

# ***Outreach and Education Advisory Panel (OEAP)***

## ***REPORT TO THE COUNCIL***

### ***183rd CFMC Regular Hybrid Meeting***

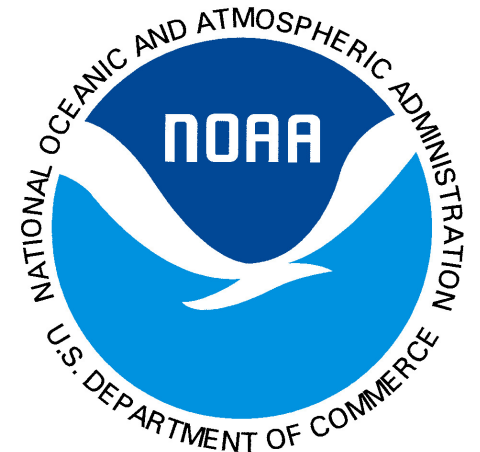
***December 5 - 7, 2023***

***The Westin Beach Resort, St. Thomas, U.S.V.I***



12/1/23

Alida Ortiz



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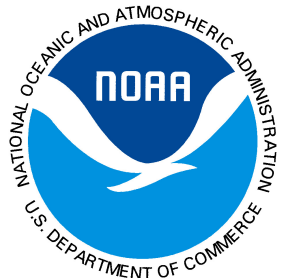
# 5YSP Communication objectives that we are following

- Basic concepts of **Ecosystem Based Management** and their application to the management measures. The objective is to help fishers and consumers in general to understand the components of the marine ecosystem, the importance of the **Fishery Ecosystem Plan** for the marine fishery ecosystem and their responsibility in keeping it healthy and sustainable.
- **Island Based Fishery Management Plans (IBFMP) for Puerto Rico, St. Thomas/St. John and St. Croix.** The objective is for fishers and consumers to recognize the species being managed, their natural function in the marine ecosystem and the importance of management measures to keep the ecosystem healthy and the fishery resources sustainable.
- **Sustainable Fish and Seafood consumption** to educate consumers on the importance to consume these products and, at the same time be aware of the impact of removing those species from the ecosystem.
- **Marine Protected Areas in Puerto Rico, St. Thomas/St. John and St. Croix.** Their importance as instruments for the protection of fishes spawning aggregation and the regulations applied to these areas from territorial and federal government agencies.



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# Outreach & Education participation in Equity and Environmental Justice (EEJ) and Marine Resources Education Program (MREP) Focus groups

- Fisheries communities were invited to offer their ideas and recommendations to integrate EEJ in their initiatives. Several meetings were held in Puerto Rico, St. Thomas, and St. Croix. The CFMC Liaisons participated and they will give their experiences in their Reports.
- The MREP workshop was held in Fajardo, Puerto Rico August 25-27. We were present at the Laboratory experience held at UPR Humacao.



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# Update O & E Products

- **Illustrated Catalogue of the Fish and Invertebrate Species included in the IBFMPs for Puerto Rico, St. Thomas/St. John, and St. Croix**

**First draft: November 2023**

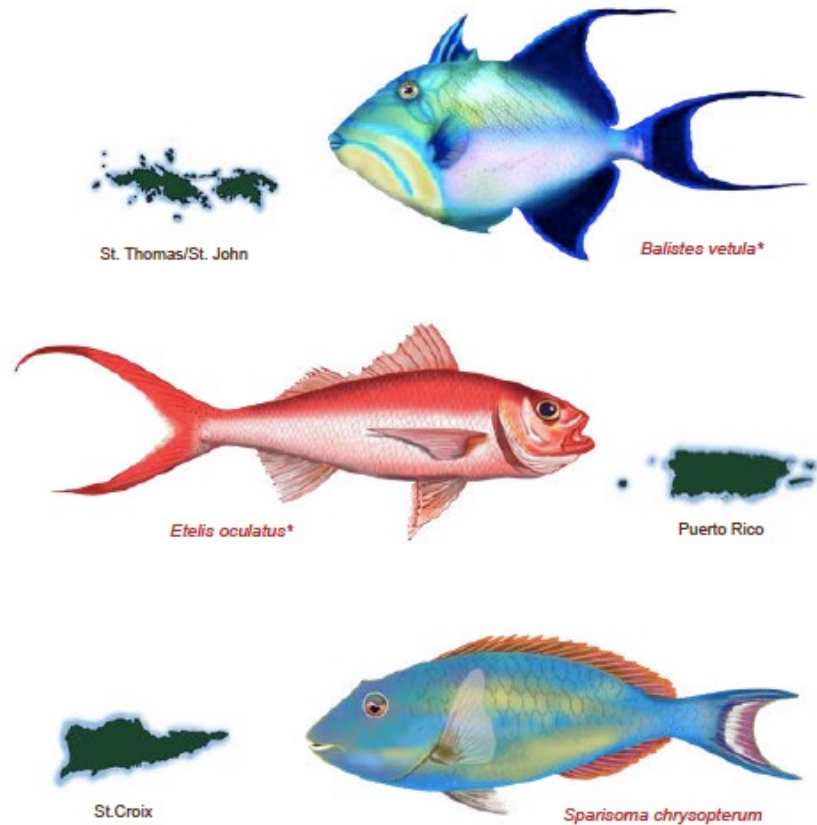
21 pages

- Will be sent to collaborators in PR, St. Thomas/St. John and St. Croix for their comments and additional information if necessary.
- Available to fishers and general public.



# Island based fishery management plans species catalog.

## Planes de manejo pesquero basado en las islas catálogo de especies.



### Introducción

### LUTJANIDAE - SNAPPERS



*Apsilus dentatus*  
**black snapper**  
**pargo prieto**

St. Thomas/St. John St. Croix Puerto Rico

Black and upper sides violet or dark brown turning lighter ventrally. Juveniles are mainly blue in color. Caudal fin forked. Maximum size—25.6 in (65cm). Depth—Adults: 320-984 ft (100-300 m); juveniles: 20-40 ft (6-12 m)

La parte trasera y la superior son de color violeta o marrón oscuro, tornándose más claro en la parte ventral. Los juveniles son principalmente de color azul. Aleta caudal bifurcada. Tamaño máximo: 25.6 pulgadas (65 cm). Profundidad—Adultos: 320-984 pies (100-300 m); juveniles: 20-40 pies (6-12 m)

Regulation Federal, Territorial St. Thomas/St. John District Closure—October 1–December 31. Federal Commercial—Annual catch limits apply. Recreational—5 fish/person/day or 15 fish/vessel/day (aggregate).

Medidas de Manejo Federal, Territorial St. Thomas/St. John Cieme—1 de octubre al 31 de diciembre. Federal Comercial—se aplican límites de captura anuales. Recreacional: 5 peces/persona/día o 15 peces/embarcación día (agregado).



*Lutjanus buccanella*  
**blackfin snapper**

St. Thomas/St. John St. Croix Puerto Rico

Juveniles are brilliant yellow below rear dorsal fin, upper base of tail and both lobes of tail and are bluish white to pale brown. Adults have a dark spot at base of pectoral fin and an orange or bronze iris and become dusky red in red and yellow areas as they age. Maximum size—30 in (76.2 cm). Depth—20–300 ft (6–91 m).

Los juveniles son color amarillo brillante bajo la aleta dorsal trasera. En la base superior y los lobos de la cola, son de color blanco azulado a castaño pálido. Los adultos se caracterizan por una mancha oscura en la base de la aleta pectoral e iris de color anaranjado a bronceado, y según envejecen las áreas rojas y amarillas se vuelven rojas oscuras. Tamaño máximo—30 pulgadas (76.2 cm). Profundidad—20–300 pies (6–91 m).

Regulation Federal, Commonwealth, Territorial St. Thomas/St. John District Closure—October 1–December 31. Federal Commercial—Annual catch limits apply. Recreational—5 fish/person/day or 15 fish/vessel/day (aggregate). Commonwealth incidental catch limit is 5 fish/day or 10 boat/day, whichever is less. Sale of incidental catch is prohibited.

Reglamento Federal, Estado Libre Asociado, Territorial Distrito de St. Thomas/ St. John Veda—1 de octubre–31 de diciembre. Federal Comercial—límites de captura anual aplican. Recreativo—5 peces/persona/día (agregado). Estado Libre Asociado Límite de captura incidental durante el periodo de veda es 5 pescadores/día o 10 embarcación, lo que sea menor. Venta de pesca incidental está prohibida.





*Lutjanus vivanus\**  
**silk snapper\***  
**chillo de ojo amarillo**

St. Thomas/St. John St. Croix Puerto Rico

Its yellow iris helps distinguish this fish from other snapper species. Back and upper sides are pinkish-red shading to silver, with wavy yellow lines and pale yellow pectoral fins. Back edge of tail fin is rimmed in black, and anal fin is pointed.

Maximum size—32 in (83.3 cm). Depth—300–650 ft (91–198 m).

El iris amarillo de sus ojos ayuda a distinguirlo de las otras especies de pargos. El lomo y la parte superior de este pez son de color rosa a plateado, con líneas onduladas amarillas y aletas pectorales color amarillo pálido. La parte trasera de la cola tiene un borde negro, y la aleta anal es puntiaguda. Tamaño máximo—32 pulgadas (83.3 cm). Profundidad—300–650 pies (91–198 m).

Regulation Federal, Territorial, Commonwealth Closure—October 1–December 31. Federal Commercial—Annual catch limits apply. Recreational—5 fish/person/day or 15 fish/vessel/day (aggregate). Commonwealth Commercial—Incidental catch limit during closure dates of 5 fish/person/day or 10 fish/vessel/day. Sale of incidental catch is prohibited.

Reglamento Federal, Territorial, Estado Libre Asociado Veda—1 de octubre–31 de diciembre. Federal Comercial—límites de captura anual aplican. Recreativo—5 peces/personal/día o 15 peces/barco/día (agregado). Estado Libre Asociado Comercial—límite de captura incidental durante el periodo de la veda es 5 peces/personal/día o 10 barco/día. No se permite la venta de la captura incidental.

*Rhomboplites aurorubens*  
**vermilion snapper**  
**besugo**



St. Thomas/St. John St. Croix Puerto Rico

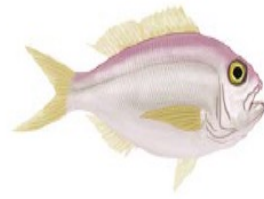
Its yellow iris helps distinguish this fish from other snapper species. Back and upper sides are pinkish-red shading to silver, with wavy yellow lines and pale yellow pectoral fins. Back edge of tail fin is rimmed in black, and anal fin is pointed.

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*Pristipomoides aquinolaris*  
**wenchman**

Puerto Rico

The eyes large, its orbit almost touching head profile. Scale rows on back running parallel to the lateral line. Back and upper sides pink to reddish, becoming pink to silvery-white on belly; the fins are translucent to pinkish except for the outer part of the caudal and dorsal fins which are yellowish. A deep-water species. Depth range 24–370 m, usually 50–250 m. Feeds mainly on small fishes.

Regulation

Los ojos son grandes, su órbita casi toca el perfil de la cabeza. Escala las filas en la espalda paralelas a la línea lateral. El dorso y la parte superior de los costados son de color rosado a rojo, tornándose de rosado a blanco plateado en el vientre; las aletas son translúcidas a rosadas, excepto la parte exterior de las aletas caudal y dorsal que son amarillentas. Una especie de aguas profundas. Rango de profundidad de 24 a 370 m, generalmente de 50 a 250 m. Se alimenta principalmente de peces pequeños.

Faltan Regulatins: Commonwealth Territorial Federal

*Pristipomoides macrophthalmus*  
**cardinal snapper**



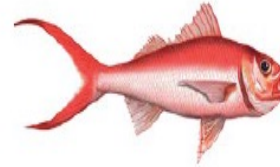
Puerto Rico

Interorbital space flat. Eye large. Snout short and blunt. Pectoral fins long reaching level of anus. Scale rows on back parallel to lateral line. Back and upper sides pink with a silvery sheen, grading to silvery ventrally; the fins are translucent to pink. bathypelagic; depth range 110–550 m (Ref. 55). Deep-water; 27°N–5°N, 89°W–53°W (Ref. 55)

Regulation

Los ojos son grandes, su órbita casi toca el perfil de la cabeza. Escala las filas en la espalda paralelas a la línea lateral. El dorso y la parte superior de los costados son de color rosado a rojo, tornándose de rosado a blanco plateado en el vientre; las aletas son translúcidas a rosadas, excepto la parte exterior de las aletas caudal y dorsal que son amarillentas. Una especie de aguas profundas. Rango de profundidad de 24 a 370 m, generalmente de 50 a 250 m. Se alimenta principalmente de peces pequeños.

Faltan Regulatins: Commonwealth Territorial Federal



*Etelis oculatus\**  
**queen snapper**  
**cartucho**

Puerto Rico St. Thomas/St. John St. Croix

Dorsal spines (total): 10; Dorsal soft rays (total): 11; Anal spines: 3; Anal soft rays: 8. Head small; eye large; snout short. Maxilla covered with small scales; lower jaw slightly projecting. Dorsal and anal fin bases without scales; caudal fin deeply forked. Scale rows on the back running parallel with the lateral line. Back and upper sides deep pink to red; lower sides and belly pink; fins pink except the spinous portion of the dorsal fin; entre caudal fin brilliant red. Max length : 100.0 cm TL male/unsexed; (Ref. 9626); common length : 64.0 cm TL male/unsexed; (Ref. 6912); max. published weight: 6.3 kg (Ref. 56081)

Regulation

Espinas dorsales (total): 10; Radios blandos dorsales (total): 11; Espinas anales: 3; Radios anales blandos: 8. Cabeza pequeña; ojo grande; hocico corto. Maxilar cubierto de pequeñas escamas; mandíbula inferior ligeramente proyectada. Bases de las aletas dorsal y anal sin escamas; aleta caudal profundamente bífida. Escala las filas en la espalda paralelas a la línea lateral. Dorso y lados superiores de color rosa intenso a rojo; lados inferiores y vientre rosados; aletas rosadas excepto la porción espinosa de la aleta dorsal; toda la aleta caudal de color rojo brillante. Longitud máxima: 100,0 cm TL machos/in sexar; (Ref.9626); longitud



*Lutjanus analis*  
**mutton snapper**  
**sama**

Puerto Rico St. Thomas/St. John St. Croix

Juveniles are found mainly in seagrass and mangrove areas, while adults are found in coral and rock reefs. Can be reddish-brown to grayish, depending on what fish is doing. Maximum size—30 in (76 cm). Depth—3–100 ft (1–30 m).

Los juveniles de esta especie se encuentran mayormente en las áreas de hierbas marinas y mangles, mientras que los adultos se encuentran en arrecifes de coral y rocas. Pueden ser de colores castaños rojizo a grisáceos dependiendo de lo que el pez está haciendo. Tamaño máximo—30 pulgadas (76 cm). Profundidad—3–100 pies (1–30 m).

Regulation Federal, Territory Closure—April 1–June 30 in all Federal and Territorial waters. March 1–June 30 in Federal and Territorial section of Mutton Snapper Spawning Aggregation Area located south of St. Croix. Commercial—Annual catch limits apply in Federal waters. Recreational—5 fish/person/day or 15 fish/vessel/day (aggregate), only in Federal waters. Commonwealth Closure—April 1–May 31.

Reglamento Federal, Territorio Veda—1 de abril–30 de junio en todas las aguas Federales y Territoriales. 1 de marzo–30 de junio en la sección Federal y Territorial del "Mutton Snapper Spawning Aggregation Area" localizado al sur de Sta. Cruz. Comercial—límites de captura anual aplican en aguas Federales. Recreativo—5 peces/personal/día o 15 peces/barco/día (agregado) solo en aguas Federales. Estado Libre Asociado Veda—1 de abril–31 de mayo.



*Lutjanus synagris*  
**lane snapper**  
**arrayado - manchego**

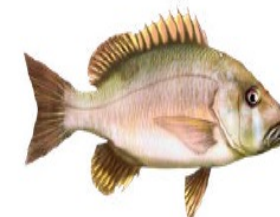
Puerto Rico St. Thomas/St. John St. Croix

Characterized by several faint yellow-to-pink body stripes. Body is silvery. Pectoral, ventral, and anal fins are often yellow with reddish dorsal and tail fins. Black spot just below rear dorsal fin that is absent on rare occasions. Maximum size—15 in (38.1 cm). Depth—5–130 ft (1.5–40 m).

Regulation Federal, Territory Closure—April 1–June 30. Federal Commercial—Annual catch limits apply. Recreational—5 fish/person/day or 15 fish/vessel/day (aggregate).

Se caracteriza por tener varias rayas de amarillo pálido a rosa en su cuerpo. Cuerpo plateado con aletas pectorales, ventrales, y anales usualmente amarillas con las aletas dorsales y la cola rojizas. Mancha negra justo debajo de la aleta dorsal trasera la cual casi siempre está presente. Tamaño máximo—15 pulgadas (38.1 cm). Profundidad—5–130 pies (1.5–40 m).

Reglamento Federal, Territorio Veda—1 de abril–30 de junio. Federal Comercial—límites de captura anual aplican. Recreativo—5 peces/personal/día o 15 peces/barco/día (agregado).



*Lutjanus jocu*  
**dog snapper**

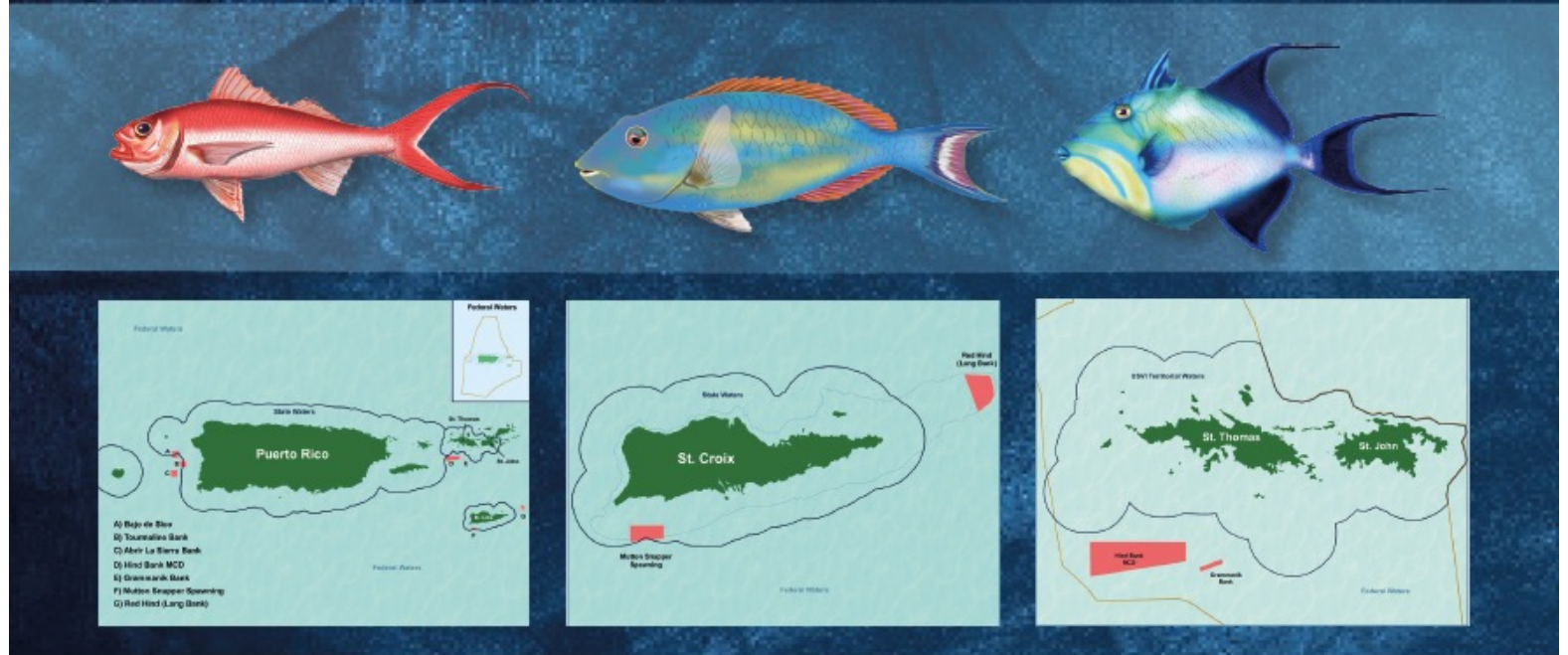
Puerto Rico

Mainly; freshwater, brackish; reef-associated; depth range 2–40 m (Ref. 58047), usually 5–30 m (Ref. 9710). Subtropical; 42°N–26°S, 98°W–14°W (Ref. 55232). Max length : 128 cm TL male/unsexed; (Ref. 40637); common length : 60.0 cm Dorsal spines (total): 10; Dorsal soft rays (total): 14–15; Anal spines: 3; Anal soft rays: 8. Preopercular notch and knob weak. One of the pair of canines in upper jaw notably enlarged, visible even when mouth is closed. Pectoral fins long, reaching level of anus. Scale rows on back rising obliquely above lateral line. Presence of a triangular bar between lower edge of eye and rear of mouth. Back and upper sides olive brown with bronze tinge, sometimes with narrow pale bars, lower sides and belly light reddish with a copper tinge. Young with a horizontal blue line below eye which breaks into a row of spots in adults. Adults are common around rocky or coral reefs. Young are found in estuaries and occasionally enters rivers. Feed mainly on fishes and benthic invertebrates, including shrimps, crabs, gastropods and cephalopods.

Mainly; agua dulce; salobre; asociado a arrecifes; rango de profundidad 2–40 m (Ref. 58047), normalmente 5–30 m (Ref. 9710). Subtropical; 42°N–26°S, 98°W–14°W (Ref. 55232). Longitud máxima : 128 cm LT machos/in sexar; (Ref.40637); longitud común: 60.0 cm Espinas dorsales (total): 14–15; Espinas anales: 3; Radios anales blandos: 8. Muesca y protuberancia preopercular débiles. Uno de los pares de caninos de la mandíbula superior está notablemente agrandado, visible incluso con un lente cobrizo. Jóvenes con una línea azul horizontal debajo del ojo que se divide en una fila de manchas en los adultos. Los adultos son comunes alrededor de arrecifes rocosos o de coral. Las crías se encuentran en estuarios y ocasionalmente ingresan a ríos. Se alimenta principalmente de peces e invertebrados bentónicos, incluidos camarones, cangrejos, gasterópodos y cefalópodos.

# CFMC Calendar 2024

## Planes de Manejo Pesquero Basados en Islas *Island-Based Fishery Management Plans*



Caribbean Fishery  
Management Council

# 2024

CALENDARIO | CALENDAR

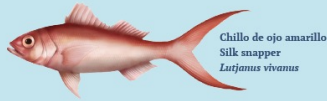
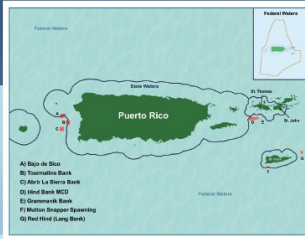
## IBFMP de Puerto Rico Puerto Rico IBFMP

### ¿Qué incorpora el IBFMP de Puerto Rico?

El IBFMP de Puerto Rico incorpora aquellos componentes de los Planes de Manejo Pesquero (FMPs, por sus siglas en inglés) de peces de arrecife, la langosta espinosa, el carrucho y los corales de todo el Caribe Estadounidense que pertenecen a la Zona Económica Exclusiva (ZEE) que rodea a Puerto Rico.

### What does the Puerto Rico IBFMP incorporate?

The Puerto Rico IBFMP incorporates those components of the U.S. Caribbean-wide Reef Fish, Spiny Lobster, Queen Conch, and Corals FMPs that pertain to the Economic Exclusive Zone (EEZ) surrounding the island of Puerto Rico.



Chillo de ojo amarillo  
Silk snapper  
*Lutjanus vivanus*



Pargo cubera  
Cubera snapper  
*Lutjanus cyanopterus*



Cartucho  
Queen snapper  
*Etelis oculatus*



Sama  
Mutton snapper  
*Lutjanus analis*

Los pargos aquí mostrados forman parte de las 13 especies de pargos incluidas en el IBFMP de Puerto Rico. / Snappers shown in this page are part of 13 species of snappers included in the Puerto Rico IBFMP.

Species from the IBFMP of each Island are illustrated in each month.

Will be distributed to fishing communities, restaurants, and fish markets.

## IBFMP de St. Thomas/St. John

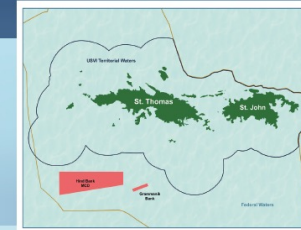
### St. Thomas/St. John IBFMP

### ¿Qué incorpora el IBFMP de St. Thomas/St. John?

El IBFMP de St. Thomas/St. John incorpora aquellos componentes de los FMPs de peces de arrecife, la langosta espinosa, el carrucho y los corales de todo el Caribe Estadounidense que pertenecen a la Zona Económica Exclusiva (ZEE) que rodea a St. Thomas/St. John.

### What does the St. Thomas/St. John IBFMP incorporate?

The St. Thomas/St. John IBFMP incorporates those components of the U.S. Caribbean-wide Reef Fish, Spiny Lobster, Queen Conch, and Corals FMPs that pertain to the EEZ surrounding the islands of St. Thomas/St. John.



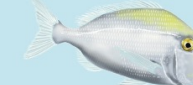
Cagona  
Sea Bream  
*Archosargus rhomboidales*



Sargo chopá  
Sheephead porgy  
*Calamus penna*



Bajonado  
Jolthead porgy  
*Calamus bajonado*



Saucereye porgy  
*Calamus calamus*

Las cuatro especies de pargos aquí ilustradas componen el complejo del abasto de pargos incluido en el IBFMP de St. Thomas/St. John. / The four species of pargos illustrated here comprise the stock complex of pargos included in the IBFMP de St. Thomas/St. John.

May, June, July, August

## IBFMP de St. Croix

### St. Croix IBFMP

### ¿Qué incorpora el IBFMP de St. Croix?

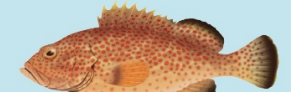
El IBFMP de St. Croix incorpora aquellos componentes de los Planes de Manejo Pesquero (FMPs, por sus siglas en inglés) de peces de arrecife, la langosta espinosa, el carrucho y los corales de todo el Caribe Estadounidense que pertenecen a la Zona Económica Exclusiva (ZEE) que rodea a St. Croix.

### What does the Puerto Rico IBFMP incorporate?

The St. Croix IBFMP incorporates those components of the U.S. Caribbean-wide Reef Fish, Spiny Lobster, Queen Conch, and Corals FMPs that pertain to the Economic Exclusive Zone (EEZ) surrounding the island of Puerto Rico.



Yellowfin grouper  
Mero aleta amarilla  
*Mycteroperca venenosus*



Mero cabrilla  
Red hind  
*Epinephelus guttatus*



Mero cabra mora  
Rock hind  
*Epinephelus adscensionis*

Mero tigre o diente de sable  
Tiger grouper  
*Mycteroperca tigris*

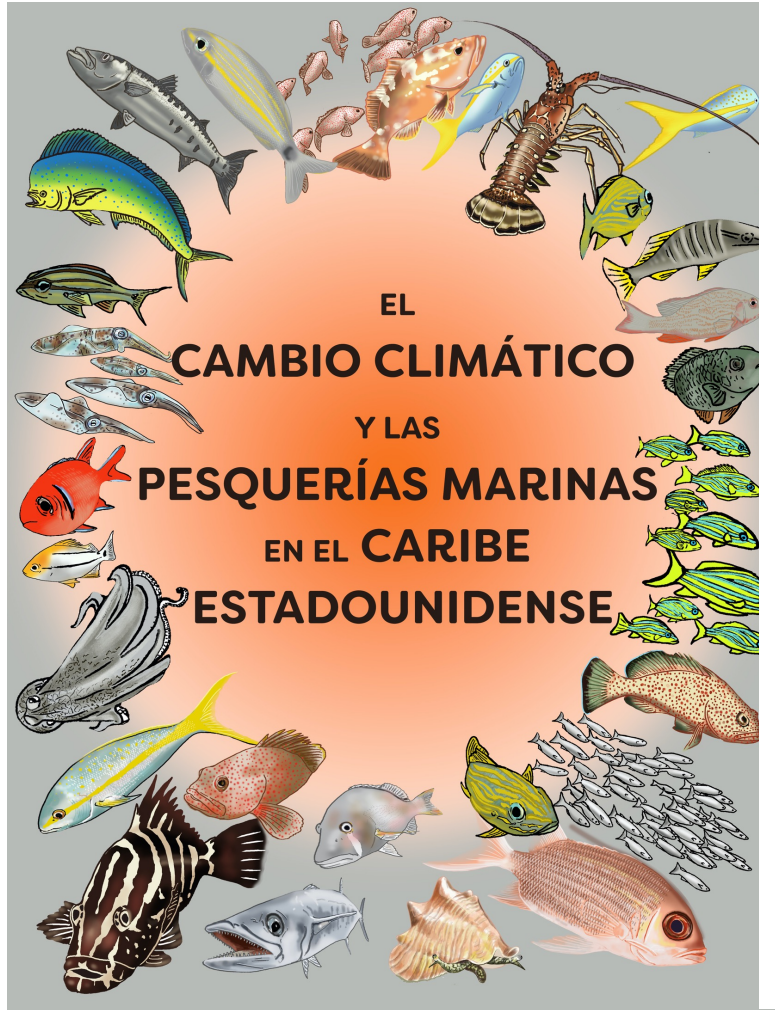


Mero mantequilla  
Coney  
*Cephalopholis fulva*

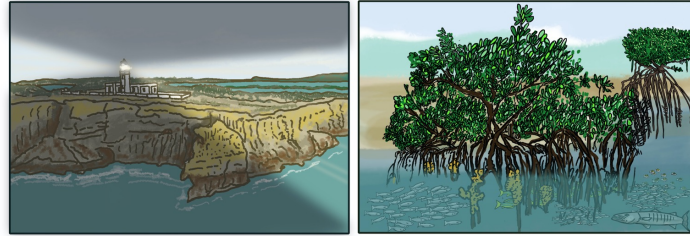
Los meros aquí ilustrados forman parte de las 11 especies de meros incluidas en el IBFMP de St. Croix. / The groupers illustrated in this page are part of the 11 species of groupers included in the St. Croix IBFMP.

September, October, November, December

# Illustrated Booklet on Climate Change and Marine Fisheries in the US Caribbean



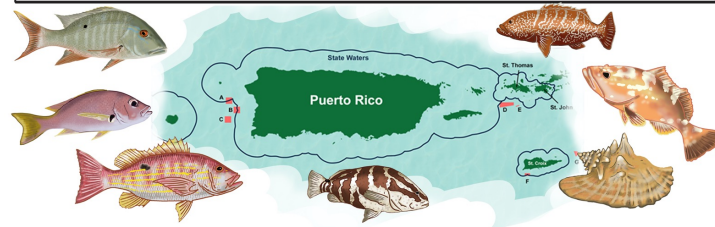
## Introduction



Coasts provide essential services that contribute to individuals' well-being and support coastal communities' economic activities such as fisheries. These regions are especially susceptible to the impacts of climate change, including sea level rise, more frequent and intense storms, altered precipitation patterns, and higher ocean temperatures.

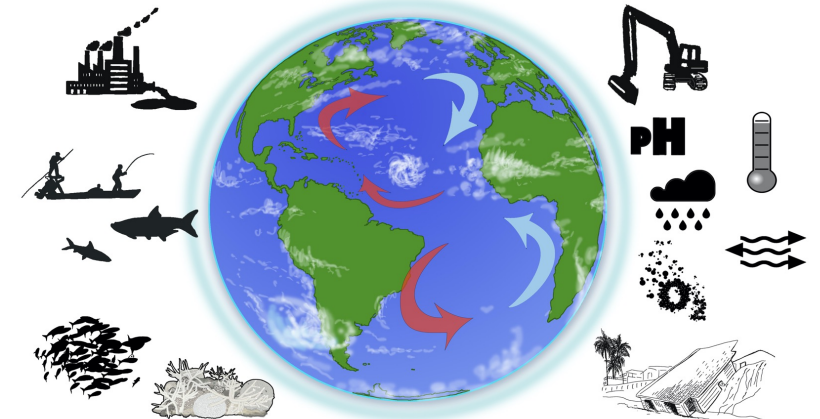


We must know about what is climate change and the impact that it will have on the species in the area where we fish. We must also know about our actions that may serve for adaptation as citizens as well as fishers to the changes experienced. The CFMC objective with this illustrated booklet is to familiarize the stakeholders-fishers, consumers, and communities- in easy-to-understand language and illustrations about the climate change issue, the impacts on the US Caribbean marine fisheries and the actions that we must take as citizens to confront the climate change results and keep a sustainable fisheries resource.



## What does Climate Change means?

The first thing we must be very clear about is that the Earth is a complex system of interaction between rocks, water, air and life. For this, it is important to know basic concepts on the topic of climate change, such as: climate, weather, global warming, greenhouse effect, global indicators of climate change, changes in sea level, ocean acidification, extreme weather conditions (extreme weather), human activities that accelerate climate change and adaptation strategies to climate change.

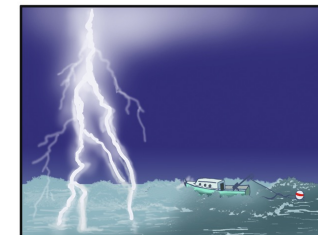


## Difference between Climate and Weather

Climate is the long-term, prevailing pattern of temperature, precipitation, and other weather variables at a given location, described by statistics, such as means and extremes. Weather is described in terms of variable conditions of the atmosphere such as temperature, humidity, wind velocity, precipitation, and barometric pressure at a given moment.

### Climate

Global conditions due to geographical localization.



### Weather

Atmospheric conditions at a given moment.



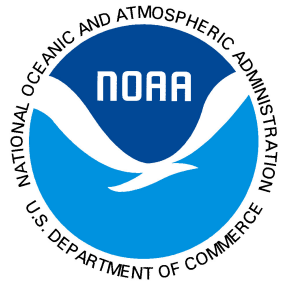
# Activities and Products for 2024-2025

- Produce O&E materials to conduct Workshops with fishers and their communities on the issues of climate change and the impacts on US Caribbean marine fisheries.
- Fish identification booklets for children based on IBFMPs.
- Integration of concepts on marine fisheries ecosystem in the US Caribbean to the regular education curriculum.



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# O & E Products...

- **Materials for snapper/grouper deep-water fishing**  
DAPs recommendations for materials on deep-water snapper/grouper fishing regulations.
- Understanding Stock assessment...not only fishers but all stakeholders
- Understanding management terminology: Optimum Yield (OY), Allowable Catch Limit (ACL), Acceptable Biological Catch (ABC), and others.



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# Cont...

- Produce Fact Sheet on Bajo de Sico and the fishery management regulations in the area.
- OEAP should offer a workshop on fishery management regulations for new DAP members similar to the PEPCO workshop



# Questions?



# HAPPY 2024!!!!



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