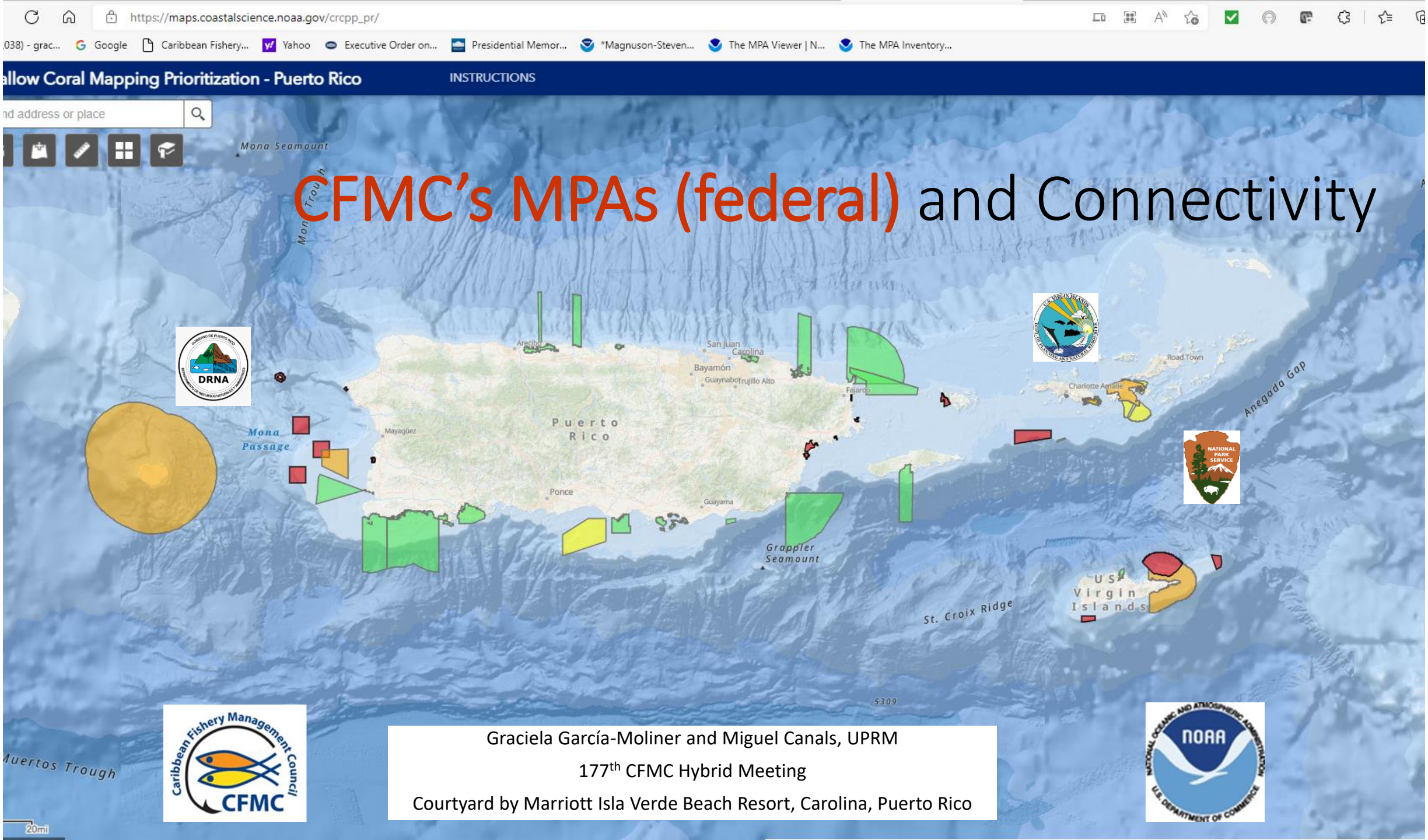
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Google
Caribbean Fishery...
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*Magnuson-Steven...
The MPA Viewer | N...
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allow Coral Mapping Prioritization - Puerto Rico
INSTRUCTIONS
nd address or place
Mona Seamount
Mona Trough
CFMC's MPAs (federal) and Connectivity
DRNA
Mona Passage
Mayagüez
Puerto Rico
Arecibo
San Juan
Carolina
Bayamón
Guaynabo
Trujillo Alto
Fajardo
Ponce
Guayama
Grappler Seamount
Road Town
Charlotte Amalie
Anegada Gap
NATIONAL PARK SERVICE
US Virgin Islands
St. Croix Ridge
5309
Muertos Trough
20mi
Caribbean Fishery Management Council
CFMC
Graciela García-Moliner and Miguel Canals, UPRM
177th CFMC Hybrid Meeting
Courtyard by Marriott Isla Verde Beach Resort, Carolina, Puerto Rico
NOAA

Reef Fish FMP Amendment 1 1990

Section 10.2.10 is added to the FMP and will read:

10.2.10 To prohibit during the red hind spawning season, from December 1 through February 28, the use of any fishing gear capable of capturing reeffish, such as fish traps, hook and line, bottom nets, and spear, in an area southwest of St. Thomas enclosed by the quadrilateral formed by connecting the following four points in Chart 25641:

18 13.2º N; 65 06ºW
18 13.2º N; 64 59ºW
18 10.7º N; 65 06ºW
18 11.8º N; 64 59ºW

“as the first step to assess the usefulness of this measure. It is expected that after proper monitoring and evaluation of the closed area proposed in this FMP, other areas could be closed if this measure proves to be effective.”

This particular area has been identified by the fishermen as "one of the hottest spots for spawning aggregations." The fishermen are concerned that average size at harvest is decreasing. They know they are taking too many juveniles and that they have to protect the resource "so they will have something to keep going back to." Conscious of the importance of protecting spawning aggregations, fishermen are trying to conserve the resource, requesting from the Council a management measure that will ensure the survival of the species in federal waters. There are pending regulations in the U.S. Virgin Islands to close spawning areas in the territorial waters. Outside fishermen are currently not being regulated, therefore, U.S.V.I. fishermen are interested in seeing federal regulations that protect the species.

Regulatory Amendment to the Reef Fish FMP 1996

The original objectives addressed by the Reef Fish FMP, as amended, are unchanged. The objectives are to: 1) obtain the necessary data for stock assessment and for monitoring the fishery; 2) reverse the declining trend of the resource by (a) restoring and maintaining adult stocks at levels that ensure adequate spawning and recruitment to replenish the population and (b) preventing the harvest of individuals of species of high value (e.g., snappers, groupers, and others) that are less than the optimum size; 3) reduce conflicts among users of the resource; 4) promote international cooperation in managing the pan-Caribbean species; and 5) help resolve the ciguatera problem.

https://caribbeanfmc.com/FMP_Island_Based_2019/EA_FMP_St._Thomas.St._John_Final.pdf

O9. Ensure adequate evidence is established to demonstrate spawning aggregations and the habitats supporting those aggregations, in order to protect and ensure the future health of the resource, with the least restrictive measures.

The overarching *goal* of the St. Thomas/St. John FMP is to ensure the continued health of fishery resources occurring in the EEZ surrounding St. Thomas and St. John, within the context of the unique biological, ecological, economic and cultural characteristics of those resources and the communities that are dependent upon them. Specific fishery management goals for the St. Thomas/St. John EEZ are:

G1. Prevent overfishing while achieving, on a continuing basis, the optimum yield (OY) from each federally managed fishery in St. Thomas/St. John waters, taking into account and allowing for variations among, and contingencies in, fisheries, fishery resources, and catches.

G2. Maintain long-term sustainable use of coral reef fishery resources while preventing adverse impacts to stocks, habitats, protected species, or the reef ecosystem as a whole.

G3. Ensure the continued health of fishery resources occurring in St. Thomas/St. John EEZ waters, which would provide for the sustained participation of the islands' fishing communities as a major endeavor and minimize adverse economic impacts on such communities.

G4. Manage the fisheries within the limits of local ecosystem production so as not to jeopardize a wide range of goods and services provided by a healthy ecosystem, including food, revenue, and recreation for humans.

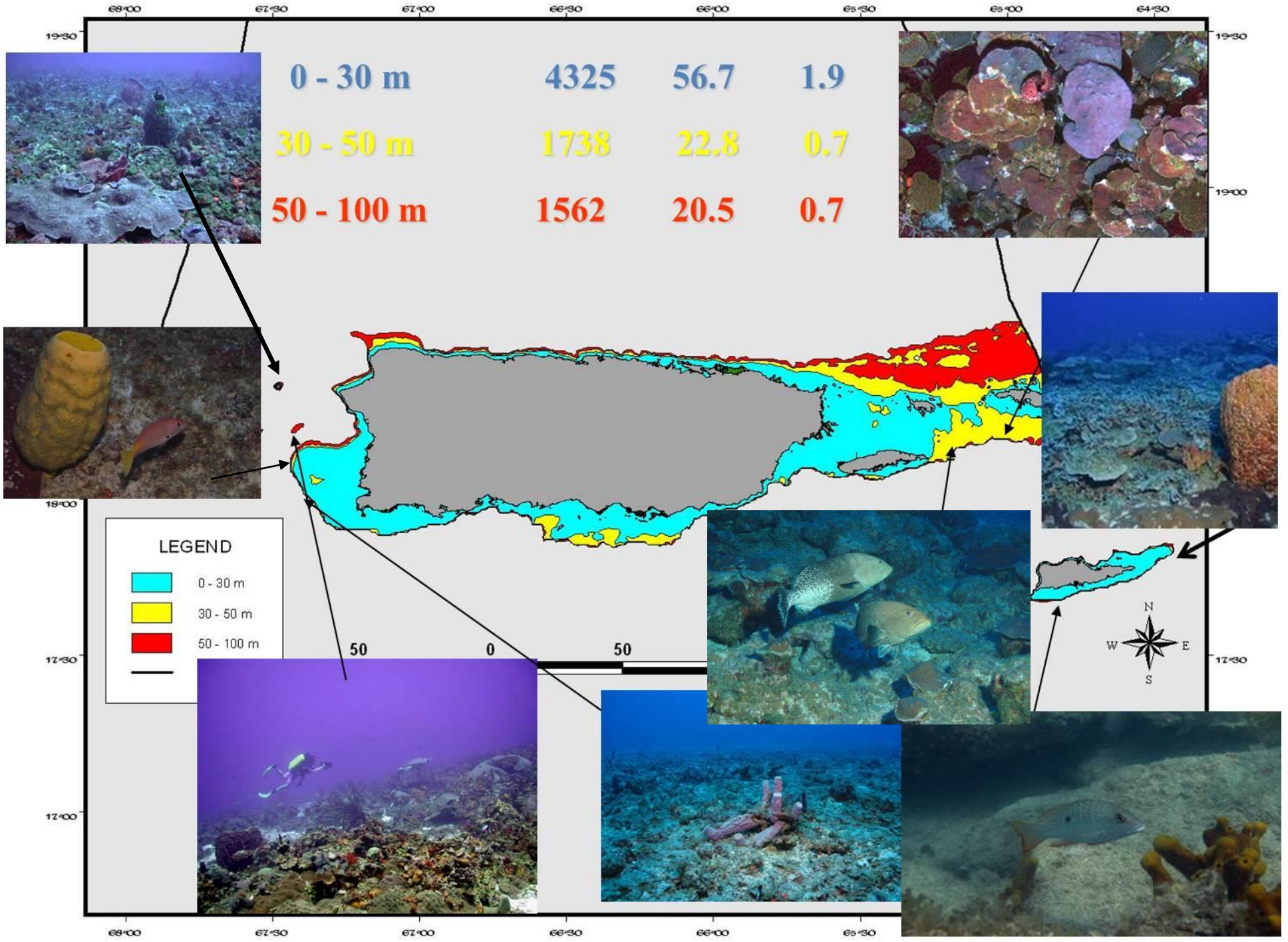
G5. Account for biological, social, and economic differences among the islands, communities, and fisheries of St. Thomas and St. John.

G6. Foster collaboration among territorial and federal authorities to achieve compatible management of fisheries throughout the waters surrounding St. Thomas and St. John.

DRAFT GOALS & OBJECTIVES (1I74 CFMC)

FEP goals and Objectives:
The overarching *goal* of the Fishery Ecosystem Plan (FEP) is to promote ecosystem based approaches to ensure healthy, resilient and productive marine ecosystems and the fisheries resources dependent upon those ecosystems, within the context of the unique biological, ecological, economic, social and cultural characteristics of those fishery resources and the communities dependent on them.

- **A corollary goal is to provide the framework that promotes the following sub-goals:**
  - Increase human community resilience within the context of changing ecosystems;
  - Promote ecosystem resilience within the context of changing ecosystems;
  - Define present ecosystem status/functionality;
  - Understand dynamics of fisheries and ecosystem services;
  - Describe key ecosystem linkages;
  - Identify research priorities;
  - Identify additional ecosystem-essential species in need of conservation and management;
  - Understand the risks to the fishery ecosystem and tradeoffs from different management strategies;
  - Improve the data and information needed to support marine ecosystem management;
  - Prevent overfishing and/or ecosystem overfishing;
  - Achieve optimum yield;
  - Incorporate ecosystem considerations into stock assessments;
  - Bring ecosystem considerations into the decision making process;
  - Promote adaptive management policies (Revising MSA, National SSC, CCC).


0 - 30 m 4325 56.7 1.9
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50 - 100 m 1562 20.5 0.7
LEGEND
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Essential Fish Habitat

- 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, 1996 amendment).

Connectivity: where do fish larvae go?

If MPAs are a source of grouper larvae - where will the juvenile grouper recruit (sink sites)?

The models can provide information on the possible recruitment sites. A project should be set up to determine the suitability of the habitats identified as sinks. Models already developed can serve as the basis for this pilot project. This has to be done for PR west coast; USVI -PR connection; STT self-recruitment; and STX export to La Parguera(?). This would help the identification of critical habitat for Nassau grouper as well other species. Needs to be done following the time of larvae in the water. It should be very timely. Develop recruitment index (SEFSC- request collaboration for development of Index).

And to talk about connectivity …

Other Projects

The CFMC is interested in revising and reviewing the literature and data from the MCD Hind Bank and the Grammanik Bank south of St. Thomas to determine efficacy of these MPAs as they protect groupers, snappers and parrotfish. Specifically to identify what needs to be done? What information is missing? What research should be conducted to help answer the question of how efficient these areas are. Additionally, how do a no-take (Hind Bank) and a seasonally closed area (Grammanik) compare.

Other Gaps Identified

- GIS project to identify existing data on temporal-spatial research directly related to MPAs. Prepare a geo database to be available to researchers

- EFH-5 year review (actually 7 year review) - required. Need to check last contract to do this and identify who can carry out the review. In this case the product should be a geo database accessible to everyone. It should bring to the GIS the original EFH and the reviews. Need to include the new species under management. Now 2022-2023

Commitment of Collaboration

A project with fisher: collaboration on following the SEAMAP-Caribbean protocol of sampling within MPAs prior-during and after the red hind spawning aggregations. Scientists train fishers in data collection and will integrate fishers in the surveys. The fish sampled and kept will be used for obtaining life history data (age, etc.) and those not kept will be tagged and released.

The work will be carried out at Abrir La Sierra for the first 2 years and then in Lang Bank on year 3.

The proposed work addresses CFMC Strategic Plan Management (approved in 2021; working on implementation of Plan) Goal Objective 2, specifically for Puerto Rico Objectives 2.2 and 2.5; also, Ecosystem Goals, specifically for Puerto Rico Objective 7.7; Socio-cultural Goal in Objective 15.5.

The third year, the project will take place in Lang Bank and thus there would be additional costs for lodging and travel, among others. The third year would address St. Croix objectives 2.13, 2.15, and 6.10 in Management and Ecosystem Goals.