

# FLOWER GARDEN BANKS 2006 ACCOMPLISHMENTS



<http://flowergarden.noaa.gov>

## Sanctuary Management Plan Being Updated

Sanctuary staff officially began the first management plan review for the sanctuary in September 2006. Management plans serve as a blueprint for setting a site's resource protection, science and education priorities and are reviewed to ensure that sanctuary policies are designed to best conserve sanctuary marine life. As part of the review process, the public is asked for their recommendations on future sanctuary management. Public meetings were held in October where constituents from the Gulf Coast region offered initial recommendations on how best to manage the sanctuary. This information is critical in shaping any plan revisions. Sanctuary staff are reviewing the public comments and will prioritize issues that will serve as a first step for developing a draft management plan. You can learn more by visiting the sanctuary Web site.

## Scientists Monitor Reefs Following Natural Impacts

For the past year and a half, the reefs of the Flower Garden Banks National Marine Sanctuary suffered unprecedented disease and bleaching episodes and were pounded by Hurricane Rita. Surveys in 2006, however, show that the reefs are recovering. Coral colonies affected by bleaching have dropped from a high of 45 percent in 2005 to less than six percent in 2006. In addition, up to eight percent of colonies were affected by disease, but only a few continued to show signs of active lesions during the most recent surveys. Knowing how the reefs responded to natural impacts will help resource managers determine what measures are needed to reduce impacts from sources that can be controlled.



Scientist collects mucous from a diseased coral colony.  
*Photo: Joyce & Frank Burek*



Example of bleached corals when water temperatures remain too warm for an extended period. *Photo: Emma Hickerson*



Whale sharks are the subject of an innovative whale tagging effort. *Photo: Quenton Dokken*

## Whale Shark and Manta Ray Tagging Effort Underway

Where do the whale sharks that visit the sanctuary in the summer originate? Do the manta rays observed in the Flower Garden Banks National Marine Sanctuary move between the various banks of the sanctuary? Do they frequent any of the neighboring banks outside the sanctuary? How much time do they spend in the sanctuary? To answer these and other questions, program staff are collaborating with the Wildlife Conservation Society based in Belize, in a shark and ray tagging effort. To date, an underwater receiver has been placed on each of the three banks and six manta rays have been tagged with acoustic transmitters. Information gained from this long-term project will help resource managers determine if existing marine protected areas in the Gulf of Mexico and Caribbean are enough to sustain habitat and food sources for these animals. To learn more about this effort visit the sanctuary Web site.



Manta Rays are the subject of a new tagging effort in the Flower Garden Banks. *Photo: Kaile Tsapis.*

**To learn more about these and other accomplishments, visit: [sanctuaries.noaa.gov](http://sanctuaries.noaa.gov)**



Adult Goliath grouper at a cleaning station on a coral reef. Photo: Craig Dahlgren

### Research Cruises Yield Expanded Species List

The sanctuary's long-term monitoring efforts paid off again with evidence of species never before known to exist in the Stetson Bank portion of the sanctuary. Researchers discovered a nudibranch, hermit crab and shamefaced crab. Other highlights included the first ever documentation of a Nassau grouper, and the first photo-documentation of a goliath grouper, both sighted at the East Flower Garden Bank. Both species have undergone dramatic declines in abundance throughout their ranges and are now considered "species of concern" by the NOAA Fisheries Service. Information gathered on these cruises will give scientists a clearer picture of the habitats preferred by the sanctuary's diverse array of marine residents, making it possible for marine resource managers to identify areas that may be particularly important to the health of the sanctuary ecosystem.

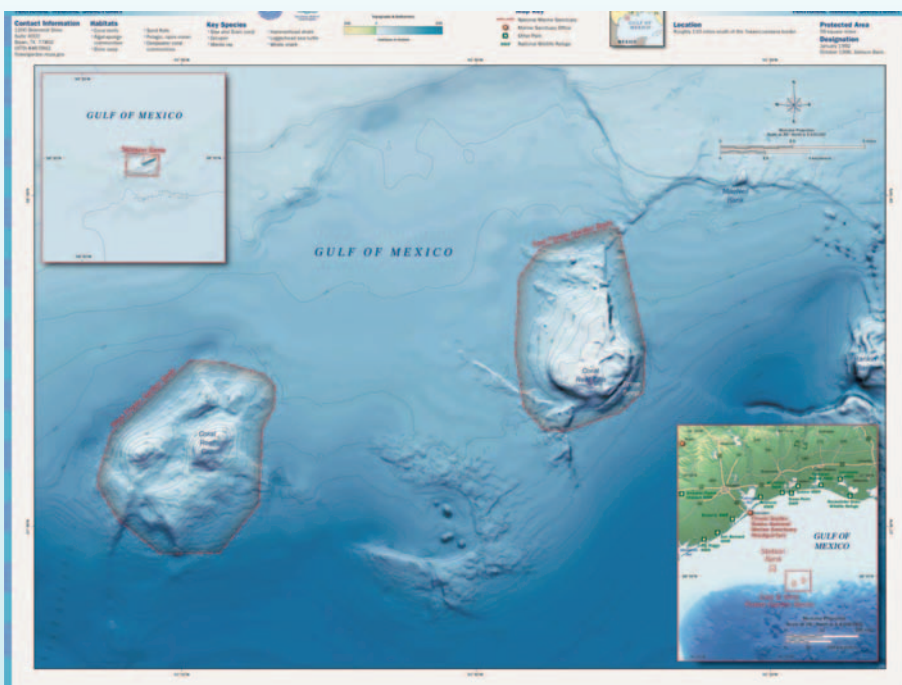
### New Exhibits at Galveston Aquarium

Informative signage highlighting various national marine sanctuaries will become part of the exhibits featured at the Aquarium at Moody Gardens in Galveston, Texas. Aquarium visitors will be treated to the Flower Garden Banks and other national marine sanctuaries throughout their visit. This is an important step for the Flower Garden Banks National Marine Sanctuary as it begins to develop the Galveston area as a gateway community for the sanctuary.

### Plans for 2007

- On January 17th, the sanctuary celebrated 15 years of ocean stewardship, and an Ocean Discovery Day was held in Galveston on January 20th.
- Sanctuary researchers and educators will join Bob Ballard for a research expedition to the banks from March 2-10th. The Navy's nuclear research submarine, the NR-1, and an underwater tow sled will explore potential paleo-shorelines and biological "hidden highways" in the region.
- Sanctuary sponsored research cruises are planned throughout the year. Research topics include acoustic and satellite tagging of elasmobranchs, conch surveys, coral disease and bleaching surveys, benthic and fish surveys, coral spawning research, long-term monitoring of the reefs and other reefs in the region.
- A *Coral*s to Classrooms workshop will take place in June followed by two *Down Under Out Yonder* education workshops in July.

### Sanctuary Maps Now Available



New sanctuary atlas maps depicting physical ocean and land features, other state and federal managed areas and parks, and other basic atlas features are now available on the sanctuary program Web site: [sanctuaries.noaa.gov](http://sanctuaries.noaa.gov).

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