



Marine discovery center



Native Reef Restoration

The Marine Discovery Center (MDC) of New Smyrna Beach was awarded a grant by The Nature Conservancy and the National Oceanographic and Atmospheric Administration supporting an effort to restore oyster beds surrounding Chicken Island in the Indian River Lagoon (IRL). The restoration of the natural ecosystem of the IRL and its surrounding waters is the mission of the MDC, and oyster beds play a critical role in the rehabilitation and maintenance of ecosystem health.

Chicken Island is located adjacent to the Atlantic Intracoastal Waterway, and incumbent waves from boat wake, adverse weather, and tides have altered the natural shoreline of the island.

Fast Facts:

Oysters help protect shorelines against erosion, filter water, and provide finfish habitat and breeding grounds.

Oyster mats and oyster bags were both used in this project.

0.35 acre of oyster habitat was restored during this project, using thousands of mats and 2000 linear ft. of oyster bags.

The Marine Discovery Center logged almost 3,000 volunteer hours for the project.

Oyster beds have the ability to dissipate wave energy, which reduces water's erosive forces on land masses. Oysters are filter feeders, and one oyster has the amazing ability to filter 60 gallons of water in 24 hours. Healthy oyster beds throughout the IRL have the potential to improve overall water quality by removing much of the particulate material suspended in the water column. In addition, oyster beds serve as habitat and breeding grounds for numerous species of finfish. Volunteers assisted in the construction of artificial oyster mats and bags, amassing 2,848.5 total volunteer hours. Activities included drilling holes in individual oyster shells, and attaching the shells to mesh mats. Volunteers also had the opportunity to assist in the deployment of restoration materials around Chicken Island in the spring/summer months of 2009 and 2010, and also assisted in monitoring activities in the months following deployment.



Working Together:

The MDC is a non-profit organization that is highly dependant upon volunteers or the success of it's programs and daily functions. We at the MDC have been greatly overwhelmed by the gracious donations of time that our volunteers have provided with this project.

Chicken Island Red Mangrove/Oyster Restoration Demonstration Project



Figure 3 - Red Mangrove Planting and Oyster Mat Plan



Aerial Photo Date: March 16, 2008 (Copyright 2007 Pictometry International Corp)

1 inch = 250 feet

The mission of The Nature Conservancy is to preserve the plants, animals, and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive.

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The National Partnership between the NOAA Community-based Restoration Program and The Nature Conservancy implements innovative conservation activities that benefit marine, estuarine and riparian habitats across the United States. The NOAA Restoration Center has worked with community organizations to support locally-driven projects that provide strong on-the-ground habitat restoration components that offer educational and social benefits for people and their communities, as well as long-term ecological benefits.