

A satellite image of the Atlantic Ocean, showing a large, well-defined hurricane with a clear eye and spiral cloud bands. The hurricane is positioned in the lower right quadrant of the image. The surrounding ocean is dark blue, and the coastline of North and South America is visible in the upper left and lower left. The text is overlaid on the top half of the image.

**NOAA's Office of National Marine Sanctuaries
Southeast Atlantic, Gulf of Mexico
and Caribbean Region
2008 Accomplishments**



U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Service
Office of National Marine Sanctuaries



The Office of National Marine Sanctuaries is part of NOAA's National Ocean Service.

Our Vision

People value marine sanctuaries as treasured places protected for future generations.

Our Mission

To serve as the trustee for the nation's system of marine protected areas in order to conserve, protect and enhance its biodiversity, ecological integrity and cultural legacy.



Grouper, Flower Garden Banks National Marine Sanctuary (GP Schmah)

Cover Photo:
Hurricane Ike makes its way into the Gulf of Mexico on September 10, 2008 (NASA).

Southeast Atlantic, Gulf of Mexico and Caribbean Region 2008 Accomplishments Report

Introduction

The Southeast Atlantic, Gulf of Mexico and Caribbean Region of the Office of National Marine Sanctuaries (ONMS) encompasses three sanctuaries: Flower Garden Banks National Marine Sanctuary, located 70 to 115 miles off the coasts of Texas and Louisiana; Florida Keys National Marine Sanctuary, adjacent to the 126-mile island chain of the Florida Keys; and Gray's Reef National Marine Sanctuary, located 17.5 miles off Sapelo Island, Georgia. The role of the regional office is to support and enhance the management and protection efforts of these three sanctuary sites, and to help promote the work of the sanctuary system throughout the southeastern U.S., Gulf of Mexico and Caribbean.

The sanctuary system works at an ecosystem scale and across networks of managed areas. This approach includes working outside sanctuary boundaries. In response to this, the Office of National Marine Sanctuaries has built upon site-based management to incorporate a larger-scale, integrated, ecosystem-based approach to management. It is the role of the Southeast Atlantic, Gulf of Mexico and Caribbean Region team to lead the effort to understand connectivity between the sites and to address issues at scales beyond the boundaries of individual sanctuaries.

The Southeast Region team brings diverse national and international backgrounds in marine science, conservation, management and policy to assist the sanctuaries of the region and the ONMS in meeting their goals. This report highlights some of the accomplishments of the team during 2008.

Regional support for sites & between-site coordination

Field Operations Support

The Southeast Atlantic, Gulf of Mexico and Caribbean Region staff worked with their sanctuary colleagues on a variety of field operations during 2008. The NOAA ship *R/V Nancy Foster* came to the Gray's Reef National Marine Sanctuary in May. The primary goal of the first portion of the cruise was to conduct mapping around Gray's Reef and to dive on areas of interest identified during mapping efforts. During the second half of the cruise, regional staff joined researchers from Gray's Reef National Marine Sanctuary and NOAA's National Centers for Coastal Ocean Science to capture and tag snapper and grouper in a study of the ecology of fish populations in the sanctuary (please visit http://www.sanctuaries.noaa.gov/missions/2008nancy_foster/welcome.html for more information on this cruise).



Beth McGovern and Sarah Fangman bait a chevron trap aboard the *R/V Nancy Foster*.

Later in the summer, the *R/V Nancy Foster* supported the Florida Keys National Marine Sanctuary's coral reef disease survey. Regional staff members assisted the Keys team with preparation and planning for the cruise, and served as divemaster for underwater operations. The nine divers participating in the cruise completed approximately 160 dives and spent 240 hours underwater conducting surveys from the upper Keys to the Tortugas (please visit <http://www.sanctuaries.noaa.gov/missions/2008floridakeys/welcome.html> for more information on this cruise).

In addition to ship-board activities, the Southeast Region team supported small vessel operations at the sites. The Office of National Marine Sanctuaries took delivery of a 41-foot catamaran built by Seemann Composites in Gulfport, Miss. The vessel will ultimately serve the Hawaiian Islands Humpback Whale National Marine Sanctuary, but is being operated in the southeast Atlantic first. Regional staff members are assisting with operations coordination at Gray's Reef National Marine Sanctuary. The Flower Garden Banks National Marine Sanctuary also took delivery of a new research vessel in 2008, the 83-foot catamaran *R/V Manta*, built by All American Marine in Bellingham, Wash. Regional staff worked with Flower Garden Banks operations team to make arrangements for infrastructure upgrades to Texas A&M University's boat basin, where the *R/V Manta* will dock.

Support for Management Activities

Each of the three sites in the Southeast Region depends upon the input from a sanctuary advisory council, consisting of representatives from various governmental and non-governmental stakeholder groups. These councils are the mechanism for involving community members and

The Office of National Marine Sanctuaries is trustee for a system of 14 marine protected areas, encompassing more than 150,000 square miles of ocean and Great Lakes waters. The system includes 13 national marine sanctuaries and the Papahānaumokuākea Marine National Monument. The sanctuary system is part of the National Oceanic and Atmospheric Administration (NOAA), which manages sanctuaries by working cooperatively with the public to protect sanctuaries while maintaining compatible recreational and commercial activities. The Office of National Marine Sanctuaries works to enhance public awareness of our nation's marine resources and maritime heritage through scientific research, monitoring, exploration, educational programs and outreach.





Sarah Fangman pries wallboard from Bill Kiene's house in Galveston after Hurricane Ike.

developing stewardship of the sanctuaries. Regional staff participated in sanctuary advisory council meetings at each of the sites during 2008.

The Gray's Reef Sanctuary Advisory Council spent considerable time in 2008 examining the question of establishing of a "research-only area. Regional staff served on the advisory council's research area working group, which was charged with identifying a preferred research area scenario. The Flower Garden Banks National Marine Sanctuary advisory council began discussions of a research area as part of their management plan review process, and regional staff in Galveston supported these discussions.

The Florida Keys National Marine Sanctuary Advisory Council also discussed marine zoning issues this past year. The regional director and regional science coordinator participated in the advisory council's marine zoning workshop, which focused on assessing the effectiveness of current and planned zoning regulations.

Another common management activity at all three sites of the region is the development of condition reports. The National Marine Sanctuary Program Condition Reports provide a summary of resources in each sanctuary, pressures on those resources, the current ecosystem conditions and trends in those conditions, and management responses to the pressures that threaten the integrity of the marine environment. Specifically, the reports include information on the status and trends of water quality, habitat, living resources and maritime archaeological resources and the human activities that affect them. Regional staff members worked with personnel at each site to draft and complete condition reports (please see <http://sanctuaries.noaa.gov/science/condition/fgnms/welcome.html> for the Flower Garden Banks National Marine Sanctuary report and <http://sanctuaries.noaa.gov/science/condition/grnms/welcome.html> for the Gray's Reef report; (the Florida Keys report will be completed in 2009).

Support for Site Operations

The regional director and his team also undertake activities that are specific to each site. In the Florida Keys, those included efforts to encourage visits to the Eco Discovery Center by the Key West Old Town Trolley, seeking funding to support marine zone monitoring in the Keys, and supporting the Damage Assessment and Restoration Program. Other regional efforts in the Keys were directed toward maintaining strong partnerships with the state of Florida, including the Florida Department of Environmental Protection's Memorandum of Agreement with the sanctuary, and Florida Fish and Wildlife's Conservation Division of Law Enforcement. The state is revising the required role of all FWC Officers to include the enforcement of sanctuary regulations.

At the Flower Garden Banks, one of the most significant events of 2008 was the arrival of Hurricane Ike. Staff homes and offices in Galveston, Texas,

were damaged by the storm, and regional staff traveled to Galveston to assist recovery.



Bill Kiene, Sarah Fangman, Billy Causey and GP Schmahl show off the mound of debris removed from Emma Hickerson's house in Galveston that was flooded by Hurricane Ike.

Another, more positive occasion for the Flower Garden Banks in 2008 was the arrival of the *R/V Manta*. Regional staff worked with the site on a boat tour and open house during the vessel's delivery from Florida to Texas. The regional director and his team were also on hand for the dedication ceremony of this state-of-the-art platform, which will support a wide range of research, resource protection and education missions in the Gulf.



The Flower Garden Banks National Marine Sanctuary's *R/V Manta*

Gray's Reef sanctuary operations enjoyed the assistance from the region on issues related to the preparations for the Blue Ocean Film Festival (June 2009), partnership activities with the Georgia Aquarium, and a variety of education and outreach activities.



Lobster, Flower Garden Banks NMS (GP Schmahl)



Coral polyps (GP Schmahl).

Regional Contributions to Science & Management

One of the main goals of the regional team is to contribute to scientific endeavors in the southeast Atlantic, Gulf of Mexico and Caribbean. The intention of such efforts is to provide critical information for management activities and to demonstrate connectivity within the region. Participation in management meetings and scientific conferences allowed regional staff to emphasize how improved management upstream of National Marine Sanctuaries benefits the sites, and how effective management actions taken within the sanctuaries benefits areas “downstream.” In 2008, regional staff engaged in a variety of activities to support science and management.

Reporting on Science & Management

One of the primary ways that regional staff members contribute to better resource protection in the region is through presentations at management related meetings. Staff presented on a number of topics at meetings including the Florida Reef Resilience Program conference, site advisory councils, fisheries management councils, the American Water Resources Association, the annual Everglades Coalition Conference and the Greater Everglades Ecosystem Restoration. Participation in these large-scale programs is part of the regional team’s effort to consider issues on an ecosystem scale.



Bill Kiene explains coral biology to young visitors at the NOAA Fisheries & Flower Garden Banks sanctuary offices in Galveston during Ocean Discovery Day in March 2008 (Kelly Drinnin).

Presentations at scientific meetings also allowed regional staff to communicate on resource management issues of interest to the three sites and region. In 2008, regional staff presented at the American Association for the Advancement of Science's annual meeting, the National Council for Science and the Environment, the Gulf of Mexico Research and Management Workshop, the International Coral Reef Symposium, the Ocean Sciences meeting, and the 9th National Conference on Science, Policy and the Environment.

The Southeast Region team gave presentations on a variety of topics to community groups in the region, as well as at universities and other educational institutions including Louisiana State University's School of the Coast and Environment, the University of South Florida, College of Marine Studies, the National Marine Educator's Association Annual Conference and Eckerd College. Students visiting the region from the Royal Holloway College at the University of London and the University of Lugano, Switzerland, also enjoyed presentations from the regional science coordinator.

Another means by which regional staff members communicate on issues of interest to the region is through publications and reports. Regional staff completed numerous publications during 2008 on topics including climate change and management adaptations, Caribbean connectivity and marine protected areas. These publications highlight the Office of National Marine Sanctuaries and the region's ecosystem-based approach to managing human use of marine resources.

Regional staff also participated in a distributed graduate seminar, which is a collaboration of the Office of National Marine Sanctuaries and several universities around the country. The seminar aims to introduce students to compelling resource management issues faced by the ONMS, and involves student research projects on topics of interest to sanctuaries. The regional science coordinator served as the ONMS liaison with the University of South Florida, whose students participated in the program.

International Collaboration/Partnerships

Outside our borders, regional staff members were busy in 2008 undertaking efforts with international partners. The regional science coordinator was an instructor in a course on marine protected areas organized by Florida International University, Universidad Autonoma Nacional de Mexico (UANM), and Nova Southeastern University for the fourth year. The course was held at the UANM Instituto de Ciencias del Mar y Limnología at Puerto Morelos, Quintana Roo, and included students from six countries around the Caribbean region.



Small boat deployment from *R/V Nancy Foster* at Grays Reef National Marine Sanctuary (Greg McFall).



Regional Science Coordinator Brian Keller multitasking, Florida Keys National Marine Sanctuary.

The regional science coordinator also participated in the 61st annual meeting of the Gulf and Caribbean Fisheries Institute in Guadeloupe, French West Indies. The meeting had sessions covering a wide range of topics, including biology and management of spawning aggregations, science and management of marine protected areas, and invasive marine species (particularly Indo-Pacific lionfish). More than 200 scientists, resource managers, fishers and students attended.

Regional staff also participated in activities associated with the 2008 International Year of the Reef (IYOR). The regional director gave numerous presentations during the IYOR 2008 and dedicated each presentation to the celebration of the coral reef. Sanctuary staff throughout the region held special events and programs focused on the IYOR 2008.

New Sites & Expanded Protection at the Flower Garden Banks

Islands in the Stream – A Network of Marine Protected Areas for the Gulf of Mexico

Regional staff members continued to be involved in the exploration of a proposal to establish a network of marine protected areas in the Gulf of Mexico. Toward that end, regional staff gave numerous presentations on the topic to groups including the Marine Protected Area Federal Advisory Committee, the board of directors of the Gulf of Mexico Coastal Ocean Observing System (GCOOS), the Gulf States Marine Fisheries Commission, Law Enforcement Advisory Panel, the NOAA Gulf of Mexico Regional Collaboration Team, the Southern Association of Marine Laboratory Directors, the Gulf of Mexico Fishery Management Council's Marine Reserve Committee, the NOAA Executive Council and the Southeast and Caribbean Regional Team meeting.

In early 2008 the Southeast Region team, in partnership with Mote Marine Lab, organized "A Scientific Forum on the Gulf of Mexico: The Islands in the Stream Concept." Proceedings from that meeting were published in the Marine Sanctuaries Conservation Series (<http://sanctuaries.noaa.gov/science/conservation/pdfs/gom.pdf>).

The meeting brought together scientists and managers from around the Gulf of Mexico to discuss a range of topics on our knowledge of the Gulf of Mexico, from its geology to larger-scale connectivity to the Caribbean region, and the application of this understanding to a more integrated approach to area-based management. The event was attended by over 100 scientists. After a series of six panel discussions (on topics that included the geological and oceanographic setting, benthic characterizations, fish and fisheries characterization, existing legal structure and regulations in the Gulf of Mexico and connections with Mexico and the Mesoamerican

Barrier Reef System), the overall consensus was that the science is more than adequate to support the areas identified as being of critical biological and ecological importance in the Gulf of Mexico, as well as in supporting the connectivity among them. The proposed network was viewed as a refreshing ecosystem-based first step to achieving a stable and sustainable ecosystem in the Gulf of Mexico.

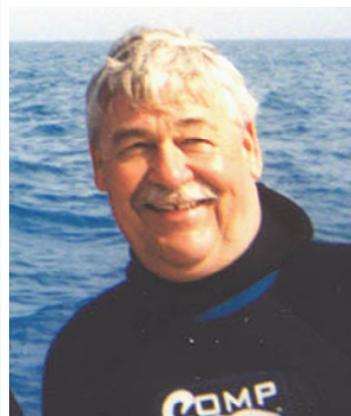


Gulf of Mexico Science Forum January 23, 2008, at Mote Marine Laboratory, Sarasota Florida (Lawson Mitchell)

Flower Garden Banks National Marine Sanctuary Management Plan Review

Another effort to increase protection in the Gulf of Mexico is underway at Flower Garden Banks National Marine Sanctuary. Regional staff in Galveston worked alongside site staff to consider and design an experimental closure, and if implemented, to ensure that its design is based on robust scientific procedures and that its goals are transparent to all stakeholders. A workshop on the issue brought together NOAA and conservation scientists, sanctuary advisory council members and interested recreational fishermen.

The region also helped to review, edit and guide the content in the revised management plan and environmental impact statement documents being prepared by Flower Garden Banks sanctuary staff and contractors. These documents outline the Gulf of Mexico's physical, biological and human environments and the consequences to these environments by the proposed addition of other important banks into the sanctuary.



Regional Director Billy Causey



Black Jack, Flowergarden Banks
National Marine Sanctuary (GP
Schmah)

Climate Change

As in 2007, regional staff made climate change issues a major focus of their attention this past year. The Southeast Region has taken a leading role in helping to guide local, regional and international responses to climate change and its impacts. Regional staff were invited to several conferences and participated in panel and roundtable discussions with state governments, academic institutions and conservation groups to help direct science and policies in response to climate change and its impact on coastal and marine environments. These efforts have helped to promote the value of the sanctuary system in understanding and monitoring climate change impacts on marine ecosystems.

Some examples of specific climate-related activities in 2008 include: The regional director served on a climate change Panel for the Florida chapter of the American Water Resources Association annual meeting held in Key Largo, Florida. The regional director also gave a presentation on the impacts of climate change on coral reefs to the annual Everglades Coalition Conference. The regional science coordinator participated in "Florida's Wildlife: On the Frontline of Climate Change" summit in Orlando and in the Gulf of Farallones National Marine Sanctuary Climate Change Summit in San Francisco. Also, the regional director attended an Ocean Acidification Workshop in Kailua, Hawaii. The goal of the workshop was to develop the foundation for

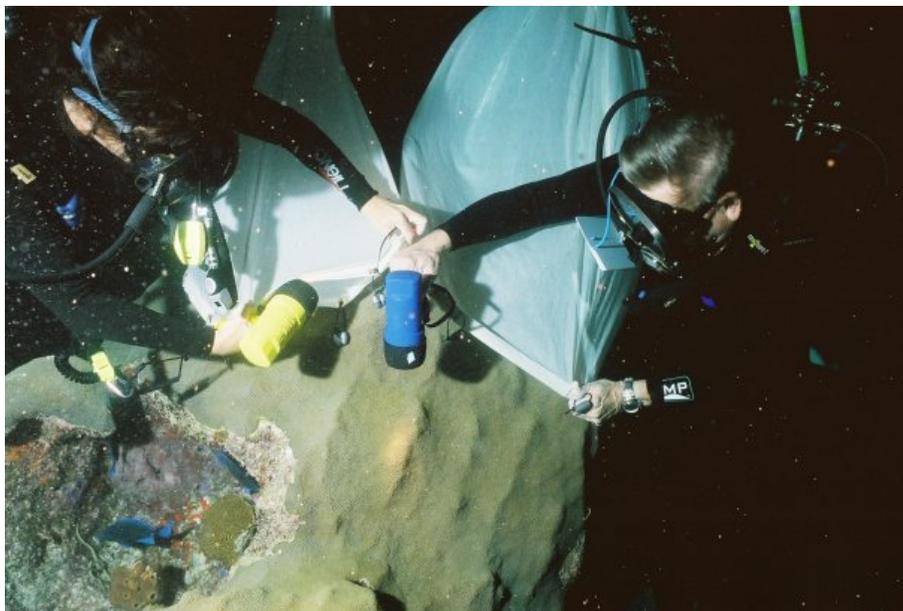


Regional Science Coordinator Brian Keller scrutinizes a presentation at the meeting "Florida's Wildlife: On the Frontline of Climate Change Summit."

adaptation strategies that managers can implement in the field to address the impacts of ocean acidification. The attendees drafted a consensus statement that was read at the U.S. Coral Reef Task Force meeting in Kona, Hawaii.

Looking Forward to 2009

The regional director and his team will continue their efforts to support the three sites of the Southeast Atlantic, Gulf of Mexico and Caribbean Region. This will include supporting management actions at Gray's Reef related to establishing a research area and addressing spearfishing, serving on the Florida Keys sanctuary Water Quality Steering Committee as the ONMS representative, acting as the DOC/NOAA representative on the South Florida Ecosystem Restoration Task Force, providing regional support to the regulatory review process for the Florida Keys National Marine Sanctuary and the management plan review process at the Flower Garden Banks National Marine Sanctuary. Regional staff will also continue to engage in efforts related to climate change. An emerging issue for all three sites in the Southeast Region is the invasive lionfish, and the regional director and his team will work closely with the sites to develop management response. Other priorities for 2009 will be a continued regional assessment of future sanctuary sites that have been identified by various partners around the region.



Dr. Kim Richie (Mote Marine Lab) and Regional Director Dr. Billy Causey capture coral spawn in the Florida Keys National Marine Sanctuary.

Who we are:

Dr. Billy Causey, Regional Director, Key West, FL

Dr. Brian Keller, Regional Science Coordinator, St. Petersburg, FL

Sarah Fangman, Associate Science Coordinator, Savannah, GA

Dr. William Kiene, Associate Science Coordinator, Galveston, TX

Steve Baumgartner, Operations Coordinator (shared position with FKNMS), Key West, FL



Morey eel, Flower Garden Banks National Marine Sanctuary (GP Schmahl)

