

SOUTHEAST REGIONAL PRIORITIES

Science Staff Provide Support for Southeast Region

The Southeast Region of the NOAA Office of National Marine Sanctuaries provides direct support to the sanctuary sites through its regional science coordinators, who are active in a wide range of projects within NOAA as well as with other agencies and academia. In 2009, the region's science coordinator worked to support the science program at Florida Keys National Marine Sanctuary, in addition to several national initiatives such as the Southeast Atlantic and Caribbean Regional Team. The region's associate science coordinators helped Flower Garden Banks National Marine Sanctuary prepare an environmental impact statement that will support the site's proposed sanctuary expansion; represented the sanctuary on NOAA's Gulf of Mexico Regional Collaboration Team; served as the co-chief scientist for the Gray's Reef sanctuary cruise aboard the NOAA ship *Nancy Foster* that supported four separate research projects and involved 12 organizations and numerous volunteers; and helped lead an acoustic study of fish movement underway at Gray's Reef.

Collaborative Efforts Help Protect U.S. Coral Reefs

The region has been an active part of the U.S. Coral Reef Task Force and has worked closely with NOAA's Coral Reef Conservation Program to help implement programs and steer the future direction of the United States' coral reef protection efforts. The Southeast Region director chairs the land-based sources of pollution task force working group that has developed strategies for addressing water quality decline in coral reef areas of the U.S. These collaborations with the Coral Reef Task Force and with NOAA's Coral Reef Conservation Program are testament to the important role that our sanctuaries play in research, education and management of coral reefs and in demonstrating the success of coral reef conservation policies.

Regional Staff Focus on Climate Change, Fisheries Management Issues

The region has taken a leading role in helping to guide local, regional and international responses to climate change and its impacts. Staff have been 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 as sentinel sites, locations with particular importance in understanding and monitoring climate change impacts on marine ecosystems. The region also represented the Office of National Marine Sanctuaries at meetings of South Atlantic and Gulf of Mexico regional fisheries management councils and commissions in 2009. These opportunities have ensured our participation in regional habitat monitoring, catch assessment and law enforcement programs established by these organizations. The meetings have also shown the national marine sanctuaries' commitment to fisheries management and conservation strategies, and to fully engaging resource users in sanctuary management plans. The Southeast Regional Team also worked closely with the Florida Institute of Oceanography, the Coral Reef Conservation Program and sanctuary headquarters to keep SeaKeys operating, and is continuing to work to integrate the system into the NOAA Integrated Ocean Observing System Network. SeaKeys is one of the longest-standing networks of oceanographic monitoring stations.

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Alternate: Michael Martin

Fishing – Commercial - Marine/Tropical:
Ken Nedimyer (Vice Chair)
Alternate: Forrest Young

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Alternate: Walter Drabinski

Citizen At Large – Middle Keys: Dolly Garlo
Alternate: Marvin Schindler

Citizen At Large – Upper Keys: Jim Trice
Alternate: David Makepeace

Conservation and Environment: Jason Bennis
Alternate: vacant

Conservation and Environment: Chris Bergh
Alternate: Peter Frezza

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Alternate: Bob Smith

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Alternate: Joseph Boyer

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Alternate: Clinton Barras

Tourism – Upper Keys: vacant
Alternate: Susan Ford Hammaker

National Marine Sanctuaries
National Oceanic and Atmospheric Administration

FLORIDA KEYS NATIONAL MARINE SANCTUARY



2009 ACCOMPLISHMENTS



Florida Keys National Marine Sanctuary surrounds the Florida Keys archipelago and supports one of the most diverse marine ecosystems in North America. The sanctuary is home to the continent's only living coral barrier reef and beckons divers from around the world. The shallow waters of the 2,900-square nautical mile sanctuary also contain mangrove fringed islands and lush seagrass meadows. Together, these complex ecosystems provide the basis for the valuable tourism and fishing industries that are vital to Florida's economy. Established Nov. 16, 1990.



PBS&J

Sanctuary Combats Illegal Poaching, Removes Associated Debris

Two of Florida's largest lobster poaching busts on record took place in 2009, both occurring in Florida Keys National Marine Sanctuary. Poachers, diving on illegal artificial structures known as casitas, were caught harvesting more than 10,000 pounds of lobsters in two separate cases built by NOAA and state of Florida enforcement officers. These structures on the seafloor are believed to disrupt the migration of lobsters and cause them to congregate on artificial habitat, resulting in increased poaching. Casitas also smother the seafloor on which they are placed, and when disrupted by storms have the potential to damage valuable marine resources. Summer 2009 also marked the end of a three-year debris removal project in which remote sensing was used to locate casitas. The NOAA Fisheries Restoration Center, with support from the NOAA Marine Debris Program, the sanctuary and other state and federal agencies, oversaw the identification and removal from sanctuary waters of 89 tons of illegal gear placed by poachers.



Frazier Nivens, Ocean Imaging

Sanctuary Enlists Community in Response to Lionfish Invasion

The first Indo-Pacific lionfish sighting in Florida Keys National Marine Sanctuary waters was confirmed in January 2009. This non-native, invasive fish has no known predators in the Atlantic, and researchers are concerned about its potential to disrupt the fragile balance of the coral reef ecosystem if left unchecked. The sanctuary, in conjunction with NOAA's National Centers for Coastal Ocean Science, the non-profit organizations Reef Environmental Education Foundation and Mote Marine Tropical Research Laboratory, and other state and federal agencies, implemented an early detection and rapid response plan to help control establishment of this unwelcome visitor.

Annual Research Expedition Surveys Coral Health

The 2009 annual Florida Keys National Marine Sanctuary Coral Health Survey aboard the NOAA ship *Nancy Foster* monitored coral reef health along the Florida Reef Tract and gathered data on disease prevalence and bleaching conditions. While a variety of human and environmental factors have contributed to the deterioration of reef health worldwide, disease and bleaching are among the least understood culprits. Sanctuary scientists were joined by researchers from Mote Marine Laboratory, Harbor Branch Oceanographic Institute at Florida Atlantic University, the Smithsonian Institute, George Mason University, Auburn University, the Florida Department of Environmental Protection, and the city of Marathon. This science mission also hosted its first NOAA "Teacher at Sea." Scientists performed 175 dives, surveying corals at 42 sites throughout the Keys and Dry Tortugas. Multibeam sonar was used to map portions of the Tortugas Bank and areas between Key West and Key Largo.



Cory Walter (MML)



Facility Awarded Silver Level Recognition

The Dr. Nancy Foster Florida Keys Environmental Complex in Key West, Fla., home of the Florida Keys National Marine Sanctuary administrative office and maintenance building, southeast regional office, and Florida Keys Eco-Discovery Center, has been recognized as a Leadership in Energy and Environmental Design (LEED) certified green building and awarded a LEED Silver rating by the U.S. Green Building Council. The sanctuary's environmentally friendly office complex has many "green" features. Native plants were used when landscaping the grounds, lessening the need for fertilizers and pesticides, and cistern water is used when flushing toilets to help conserve water. In addition, recyclable and sustainable growth products were incorporated into the construction of the building. The sanctuary is actively engaged in increasing energy efficiency, reducing its dependence on fossil fuels and decreasing impacts to coral reefs associated with greenhouse gas emissions.



Larry Benvenuti

Mutton Snapper Spawning Seen in Tortugas Ecological Reserve

Since the establishment of the Tortugas Ecological Reserve in Florida Keys National Marine Sanctuary in 2001, fishery scientists have been documenting the effects of habitat protection on exploited populations of commercially important reef fishes like snapper and grouper. Mutton snapper has been the target of a popular fishery in the Florida Keys since the early 1900s and have historically aggregated in parts of the Tortugas for spawning purposes. By the late 1990s, fishery surveys suggested that such mass spawning aggregations in the Tortugas had all but ceased due to overfishing. Since the implementation of the sanctuary's "no-take" reserve, the numbers of mutton snapper observed have slowly increased annually. In summer 2009, for the first time since their surveys began, scientists from the NOAA Fisheries Service and the Florida Fish and Wildlife Conservation Commission observed thousands of individual mutton snapper spawning over two consecutive months. This was the first mutton snapper spawning captured on record in Florida.



New Education Initiative Targets Dive Community

SCUBA divers and snorkelers flock to the Florida Keys in the hundreds of thousands annually to enjoy the waters of the national marine sanctuary, making it one of the world's most popular dive destinations. To better reach this important user group, the sanctuary launched Blue Star, an education program to recognize charter operators that work to protect the coral reef ecosystem of the Florida Keys by promoting proper reef etiquette and educating their customers about the reefs, the sanctuary and its regulations. Staff members of Blue Star operators are required to participate in sanctuary training annually and, in turn, impart their knowledge to their customers. Recognized operators must offer conservation-related dive courses and participate in activities such as fish counts and reef clean-ups. The Blue Star program helps build the capacity of local tour operators to act as educators and foster respect and understanding among their customers, turning divers and snorkelers into coral reef stewards. For more information, visit www.sanctuarybluestar.org.



Seafaring History Taught in Underwater Archaeology Training

In summer 2009, the NOAA Maritime Heritage Program supported Nautical Archaeology Society trainings in Florida Keys National Marine Sanctuary for members of the National Association of Black Scuba Divers (NABS) and sanctuary staff. The course is designed to teach principles and practices of maritime archaeology. Participants learned how to identify cultural resource sites, as well as techniques in underwater mapping, conservation and reporting. The course included classroom activities and field sessions that were conducted on the Florida Keys National Marine Sanctuary Shipwreck Trail. The training for NABS members is part of a new Office of National Marine Sanctuaries education initiative — "Voyage to Discovery" — to explore the maritime heritage of African-Americans and engage the community in marine resource conservation.



Turning Students into Coral Reef Stewards

Florida Keys National Marine Sanctuary continued to bring ocean enrichment to the students of the Florida Keys through Coral Reef Classroom, its longest-running education program. Through classroom and on-the-water activities, middle school students learn about the diverse and fragile nature of the coral reef ecosystem. A grant from Mote Marine Laboratory's Protect Our Reefs program through the Sanctuary Friends Foundation of the Florida Keys made it possible for students to learn basic coral reef biology and concepts of habitat interdependence. Field activities such as snorkeling, a plankton tow, and the collection and analysis of water quality data encourages analytical thinking, and demonstrates the need for management to protect natural resources.