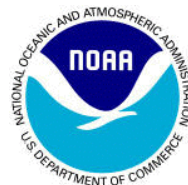


# **Trawl Gear and Other Net Gear in Federal Waters off Puerto Rico, St. Thomas and St. John, and St. Croix**

## **Draft Options/Decision Paper**

For an Amendment to the Puerto Rico, St. Thomas and St. John, and St. Croix  
Fishery Management Plans  
**April 2022**



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# 1. Background

At their December 2021 meeting, the Caribbean Fishery Management Council (Council) discussed a potential prohibition on the use of bottom trawl gear in U.S. Caribbean federal waters as a precautionary approach to prevent negative impacts of bottom trawling on the seabed (e.g., destruction of coral habitat and sponge habitat), and on target and non-target species (i.e., bycatch). Trawls are an authorized gear type for use in the non-fishery management plan (FMP) commercial fisheries under each of the St. Croix, St. Thomas and St. John, and Puerto Rico FMPs.<sup>1</sup> However, there is no evidence that this gear type is or has been used for fishing in federal waters of the U.S. Caribbean, although trawls have been sporadically used in the past for exploratory research (See [CFMC Dec 2021 Meeting](#) presentation and Knake and Whiteleather 1944). Moreover, Puerto Rico territorial fishing regulations prohibit the use of trawl gear and drift nets in its jurisdictional waters (See [Puerto Rico Fishing Regulations 7949 2010](#)). The U.S. Virgin Islands (USVI) do not have specific regulations prohibiting the use of trawl gear in their territorial waters ([USVI Division of Fish and Wildlife Fisher Handbook 2019](#)).

The National Marine Fisheries Service (NMFS) defines bottom trawling as a fishing practice that herds and captures the target species by towing a net along the ocean floor (See [NOAA Fisheries Bottom Trawls](#)). There are different types of bottom trawling nets (or techniques) such as otter trawls, beam trawls, towed dredges, and hydraulic dredges (Hickey 2017) and many of these are used and managed in other U.S. regions to capture groundfish, shrimp, and other bottom-associated species. During the December 2021 meeting, the Council also discussed other types of trawling gear and nets that are not used in the sea bottom. 50 CFR 600.10 defines trawl as a cone or funnel-shaped net that is towed through the waters, and can include a pair trawl that is towed simultaneously by two boats. Examples of other trawling gear and nets are the midwater trawl net (i.e., pelagic trawl), which is a large net towed through the water column; drift nets (e.g., gillnets, trammel nets), which hang vertically in the water column without being anchored to the bottom; and purse seines (used in many regions to catch tunas), which consist of a large wall of netting deployed around an entire area or school of fish.

The use of certain bottom tending gear (i.e., pots, traps, bottom longlines, gillnets or trammel nets) is currently prohibited year-round in the seven Council-managed seasonally closed areas (also called Marine Managed Areas (MMAs) in this document): Puerto Rico – (1) Bajo de Sico; (2) Abrir La Sierra; (3) Tourmaline; in U.S. Virgin Islands – (4) Grammanik Bank; (5) Mutton Snapper Spawning Aggregation Area; (6) Hind Bank; and (7) Red Hind Spawning Aggregation Area East of St. Croix. There are no specific prohibitions on the use of trawl gear in these or other areas, with the exception of the Hind Bank Marine Conservation District in St. Thomas, where all fishing is prohibited year-round (Appendix A). The use of gillnets and trammel nets has been prohibited for the harvest of reef fish and spiny lobster since 2005 due to the potential for bycatch (CFMC 2005) (50 CFR 622.433(c) and 50 CFR

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<sup>1</sup> Trawls will continue to be included in the regulations at 50 CFR 600.725(v). The regulations implementing the island-based FMPs have not yet been proposed for public comment, and thus the specific text included in the gear tables may change, but the authorized gear types will remain the same.

622.452(b)<sup>2</sup>. Gillnets are allowed for the harvest of other species (e.g., baitfish [where baitfish refers to species other than managed reef fish]) in federal waters but they must be tended at all times.<sup>3</sup> There are no federal regulations regarding the use of gillnets or trammel nets for the harvest of Council-managed pelagic species, which are new to management under the island-based FMPs (CFMC 2019 a,b,c; See Appendix B of this document for a list of managed pelagic species). The Council has discussed in the past developing an action to restrict harvest of pelagic species with these two gear types. Certain types of nets are regulated by NMFS in the highly migratory species (HMS) fisheries (50 CFR 635.19).

The Council is interested in a potential prohibition on the use of trawls in Council MMAs and/or in the exclusive economic zone (EEZ) off Puerto Rico, St. Thomas and St. John, and St. Croix for several reasons: (1) trawls have the potential to damage coral habitat including deep-water corals, also sponge habitat and deep-water sponges (Discussion at CFMC Meeting, Dec 2021); (2) trawls can entangle protected species; and (3) trawls can damage habitats designated as essential fish habitat (EFH) and habitat areas of particular concern for managed species under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). There are also economic considerations related to the use of trawling gear (e.g., damage or loss of gear) as well as implications for the bycatch of managed and unmanaged species.

Previously, in the 2004 Essential Fish Habitat Generic Amendment to the FMPs of the U.S. Caribbean and associated final environmental impact statement (CFMC 2004), the Council made a recommendation to take action to ban the use of trawls in the EEZ. The Council noted that this gear type was not used by commercial fishermen at the time but recognized a potential for future use. As a rationale for their recommendation, the Council indicated that the complex mosaic of coral on the insular shelf left little space available for trawling that would not have direct impacts on coral. Thus, a prohibition on trawling would prevent use of a gear with high risk of adverse fishing impacts on sensitive and important habitat. These recommendations have not been included in an amendment to date. The Council also recommended that the governments of Puerto Rico and the USVI prohibit all trawling (i.e., pelagic, bottom) in state waters.

The Council is also interested in the potential implications (if any) that continuing to allow trawling for non-FMP species as an authorized gear type in the EEZ (including in Council MMAs) may have on the whether the existing Council MMAs qualify as conservation areas under Executive Order (E.O.) 14008.<sup>4</sup> E.O. 14008 establishes a goal of conserving at least 30 percent of the lands and waters in the United States by 2030. Efforts are underway to determine how much of the lands and waters already qualify as conserved. For example, the Council Coordination Committee has established a subcommittee on area-based management to review MMAs to assess the level of protection they provide. The Council has

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<sup>2</sup> *Gillnet* means a panel of netting, suspended vertically in the water by floats along the top and weights along the bottom, to entangle fish that attempt to pass through it.

<sup>3</sup> See <https://www.fisheries.noaa.gov/national/marine-mammal-protection/caribbean-gillnet-fishery-mmpa-list-fisheries>

<sup>4</sup> E.O. 14008, Tackling the Climate Crisis at Home and Abroad, January 27, 2021.

been interested in whether areas it has protected will or could meet any conservation standards developed to implement the E.O.

During the December 2021 meeting, the Council passed two motions regarding the use of trawls and other nets in waters under its jurisdiction:

- 1) **Motion 1:** Prohibit the use of trawling gear from within the marine protected areas (i.e., Council MMAs) of the U.S. Caribbean EEZ.
- 2) **Motion 2:** Request staff to develop an options paper to prohibit the use of gillnets, trammel nets, trawl nets, drift nets, and purse seines for harvesting fish in the U.S. Caribbean EEZ.

While federal regulations at 50 CFR 600.725 list gillnets (type of drift net) and trawl nets only as authorized gear types for certain fisheries (i.e., trawl gear is an authorized gear type for the commercial harvest of non-FMP species in each island management area; gillnets are an authorized gear type for the commercial harvest of managed and non-managed pelagic species and the commercial harvest of non-FMP species in each of the island management areas), purse seines and trammel nets are not authorized gear types for any fishery. However, with respect to purse seines and trammel nets, a person could petition the Council to use these gear types. At that time, the Council and NMFS could take action whether to allow or prohibit the use of the gear.<sup>5</sup>

In this options/decision paper, the Council evaluates a prohibition on the use of trawls and certain types of net gear. When developing this action, the Council may want to take into consideration the following characteristics and issues of net fisheries in the U.S. Caribbean islands:

- The use of certain nets to catch baitfish (e.g., cast nets, surface gillnets [single-walled, tended at all times])
  - The use of surface gillnets to harvest flying fish from federal waters (particularly in St. Croix)
- Reporting and monitoring needs
- Compatibility (or lack of) of regulations with territorial waters (e.g., gillnet use is allowed in Puerto Rico waters)
- Need for any HMS exceptions
- Management of pelagic migratory species in other regions (e.g., dolphinfish in the South Atlantic), which are transboundary shared resources (i.e., migratory nature of pelagic species)
- Regulations that already protect EFH in the U.S. Caribbean

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<sup>5</sup> [50 CFR 600.725\(v\)](#): A person or vessel is prohibited from engaging in fishing or employing fishing gear when such fishing gear is prohibited or restricted by regulation under an FMP or other applicable law. However, after December 1, 1999, an individual fisherman may notify the appropriate Council, or the Director, in the case of Atlantic highly migratory species, of the intent to use a gear or participate in a fishery not already on the list. Ninety days after such notification, the individual may use the gear or participate in that fishery unless regulatory action is taken to prohibit the use of the gear or participate in the fishery (e.g., through emergency or interim regulations).

## 2. Potential Action and Management Options

### Action: Prohibition on the Use of Trawl Gear, Gillnets, Trammel Nets, and Purse Seines in the U.S. Caribbean Exclusive Economic Zone (EEZ)

**Option 1.** No action. Retain the authorized gear types for commercial and recreational harvest in federal waters off St. Croix, St. Thomas and St. John, and Puerto Rico. Trawl gear is an authorized gear type for the commercial harvest of non-fishery management plan (FMP) species in each island management area. Gillnets are an authorized gear type for the commercial harvest of managed and non-managed pelagic species and the commercial harvest of non-FMP species in each of the island management areas. Trammel nets and purse seines are not listed as authorized for any fisheries in the U.S. Caribbean EEZ.

**Option 2.** Prohibit the use of trawling gear in federal waters off St. Croix, St. Thomas and St. John, and Puerto Rico.

**Sub-option 2a.** For all fishing in Caribbean Fishery Management Council (Council) seasonally closed areas/marine managed areas (MMA)<sup>6</sup> in federal waters off St. Croix, St. Thomas and St. John, and Puerto Rico.

**Sub-Option 2b.** For all fishing in federal waters off St. Croix, St. Thomas and St. John, and Puerto Rico.

**Option 3.** Prohibit the use of gillnets<sup>7</sup> (type of drift net) in federal waters off St. Croix, St. Thomas and St. John, and Puerto Rico:

**Sub-Option 3a.** For all fishing.

**Sub-Option 3b.** For all fishing except for baitfish (as defined in regulations).<sup>8</sup>

**Option 4.** Prohibit the use of trammel nets (type of drift net) for all fishing in federal waters off St. Croix, St. Thomas and St. John, and Puerto Rico.

**Option 5.** Prohibit the use of purse seines for all fishing in federal waters off St. Croix, St. Thomas and St. John, and Puerto Rico.

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<sup>6</sup> CFMC Seasonally Closed Areas/Marine Managed Areas (MMAs) are: in Puerto Rico – (1) Bajo de Sico; (2) Abrir La Sierra; (3) Tourmaline; in U.S. Virgin Islands – (4) Grammanik Bank; (5) Mutton Snapper Spawning Aggregation Area; (6) Hind Bank; and (7) Red Hind Spawning Aggregation Area East of St. Croix.

<sup>7</sup> The use of gillnets is already prohibited inside CFMC Seasonally Closed Areas or CFMC MMAs. Gillnets are also prohibited for all fishing for Council-managed reef fish and spiny lobster.

<sup>8</sup> Gillnets used for harvesting baitfish (i.e., bait nets) would also need to be defined to be excluded. Council also to decide if an exception would apply to all sectors or not.

## **Discussion**

**Option 1** would retain all trawl and drift net gear types authorized for harvest of all commercial and recreational species under each of the St. Croix, St. Thomas and St. John, and Puerto Rico fisheries, including bottom and mid-water trawls, and gillnets. Currently, trawl gear is an authorized gear for the commercial harvest of non-FMP species in St. Croix, St. Thomas and St. John, and Puerto Rico. There is no evidence that the commercial sector uses (or has used) trawl gear (with exceptions noted in Section 1. Background, such as for research and exploratory fishing). Gillnet is an authorized gear type for the commercial harvest of managed and non-managed pelagic fish (non-FMP) and for the commercial harvest of other non-FMP species (e.g., species that are not managed by the Council). Gillnets are used in territorial coastal waters to capture spiny lobster and several species of fish (in Puerto Rico), including baitfish (in both Puerto Rico and the USVI). As mentioned above, federal regulations allow for the use of gillnets for catching non-managed species (e.g., baitfish [ballyhoo, flying fish]), but the gear must be tended at all times, and prohibit the use of gillnets year-round for fishing for spiny lobster and Council-managed reef fish.<sup>9</sup> Gillnets are also prohibited to be used in Council-managed seasonally closed areas/MMAs.

**Option 2** proposes a broad prohibition on the use of all trawl gear (i.e., bottom and midwater trawl) for harvest of all commercial and recreational species (i.e., managed and non-managed) that could be applicable only in Council-managed seasonally closed areas/MMAs (**Sub-Option 2a**) or throughout the EEZs of Puerto Rico, St. Croix, and St. Thomas and St. John (**Sub-Option 2b**). By taking this action, the Council would prevent negative potential ecological and biological and physical effects from the use of trawl gear in the future (e.g., habitat destruction, bycatch) in Council MMAs (**Sub-Option 2a**) or throughout the whole EEZ (**Sub-Option 2b**). For example, potential impacts from trawling to coral and sponge habitat are caused by direct contact with bottom tending trawl gear and from impacts to sensitive vertical relief from near-bottom orientation of pelagic trawls.

**Option 3** proposes a broad prohibition on the use of gillnets for harvest of all commercial and recreational species (i.e., managed and non-managed) (**Sub-Option 3a**) or for all fishing with the exception on the use of gillnet for the harvest of baitfish (**Sub-Option 3b**). **Option 3** would require the Council to clearly define baitfish and specify the type of gillnet used for harvesting baitfish as well as if the exception would apply to both the commercial and recreational sector. Currently, gillnet is an authorized gear type for the commercial harvest of managed pelagic fish (See Appendix B) and non-managed pelagic fish (e.g., baitfish species [sardines, herring, ballyhoo], non-managed mackerel), and for the commercial harvest of non-FMP species (e.g., other baitfish species). Federal regulations already prohibit the use of gillnets for the harvest of managed reef fish and spiny lobster in all U.S. Caribbean federal waters and prohibit the use of gillnets in all Council MMAs. Although the use of gillnets for the harvest of managed and non-managed pelagic species or other non-managed species in federal waters is

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<sup>9</sup> Cast nets are authorized for the commercial and recreational harvest of non-FMP species. Cast nets are surface nets typically used to fish for baitfish such as ballyhoo, sardines, and other species. The Council did not include cast nets in the motion to prepare this options paper.

considered to be minimal or unlikely due to depth and distance from the coast of the location of federal waters (at least for Puerto Rico [see Leroy 2007]), by taking this action, the Council would prevent negative ecological and biological effects from the use of gillnets (e.g., prevention of bycatch of undersized individuals, protected species, other target and non-target species). Allowing the use of certain types of gillnets used for catching baitfish commercially and/or recreationally would allow fishermen to continue using these specific bait nets in federal waters (**Sub-Option 3b**).

**Option 4** would prohibit the use of trammel nets and **Option 5** would prohibit the use of purse seines for all fishing in the EEZ off Puerto Rico, St. Thomas and St. John, and St. Croix. Trammel nets are already prohibited for fishing for Council-managed reef fish and spiny lobster in federal waters of all three island management areas and are also banned in Council MMAs. Purse seines are not used in federal and territorial waters of the U.S. Caribbean. None of these gear types are listed as an authorized gear under any U.S. Caribbean fisheries in federal regulations at 50 CFR 600.10. **Option 4** and **Option 5** would specifically prohibit the use of these gear types, therefore it would not be possible for a fishermen to request the use of the gear as would otherwise be allowed under federal regulations for gears that are not included in the authorized gear list.



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## 4. Appendices

### Appendix A. Seasonally Closed Areas/Marine Managed Areas in the U.S. Caribbean Exclusive Economic Zone

There are seven Caribbean Fishery Management Council seasonally closed areas/marine managed areas in federal waters that prohibit the use of certain gear types within their boundaries.

Area	Island	Seasonal Closure	Year-round Prohibition
Hind Bank Marine Conservation District	St. Thomas	Year-round	Fishing for any species and anchoring by fishing vessels are prohibited year-round.
Grammanik Bank	St. Thomas	February 1 - April 30	Fishing with pots, traps, bottom longlines, gillnets or trammel nets is prohibited year-round.
Mutton snapper spawning aggregation area	St. Croix	March 1 - June 30	Fishing with pots, traps, bottom longlines, gillnets or trammel nets is prohibited year-round.
Lang Bank	St. Croix	December 1 - February 28	Fishing with pots, traps, bottom longlines, gillnets or trammel nets is prohibited year-round.
Tourmaline Bank	Puerto Rico	December 1 - February 28	Fishing with pots, traps, bottom longlines, gillnets or trammel nets is prohibited year-round.
Abrir La Sierra	Puerto Rico	December 1 - February 28	Fishing with pots, traps, bottom longlines, gillnets or trammel nets is prohibited year-round.
Bajo de Sico	Puerto Rico	October 1 - March 31	Fishing with pots, traps, bottom longlines, gillnets or trammel nets is prohibited year-round. Anchoring by fishing vessels is prohibited year-round.

## Appendix B. List of Managed Pelagic Stocks Included in each of the Island-based Fishery Management Plans

### Puerto Rico Pelagics

*\*All new to management*

- **Tripletail:** tripletail
- **Dolphinfish:** dolphin, pompano dolphin
- **Mackerels and Tunas (Scombridae):** little tunny, blackfin tuna, king mackerel, cero mackerel, wahoo
- **Barracudas:** great barracuda

### St. Thomas and St. John Pelagics

*\*All new to management*

- **Dolphinfish:** dolphin
- **Mackerels and Tunas (Scombridae):** wahoo

### St. Croix Pelagics

*\*All new to management*

- **Dolphinfish:** dolphin
- **Mackerels and Tunas (Scombridae):** wahoo