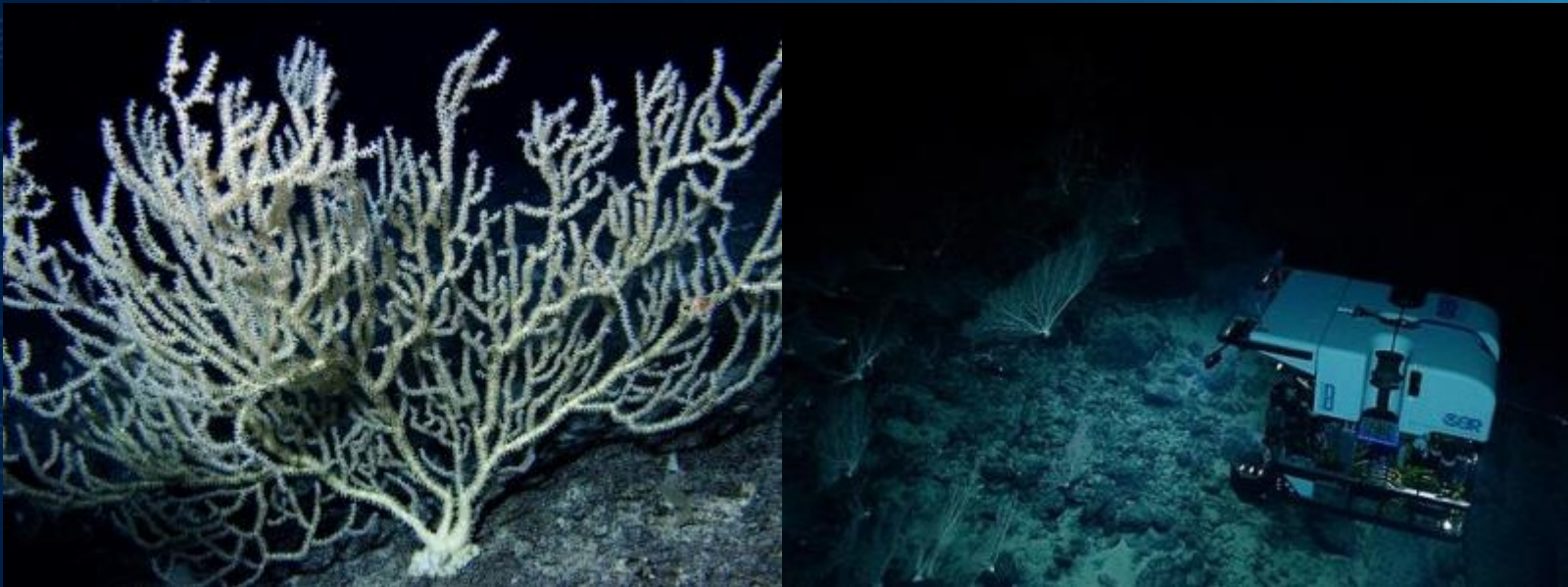


# Overview of the Southeast Deep Coral Initiative (SEDCI)



Daniel Wagner, Ph.D.  
SEDCI Research Coordinator

# Deep-Sea Coral Research & Technology Program

- 2009 following reauthorization of Magnuson-Stevens Act
- Science to address fishing & other threats to deep corals (>50 m, azooxanthellate)
- Integrate expertise across NOAA
- Funding for studies and fieldwork initiatives

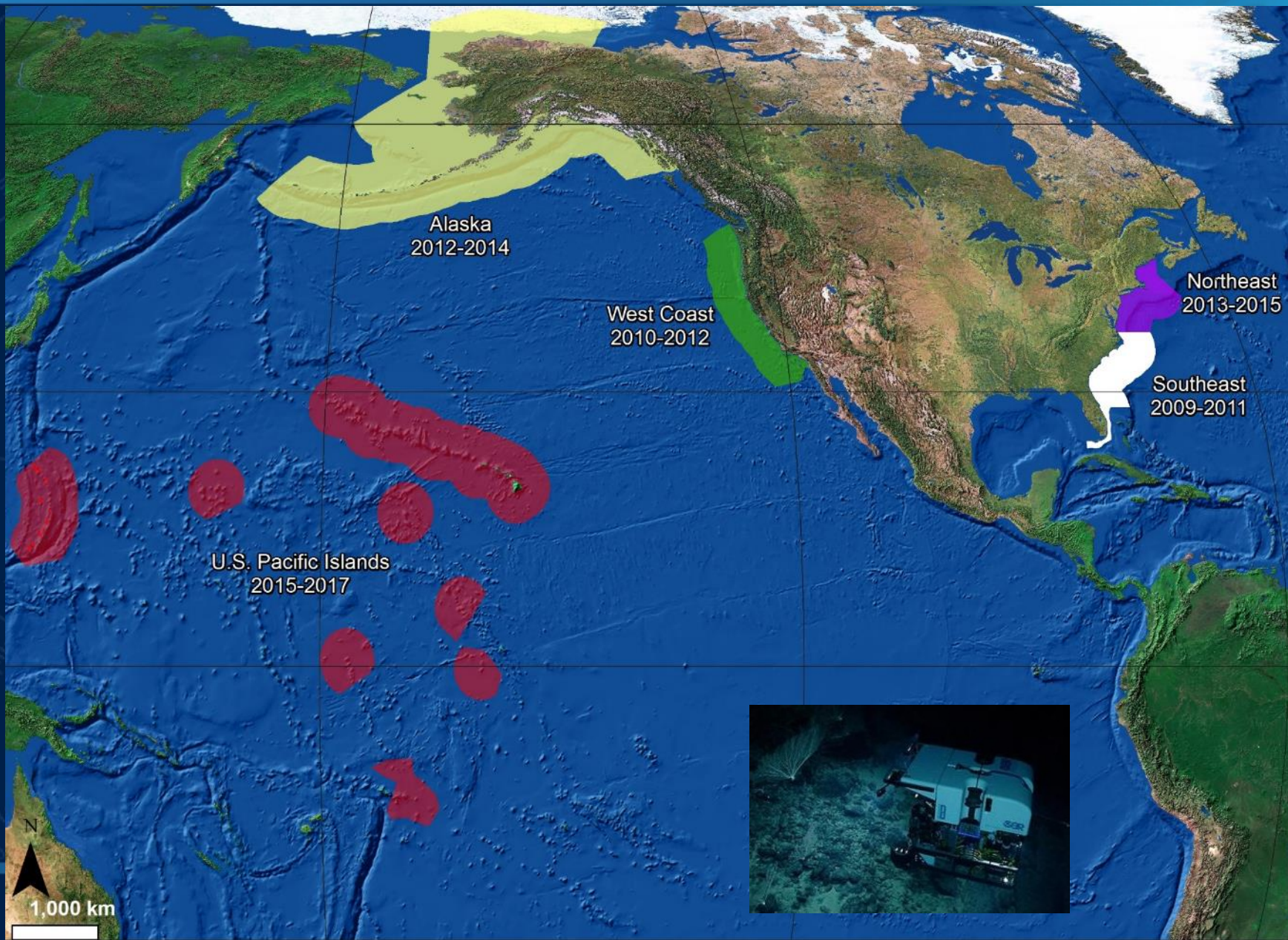


# DSCRTP Fieldwork Initiatives

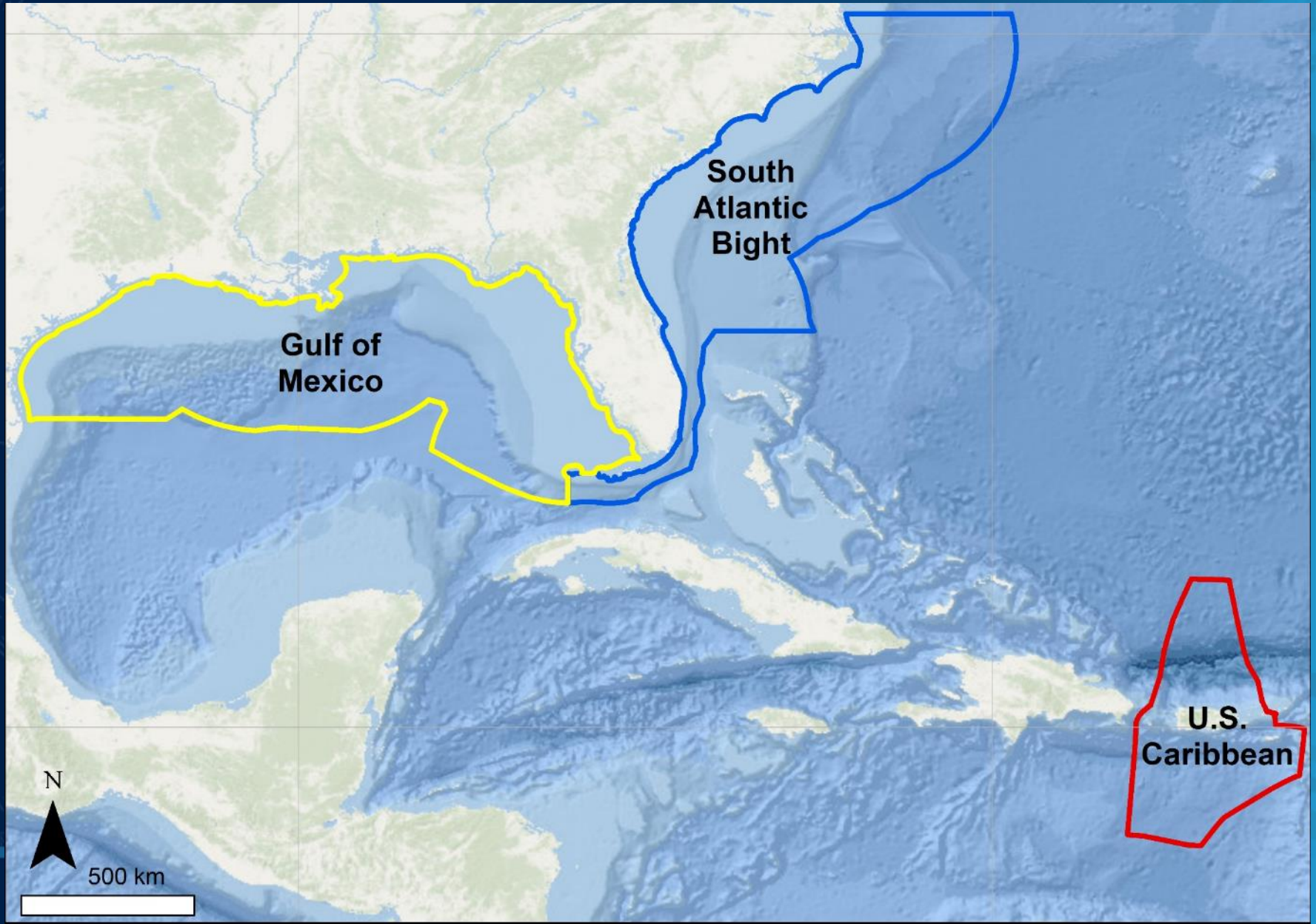
- 3-4 year efforts
- Research expeditions
- Data/sample analysis



# Previous DSCRTP Initiatives



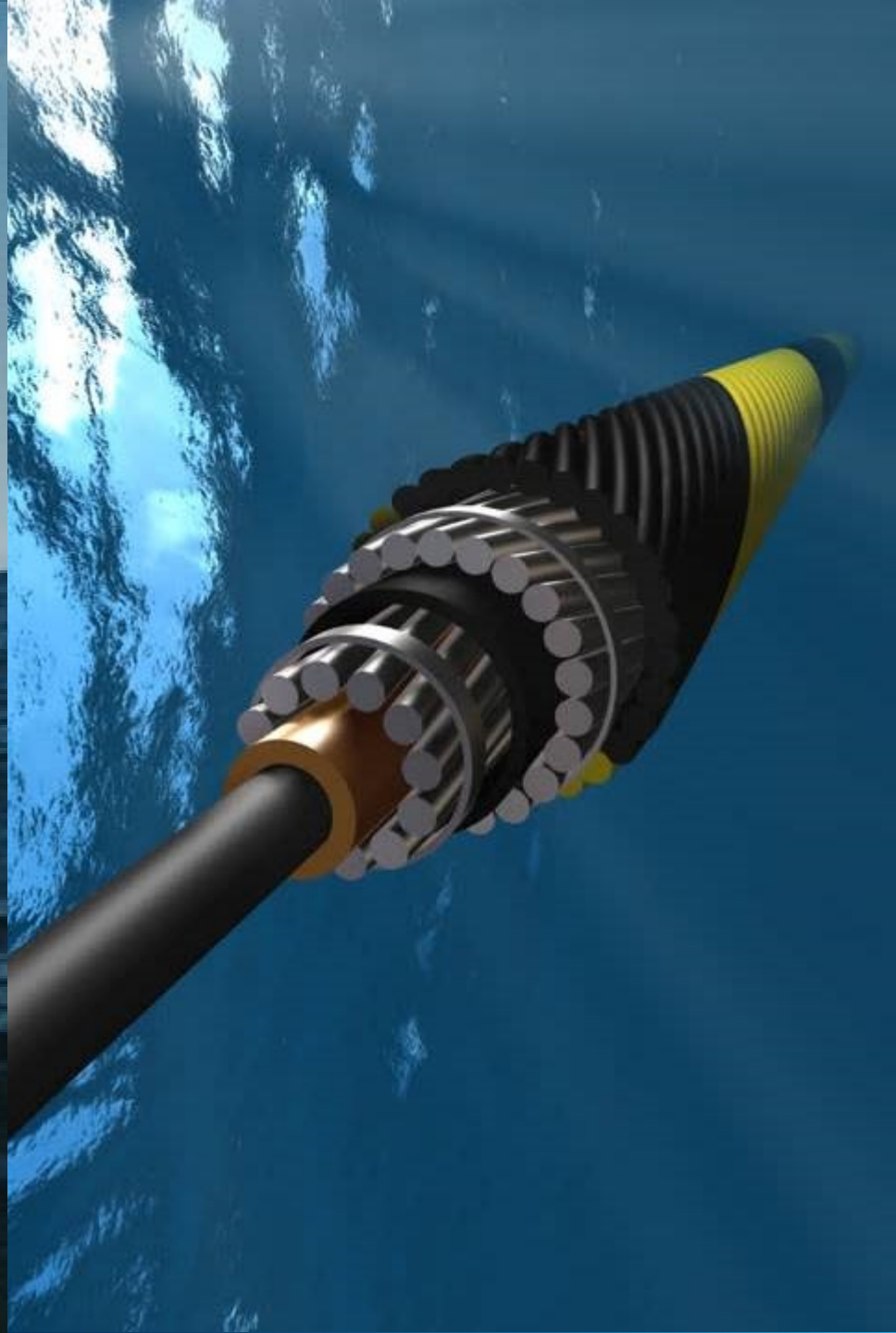
# 2016-2019 Southeast Deep Coral Initiative



# Large Area











# Our Approach

## REVIEW

### Management priorities

Councils

Sanctuaries

### Past research

Data mining

Federal agencies

Academia



# Our Approach

## REVIEW

Management priorities

Councils

Sanctuaries

Past research

Data mining

Federal agencies

Academia

## COLLECT

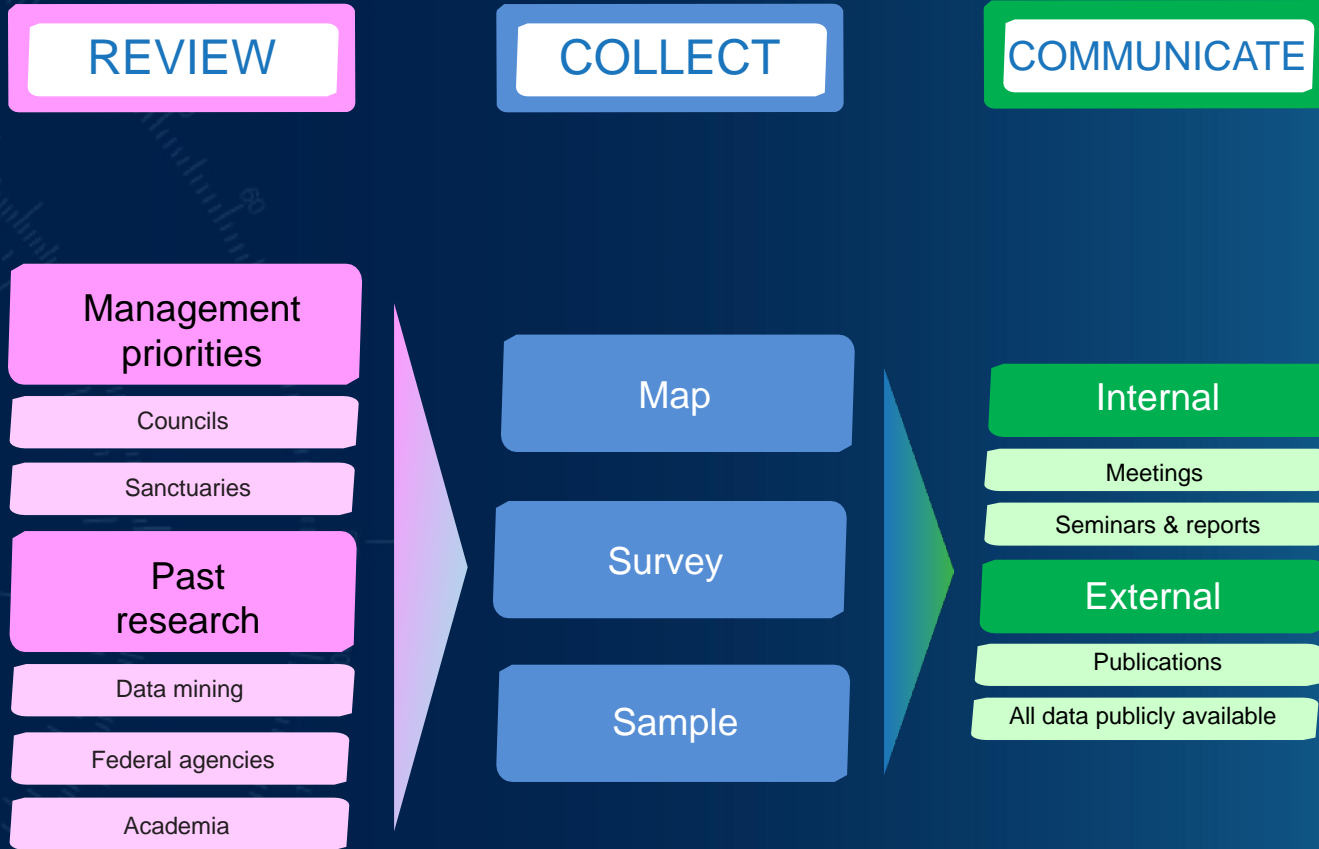
Map

Survey

Sample



# Our Approach



# Publicly Available Data



NOAA Technical Memorandum NMFS-SEFSC-695

## NOAA Deep-Sea Coral Research and Technology Program Priority Scoping Workshop Report for the DSCRTP Southeast Research Initiative 2016-2019

Workshop date: November 18-20, 2015  
NOAA Fisheries Southeast Regional Office  
St. Petersburg, Florida

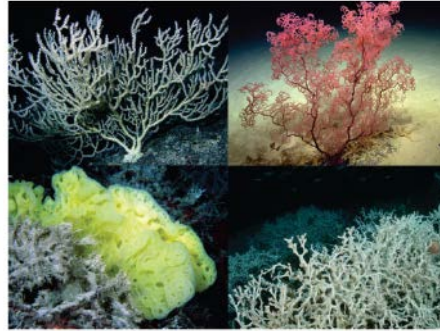
By  
Jennifer Schull, NOAA/NMFS – Southeast Fisheries Science Center  
Peter Etnoyer, NOAA/NOS – National Centers for Coastal Ocean Science  
Daniel Wagner, NOAA/NOS – National Centers for Coastal Ocean Science



U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
Southeast Fisheries Science Center  
75 Virginia Beach Drive  
Miami, Florida 33149

August 2016

## Science Plan for the Southeast Deep Coral Initiative (SEDCI): 2016-2019



NOAA Technical Memorandum  
NOS NCCOS 230  
March 2017

PC-1603 Cruise Report

## Cruise Report 2016 NOAA Ship Pisces Expedition to Carolina Canyons (PC-1605: August 24-September 4, 2016)

By  
Martha Nizinski<sup>1</sup>

<sup>1</sup>NOAA National Marine Fisheries Service Systematics Laboratory, Smithsonian Institution,  
P.O. Box 37012, NHB, MRC-153, Washington DC 20013, [Martha.Nizinski@noaa.gov](mailto:Martha.Nizinski@noaa.gov)



NOAA FISHERIES

## Deep Sea ID

A Deep-Sea Field Guide



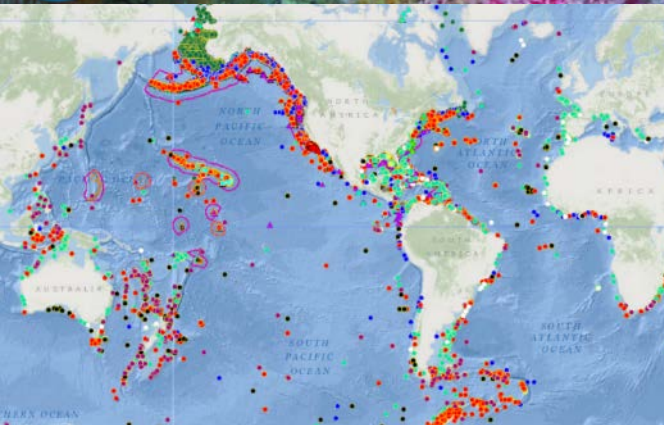
Presented by

The World Register of Deep-Sea Species

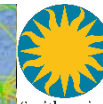
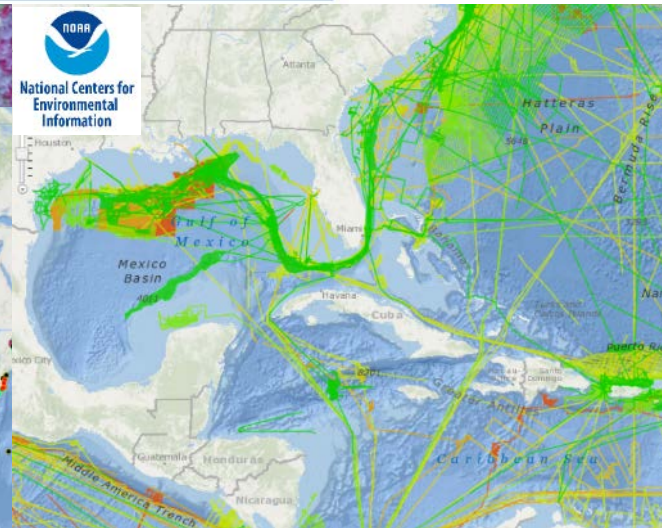


U.S. Department of Commerce National Oceanic and Atmospheric Administration

## NOAA Deep-Sea Coral Data



National Centers for  
Environmental  
Information



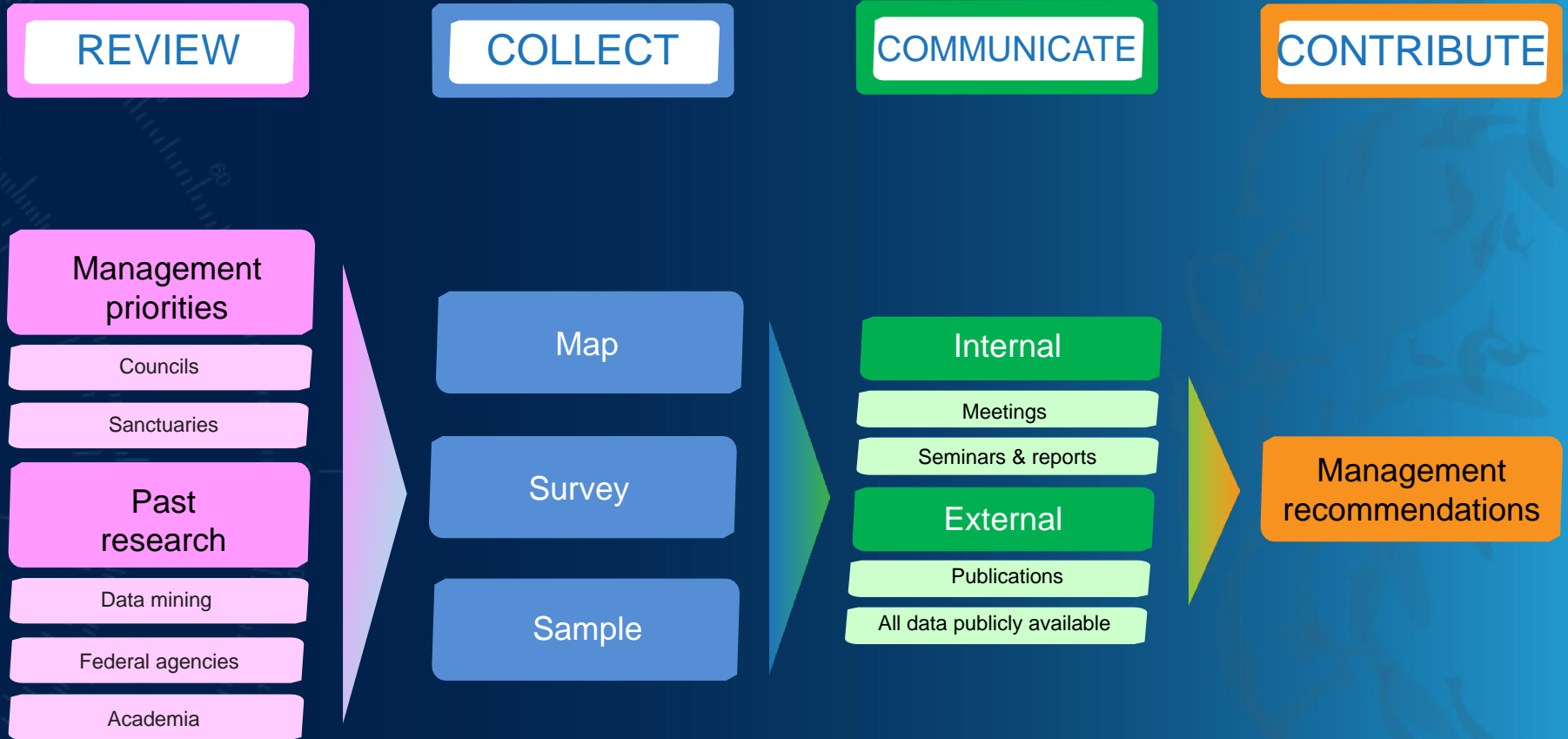
Smithsonian



NOAA'S NATIONAL OCEAN SERVICE

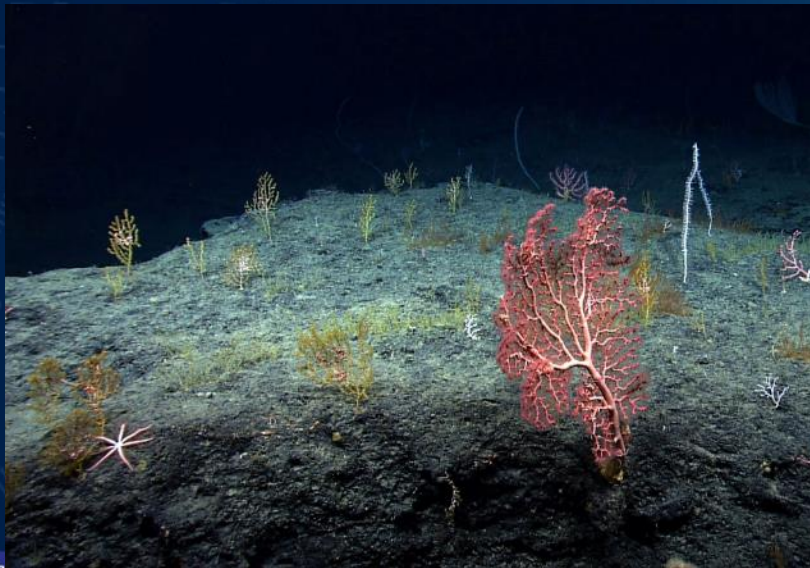
POSITIONING AMERICA FOR THE FUTURE

# Our Approach

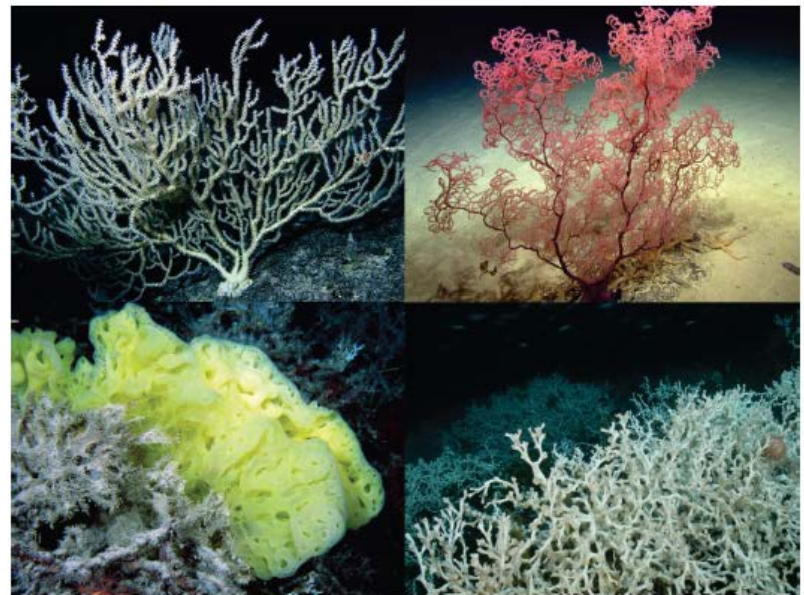


# SEDCI Science Plan

- Management issues
- Research questions
- Expeditions & projects



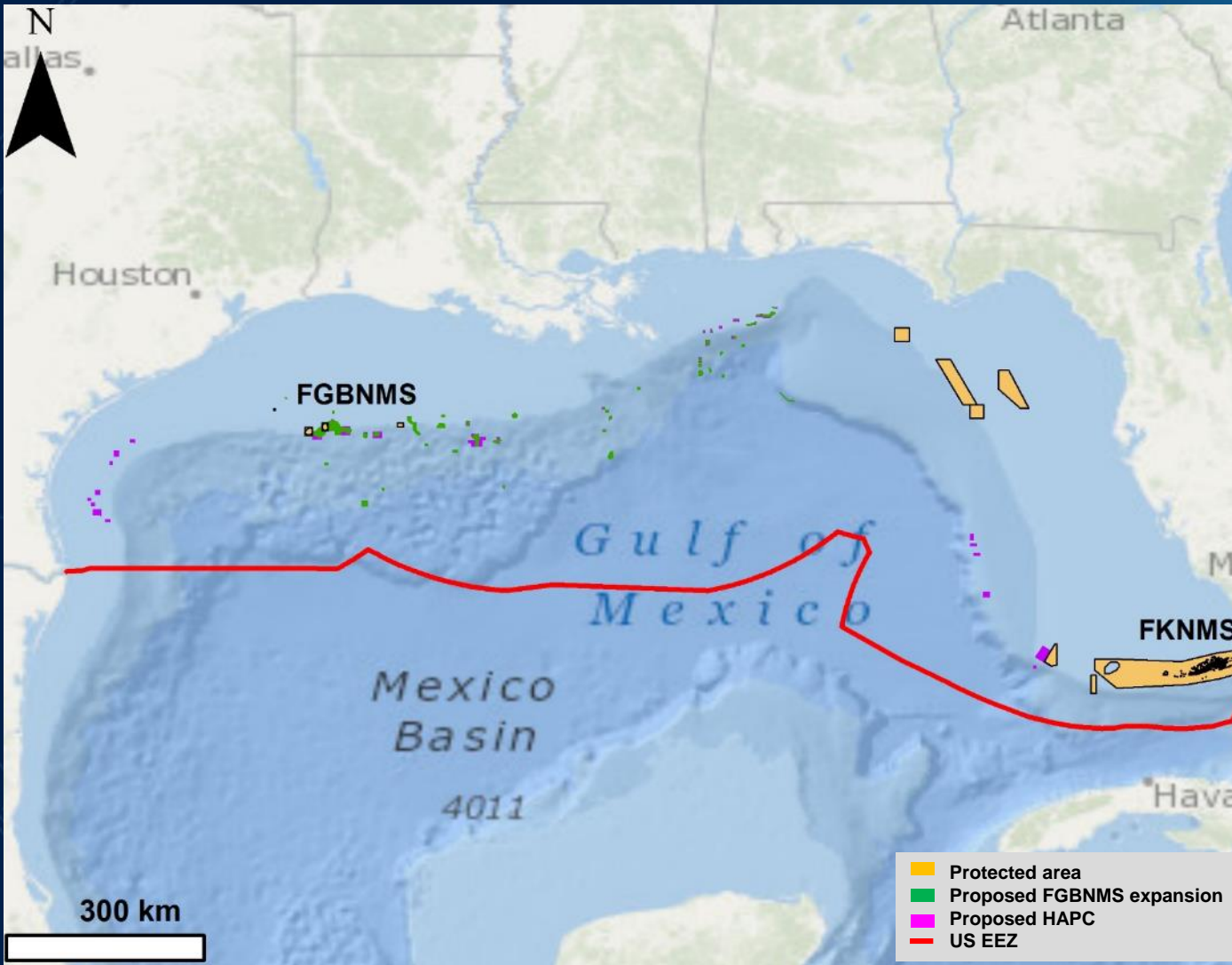
## Science Plan for the Southeast Deep Coral Initiative (SEDCI): 2016-2019



NOAA Technical Memorandum  
NOS NCCOS 230  
March 2017

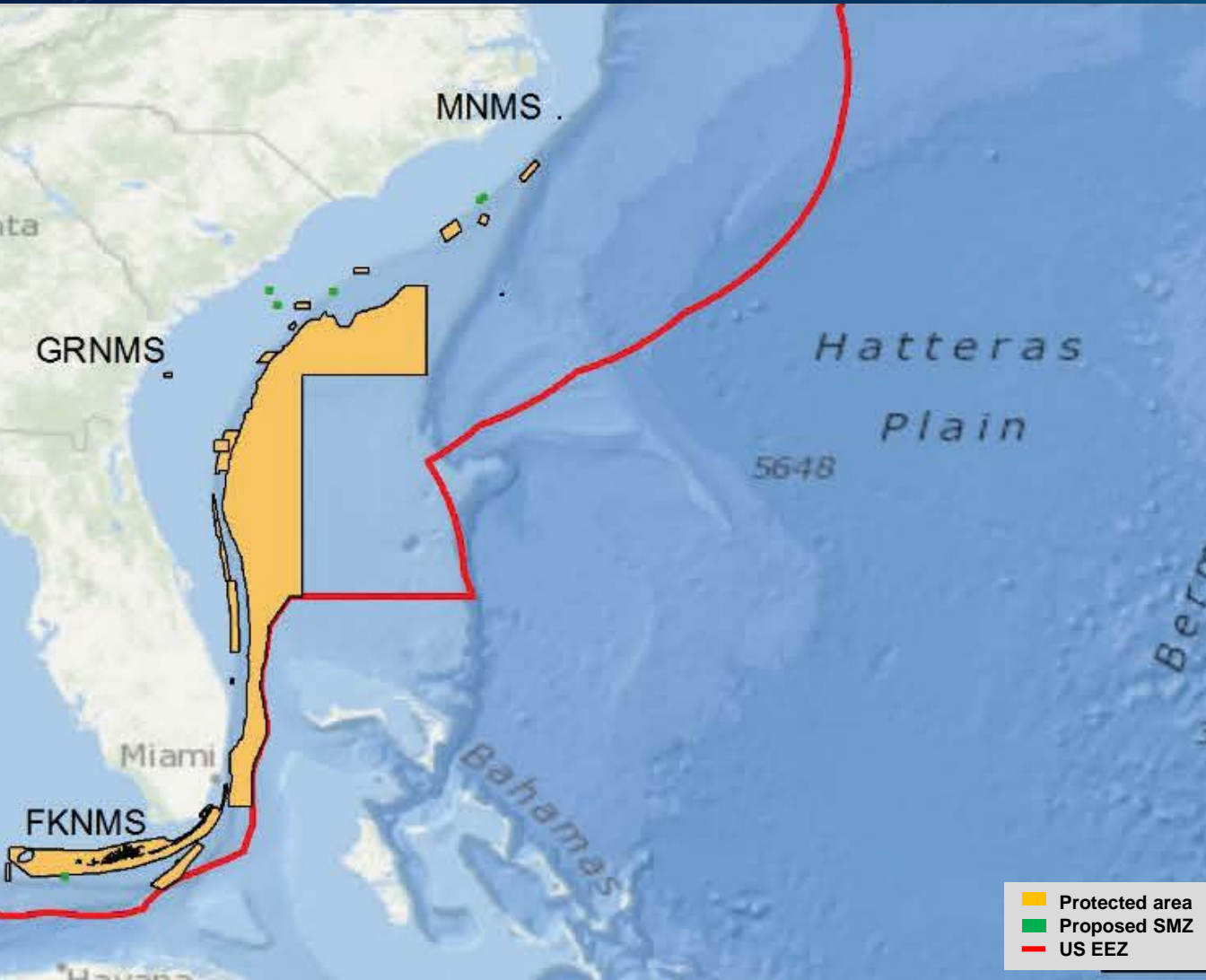


# Gulf of Mexico

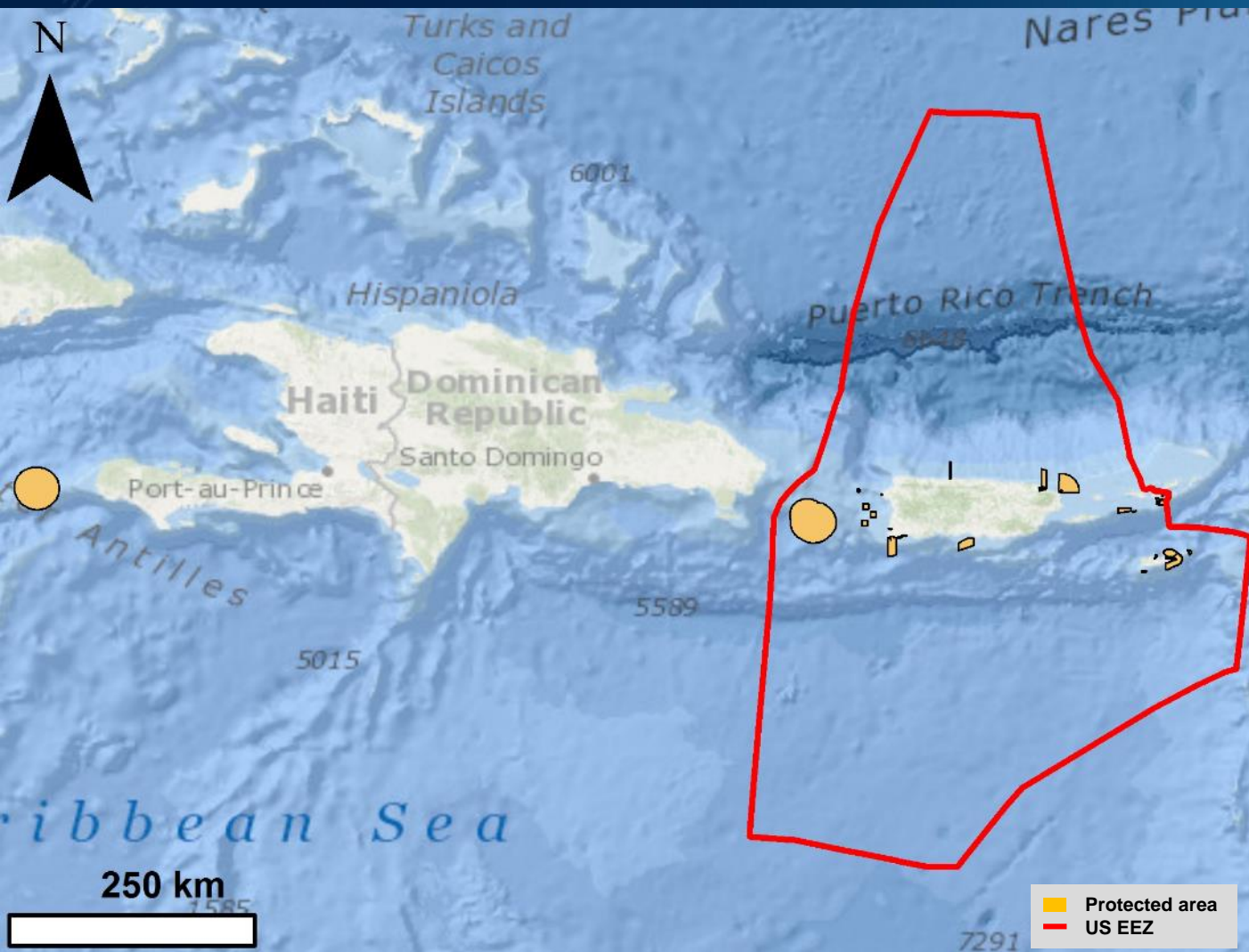




# U.S. South Atlantic



# U.S. Caribbean



# Priority Research Questions

## U.S. Caribbean

- What species?
- Location of ecosystems?
- Fishery impacts?
- Anthropogenic impacts?



## Gulf of Mexico

- Location of ecosystems?
- Fishery impacts?
- Accuracy of habitat models?
- Genetic connectivity?
- Community structure drivers?
- Human activity buffer distances?



## South Atlantic

- Location of ecosystems?
- Fishery impacts?
- Accuracy of habitat models?
- Genetic connectivity?
- Community structure drivers?
- Differences inside/outside MPAs?



# Priority Research Questions

## U.S. Caribbean

- What species?
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# Priority Research Questions

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# Priority Research Questions

## U.S. Caribbean

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## South Atlantic

- Location of ecosystems?
- Fishery impacts?
- Accuracy of habitat models?
- Genetic connectivity?
- Community structure drivers?
- Differences inside/outside MPAs?



# Our Strategy



**Management  
Relevance**



# Our Strategy





# Our Strategy



# Research Projects

Project	Leads	Region
Data Mining	Tim Battista (NCCOS) John Reed (HBOI) Travis Sterne (FGBNMS) George Sedberry (GRNMS) Daniel Wagner (NCCOS)	All
Deep-Sea Species Guide	Daniel Wagner (NCCOS) Peter Etnoyer (NCCOS)	All
Geodatabase	Tim Battista (NCCOS) Daniel Wagner (NCCOS)	All
Modeling	Matt Poti (NCCOS)	All
Environmental Monitoring	Peter Etnoyer (NCCOS)	All
Fishery/Citizen Science	Jen Schull (NMFS) Steve Smith (RSMAS)	Caribbean

# Data Mining

## Caribbean:

- NCCOS (2004-present)
- *Okeanos Explorer* (2015)
- *E/V Nautilus* (2013)

## Gulf of Mexico:

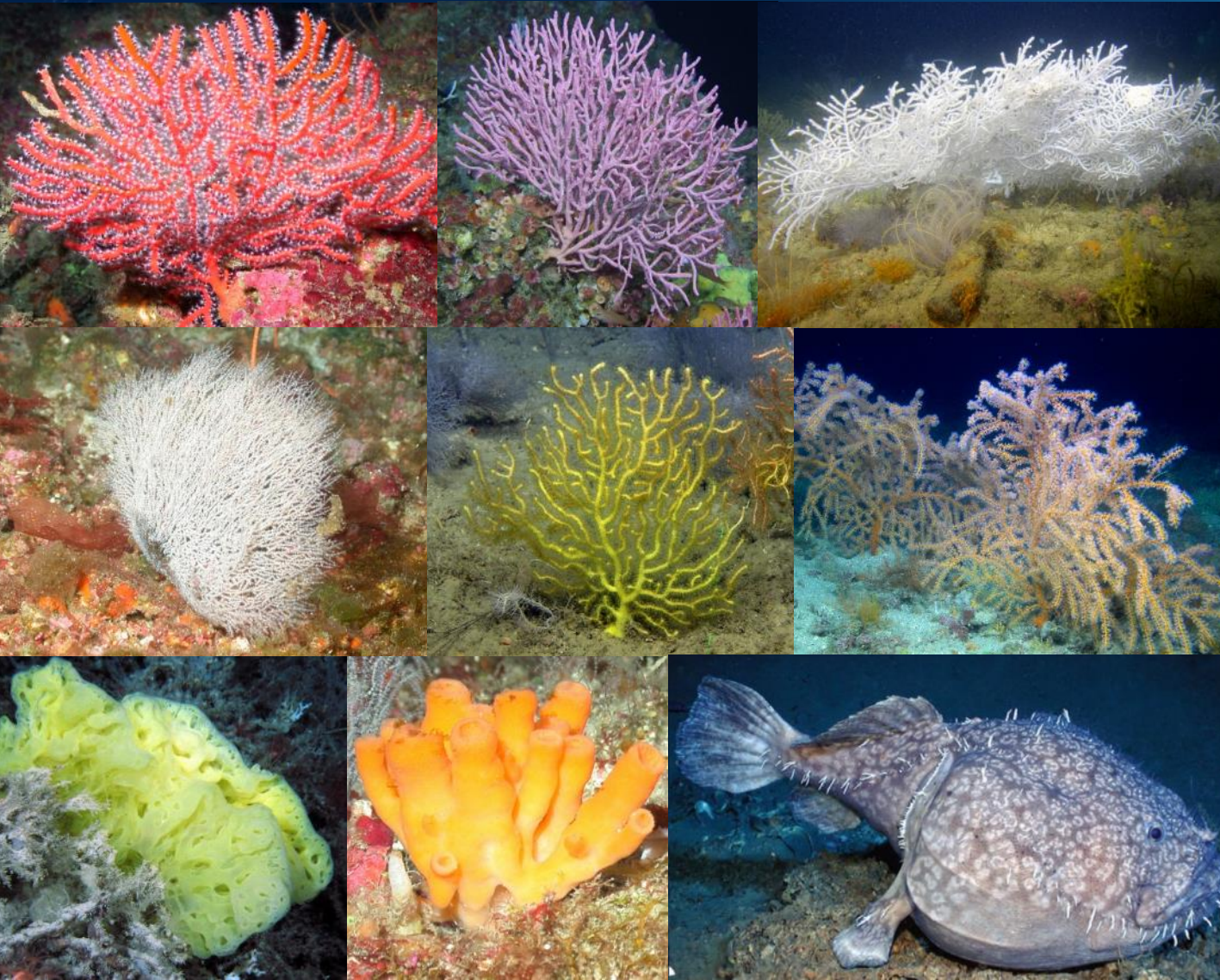
- HBOI (1986-present)
- FGBNMS (2001-present)

## South Atlantic:

- HBOI (1986-present)
- NOAA Ship *Pisces* (2010)




# Deep-Sea Species Guide




## Deep Sea ID

A Deep-Sea Field Guide




Presented By

### The World Register of Deep-Sea Species



## WoRDSS: The World Register of Deep-Sea Species



Home | Search | Search tips | Browse taxa | Deep Sea ID App | Key & updates | Images | Statistics | Contribute | Log in

### World Register of Deep-Sea Species

Welcome to the World Register of Deep-Sea Species (WoRDSS), a taxonomic database of deep-sea species based on the World Register of Marine Species (WoRMS). The database includes information for 202 deep-sea species of the International Network for Deep-Sea Research (INDS).

The primary goal of the project is to build a comprehensive database of known deep-sea species and to provide the key taxonomic information (TIC) for each species, with all data currently linked to WoRMS and their status of occurrence. A secondary goal is to accumulate high-quality specimen images of deep-sea species and to provide, where possible, the location and date of collection. The database is designed to be a central repository for deep-sea species and to provide a platform for the development of a deep-sea species checklist and to provide a platform for the development of a deep-sea species checklist.

Quick search: Scientific name

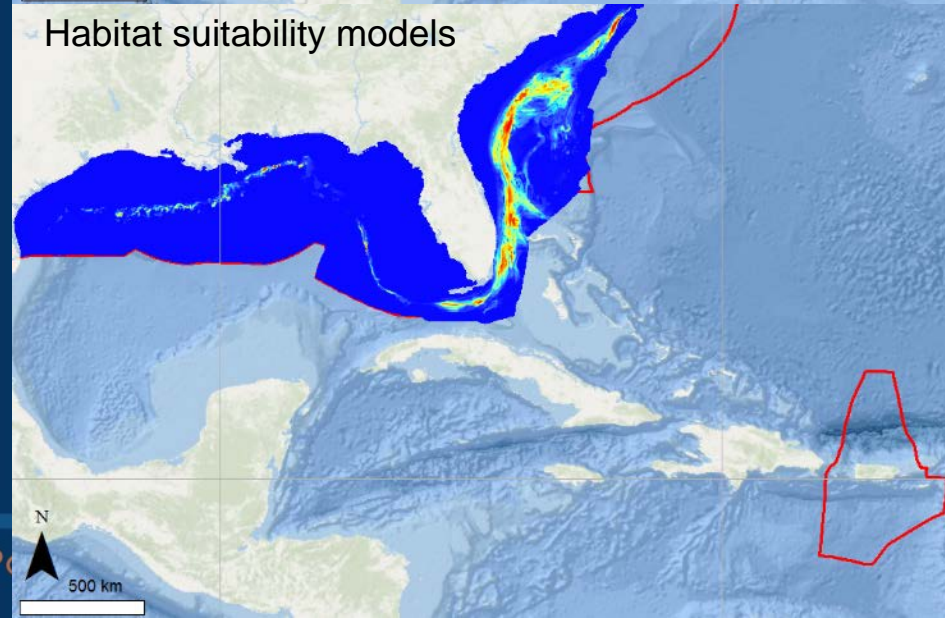
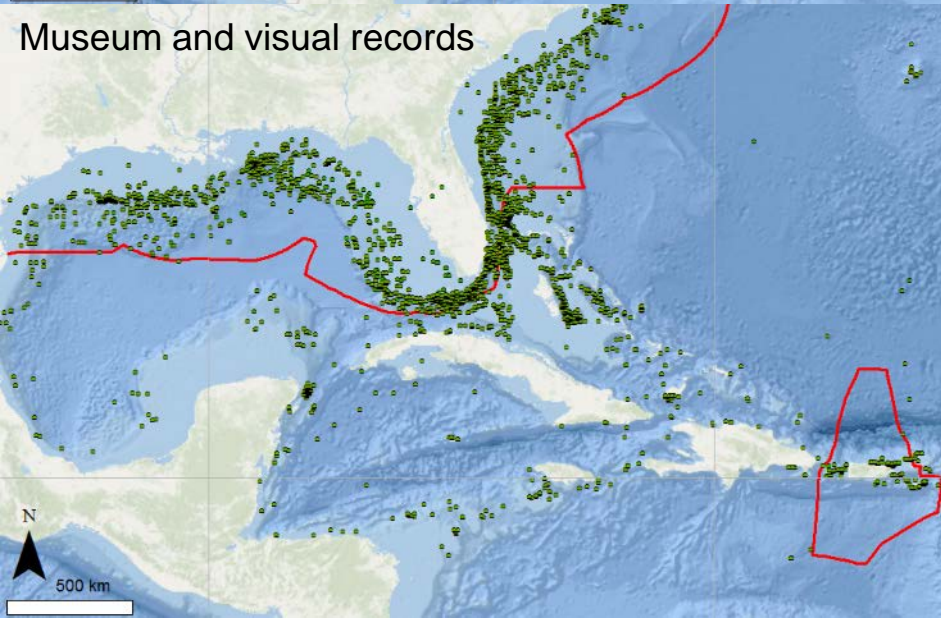
25,914 species listed

Taxons is displaying

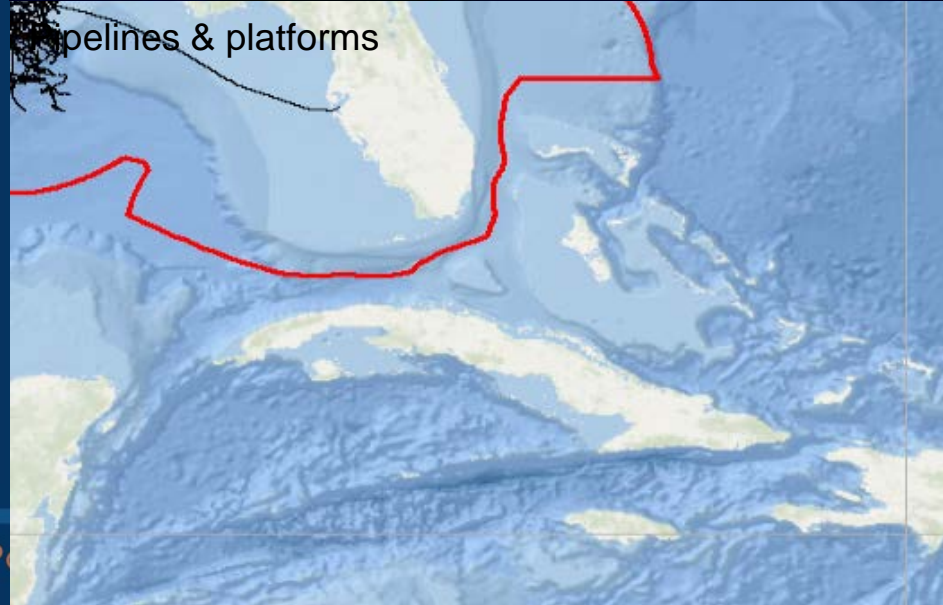
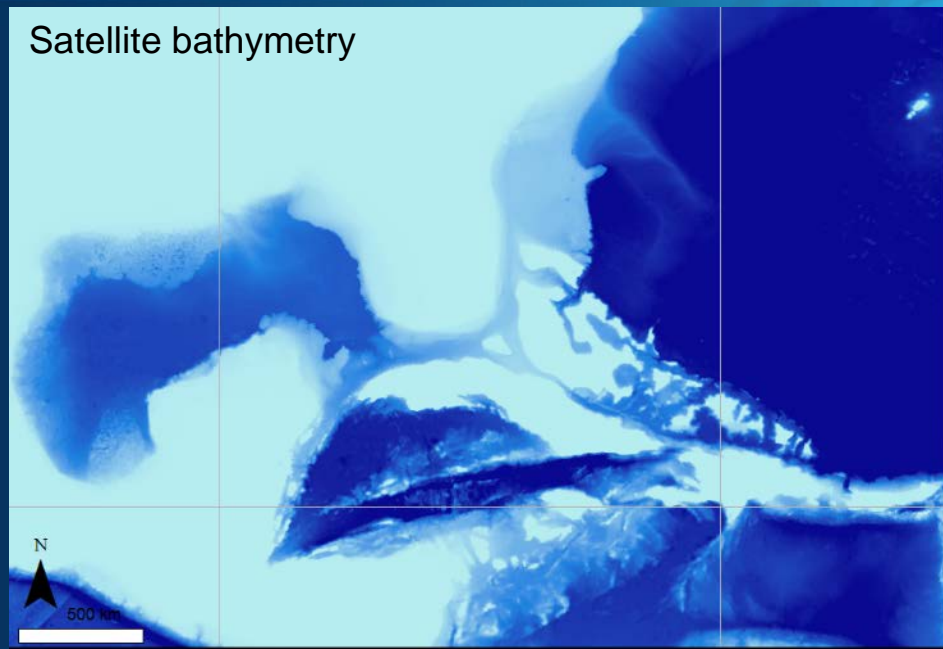
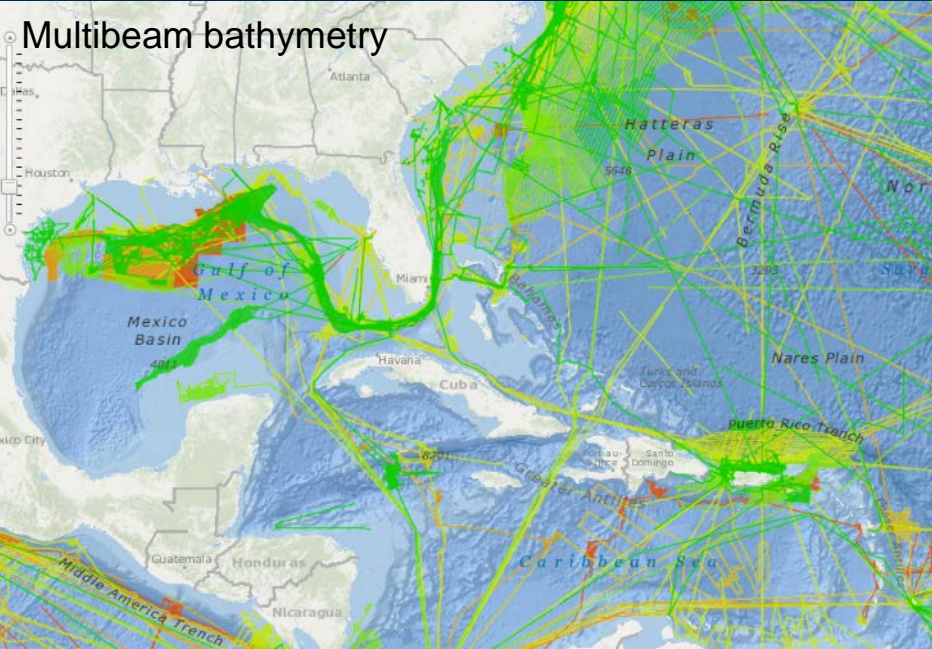
- Search tips
- Contribute
- Log in



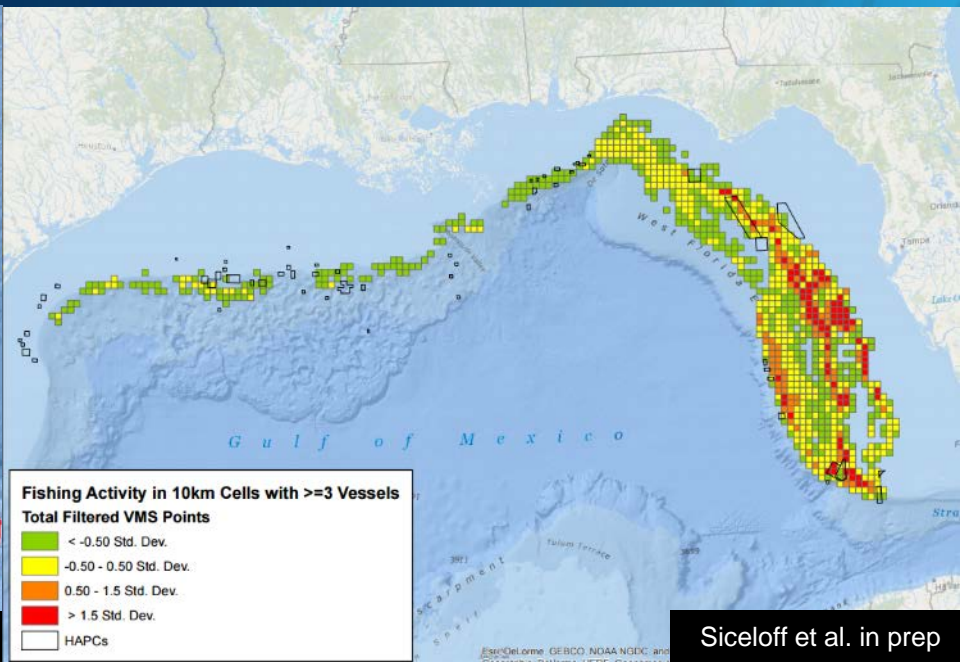
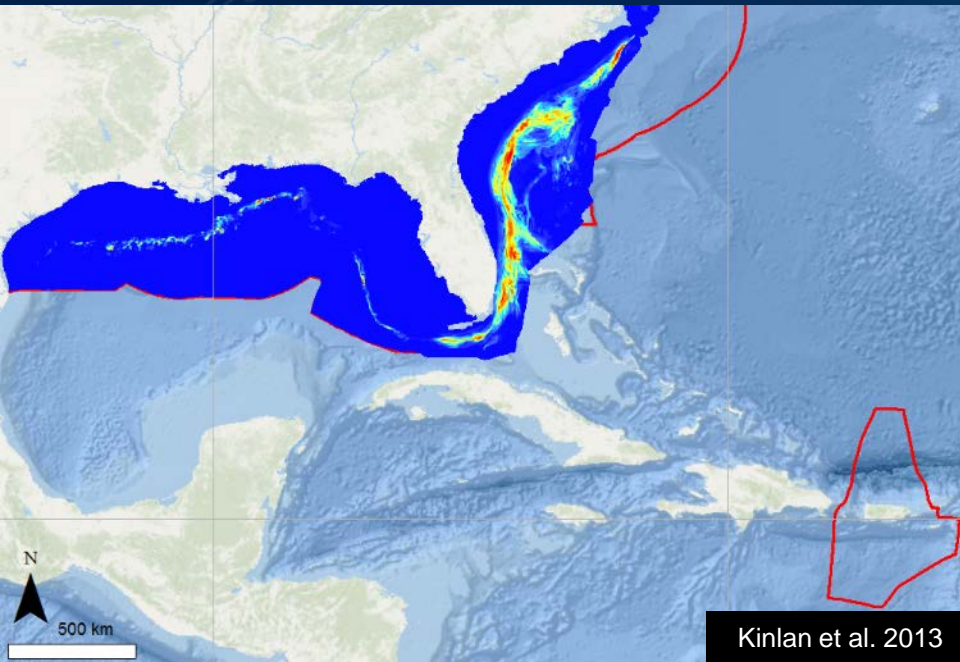
# Geodatabase



# Geodatabase



# Modeling



## Habitat suitability

- Field test existing models to refine
- New models for U.S. Caribbean

## Fishing

- Models on fishing activity
- Areas surrounding proposed protections

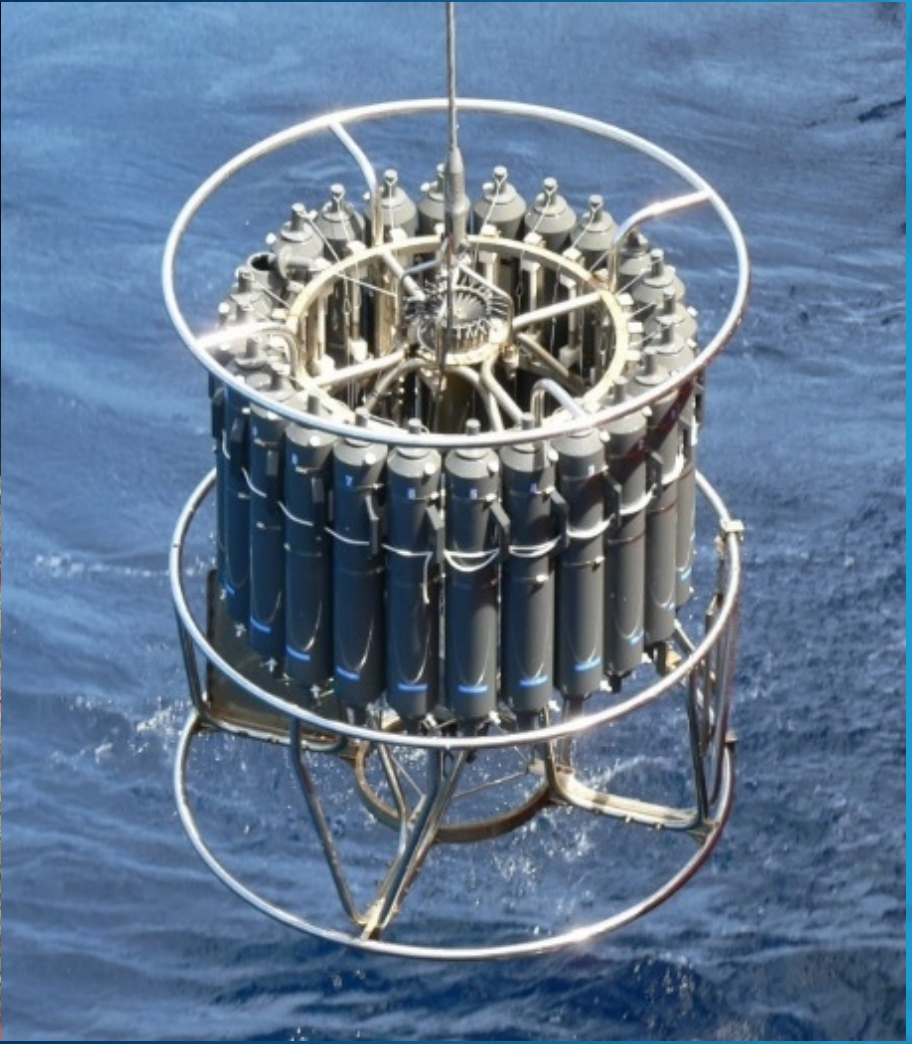
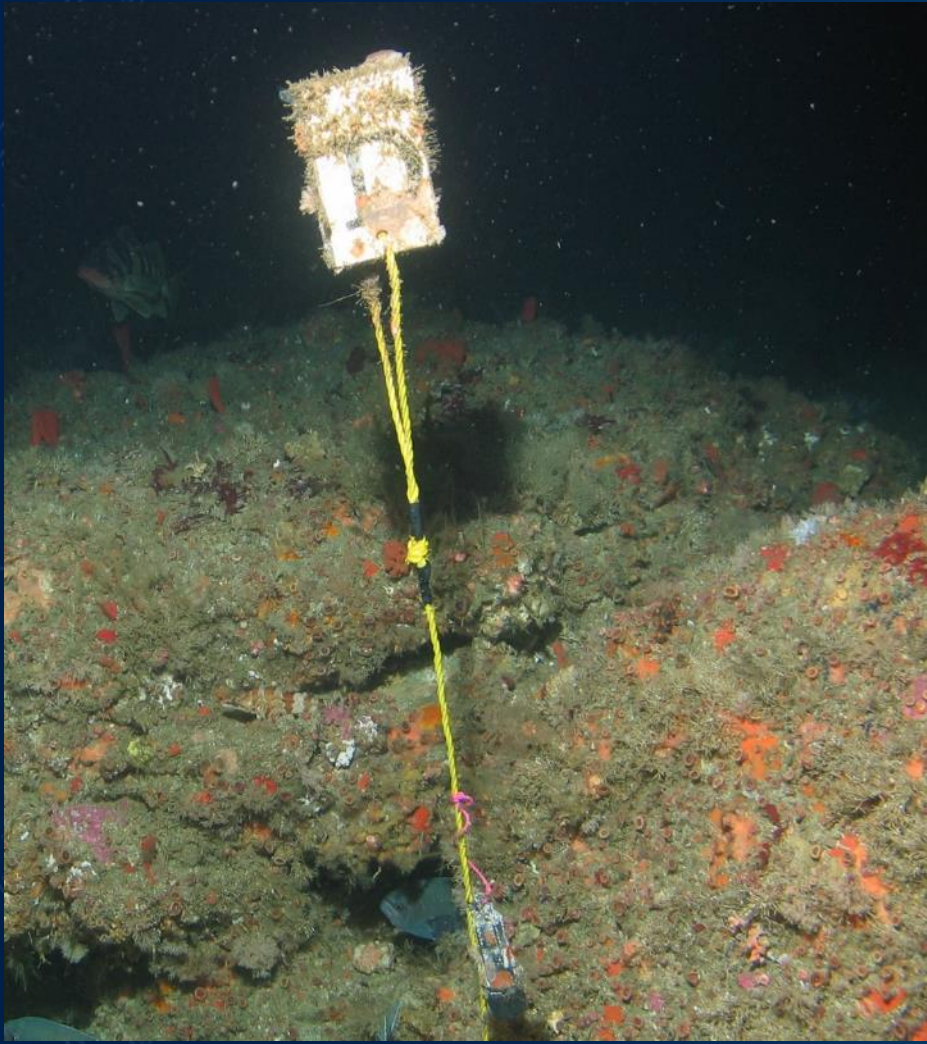


# Fishery/Citizen Science





# Environmental Monitoring



# 2016-2017 Fieldwork

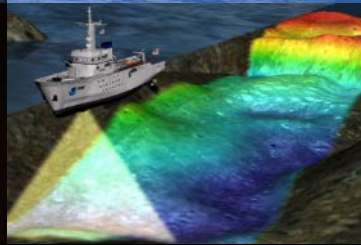
Vessel	Lead	Region	Dates	Operations
<b>2016</b>				
<i>Pisces</i>	Martha Nizinski	North Carolina Canyons	8/24-9/7	AUV <i>Sentry</i> & mapping
<i>Manta</i>	Emma Hickerson	Flower Garden Banks	9/4-9/9	ROV <i>Mohawk</i>
<b>2017</b>				
<i>Nancy Foster</i>	Peter Etnoyer	Gulf of Mexico	8/12-8/24	ROV & mapping
<i>Nancy Foster</i>	Daniel Wagner	South Atlantic Bight	8/27-8/31	Mapping
<i>Pisces</i>	Martha Nizinski	North Carolina Canyons	8/27-9/7	AUV <i>Sentry</i> & mapping
<i>Manta</i>	Emma Hickerson	Flower Garden Banks	Sept.-Oct. (TBD)	ROV <i>Mohawk</i>



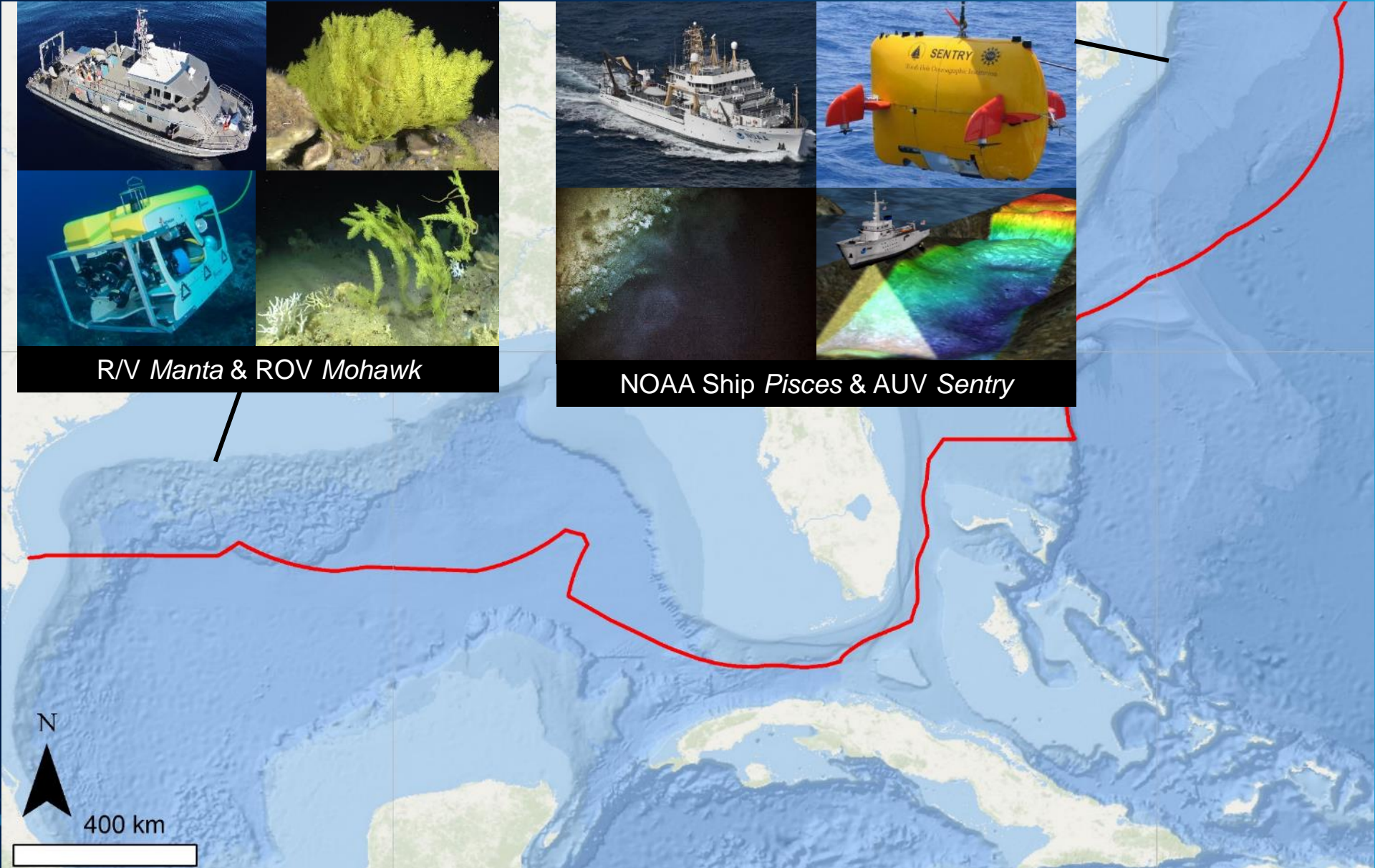
# 2016 Fieldwork



R/V Manta & ROV Mohawk



NOAA Ship *Pisces* & AUV *Sentry*



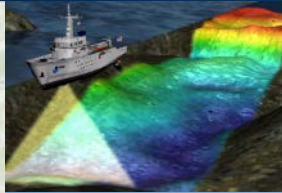
# 2017 Fieldwork



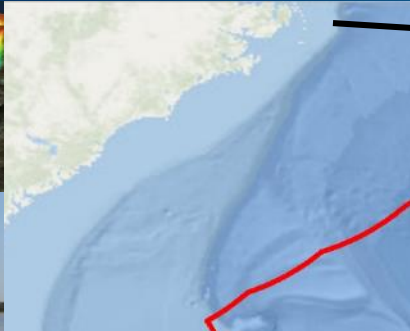
R/V Manta



Nancy Foster



Nancy Foster



NOAA Ship Pisces



N

500 km

# 2018 Planned Fieldwork



## **NOAA Ship *Okeanos Explorer***

2 proposals:  
*South Atlantic*  
*Gulf of Mexico*

## **NOAA Ship *Nancy Foster***

2 proposals:  
*South Atlantic*  
*Caribbean*



# Education/outreach



**NOAA** TEACHER AT SEA  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



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## Ernest F. Hollings Undergraduate Scholarship

2017 applications are now closed. The application will open again in September.



### Ernest F. Hollings Undergraduate Scholarship

About the Honorable Senator Ernest F. Hollings

- [News and Impacts](#)
- [Prospective Scholars](#)
- [Current Scholars](#)
- [NOAA Mentors](#)
- [Alumni Stories](#)
- [Office of Education](#)

# Our Team

Name	Affiliation
<b>DSCRTP</b>	
Tom Hourigan	NMFS/DSCRTP
Heather Coleman	NMFS/DSCRTP
<b>Leadership &amp; Coordination</b>	
Peter Etnoyer	NOS/NCCOS
Daniel Wagner	NOS/NCCOS
Jennifer Schull	NMFS/SEFSC
<b>Science Team</b>	
Tim Battista	NOS/NCCOS
Andrew David & Stacey Harter	NMFS/SEFSC
Amanda Netburn	OAR/OER
Martha Nizinski	NMFS/NSL
G.P. Schmahl & Emma Hickerson	NOS/FGBNMS

Name	Affiliation
<b>Project Leads</b>	
Matt Poti	NOS/NCCOS
Travis Sterne & Marissa Nuttall	NOS/FGBNMS
John Reed	HBOI
George Sedberry	NOS/GRNMS
Steve Smith	RSMAS
<b>Data Management</b>	
Robert McGuinn	NOS/NCCOS
Matt Dornback	NESDIS/NCEI
<b>Fishery Management Councils</b>	
Morgan Kilgour	GMFMC
Graciela Garcia-Moliner	CFMC
Chip Collier	SAFMC



**NOAA FISHERIES**



**Research**

INNOVATE INCUBATE INTEGRATE



**Ocean Exploration and Research**



NATIONAL MARINE SANCTUARIES



Caribbean Fishery Management Council  
CFMC



South Atlantic Fishery Management Council  
"To Conserve and Manage"



GULF OF MEXICO Fishery Management Council



National Centers for Environmental Information

**HARBOR BRANCH**

FLORIDA ATLANTIC UNIVERSITY\*

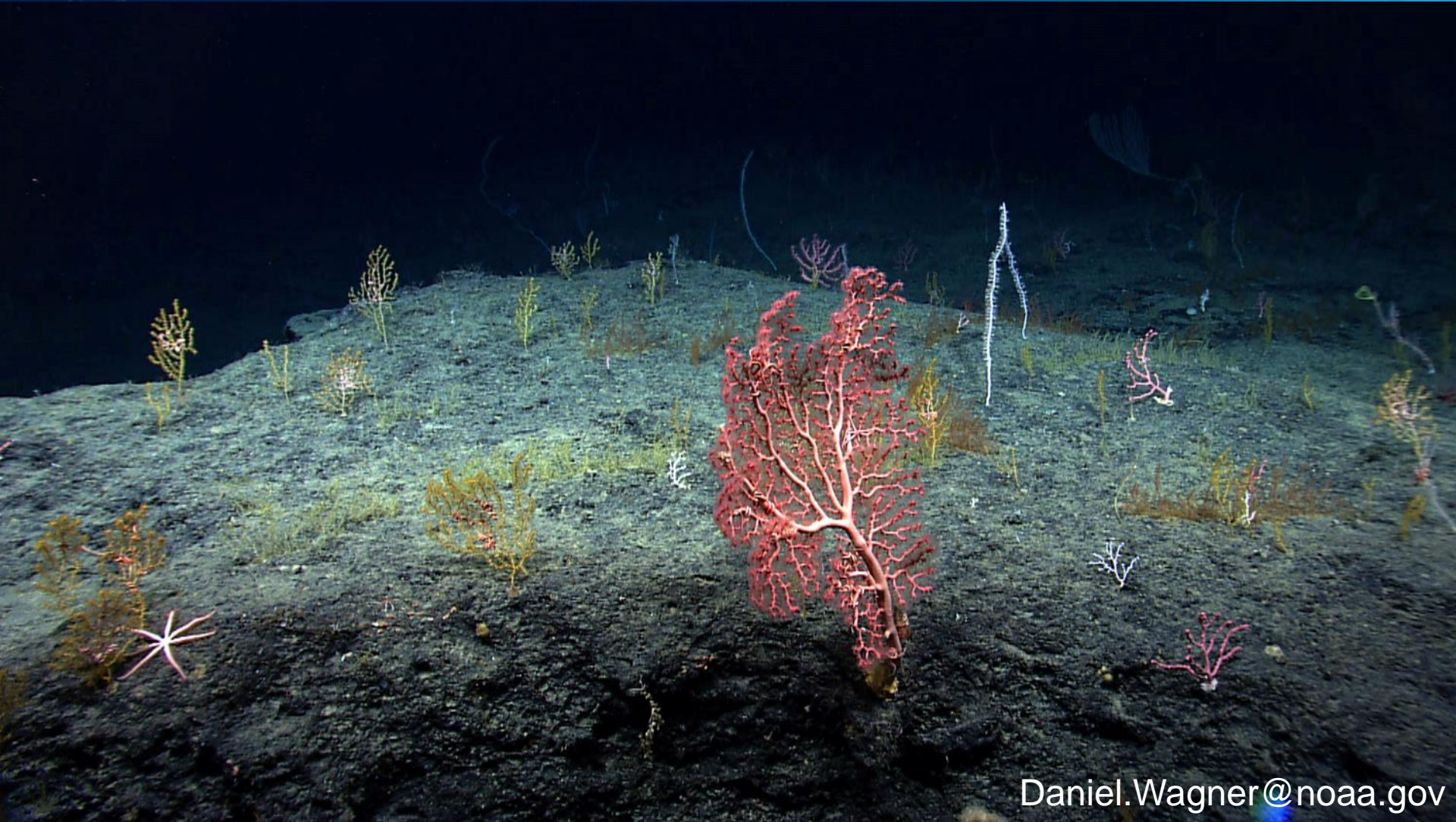
UNIVERSITY OF MIAMI  
ROSENSTIEL SCHOOL of MARINE & ATMOSPHERIC SCIENCE



Smithsonian



# Thank you!



Daniel.Wagner@noaa.gov



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POSITIONING AMERICA FOR THE FUTURE