U.S. Geological Survey Terrestrial, Freshwater and Marine Ecosystem Program

Geospatial Characteristics of Florida's Coastal and Offshore Environments: Distribution of Important Habitats for Coastal and Offshore Biological Resources and Offshore Sand Resources

Scientific Investigations Map 3166

**U.S. Department of the Interior
U.S. Geological Survey**

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KEN SALAZAR, Secretary

U.S. Geological Survey
Marcia K. McNutt, Director

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Introduction

The Geospatial Characteristics GeoPDF of Florida's Coastal and Offshore Environments is a comprehensive collection of geospatial data describing the political boundaries and natural resources of Florida. This interactive map provides spatial information on bathymetry, sand resources, and locations of important habitats (for example, Essential Fish Habitats (EFH), nesting areas, strandings) for marine invertebrates, fish, reptiles, birds, and marine mammals.

The map should be useful to coastal resource managers and others interested in marine habitats and submerged obstructions of Florida's coastal region. In particular, as oil and gas explorations continue to expand, the map can be used to explore information regarding sensitive areas and resources in the State of Florida.

Users of this geospatial database will have access to synthesized information in a variety of scientific disciplines concerning Florida's coastal zone. This powerful tool provides a one-stop assembly of data that can be tailored to fit the needs of many natural resource managers.

The map was originally developed to assist the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE) and coastal resources managers with planning beach restoration projects. The BOEMRE uses a systematic approach in planning the development of submerged lands of the Continental Shelf seaward of Florida's territorial waters. Such development could affect the environment. BOEMRE is required to ascertain the existing physical, biological, and socioeconomic conditions of the submerged lands and estimate the impact of developing these lands.

Data sources included the National Oceanic and Atmospheric Administration, BOEMRE, Florida Department of Environmental Protection, Florida Geographic Data Library, Florida Fish and Wildlife Conservation Commission, Florida Natural Areas Inventory, and the State of Florida, Bureau of Archeological Research. Federal Geographic Data Committee (FGDC) compliant metadata are provided as attached xml files for all geographic information system (GIS) layers.

Acknowledgments

The U.S. Geological Survey Terrestrial, Freshwater, and Marine Ecosystem Program provided funding for this publication. The authors express their appreciation to Dr. Daniel K. Odell of the Hubbs-SeaWorld Research Institute for the mammal stranding data. Metadata included within the GeoPDF credit the various data sources used to create the interactive map.

Readme First: GeoPDF Navigation Information

In order to ensure full GeoPDF functionality, please download the toolbar found at www.terragatech.com/products/terrigo-toolbar. The project description is found on page 1. In order to navigate to the map layers please follow the directions below. The map legends are found on pages 6, 7, and 8.

Scroll down to the map of Florida located on page 5, then click on the stacked diamonds symbol located on the left hand side of the screen (see red circle below).

To expand the layers, click on the plus (+) sign (see red circle below).

In order to select layers or make them visible, click on the square located next to each layer. An eye will appear when the layer is selected, as shown below (see red circle below).

Base, Bathymetry & Sand Resources

Biological Invertebrates & Fish

Shrimp EFH
Coral Patches
Proposed Deepwater Lophelia Coral HAPCs

Oculina Benthic Habitats

High Relief/High Backscatter
Low Relief/High Backscatter
Low Relief/Low Backscatter

Coral EFH HAPC

Biscayne Bay
Biscayne National Park
Dry Tortugas National Park
Florida Keys National Marine Sanctuary
Oculina HAPC
Phragmatopoma (worm reefs)
SEAMAP Nearshore Hard Bottom
SEAMAP Offshore Hard Bottom

Dolphin Wahoo EFH HAPC

Islamorada Hump
Marathon Hump
The Point/Amberjack Lump
The Wall off the Florida Keys

Red Drum EFH

Coastal Inlets
Discontinuous Seagrass
Continuous Seagrass

Red Drum Merged Habitat

Artificial Reef-FL
Artificial Reef-GA-SC
Estuarine Emergent Wetland
Estuarine Scrub/Shrub Wetland
Oysters - ESI - FL
Oysters - St. Lucie Estuary
Seagrass - FL
Cont Margin Sediments - Sand

Snapper Grouper EFH HAPC

Coastal Inlets
Discontinuous Seagrass
Continuous Seagrass
Islamorada Hump
Mangroves
Marathon Hump
Oculina HAPC
SEAMAP Hard Bottom
Special Management Zones
The Point/Amberjack Lump
The Wall off the Florida Keys

Snapper Grouper Merged Habitat

Artificial Reef - FL
Artificial Reef - GA/SC
Coral - Broward
Coral - Palm Beach
Coral - South FL
Estuarine Emergent WtInd
Estuarine Scrub/Shrub Wt*
Oysters - ESI - FL
Oysters - St. Lucie Estua
Seagrass - FL
Cont Margin Sedmt -Sand
Gulf Stream

Reptiles, Birds & Mammals

- Crocodile Nesting Sites
- Sea Turtle Nesting 2006

Sea Turtle Strandings 1986_2004

- Green turtle
- Hawksbill
- Kemps ridley
- Leatherback
- Loggerhead
- Olive ridley
- Piping Plover Critical Habitat
- Right Whale Critical Habitat
- Manatee Distribution

Shorebirds SPECIES

- Black Skimmer
- Bridled Tern
- Brown Noddy
- Caspian Tern
- Gull-billed Tern
- Laughing Gull
- Least Tern
- Masked Booby
- Oystercatcher
- Roseate Tern
- Royal Tern
- Sandwich Tern
- Snowy Plover
- Sooty Tern
- Willet
- Wilson's Plover

Marine Mammal Strandings Genus

- BALAENOPTERA
- CYSTOPHORA
- ERIGNATHUS
- EUBALAENA
- GLOBICEPHALA
- GRAMPUS
- KOGIA
- LAGENODELPHIS
- MEGAPTERA
- MESOPLONDON
- PEPONOCEPHALA
- PHOCA
- PHOCOENA
- PHYSETER
- STENELLA
- STENO
- TURSIOPS
- UNKNOWN
- ZIPHIUS