



Tab N, No. 6(a)

# Final Report: Coral Reef Conservation Program Grant FY 14-16

*Linkages and Threats to Coral Reef Ecosystems and Associated Fisheries Using Spatial Decision-Support Tools, Broad Stakeholder Engagement, and Ecosystem-Based Management Approaches*



# Brief History

- CRCP supported activities (2011 – Present)
  - Develop online portal to access coral and habitat related information for use in science, management, and education activities
- CRCP support awarded in competitive 3 – yr cycles
  - Current presentation describes 2014 – 2016 accomplishments
  - Supports 1 full time employee

# Objectives of Grant

## Information about coral ecosystems

- Expansion of Gulf Council Portal
- Gulf of Mexico focus
- Provide comprehensive source of coral and ecological data

## Enhancing stakeholder engagement

- Create learning modules
- Improve stakeholder engagement
- Increase use of Gulf Council portal and database products

## Coral Management

- Management Strategy Evaluation (MSE)
- Complete evaluation of coral EFH/HAPC

# Task 1- Expanding the Portal

- Self Reported Angler data
  - Goliath Grouper
  - Lionfish- future endeavors



Image of goliath grouper courtesy of SeaGrant



Image of lionfish courtesy of NOAA

Minimize controls

Click on map to identify location of grouper interaction or enter coordinates in boxes below.

**Latitude**

**Longitude**

**Date:**

**Name: (not required)**

**Email: (not required)**

**Habitat:**

Artificial reef ▼

☐ Was fish vented before release

**Comments:**

Submit location of goliath grouper

Goliath grouper reporting tool



# Gulf Council Portal



## The Coral Portal



NOAA  
CORAL REEF  
CONSERVATION PROGRAM



Home Resources

### Coral Amendment 9

The Gulf Council is considering establishing new coral protections in the Gulf of Mexico to conserve essential fish habitat and support sustainable fisheries.

The Council's fishermen and scientific advisors have recognized 15 areas that are unique in their abundance and diversity of corals that may warrant further protections.

For more information about this amendment or to see where the areas under consideration are located, use the buttons below.

Amendment

HAPC explorer



Image courtesy of Lophelia II 2009: Deepwater Coral Expedition: Reefs, Rias, and Wrecks. NOAA/OER



Map.

Explore the details of different habitats and fishery management areas in the Gulf.



Manage.

View tools that highlight management issues being considered by the Gulf of Mexico Fishery Management Council.



Discover.

Delve into a variety of resources designed to enhance your understanding of corals, habitats and the species linked to them.

[portal.gulfcouncil.org](http://portal.gulfcouncil.org)

# Task 1- Understanding linkages

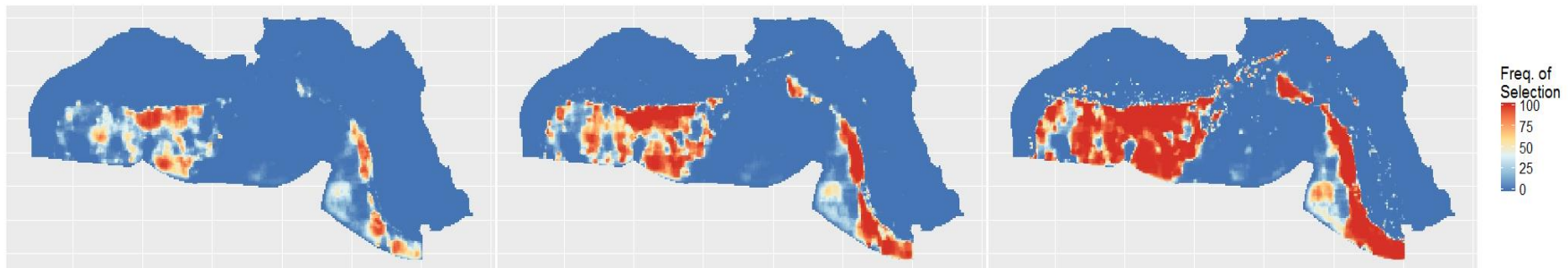
- Predictive modeling MSE
  - Model-based approach to compare conservation area designation methods
  - Key Considerations
    - Coral likelihood
    - Commercial fishing

10% Conservation

20% Conservation

30% Conservation

5 km<sup>2</sup>



# Task 1- Understanding linkages

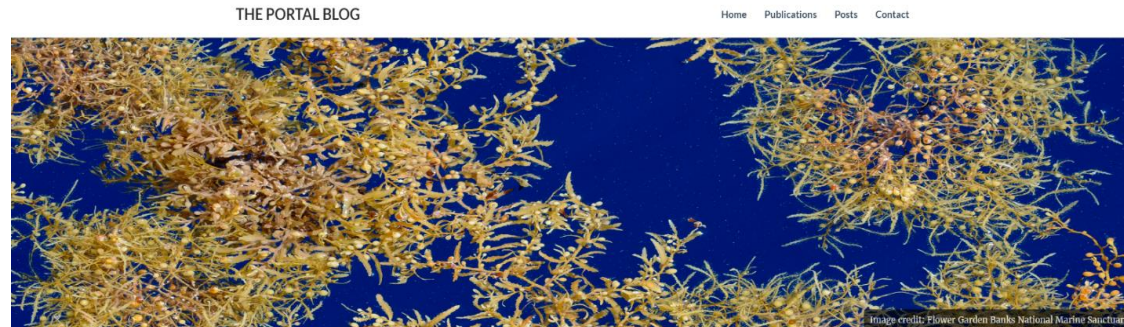
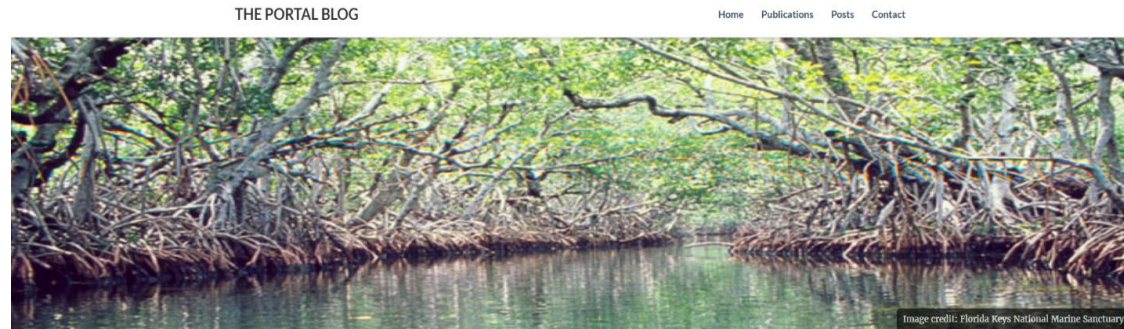
- Collaborations with data providers

Dataset	Type	Coverage	Source
Coral Hard bottom	Hard bottom	Gulf of Mexico	FWRI
GOM Oyster	Oyster	Gulf of Mexico	NOAA
GOM Seagrass	Seagrass	Gulf of Mexico	NOAA
GOM Sediments MMS	Sediments	Gulf of Mexico	NOAA
Mangrove Habitat in Florida	Mangrove	Gulf of Mexico	FWRI
Oyster Beds in Florida	Oyster	Gulf of Mexico	FWRI
Seagrass Habitat in Florida	Seagrass	Gulf of Mexico	FWRI
Mangrove areas	Mangrove	Gulf of Mexico	USGS
Saltmarsh areas	Saltmarsh	Gulf of Mexico	USA NWI
Seagrass areas	Seagrass	Gulf of Mexico	WCMC-UNEP
Banks Keys Florida	Banks	Gulf of Mexico	FWRI
Spring Coast	Seagrass/Hard bottom	Gulf of Mexico	FWRI



# Task 1- Understanding linkages

- Habitat Linkages
  - Key habitats in the Gulf of Mexico
  - Mangroves
  - Seagrass
  - Sargassum
- [portal.gulfcouncil.org/blog](http://portal.gulfcouncil.org/blog)





# Task 2 - Enhancing Stakeholder Engagement

- Story Boards
  - Report a goliath
  - Summary of coral management
  - Decline of corals
  - Lionfish
  - Southeast Deep Coral Initiative
  - Ecosystem Based Fisheries Management
- Management resources
  - Coral HAPC viewer
  - Spiny lobster closed areas viewer
  - GMFMC regulations database
  - Interactive map of existing management areas



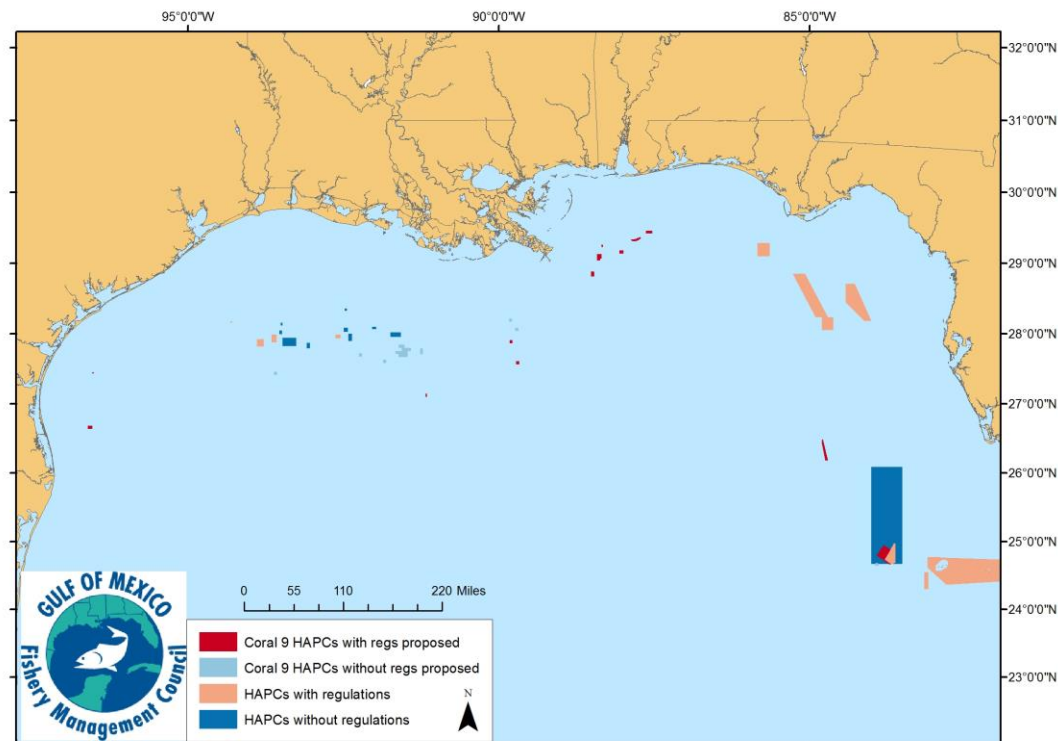
SEDCI Storyboard



GOM HAPC Viewer

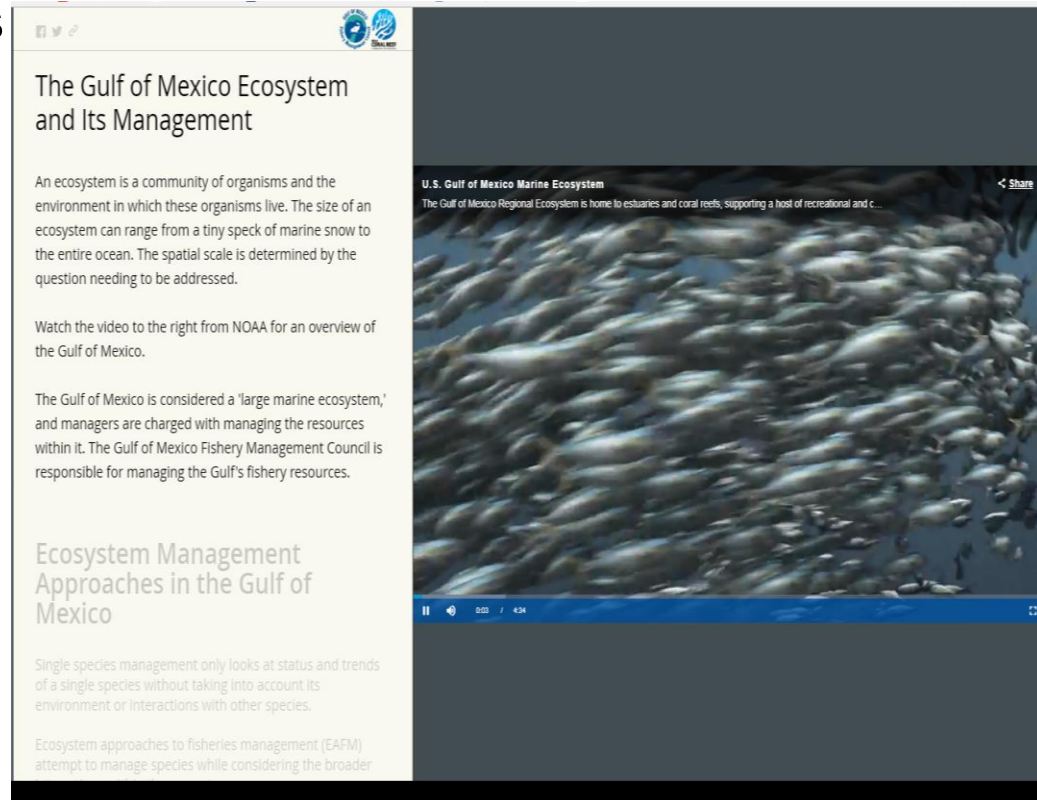
# Task 3- EBFM of Coral and Fishery Resources

- Coral Amendment 9
- Development of outreach materials
- Meeting attendance



# Task 3- EBFM of Coral and Fishery Resources

- Meeting attendance
  - 'Aligning Ecosystem Modeling Efforts with Ecosystem-based Fisheries Management and Restoration Needs in the Gulf of Mexico'
- National IEA conference
- Development of EBFM storyboard
- Future infographics



The screenshot displays a video player interface. On the left, a light-colored sidebar contains text and social media icons. The main video area on the right shows a large school of fish swimming underwater. The video player includes a progress bar at the bottom with a play/pause button and a share icon.

**The Gulf of Mexico Ecosystem and Its Management**

An ecosystem is a community of organisms and the environment in which these organisms live. The size of an ecosystem can range from a tiny speck of marine snow to the entire ocean. The spatial scale is determined by the question needing to be addressed.

Watch the video to the right from NOAA for an overview of the Gulf of Mexico.

The Gulf of Mexico is considered a 'large marine ecosystem,' and managers are charged with managing the resources within it. The Gulf of Mexico Fishery Management Council is responsible for managing the Gulf's fishery resources.

**Ecosystem Management Approaches in the Gulf of Mexico**

Single species management only looks at status and trends of a single species without taking into account its environment or interactions with other species.

Ecosystem approaches to fisheries management (EAFM) attempt to manage species while considering the broader

**U.S. Gulf of Mexico Marine Ecosystem**

The Gulf of Mexico Regional Ecosystem is home to estuaries and coral reefs, supporting a host of recreational and c...

< Share

# Questions?

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- Coral portal website:  
<http://portal.gulfcouncil.org/>



Image courtesy of NOAA