

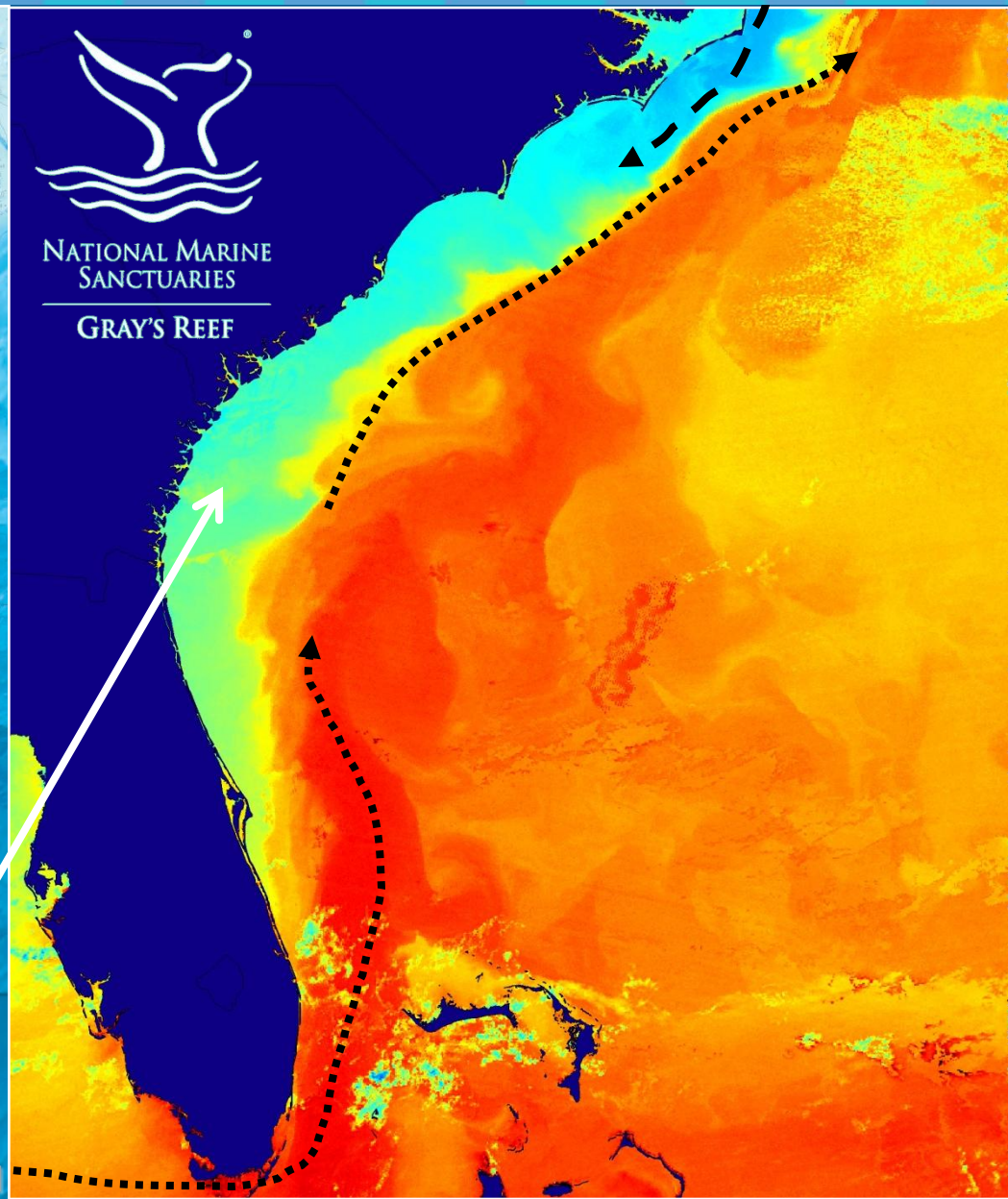
Research Update for Gray's Reef National Marine Sanctuary

Georgia Coastal Research Colloquium
22 September 2011

George Sedberry (george.sedberry@noaa.gov)



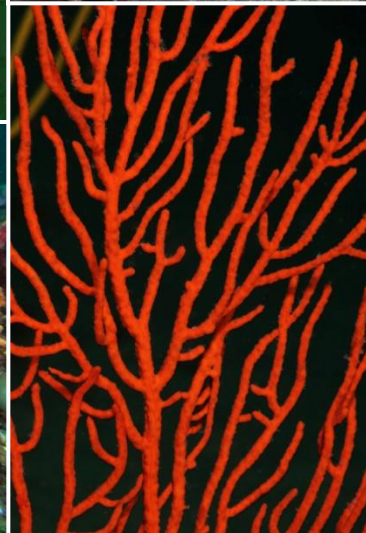
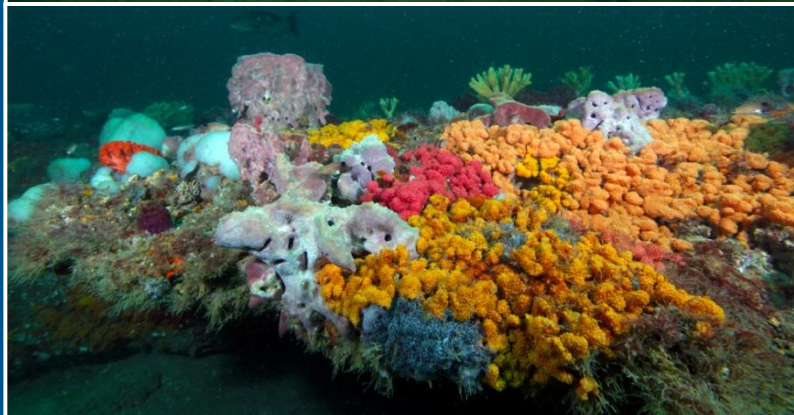
Gray's Reef National Marine Sanctuary



“Live-Bottom Habitat”



- Rocky substrate with “carpet” of attached organisms
- Foundation for sessile benthic invertebrates
- Habitat and prey for mobile invertebrates and a variety (201 spp.) of fishes; also turtles and Atlantic right whales



GRNMS Assets: Facilities and Vessels



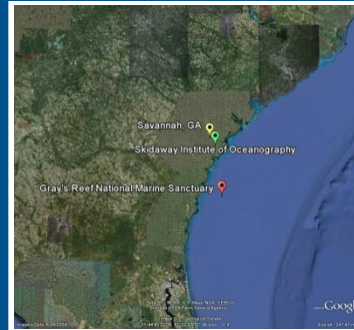
R/V Joe Ferguson



R/V Sam Gray



SRVx



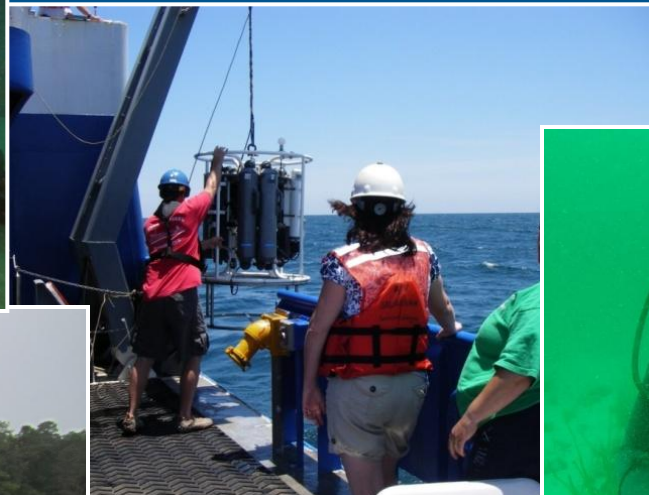
**Campus of the
Skidaway
Institute of
Oceanography**



GRMS Offices

GRNMS is an Important Research Site

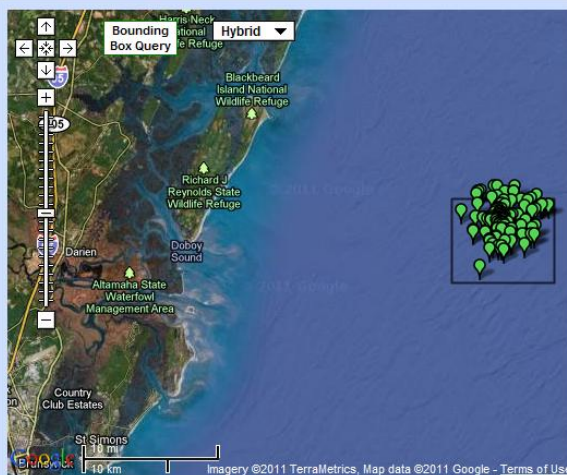
Over 70 publications on
GRNMS



Ocean Biodiversity Information System (OBIS) - USA

NBII Home > Habitats > Marine > Marine Data (OBIS-USA) > Geographic Search

Marine
Marine Data (OBIS-USA)
Atlas
Contributing Data
Data Dashboard
Data Richness
Date Quality
Duplication Status
General Metadata
Geographic Search
Participants
Policies and Disclaimer
Taxonomic Depth



Start Over Refresh the Current Bounding Box

Dataset Summary

Dataset	# of records
MARMAP_ChevronSurvey	314
Access 314 Records	
View MARMAP_ChevronSurvey Metadata	
NAS_NonFreshwaterSpecimens	2
Access 2 Records	
View NAS_NonFreshwaterSpecimens Metadata	
NMNH-IZ	2,932
Access 2,932 Records	
View NMNH-IZ Metadata	
NMNH-VZFishes	43
Access 43 Records	
View NMNH-VZFishes Metadata	
NOAA_NBI	8,120
Access 8,120 Records	
View NOAA_NBI Metadata	
SEFSC_Atlantic_1998	1
Access 1 Records	
View SEFSC_Atlantic_1998 Metadata	
SEFSC_Atlantic_1999	1
Access 1 Records	
View SEFSC_Atlantic_1999 Metadata	
SERTC	42
Access 42 Records	
View SERTC Metadata	

In-Depth Analysis

The In-Depth Analysis provides more detailed viewing and download capability, for example, by Taxon, Date or Depth Range. It will take longer than the Quick Analysis.
Please be patient!

OBIS-USA Analysis for this Bounding Box

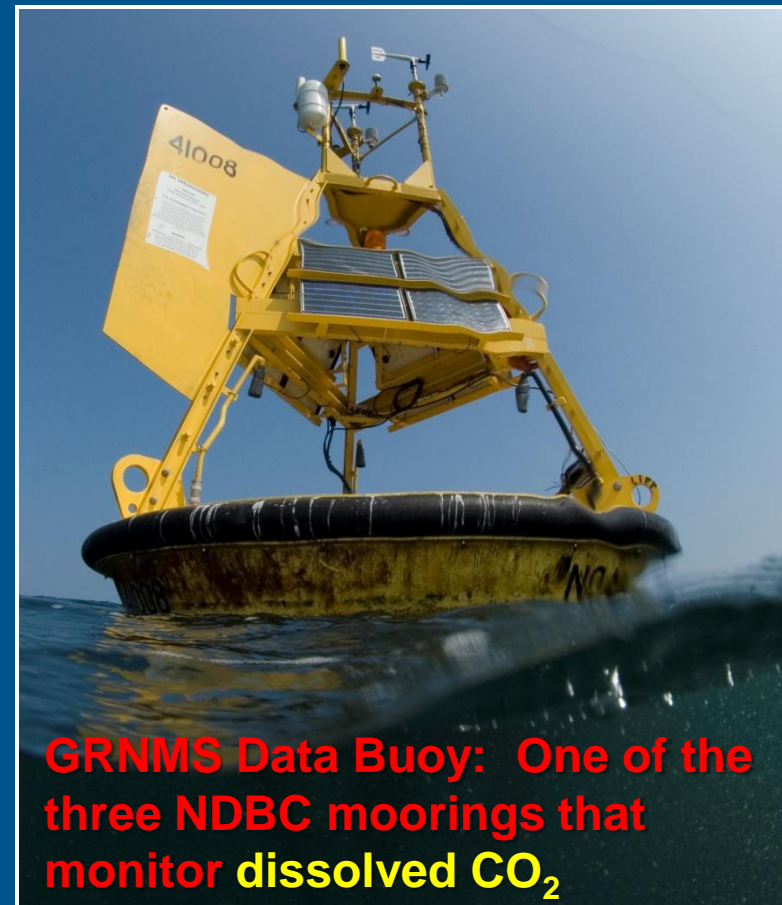
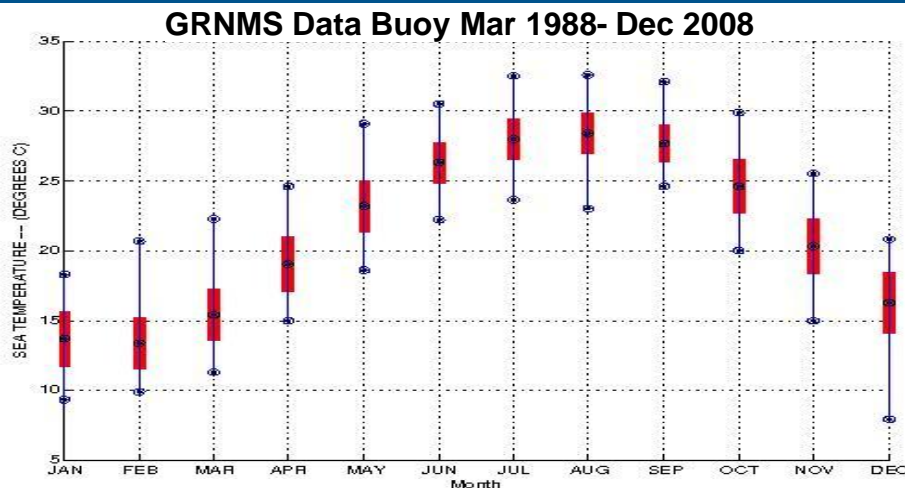
Total Records Found: 11,455
Representing Datasets: 8
Access All 11,455 Records
Total Observation Locations: 123

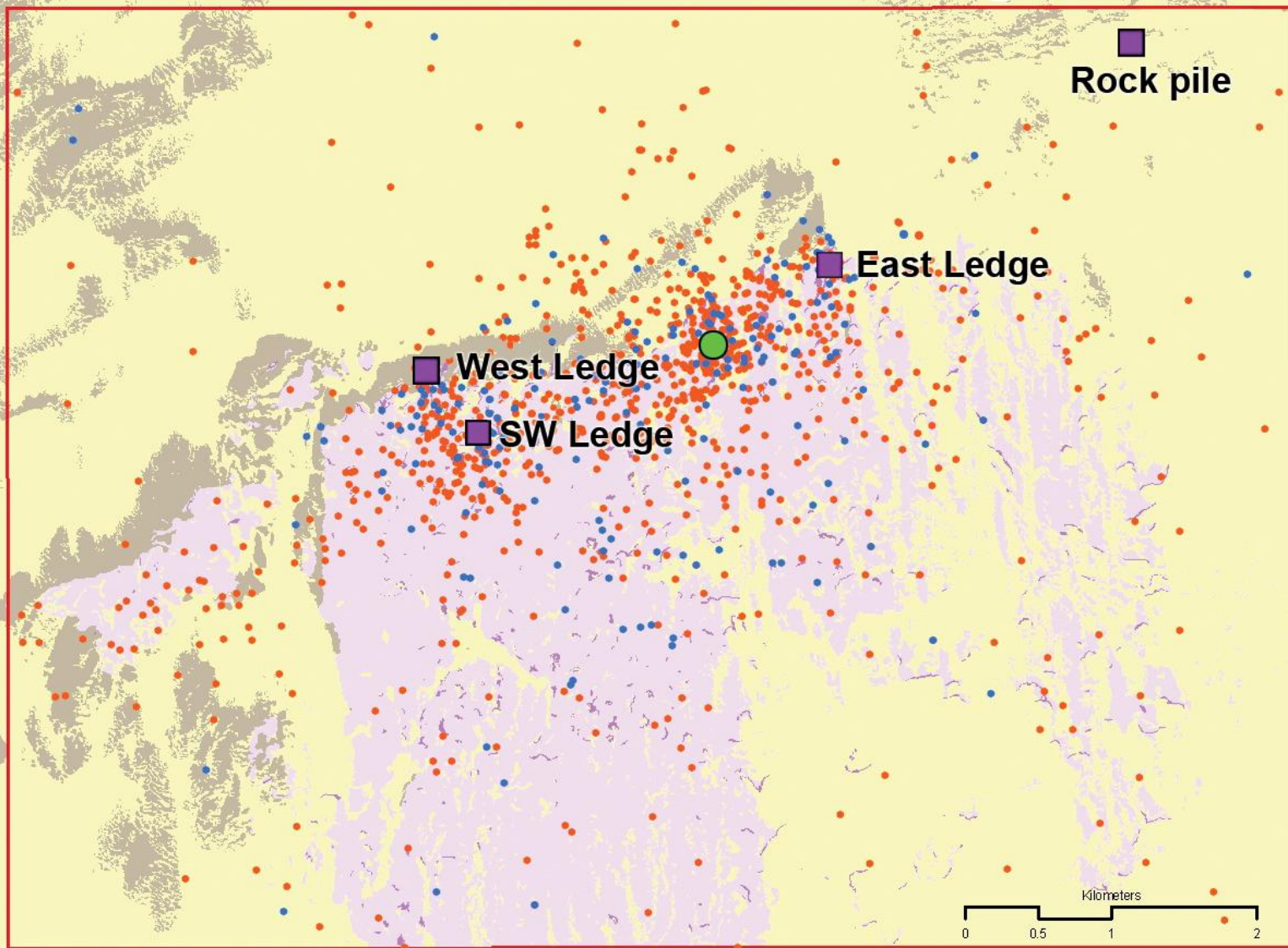


OBIS-USA: Monitoring Biodiversity Through the Census of Marine Life

Climate Change and GRNMS

- GRNMS data buoy provides long-term temperature data: A sentinel site for climate change, ocean acidification, etc.
- Other long-term monitoring data available
- GRNMS geographic location is especially valuable





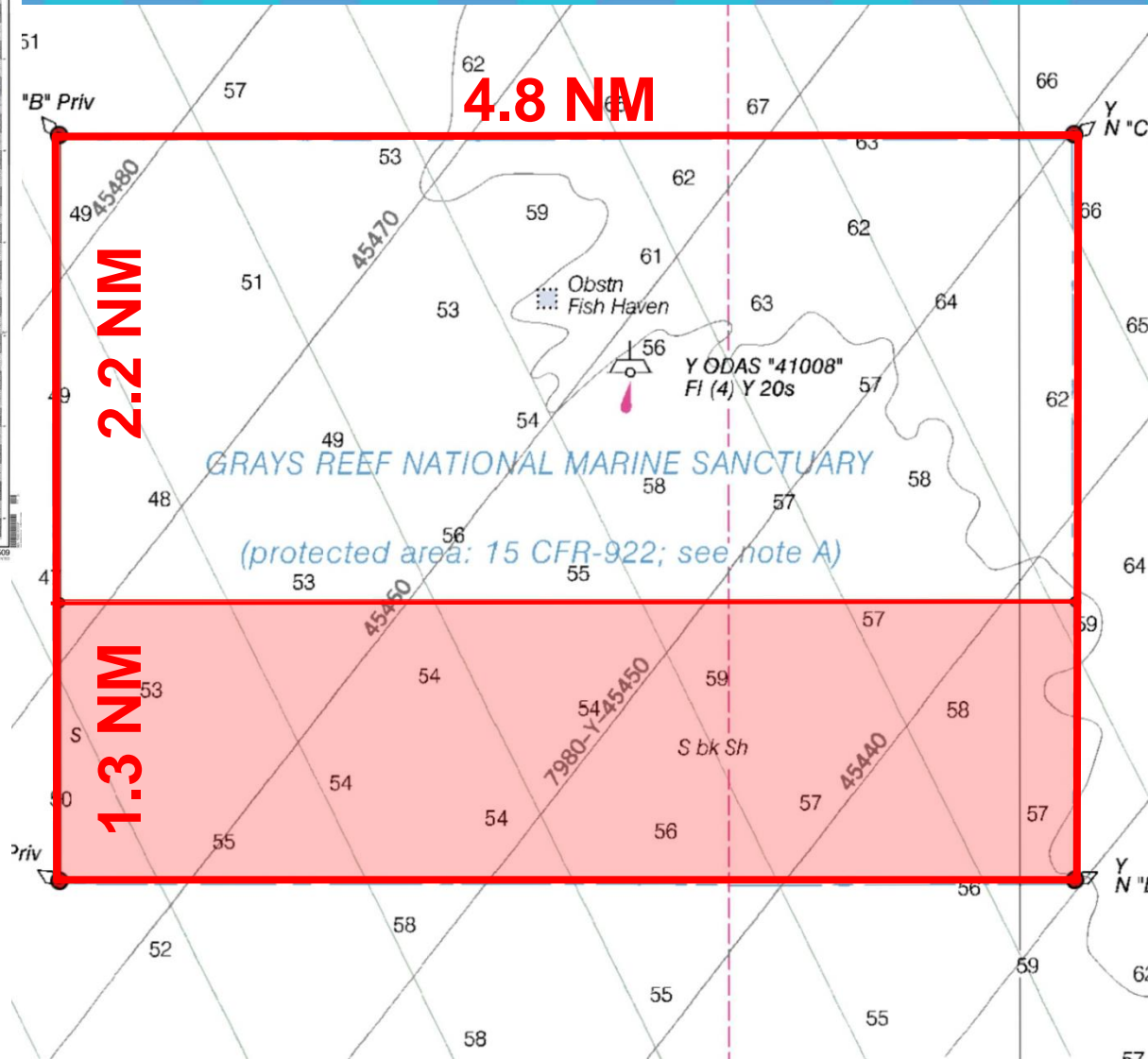
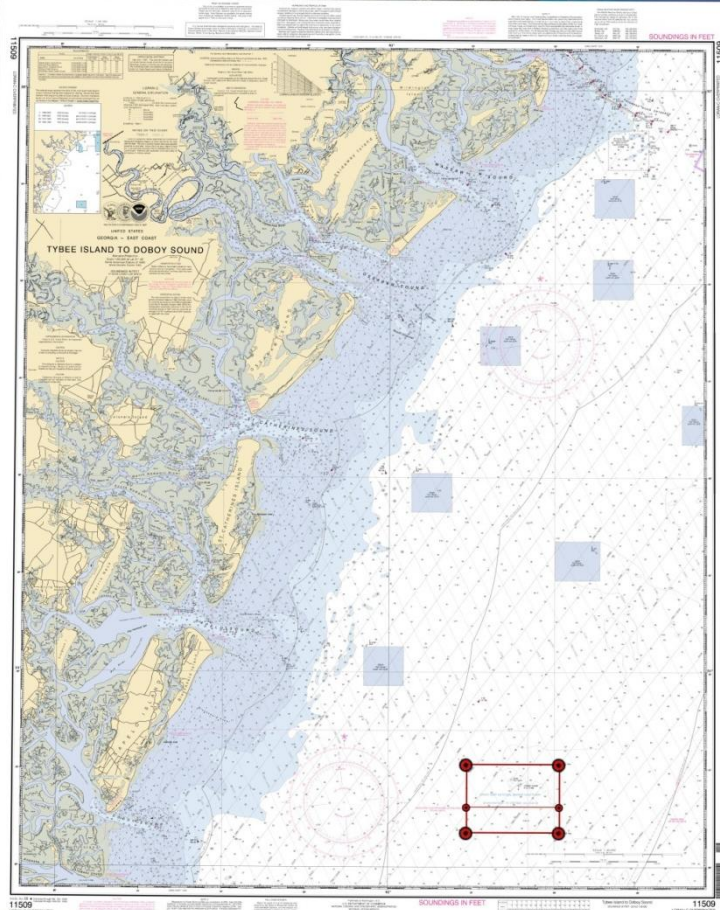
Habitat Map of Gray's Reef National Marine Sanctuary

**Boat Use
Locations
Indicated
N=1140
1998-2007 Data**

- Flat sand
- Rippled sand
- Sparsely colonized live bottom
- Densely colonized live bottom (Ledge)
- GRNMS Boundary

- Fishing locations
- Buoy
- Boats (Nov-Apr)
- Boats (May-Oct)

GRNMS Research Area



Gray's Reef National Marine Sanctuary Research Area

- **What are the research questions?**
 - What impacts - *if any* - does fishing and associated impacts have on the reef? Is fishing an impact?
 - What impacts does fishing have on overall fish and invertebrate community?
 - Does fishing affect fish size, movements, spawning?
 - What variability in the natural system is independent of human impact?
 - How well is NOAA conserving the resources of Gray's Reef National Marine Sanctuary?
 - **Lionfish!**



2011 Fishing/No Fishing Comparison Site Selection

