



# Help Advance the Coastal and Marine Spatial Planning Program: Information Available at CFMC

**Graciela García-Moliner**

**Caribbean Fishery Management Council**

**CROP Meeting**

**March 13 2013**

**Double Tree by Hilton, San Juan, Puerto Rico**



# U.S. Caribbean Areas of Jurisdiction Áreas Jurisdiccionales del Caribe Americano

## FEDERAL AND STATE WATERS AROUND PUERTO RICO AND THE US VIRGIN ISLANDS.



*Puerto Rico State waters 9 nm (10.35 mi); USVI State waters 3 nm*

<http://www.caribbeanfmc.com>



# Caribbean Fishery Management Council

Conserving, Restoring and Managing the United States Caribbean Fishery Resources, in the EEZ Around Puerto Rico and the United States Virgin Islands

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## CFMC FISHERY MANAGEMENT PLANS

### SPINY LOBSTER, *Panulirus argus*



1



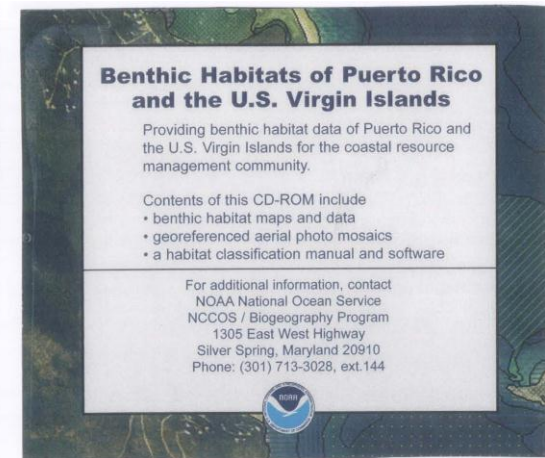
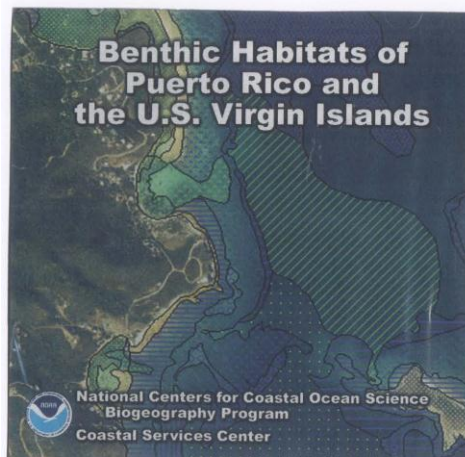
2

spiny lobster, *Panulirus argus*, photos: 1 Michelle Schärer Umpierre ©, 2 NOAA Galleries

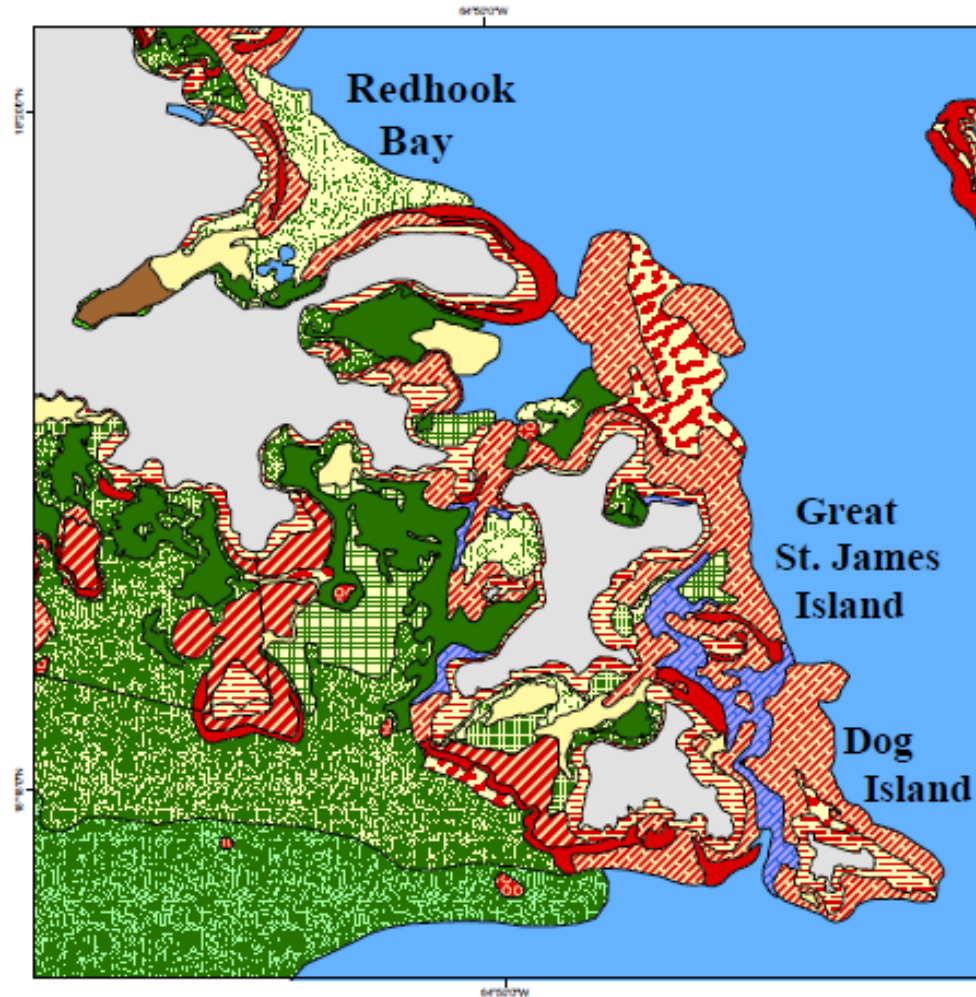
- Visit [NMFS](#) for latest information
- [Fishery Management Plan](#) (pdf)
- [Amendment 1](#) (pdf)
- [Stock Assessment](#) (pdf)
- Caribbean, Gulf of Mexico and Atlantic - spinylobster [Amendment 4/8](#) and FEIS
- Dec 1984 -SL Regulation.pdf

# Definitions

- EFH (essential fish habitat) means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (Magnuson-Steven Fishery Conservation and Management Act).



# Marine Benthic Habitat Maps 1998-2001



## Habitat

Sand	Macroalgae/Patchy/10-50%	Hardbottom/Reef Rubble
Mud	Reef/Linear Reef	Hardbottom/Uncol. Pav.
Seagrass/Continuous	Reef/Spur and Groove Reef	Hardbottom/Uncol. Bedrock
Seagrass/70-90%	Reef/Patch Reef (Individual)	Hardbot./Uncol. Pav. with Chan.
Seagrass/50-70%	Reef/Patch Reef (Aggregated)	Land
Seagrass/30-50%	Reef/Scattered Coral-Rock	Mangrove
Seagrass/10-30%	Reef/Colonized Pavement	Artificial
Macroalgae/Continuous	Reef/Colonized Bedrock	Unknown
Macroalgae/Patchy/50-90%	Reef/Col. Pav. with Chan.	No Attributes

**CFMC Managed Areas and shared jurisdiction management**

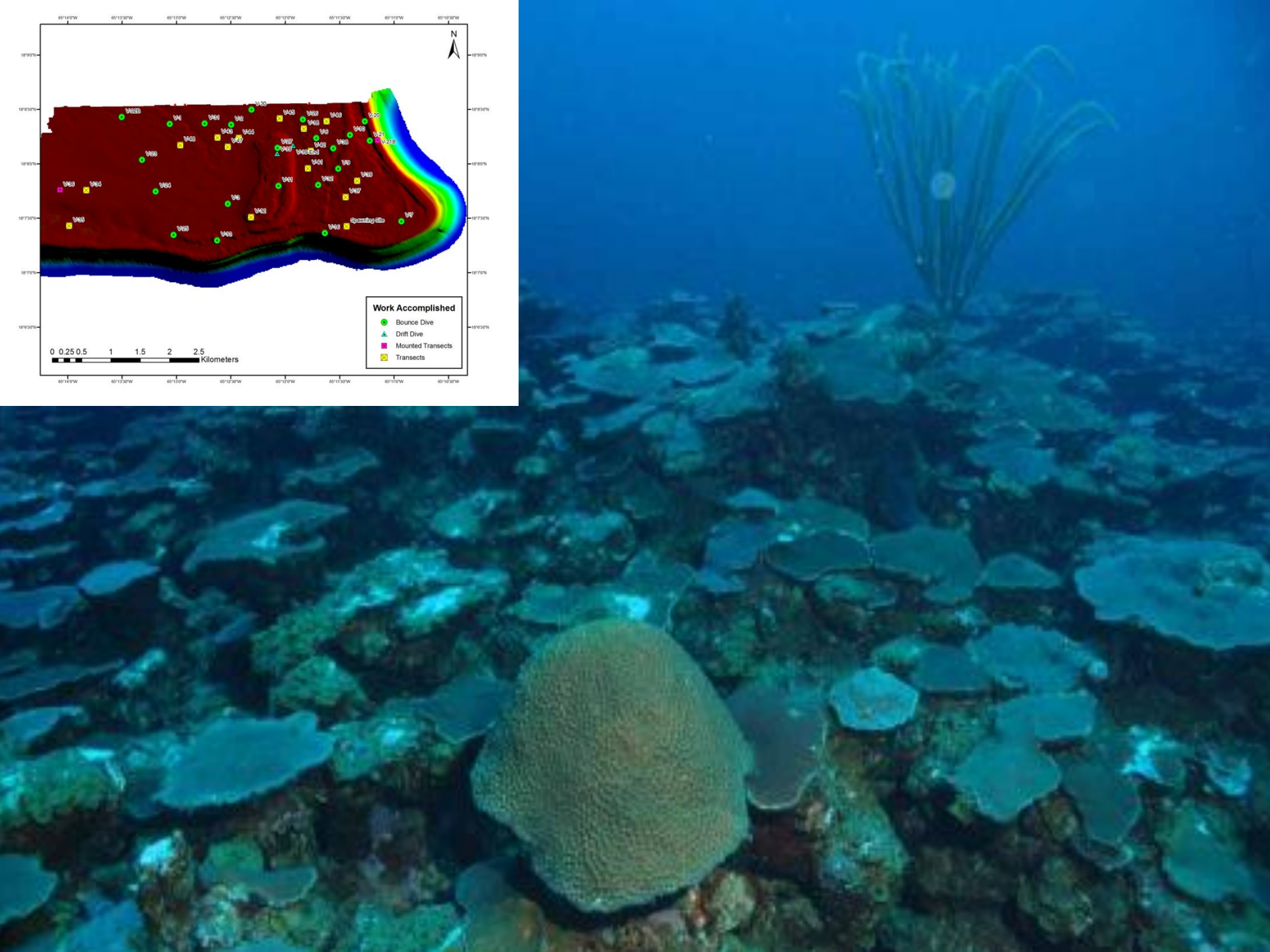
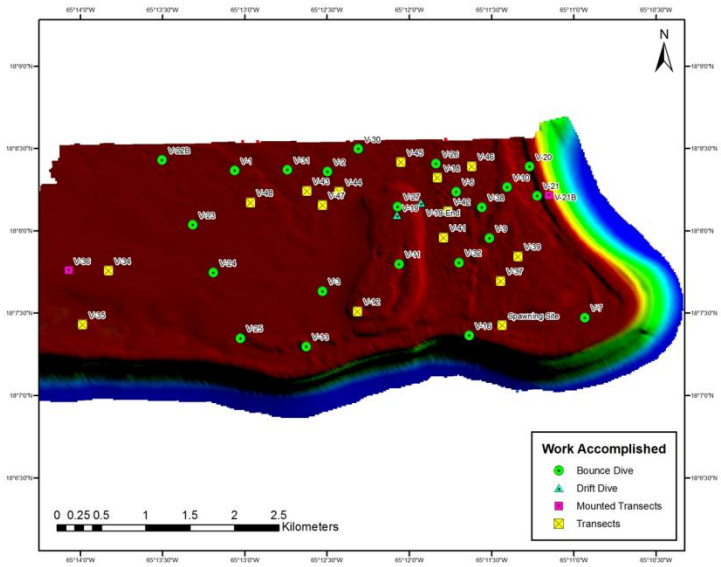
Name of Area and location	Jurisdiction	Area (nm2)	Year Implemented/ Changes in management	Species Protected	Season	Management	FMP
Hind Bank, St. Thomas	Federal	16	1990	Red hind/all species	Dec-Feb	No fishing	RF A1
	Federal	16	1999	Coral/ all fish species/lobster /conch	Year round	No Take	Coral A1
Tourmaline Bank, West coast PR	Federal /State	15	1993	Red hind/all species	Dec-Feb	No fishing	RF A2
	Federal /State	9/(5.2 Federal)	1996	Red hind/all species	Dec-Feb	No fishing	RF Reg A2 /Administrative Order 96-09 DNER
	Federal /State	9/(5.2 Federal)	2005/2007	All species/Corals	Year round	No bottom tending gear	SFA RF A3 /Regulation Num. 7326
Lang Bank, St. Croix	Federal	~3	1993	Red hind/all species	Dec-Feb	No fishing	RF A2
	Federal	~3	2005	All species/Corals	Year round	No bottom tending gear	SFA /RF A3
Mutton snapper Area	Federal/State	~2/(<1 Federal)	1993/1994/1996	Mutton snapper	Mar-Jun	No fishing	RFA2 /USVI code/RF Reg A1
	Federal	~2/(<1 Federal)	2005	All species/Corals	Year round	No bottom tending gear	SFA /RF A3
Bajo de Cico, West coast PR	Federal /State	9/(7.4 Federal)	1996	Red hind/all species	Dec-Feb	No fishing	RF Reg A2 /Administrative Order 96-09 DNER
	Federal/State	9/(7.4 Federal)	2005	All species/Corals	Year round	No bottom tending gear	SFA RF A3 /Regulation Num. 7326
Abrir La Sierra, West Coast PR	Federal	9	1996	Red hind/all species	Dec-Feb	No fishing	RF Reg A2
	Federal	9	2005	All species/Corals	Year round	No bottom tending gear	SFA /RF A3
Grammanik Bank, St. Thomas	Federal	6.88	2005	Yellowfin grouper/all species	Feb-April	No Fishing	RF Interim Rule

# What are the priorities?

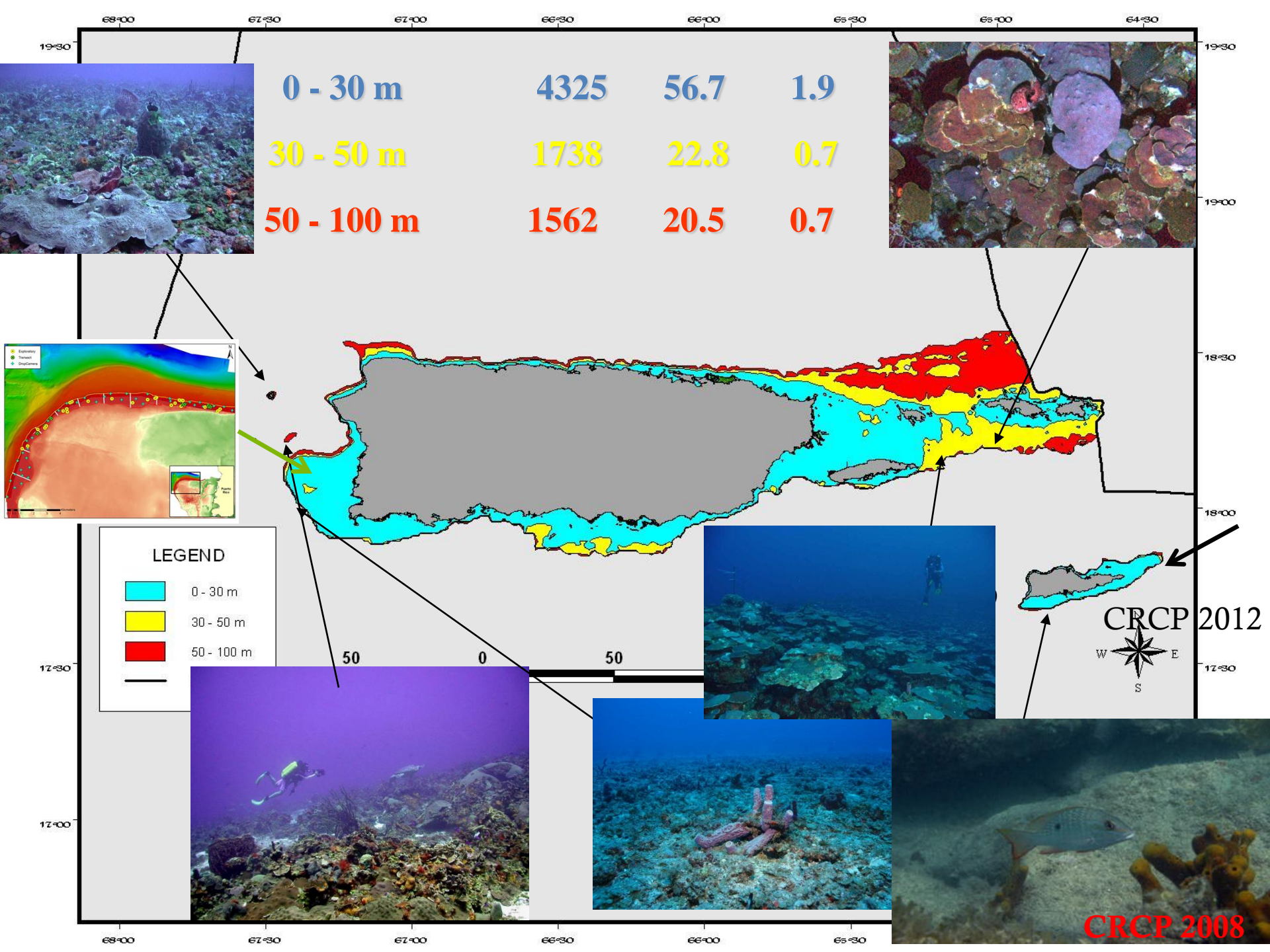
- To identify habitats
- To characterized uncharted areas
- To acquire a permanent record
- To determine the condition of the habitats
- To identify fish and macro-invertebrates
- To associate fish species with habitats



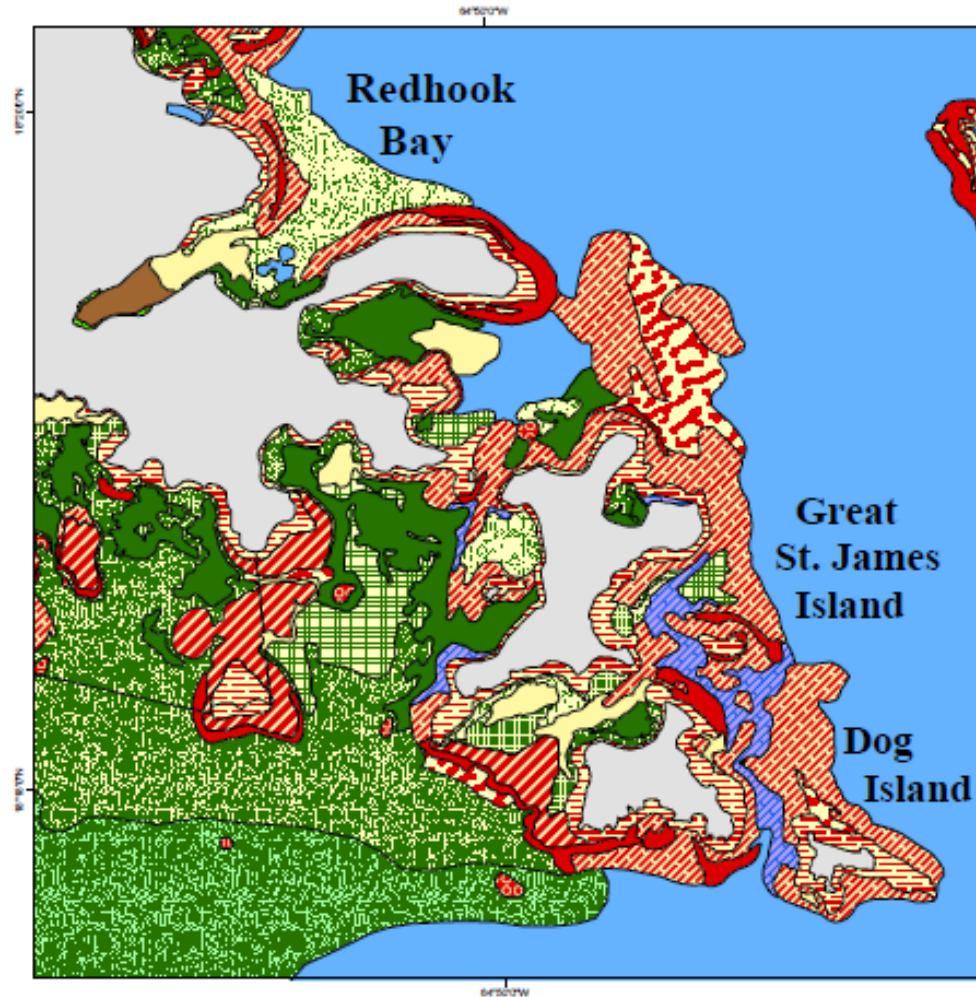
<b>CFMC CORAL GRANTS</b>			
<b>Year</b>	<b>Grant Number</b>	<b>Project Area</b>	<b>Title</b>
2003	NA03NMF4410352		Inventory and Atlas of Corals and Coral Reefs, with Emphasis on Deep-Water Coral Reefs from US Caribbean EEZ
2004	NA04NMF4410345	PR	Biological Assessment and Habitat Mapping at Bajo de Sico, PR
2005	FNA05NMF4411046	USVI	Characterization of deep water reef communities within the Marine Conservation District, St. Thomas, USVI
2006	FNA06NMF4410079	USVI	Assessment and Development of Recreational Fishing Regulations for the USVI
2007	NA07NMF4410117	PR	Biological Assessment of the Upper Reef Slope Community and Mapping of Benthic Habitats at Abrir la Sierra, PR
2008	NA08NMF4410463	STX/USVI	Assessment of the Mutton snapper ( <i>Lutjanis analis</i> ) spawning aggregation and the benthic community within the St. Croix Mutton snapper spawning aggregation closed area
2009	NA09NMF4410037	Vieques, PR	Characterization of Benthic Habitats and Associated Coral Reef Communities at El Seco, Southeast Vieques, PR
<b>2010</b>	FNA10NMF4410060	West Coast PR	Fisheries independent survey of commercially exploited fish and shellfish populations from mesophotic reefs within the Puertorrican EEZ
<b>2011</b>		West Coast PR	Characterization of benthic habitats and associated coral reef communities at Tourmaline Reef, PR
<b>2012</b>		Lang Bank, STX	Characterization of benthic habitats and associated coral reef communities at Lang Bank, St. Croix, USVI
<b>2013</b>		Monna Passage PR	Characterization of Deep Reef Benthic Habitats of Queen Snapper in Mona Passage, PR







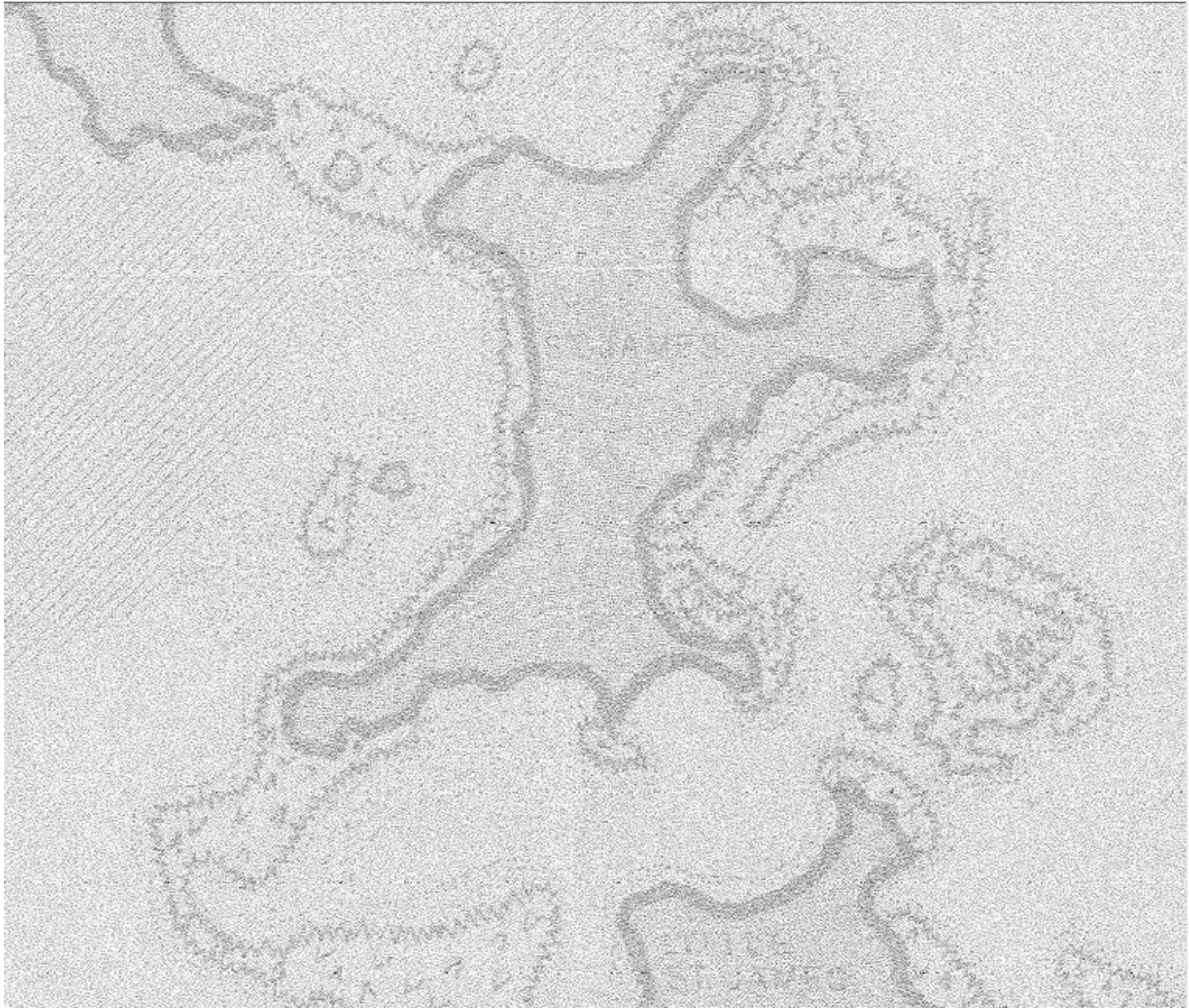
# Marine Benthic Habitat Maps 1998-2001



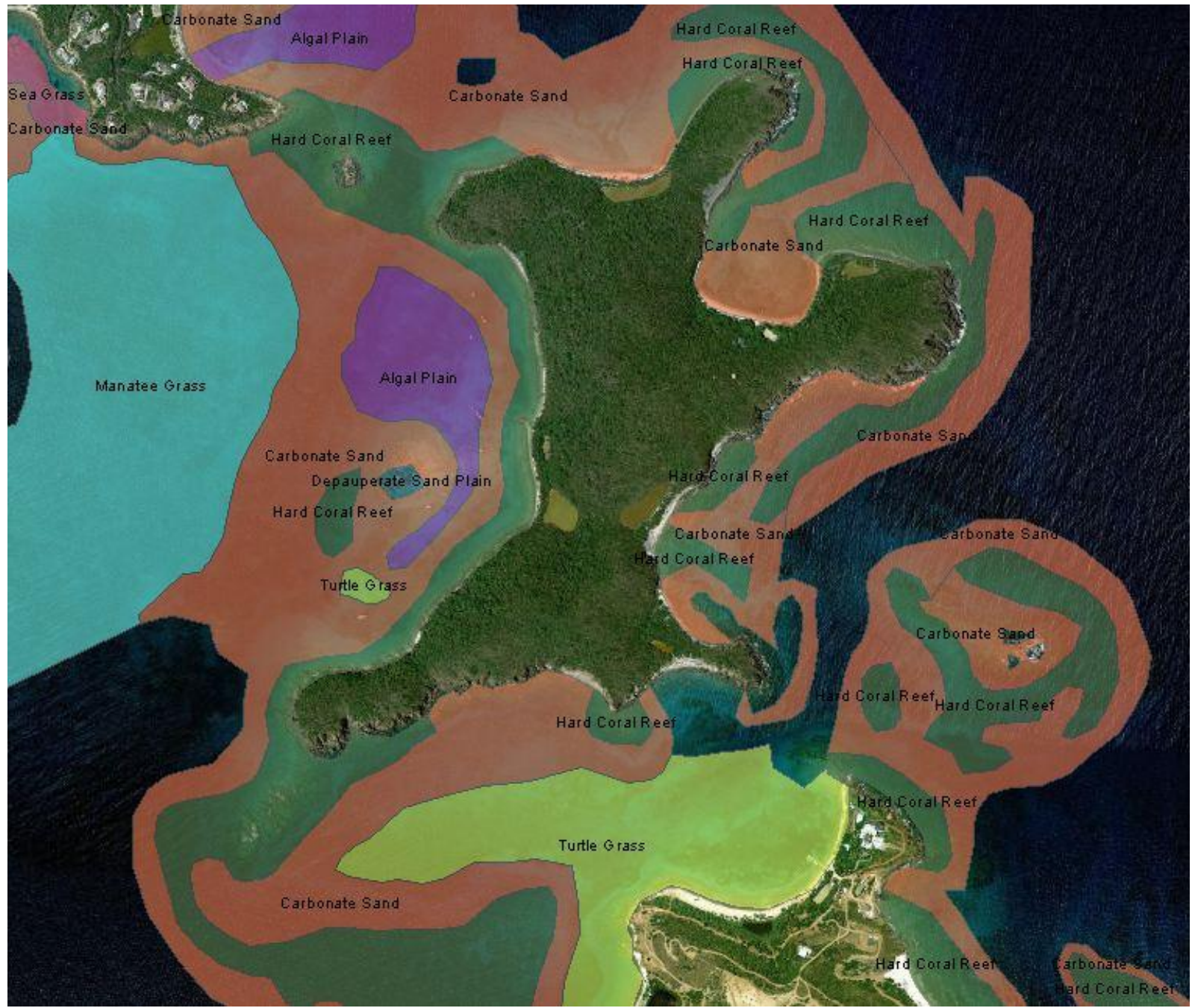
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# St. Thomas Great St. James Island marine habitat blueprint



# This is now!



# CFMC EFH ONLINE

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### Caribbean Fishery Management Council

The CFMC is one of eight regional fishery management councils established under PL 94-265 for the conservation and orderly utilization of the fishery resources of the United States of America.

created by cfmc\_pr on February 4, 2013

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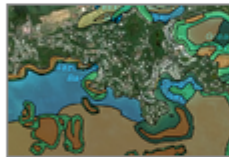
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#### Benthic Habitats of USVI

This map delineates the benthic habitat areas for St. Thomas, St. John, and St. Croix, USVI.

Web Map by cfmc\_pr  
Last Modified: February 25, 2013

☆☆☆☆☆ (0 ratings, 0 comments, 52 views)



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#### Benthic Habitats of Puerto Rico

This map delineates the benthic habitats for the island of Puerto Rico.

Web Map by cfmc\_pr  
Last Modified: February 25, 2013

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## Benthic Habitats of Puerto Rico



This map delineates the benthic habitats for the island of Puerto Rico.

Web Map by cfmc\_pr

Last Modified: February 25, 2013

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### Description

This map delineates the benthic habitats for the island of Puerto Rico. The maps were created using different sources of information from different periods in time. Some areas covered in the map are: Aguadilla, Manatí, Luquillo, Cabo Rojo, Arecibo, Ponce, Paragüera, and Guánica.

This data can be downloaded from the CFMC Group. You will find also data for Vieques, Puerto Rico, and the whole island of Puerto Rico. These two datasets could not be uploaded due to the amount of data represented in the layers.

### Access and Use Constraints

NOT TO BE USED FOR NAVIGATION.

### Map Contents

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### Benthic Habitats of Puerto Rico

This map delineates the benthic habitats for the island of Puerto Rico.

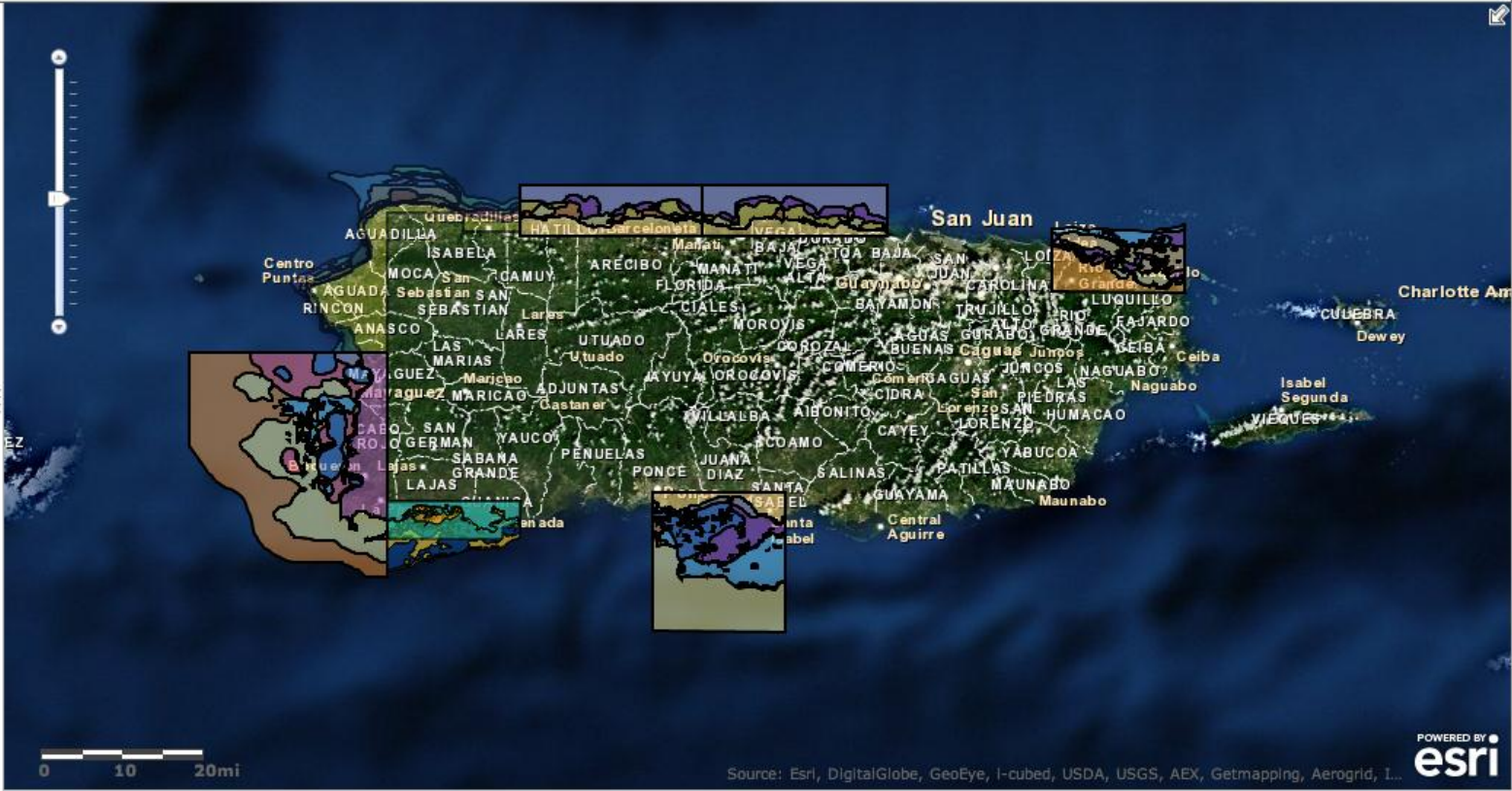
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Last Modified: February 25, 2013

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### Legend

Sediment Textures Parguera-Guanica (1979, 1980)

- C\_Car\_M
- Cl\_Si
- Land
- MSaSiCl
- Sa\_Si
- Sand
- Si\_Cl
- Si\_Sa

