paint (prop speed) to the running gear and other maintenance projects that are much easier to accomplish while the boat is on dry land were completed.

Sanctuary Greening

Administrative and Volunteer Coordinator Jody Patterson is working with Georgia Southern University on a sustainability audit for the Gray's Reef administrative offices. In conjunction with Georgia Department of Natural Resources Sustainability Division, a Sustainability Action Plan will be written as part of a special topics course this spring and presented for implementation.

And The Winner Is...

Gray's Reef Science Coordinator Greg McFall has received a NOAA 2009 Bronze Medal for leadership in keeping the NOAA Diving Program safe, scientific and productive through the development of dive manuals and implementing lessons learned from a recent diving accident. This is one of the highest honors granted by the under secretary for oceans and atmosphere. The esteemed award recipients will be honored at a ceremony Tuesday, April 27 beginning at 10:00 a.m. in the NOAA Auditorium in Silver Spring, MD.

Gray's Reef staff:

George Sedberry, Sanctuary Superintendent
912 5982345 George.Sedberry@noaa.gov

Greg McFall, Deputy Superintendent and Research
Coordinator
912 598 1416 Greg.McFall@noaa.gov

Gail Krueger, Outreach Coordinator
912 598 2397 Gail.Krueger@noaa.gov

LTJG Chad Meckley,
Vessel Operations Coordinator
912 598 2432 Chad.Meckley@noaa.gov

Debbie Meeks, IT/Finance Coordinator
912 5982434 Debra.Meeks@noaa.gov

Jody Patterson, Administrative Assistant
912/598-2431 Jody.Patterson@noaa.gov

Todd Recicar, Vessel Captain
912 5982383 Todd.Redicar@noaa.gov

Cathy Sakas, Education Coordinator
912 5982417 Cathy.Sakas@noaa.gov

Becky Shortland, Resource Protection Coordinator
912 598 2381 Becky.Shortland@noaa.gov

**Southeast, Gulf of Mexico, Caribbean
Region staff:**

Sarah Fangman, Associate Science Coordinator
912 598-2428 Sarah.Fangman@noaa.gov

**LEARN MORE ABOUT YOUR
SANCTUARY**

To learn more about the sanctuary please
visit our web site at:
<http://graysreef.noaa.gov/>.

To learn more about the Sanctuary Advisory
Council please visit:
<http://graysreef.noaa.gov/sac.html>.

**The Office of National Marine
Sanctuaries**

The Gray's Reef National Marine Sanctuary is
one of 14 marine protected areas in the
National Marine Sanctuary System. This
program was established under the National
Marine Sanctuaries Act of 1972 which
authorizes the Secretary of Commerce to
designate as national marine sanctuaries
areas of the marine environment or Great
Lakes with special national significance due
to their conservation, recreational, ecological,
historical, scientific, cultural, archeological,
educational, or aesthetic qualities. Visit the
NMSP web site at:
<http://www.sanctuaries.nos.noaa.gov/>

VISIT YOUR SANCTUARY!

For information on visiting Gray's Reef
National Marine Sanctuary please see:
<http://graysreef.noaa.gov/visiting.html>. This
page has information about visitor centers,
sanctuary regulations, and recreation in the
sanctuary, and about the sanctuary's unique
resources and how you can help protect them.