

# **A New and Improved ESPIS**

**(Environmental Studies Program Information System )**

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## Current capabilities of the ESPIS Database:

- Provides a repository of ESP Final Reports and Technical Summaries
- PDF document access
- Relatively simple report search form with few attributes

### Query for ESPIS

*Attn:* Documents are in Adobe PDF format. Some files may contain attachments and/or comments and are best viewed with Adobe Reader Version 7.0 or higher which can be downloaded from [Adobe Reader](#).

The Bureau of Ocean Energy Management, Regulation and Enforcement strives to make all public data available as soon as it is releasable. If you do not find the data you are looking for, please check again the next business day since certain circumstances may delay the posting of data. We apologize for the inconvenience.

Data last updated on 4/25/2011 (CST)  
and will be updated when new ESPIS documents become available.

Select Options Using the Checkboxes  
Click the Links for Help on Each Selection

[Technical Summary:](#) *Technical Summaries Only*

[Publication Number:](#)

[Contract Number:](#)

[Contractor:](#)

[Category:](#)   
Baseline  
Biology

[Report Title:](#)

[Study Title:](#)

[Year:](#) From:  To:

[Author:](#)

[Region:](#)   
Atlantic  
Gulf of Mexico

[Date Uploaded:](#) (MM/DD/YYYY) From:  To:

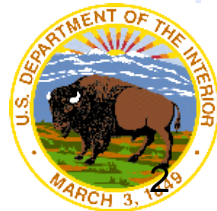
[Updated Date:](#) (MM/DD/YYYY) From:  To:

[Text Search:](#)

Sort Results by:

Order:  Results Per Page:

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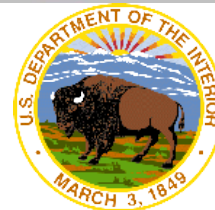
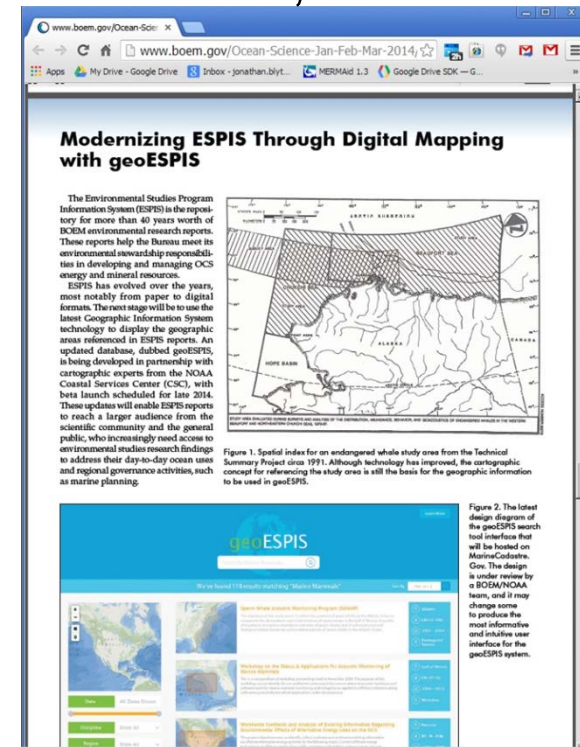
## geoESPIS Project Goals and Objectives

**Project Goal:** To enhance the ability of BOEM and its partners to discover Environmental Studies information and data.

### Objectives:

- Enhance the existing database of studies by including location of study, ability to discover related studies products (data and publication), and other useful attributes.
- Develop an interactive search tool and data products

Ocean Science  
article, 2014



## geoESPIS Project Team

BOEM Overall Project Lead. Responsible for amendments, deliverable review, and scope changes. Regional input through the Design Team.

NOAA CSC Technical Lead. Technical oversight, database design, application development, and QA/QC.

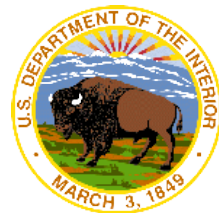
Photoscience Subcontractor to NOAA CSC. Data production, including geofootprint development, data cataloging, and GIS data development.

BSEE ITD Working “in house” to improve the existing database, maintenance of all ESPIS documents, and eventual hosting of geoESPIS database. Participating in the Technical Team.



## Time Line

- May 2011 Reviewed by Scientific Advisory Committee
- Aug. 2012 Intra-agency Agreement Awarded with NOAA
- 2012 - 2013 Extensive stakeholder engagement
- April 2014 Release of “alpha version” of geoESPIIS
- ~ Feb. 2015 Public release of geoESPIIS



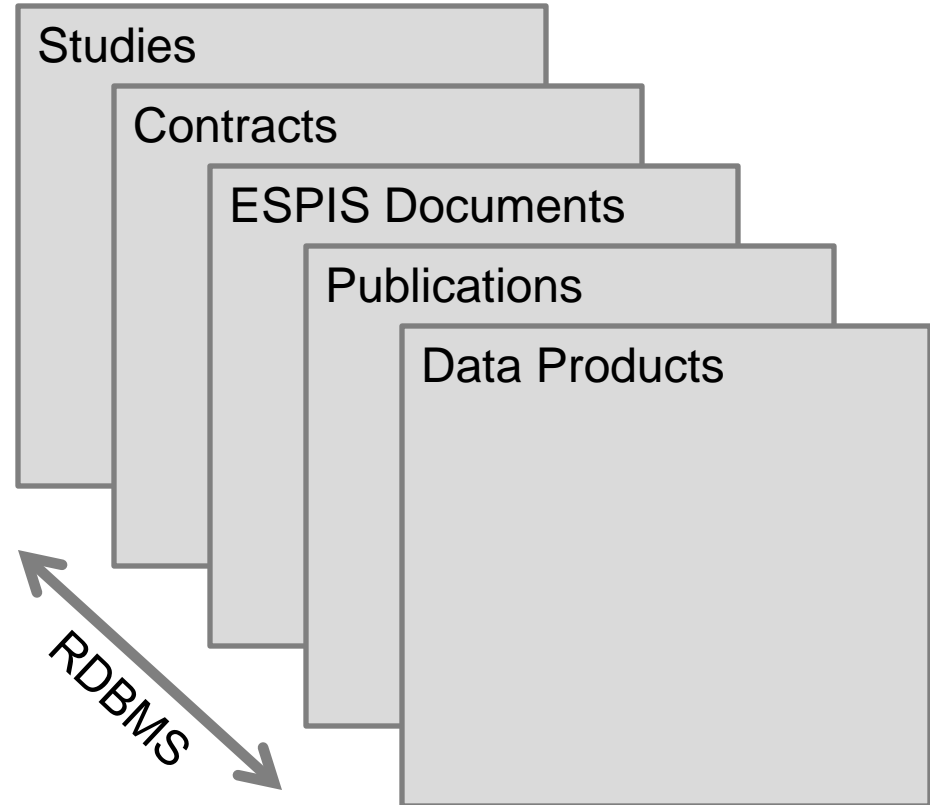
- Gathered through site visits, webinars, design team meetings

<p><b><u>Geographic Searches:</u></b></p> <ul style="list-style-type: none"> <li>-By county</li> <li>-By state</li> <li>-By planning areas</li> <li>-By blocks</li> <li>-By environmental resource areas</li> <li>-By select bathymetric lines</li> <li>-By user defined polygon and points</li> <li>-Ability to draw resulting polygons on map</li> </ul>	<p><b><u>Text Searches:</u></b></p> <ul style="list-style-type: none"> <li>- Make as Google like as possible</li> <li>- Keyword and wildcards</li> <li>- ID literature sources</li> <li>- ID data sources</li> <li>- Search by date</li> <li>- Coast per study and cumulatively</li> <li>- Search by institution</li> <li>- Searching ESPIS pdfs</li> </ul>	<p><b><u>Filters:</u></b></p> <ul style="list-style-type: none"> <li>- discipline</li> <li>- date</li> <li>- region</li> <li>- Sort by start and completion</li> </ul> <p><b><u>Future considerations:</u></b></p> <ul style="list-style-type: none"> <li>- Present citations in standard format</li> <li>- Bibliography by geography</li> <li>- Adding other spatial reference data</li> </ul>
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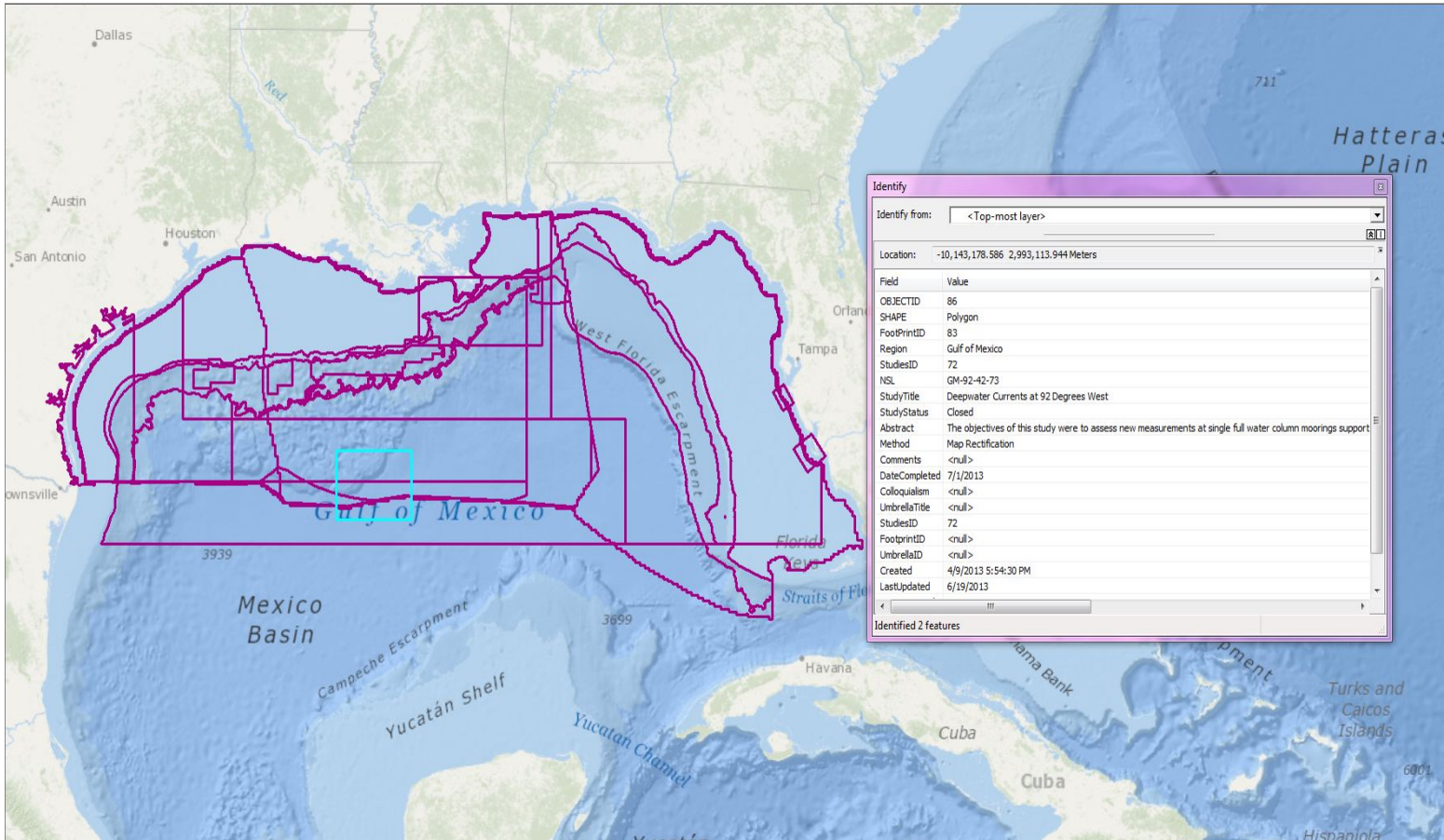


## geoESPIIS Database

- 7 Tables
- Relational
- 40 + Attributes



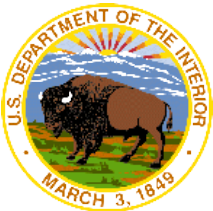
## Geographic Information System “Footprints”



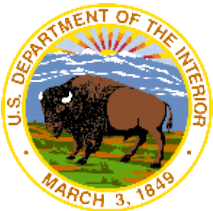


## Prototype Review

- Things to think about:
  - How could you see using this information?
  - Is there any information you want to access that you don't see in the search tool?
  - Are there any additional kinds of searches you would like to perform?

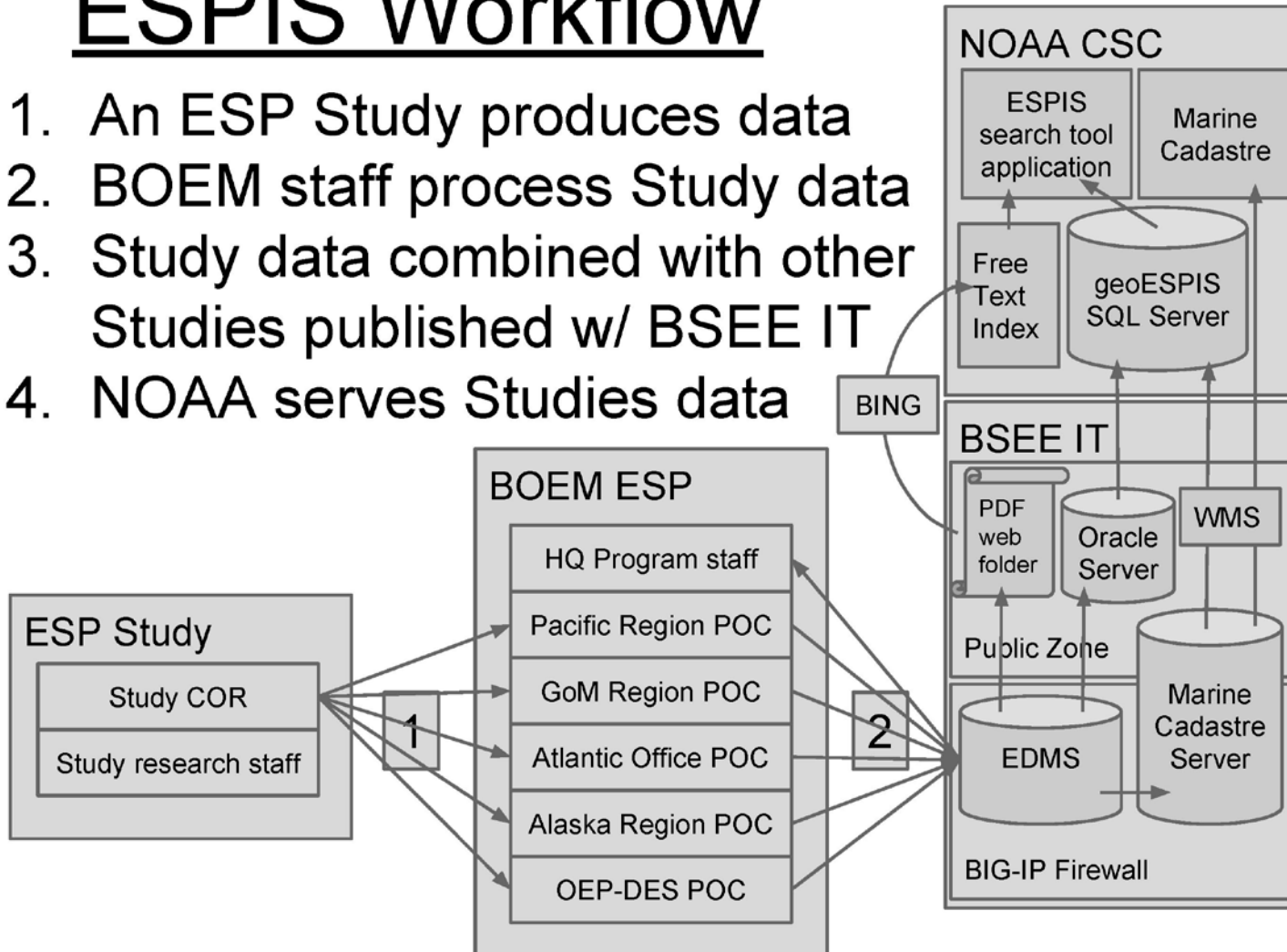


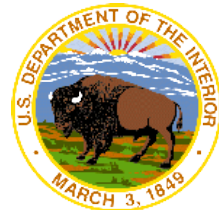
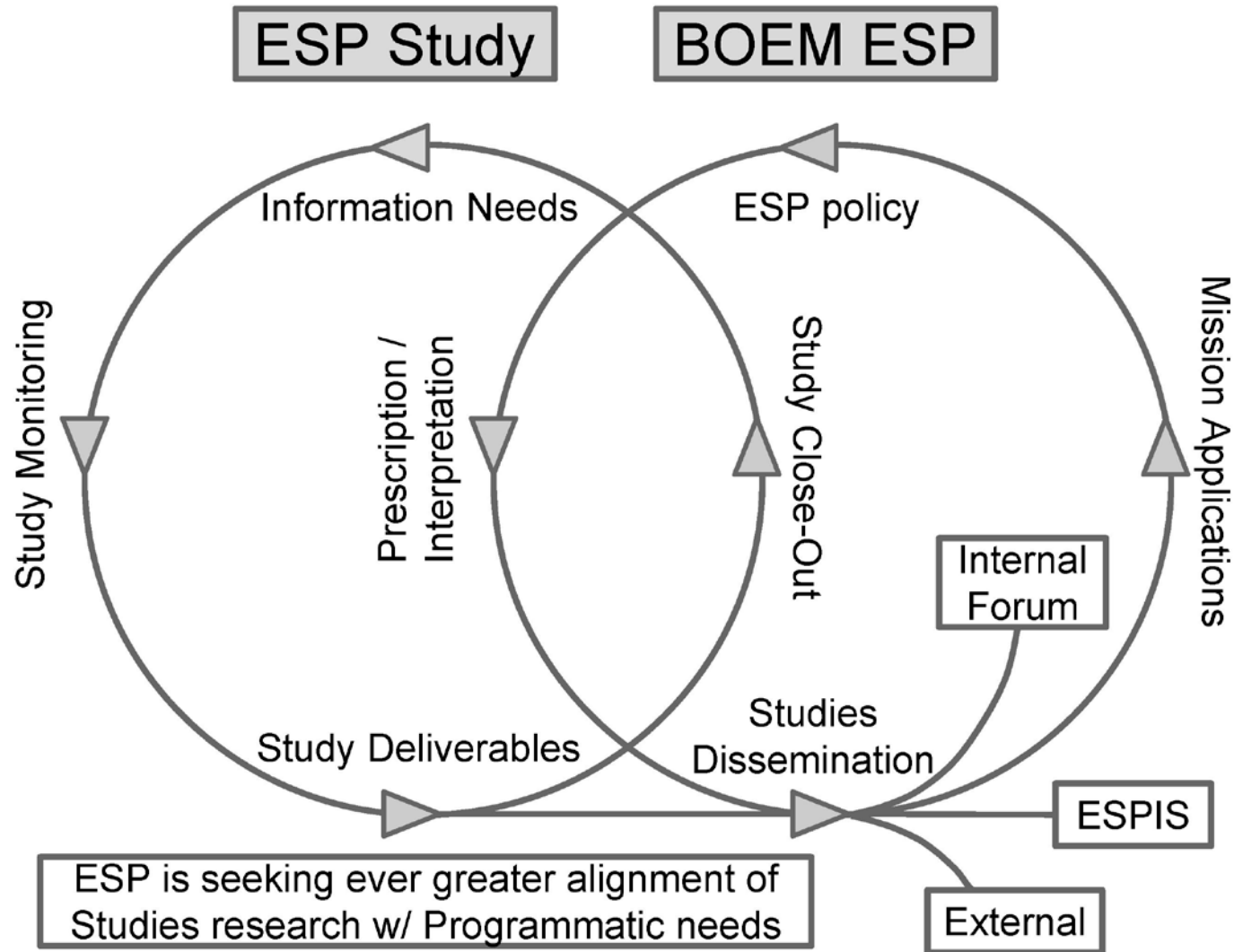
## Demonstration



## ESPIS Workflow

1. An ESP Study produces data
2. BOEM staff process Study data
3. Study data combined with other Studies published w/ BSEE IT
4. NOAA serves Studies data



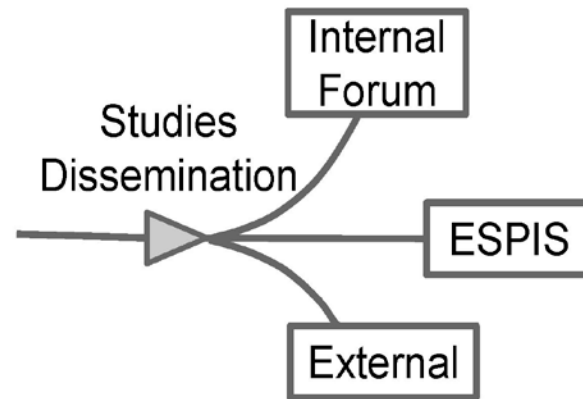
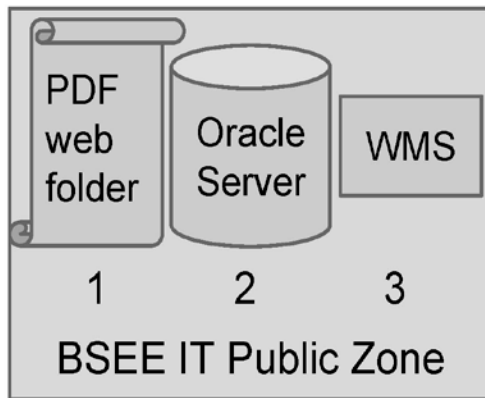


Initially, focuses on:

1. PDF report
2. Study attribute
3. Study footprint

Later, will focus on:

1. Links to repositories
2. Dissemination policy
3. National consistency



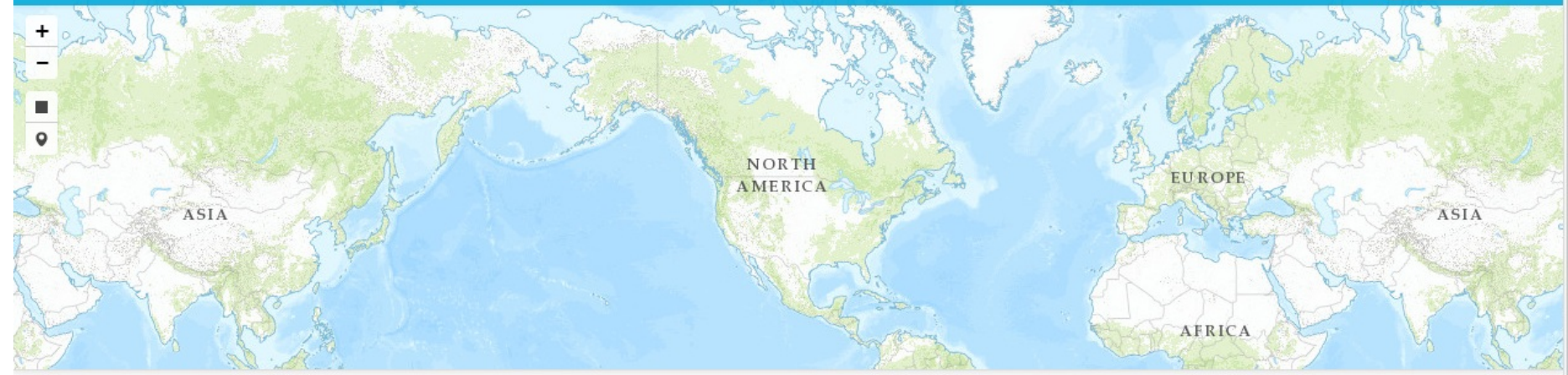


Find  Near

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[Search using a map and other filters](#)

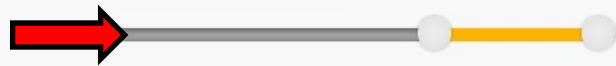




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Study Title Start Date End Date

Year 2000 - 2013



Discipline Biology



Region Show All



### Deepwater Program: Investigations of Chemosynthetic Communities on the Lower Continental Slope of the Gulf of Mexico (Chemo III)

Gulf of Mexico 2004 - 2009 Biology

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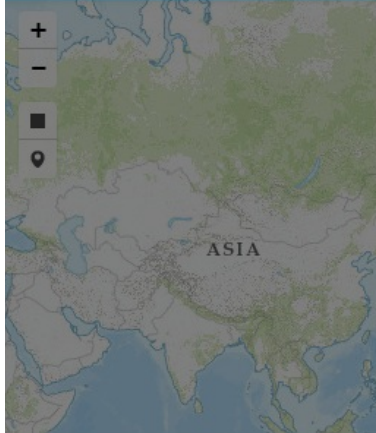


### Environmental Sensitivity Index (ESI) Shoreline Classification Using New Remote Sensing Data and Techniques

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## Deepwater Program: Investigations of Chemosynthetic Communities on the Lower Continental Slope of the Gulf of Mexico (Chemo III)

Gulf of Mexico
GM-05-33
2005-01-01 - 2009-08-31
Biology

Overview **Contract 1** Contract 2


### Abstract

The largest oil reserves in the continental United States are found in the Gulf of Mexico. The Minerals Management Service (MMS) is responsible for overseeing the responsible extraction of these natural resources. By the early 1980s, energy companies had developed the technology to explore and extract oil and gas in waters up to 1,000 m deep. The primary purpose of this research is to discover and characterize the sea floor communities that live in association with hydrocarbon seepage and on hard ground in the deep Gulf of Mexico. The sites studied are in areas energy companies will soon drill for oil and gas.

### Study Information

Project Dates	2005-01-01 - 2009-08-31
Region	Gulf of Mexico
Conducting Entities	TDI-Brooks International, Inc., TDI-Brooks International, Inc., TDI-Brooks International Inc., TDI-Brooks International Inc.
Discipline	Biology
Keyword(s)	Gulf of Mexico, chemosynthetic communities, habitat, AUV, ROV, submersible, biology, photography, tubeworms, mussels, bacterial mats, education, population dynamics, food web, life histories, biodiversity and biogeography

### Study Reports and Documents

- 

INVESTIGATIONS OF CHEMOSYNTHETIC COMMUNITIES ON THE LOWER CONTINENTAL SLOPE OF THE GULF OF MEXICO, INTERIM REPORT 2  
 James M. Brooks, Charles Fisher, Harry Roberts, Bernie Bernard, Ian MacDonald, Robert Carney, Samantha Joye, Erik Cordes, Gary Wolff, & Elizabeth Goehring | 2009  
[View Document](#)
- 

INVESTIGATIONS OF CHEMOSYNTHETIC COMMUNITIES ON THE LOWER CONTINENTAL SLOPE OF THE GULF OF MEXICO, INTERIM REPORT 2  
 James M. Brooks, Charles Fisher, Harry Roberts, Bernie Bernard, Ian MacDonald, Robert Carney, Samantha Joye, Erik Cordes, Gary Wolff, & Elizabeth Goehring | 2009  
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 INVESTIGATIONS OF CHEMOSYNTHETIC COMMUNITIES ON THE LOWER CONTINENTAL SLOPE OF THE GULF OF MEXICO, INTERIM REPORT  
James M. Brooks, Charles Fisher, Harry Roberts, Bernie Bernard, Ian MacDonald, Robert Carney, Samantha Joye, Erik Cordes, Gary Wolff, and Elizabeth Goehring | 2008  
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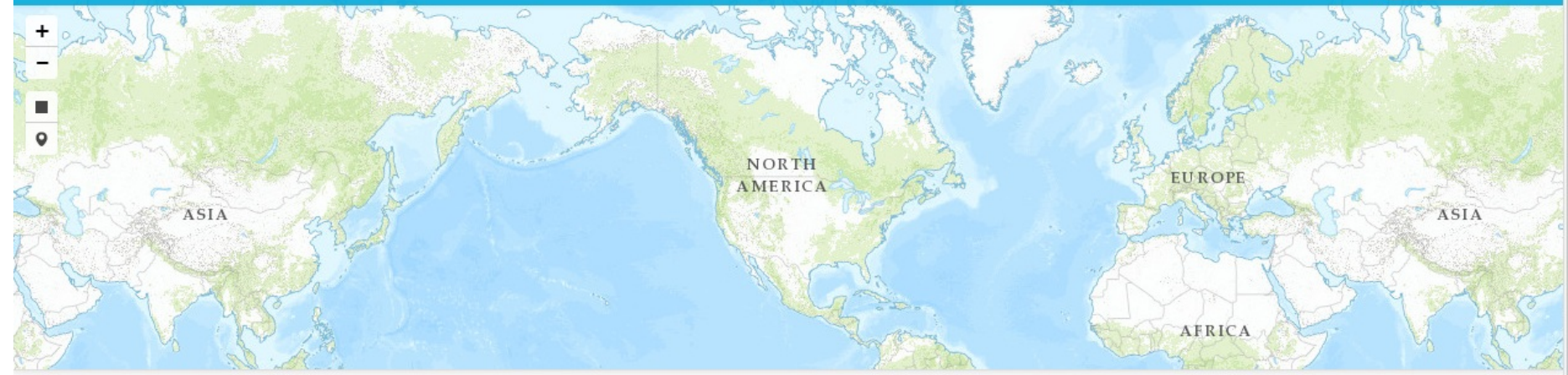
### Related Publications

-  Charles Fisher, Harry Roberts, Erik Cordes and Bernie Bernard | 2007
-  Harry Roberts, Robert Carney, Mathew Kupchik, Charles Fisher, Kim Nelson, Erin Becker, Liz Goehring, Stephanie Lessard-Pilon, Guy Telesnicki, Bernie Bernard, James Brooks, Monika Bright, Erik Cordes, Stephane Hourdez, Jesse Hunt Jr., William Shedd | 2007
-  Investigations of Chemosynthetic Communities on the Lower Continental Slope of the Gulf of Mexico  
TDI-Brooks International Inc | 2007
-  Investigations of Chemosynthetic Communities on the Lower Continental Slope of the Gulf of Mexico  
TDI-Brooks International Inc | 2009
-  Erik E. Cordes, Susan L. Carney, Stephane Hourdez, Robert S. Carney, James M. Brooks, Charles R. Fisher | 2007
-  Investigations of Chemosynthetic Communities on the Lower Continental Slope of the Gulf of Mexico-Deep Chemosynthetic Community Characterization Cruise Report  
TDI-Brooks International Inc | 2006
-  Investigations of Chemosynthetic Communities on the Lower Continental Slope of the Gulf of Mexico-Reconnaissance Cruise Report  
TDI-Brooks International Inc | 2006
-  Investigations of chemosynthetic communities on the lower continental slope of the Gulf of Mexico, , Interim Report  
TDI-Brooks International Inc | 2008

### Data Products

**Overview**

-  There are no data products available at this time.
-  Oceanographic data collected during the Expedition to the Deep Slope 2007 aboard the NOAA Ship Ronald H. Brown in Northern Gulf of Mexico Continental Slope from 20070603 to 20070706 (NODC Accession 0053265)  
NODC | [View](#)



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Year 2000 - 2013



Discipline Biology

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Discipline

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## Document and Characterize the Branching Deep-Water Corals and Geology at Two Upper-Slope Sites in the Northeastern Gulf of Mexico

Gulf of Mexico
GM-03-x12
2003-07-28 - 2006-05-31
Biology

Overview **Contract 1**

### Abstract

One of the principal species of branching scleractinian corals that form deep-water assemblages is the tuft coral *Lophelia pertusa*. In light of the continuing expansion of oil and gas activities into the deep Gulf of Mexico (GoM), there is a crucial need to understand the basic biology and functional ecology of these unique systems, and ultimately to determine appropriate management strategies for their protection.

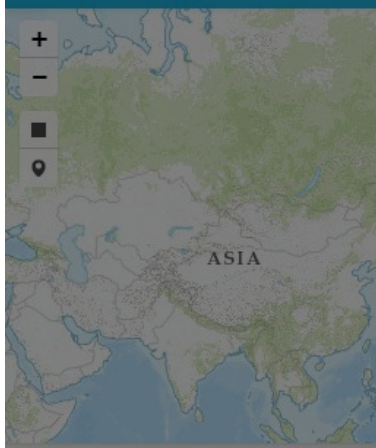
### Study Information

Project Dates	2003-07-28 - 2006-05-31
Region	Gulf of Mexico
Conducting Entities	University of Alabama, Dauphin Island Sea Lab, University of Alabama, Dauphin Island Sea Lab
Discipline	Biology
Keyword(s)	Branching Deep Water Corals, <i>Lophelia pertusa</i> , sessile megafauna, seafloor characteristics, northeastern Gulf of Mexico

### Study Reports and Documents

- SEAFLOOR CHARACTERISTICS AND DISTRIBUTION PATTERNS OF *LOPHELIA PERTUSA* AND OTHER SESSILE MEGAFUNA AT TWO UPPER-SLOPE SITES IN THE NORTHEASTERN GULF OF MEXICO  
 William W. Schroeder | 2007  
[View Document](#)
- SEAFLOOR CHARACTERISTICS AND DISTRIBUTION PATTERNS OF *LOPHELIA PERTUSA* AND OTHER SESSILE MEGAFUNA AT TWO UPPER-SLOPE SITES IN THE NORTHEASTERN GULF OF MEXICO  
 William W. Schroeder | 2007  
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### Related Publications



Year

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Discipline

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Region

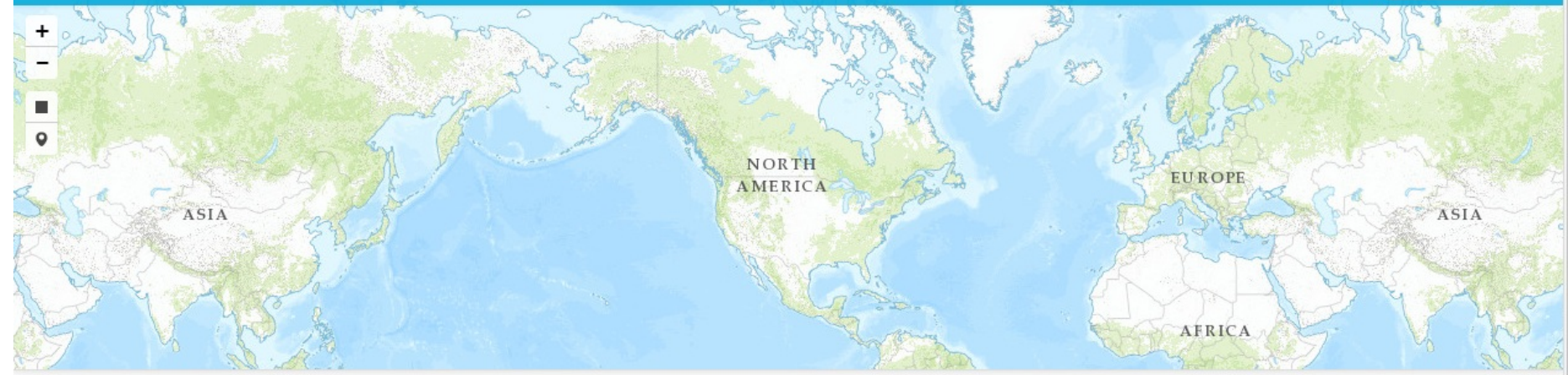
[View Document](#)

### Related Publications

	Schroeder W.W.   2002
	Schroeder W.W.   2007
	Seafloor characteristics and distribution patterns of Lophelia pertusa and other sessile megafauna at two upper-slope sites in the northeastern Gulf of Mexico Schroeder, W.W.   2007

### Data Products

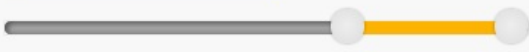
	LOPH: Deepwater Program: Characterization of Gulf of Mexico Deepwater Hard Bottom Communities with Emphasis on Lophelia coral (Lophelia study) National Museum, Smithsonian Institution   <a href="#">View</a>
	Collection Name: LOPH National Museum, Smithsonian Institution   <a href="#">View</a>
	Gulf of Mexico Bottom Photos National Museum, Smithsonian Institution   <a href="#">View</a>
	Digital Video taken during Johnson-Sea-Link submersible dive 4922 of the NOAA Office of Ocean Exploration's Florida Coast Deep Corals 2005 cruise, November 18, 2005 (NODC Accession 0036658) NODC   <a href="#">View</a>
	Digital Video taken during Johnson-Sea-Link submersible dive 4909 of the NOAA Office of Ocean Exploration's Florida Coast Deep Corals 2005 cruise, November 08, 2005 (NODC Accession 0036667) NODC   <a href="#">View</a>
	Digital Video taken during Johnson-Sea-Link submersible dive 4910 of the NOAA Office of Ocean Exploration's Florida Coast Deep Corals 2005 cruise, November 08, 2005 (NODC Accession 0036668) NODC   <a href="#">View</a>
	Digital Video taken during Johnson-Sea-Link submersible dive 4921 of the NOAA Office of Ocean Exploration's Florida Coast Deep Corals 2005 cruise, November 18, 2005 (NODC Accession 0036824) NODC   <a href="#">View</a>
	Digital Video taken during Johnson-Sea-Link submersible dive 4920 of the NOAA Office of Ocean Exploration's Florida Coast Deep Corals 2005 cruise, November 17, 2005 (NODC Accession 0036825) NODC   <a href="#">View</a>
	LOPH: Deepwater Program: Characterization of Gulf of Mexico Deepwater Hard Bottom Communities with Emphasis on



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Discipline Biology

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**Deepwater Program: Investigations of Chemosynthetic Communities on the Lower Continental Slope of the Gulf of Mexico (Chemo III)**

Gulf of Mexico 2004 - 2009 Biology

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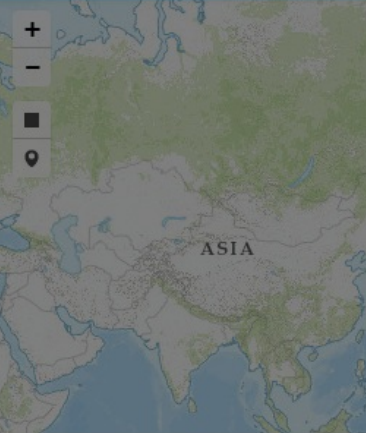


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Gulf of Mexico 2002 - 2005 Biology

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Discipline

Region

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## Environmental Sensitivity Index (ESI) Shoreline Classification Using New Remote Sensing Data and Techniques

[Gulf of Mexico](#) [GM-92-42-99](#) [2002-09-17 - 2005-04-30](#) [Biology](#)

[Overview](#) [Contract 1](#)


### Abstract

Environmental Sensitivity Index (ESI) mapping refers to a shoreline classification and sensitivity ranking system that has been a vital component of oil spill contingency planning and marine environmental assessment programs nationwide for 25 years (Halls et al., 1997). The U.S. Minerals Management Service (MMS) currently uses ESI data and the ESI classification scheme for environmental assessment studies related to Outer Continental Shelf (OCS) activities. Traditional ESI data development includes the interpretation of aerial photographs and mapped observations by coastal geologists during over flights. This method has been applied successfully to the majority of the U.S. coastline. The complex, rapidly changing shoreline of Louisiana, however, has made ESI mapping extremely difficult using traditional techniques. As a result, a coast-wide ESI shoreline classification has never been developed for Louisiana. This represents a major information gap, as oil spill risk and environmental consequences in Louisiana are great. The primary objectives of this study are to develop remote sensing classification procedures supporting ESI mapping efforts in Louisiana and elsewhere; To determine if remote sensing methods are as reliable as traditional methods, more cost effective, and more efficient; To assess the appropriateness of the spectral and spatial resolution of IKONOS satellite imagery for ESI mapping; To substantiate the cost savings of archived imagery; To ascertain if a viable land/water interface can be developed from IKONOS imagery; and to discover if an ESI style product useful for spill response and coastal management can be developed

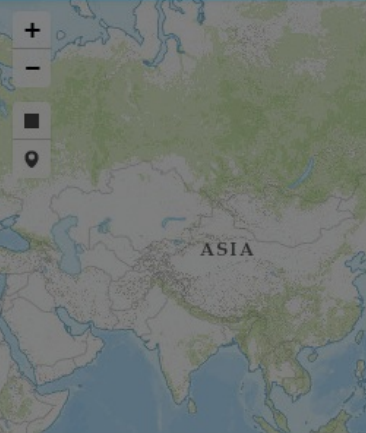
### Study Information

Project Dates	2002-09-17 - 2005-04-30
Region	Gulf of Mexico
Conducting Entities	Louisiana State University, Coastal Studies Institute, Louisiana State University, Coastal Studies Institute
Discipline	Biology
Keyword(s)	Environmental Sensitivity Index, land/water interface, satellite imagery, shoreline types, IKONOS, remote sensing, classification, shoreline delineation, coastal habitat, greenness, vegetation index, tasseled cap, Louisiana coast, Central Gulf

### Study Reports and Documents

 [FEASIBILITY OF USING REMOTE-SENSING TECHNIQUES FOR SHORELINE DELINEATION AND COASTAL HABITAT CLASSIFICATION FOR ENVIRONMENTAL SENSITIVITY INDEX \(ESI\) MAPPING](#)  
Katherine Born-Phillips, Chris Locke, Jacqueline Michel, and DeWitt Braud | 2005  
[View Document](#)

geoESPIS oil



Year

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### Study Reports and Documents

-  FEASIBILITY OF USING REMOTE-SENSING TECHNIQUES FOR SHORELINE DELINEATION AND COASTAL HABITAT CLASSIFICATION FOR ENVIRONMENTAL SENSITIVITY INDEX (ESI) MAPPING  
Katherine Born-Phillips, Chris Locke, Jacqueline Michel, and DeWitt Braud | 2005  
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-  FEASIBILITY OF USING REMOTE-SENSING TECHNIQUES FOR SHORELINE DELINEATION AND COASTAL HABITAT CLASSIFICATION FOR ENVIRONMENTAL SENSITIVITY INDEX (ESI) MAPPING  
Katherine Born-Phillips, Chris Locke, Jacqueline Michel, and DeWitt Braud | 2005  
[View Document](#)

### Related Publications

-  Jensen J.R., E.W. Ramsey, J.M. Holmes, J.E. Michel, B. Savitsky and B.A. Davis | 1990
-  Jensen J.R., J.N. Halls, J. Michel | 1998
-  Katherine Born-Phillips | 2013
-  Feasibility of using remote-sensing techniques for shoreline delineation and coastal habitat classification for environmental sensitivity index (ESI) mapping  
Phillips-Born K., C. Locke, J. Michel and D. Braud | 2005

### Data Products

-  Environmental Sensitivity Index (ESI) Maps  
NOAA | [View](#)
-  Environmental **Overview** Sensitivity Index (ESI) Atlas: Louisiana maps and geographic information systems data (NODC Accession 0013802)  
NODC | [View](#)
-  Environmental Sensitivity Index (ESI) Atlas, Gulf of Mexico, Alabama 2007, Louisiana 2003, Mississippi 1995, maps and geographic information systems data (NODC Accession 0036821)  
NODC | [View](#)
-  Environmental Sensitivity Index (ESI) Atlas, Gulf of Mexico, Upper Coast of Texas PDFs 1996, Louisiana 2003, Mississippi 2009, Alabama 2007, Florida 1995-2003 maps and geographic information systems data (NODC Accession 0064870)  
NODC | [View](#)



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Study Title Start Date End Date

**Year** 2000 - 2013

**Discipline** Biology

**Region** Show All



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Gulf of Mexico 2004 - 2009 Biology

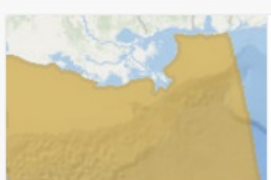
The largest oil reserves in the continental United States are found in the Gulf of Mexico. The Minerals Management Service (MMS) is responsible for overseeing the responsible extraction of these natural resources. By the early 1980s, energy companies had developed the technology to explore and extract oil and gas in waters up to 1,000 m deep. The ...



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