



Gray's Reef for Land Lovers!

by William Bevil, Vice President of Exhibitions, Fernbank

When I first started working for Fernbank Museum of Natural History in Atlanta about five years ago, I was a real novice when it came to the topic of coastal Georgia and Gray's Reef National Marine Sanctuary. Although I'd traveled all over the state and seen many of its natural wonders on dry land, I was still relatively ignorant of the little gem known as Gray's Reef. My lack of familiarity with the site was not a total surprise since Gray's Reef is not the kind of place you can get out of your car and hike to. It takes a long boat trip and some scuba diving to get there. This is one of the reasons that many Georgians, don't know very much about this important ecological site right in their backyard.

The more I learned about Gray's Reef, the more fascinated with it I became. I wanted to tell other people all about it. Fortunately, I work in a perfect place to do just that – a natural history museum.

About two years ago, the Fernbank exhibits team, partnering with our friends at NOAA's Gray's Reef National Marine Sanctuary, set out to make significant improvements to our Gray's Reef exhibits.

Our goal was to create the most realistic replica of the reef ever seen in an exhibit setting. We also wanted to provide as much interpretive / educational information as we could to further enhance the visitor experience.

To do this, we first had to reconstruct the reef itself, using concrete and foam to fabricate sculpted rock ledges and overhangs just like those found at the site.

Sandy open areas, another habitat feature of the reef, were included with an eye towards providing a place to put our open-water and sandy bottom animals.

Next, all of the hard rock surfaces and ledges were literally covered with sessile invertebrates and plants. We wanted the diorama to convey the intense competition that occurs between species for every square inch of exposed rock. Some of the invertebrates we chose to show were vase sponges, finger sponges, sea whips, anemones, urchins, sea stars, squid, octopus, and a very cool spiny lobster

Fish are an important part of Gray's Reef's ecosystem, and we have lots in our diorama. Some of the more notable species which appear in the new display include the great hammerhead shark, spadefish, angelfish, squirrelfish, triggerfish, moray eel, butterfly fish, filefish, stingrays and an enormous manta ray (a giant filter feeder).

The newly refurbished diorama contains 40 specimens of animals that are found at Gray's Reef National Marine Sanctuary. While this may seem like a lot, there are actually hundreds of documented species at GRNMS.

From an interpretive standpoint, the new diorama has several features that enhance its appearance and functionality as an exhibit component. There are three new graphics stations in front of the display, incorporating everything from video footage of the reef to a "Field Notebook" with details about the reef and the animals in the display. A center exhibit key identifies each of the specimen models along with their scientific names.

On the technical side, we made some changes that are designed to extend the life of the display and protect the new specimens. First and foremost is the addition of glass in front of the display. Many of the specimens are very fragile and need to be protected from curious hands. But the glass isn't just a barrier—it also increases the illusion that the viewer is looking into an underwater world. New water motion effect lights further enhance the illusion.

Telling the story of the reef's prehistoric past was of major interest to our museum. To meet this need, we included cast reproductions of actual paleontological specimens collected from the reef, shedding light on the region's natural history and adding a layer of depth to the subject matter.

The findings at Gray's Reef shed new light on many facets of natural history on the Georgia coast and relate to many disciplines, including: geology, paleontology, archaeology, marine biology and global marine ecology. Using Gray's Reef as a topic in our exhibitions provides an opportunity for exploration of many fields under one subject umbrella. Put simply, Gray's Reef fits our mission perfectly.

We're very proud of the new exhibit here at Fernbank, and wish to thank Gray's

Reef National Marine Sanctuary for their assistance in making it possible to construct such an impressive display. Thanks to their support, Fernbank now has a very special exhibit that provides a unique visitor experience aimed at improving our knowledge of Georgia's beautiful and fragile coastal reefs. And, they don't even have to get wet to enjoy it.



Photo: Courtesy of Fernbank