



**NOAA FISHERIES**



# **Proposed Modification to the Red Hind Seasonal Closure in St. Croix to Address Fishing for Pelagic Species**

## **Draft Options Paper St. Croix Fishery Management Plan**

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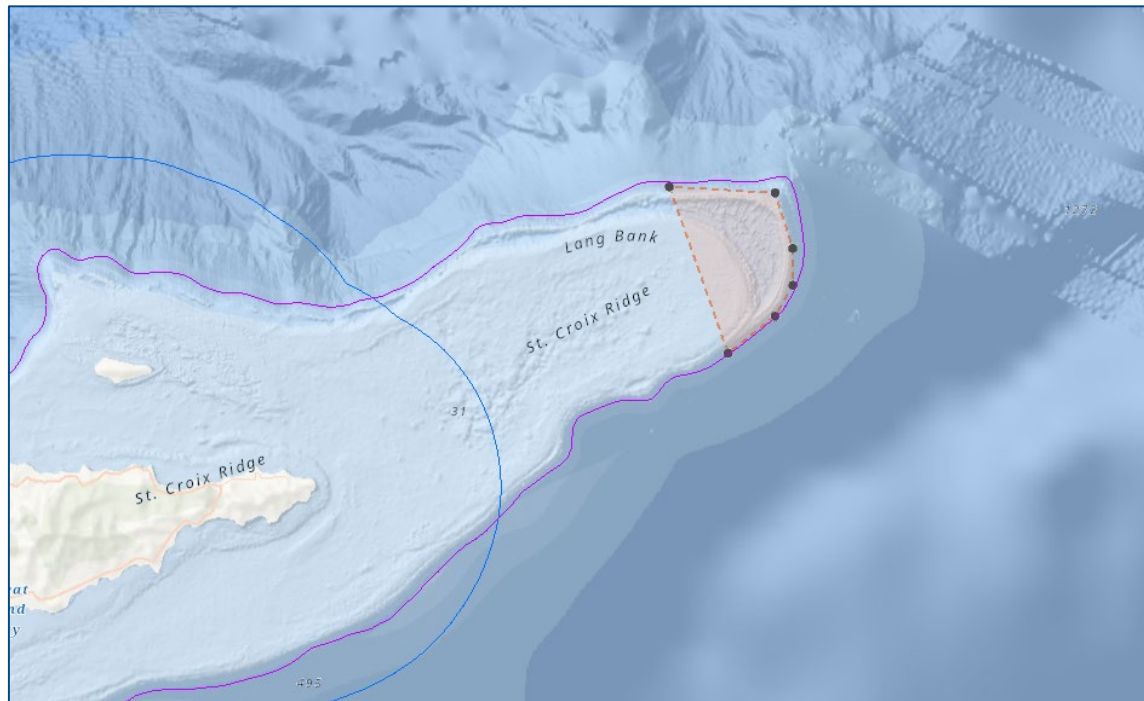
# Sections Included in the Draft Options Paper

- Management History of the Red Hind Grouper Spawning Aggregation Area, East of St. Croix, USVI\*
- Summary of Red Hind Grouper Research in the Lang Bank Area, St. Croix
- Status of the Red Hind Population at Lang Bank
- Fishermen Perception of the Seasonal Closure at Lang Bank
- Vertical Zoning in Marine Protected Areas – an Overview\*
- Fishing Activities at Lang Bank\*
- Potential Options for Modifying the Red Hind Seasonal Closure off Lang Bank\*
- Other: Atlantic Highly Migratory Species Management and Fishing Activities in the Lang Bank Area\*

\* Indicates topic was included in this presentation; for others, please see draft options paper in the briefing book

# Background

- The red hind spawning aggregation area closure east of St. Croix, was established in 1993 under the final rule for [Amendment 2](#) to the Reef Fish FMP of Puerto Rico and the USVI ([58 FR 53145](#); effective November 15, 1993).
- The area was located at the extreme eastern end of Lang Bank (Figure 1), 16 km east of St. Croix (17°49 N, 64°27 W) on a 30–35 meter deep spur and groove reef located several kilometers from the shelf edge.
- The spawning aggregation site is at the tip of a coral spur that projects into a deep-water basin (50–60 meters deep), which separates the inner and the outer coral ridges.



**Figure 1.** Boundary points and connecting lines of the red hind spawning aggregation off St. Croix , USVI (orange shaded area), the 100 fathom depth boundary line (purple line), and the state/federal boundary line (blue line).

# Background



- Management History of the Red Hind Grouper Spawning Aggregation Area, East of St. Croix, USVI

## Amendment 2 to the Reef Fish FMP (1993)

- The Council recommended NMFS implement a total ban on fishing in the area from December 1 to the last day of February, each year, to protect spawning aggregations of the red hind grouper.
- The original area proposed for the closure extended to the 100 fathom (600 feet, 183 meters) contour, but based on comments received at that time from members of the St. Croix Fisheries Advisory Committee, the area for closure was reduced to waters less than 50 fathoms (300 feet, 91 meters) in depth to reduce impacts on fisheries for large pelagics (tuna, dolphin, wahoo, and marlin) and deepwater snapper.



# Background



## Amendment 3 to the Reef Fish FMP (2005)

- Specified additional management measures for the red hind spawning aggregation area (in addition to other existing seasonally closed areas) to minimize adverse effects or fishing on essential fish habitat (EFH) in federal waters
  - Prohibited fishing with pots, traps, bottom longlines, gillnets or trammel nets year-round in the Lang Bank SPAG and other closed areas.
- In 2007, NMFS implemented management measures for Atlantic HMS, consistent with Amendment 3 to the Reef Fish FMP.
  - Prohibited vessels issued HMS permits with bottom longline gear onboard from fishing in six distinct areas off the USVI and Puerto Rico, year-round, including the red hind SPAG area off Lang Bank, St. Croix during the seasonal closure period.



# Background



## **St. Croix FMP (2022)**

- Management measures from Amendments 2 and 3 remained unchanged.
- Pelagic Species (dolphin and wahoo) added to the St. Croix FMP

### Current regulations in the Red Hind SPAG, east of St. Croix:

- (i) From December 1 through the last day of February, each year, fishing is prohibited in the red hind spawning aggregation area east of St. Croix.
- (ii) Fishing with pots, traps, bottom longlines, gillnets or trammel nets is prohibited year-round in the red hind spawning aggregation area east of St. Croix.



## Issue Addressed in this Draft Options Paper

### Motion at April 2022 Meeting:

“Request the staff to develop a scoping white paper to amend the St. Croix FMP to determine if it's feasible to allow persons to fish for and possess certain highly migratory and pelagic species from the red hind spawning aggregation seasonally closed area of Saint Croix. The closed area is defined in the current regulation at **50 CFR 622.435(a)(2)(ii)(A)**. This area includes portions of Lang Bank.”

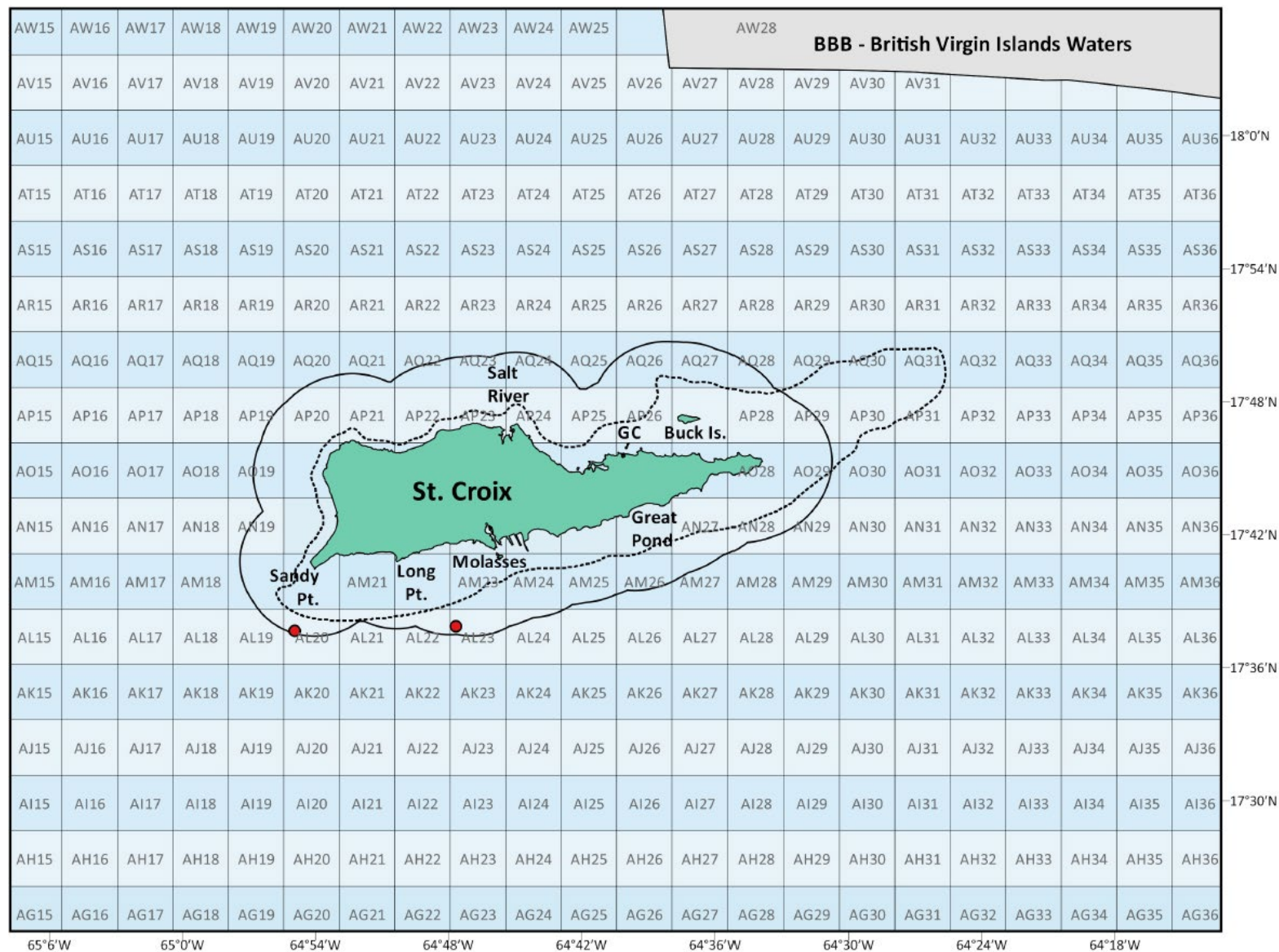
### Items for Council Discussion:

- 1) Identifying species that can be harvested during the seasonal closure (e.g., what would be the exceptions, managed, non-managed)
- 2) Identifying gear types or methods that could be used within the seasonally closed area.
- 3) Adjusting the boundaries of the closed area
- 4) Making other adjustments, such as the timing of seasonal closures

# Issues to Consider/Address in the Lang Bank SPAG

- **Enforcement difficulties** (from Nemeth et al. 2006)
  - Difficulties determining if a vessel is inside or outside the closure area - the western boundary of the closure area follows a southeastern bearing instead of a north-south line of longitude.
  - Remoteness of Lang Bank and the orientation of the boundary line.
- **Location of boundaries; bycatch**
  - Red hind spawning aggregation < than 600 m away from the western boundary line.
  - If fishing activity concentrated on the edges of the closure area, red hind movements in and out during spawning may increase the likelihood that a portion of the spawning red hind population are caught between the spawning peaks.
  - Potential bycatch from trolling activities, if any
- **Vertical Zoning in Marine Protected Areas (MPA)**
  - Allows for certain human uses, within a specific depth zone of the water column in an MPA.
  - Need to determine if some fishing could occur that would not impact the reason why the MPA was established.
  - Evaluate (1) the vertical structure of fish communities in the area; (2) rugosity of the area and probability of impacts to the habitat from gear use, (3) impacts of pelagic fishing to spawning activities
- **Lack of Reporting of Recreational Landings for the Area**
  - Recreational use of the area is noteworthy but not monitored



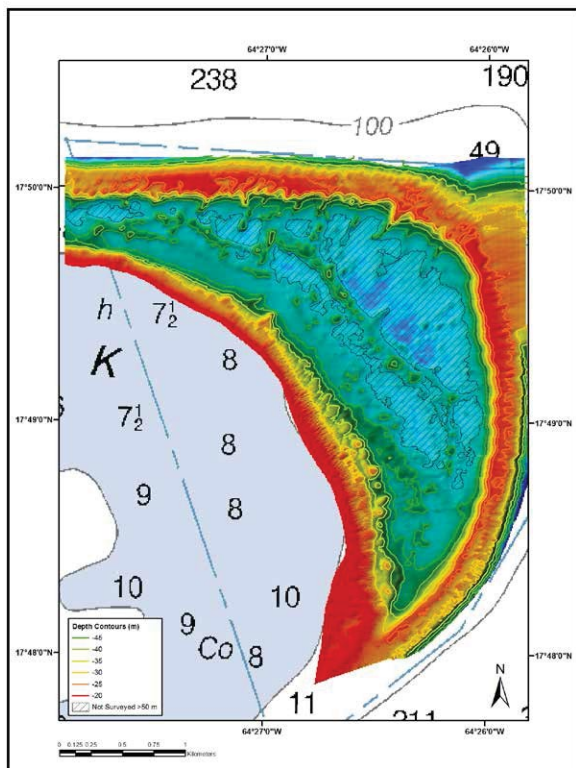


**Figure 4.** St. Croix grid map used by St. Croix commercial fishermen when reporting the location where they fish.

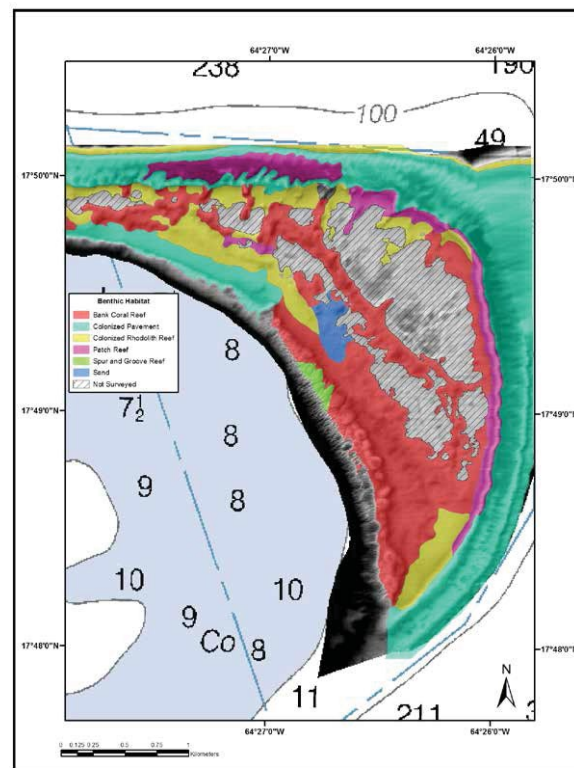
# Fishing Activities in the Lang Bank SPAG

***From 178<sup>th</sup> CFMC Meeting, April 19, 2022***

- Deep-water area at 25-75 fathoms is heavily used for trolling and fishing for HMS and pelagic species during the seasonal closure by commercial charter for hire and the recreational sector.
- Shelf edge is used as a natural FAD for fishing and trolling.
- Top-water species such as wahoo, yellowfin tuna, bigeye, skipjack, albacore, mahi, kingfish, and swordfish are active during the Dec-Feb closure. Billfish such as white marlin, blue marlin, sailfish and longbill spearfish are also pursued in the area.
- Approximately 40-50 vessels (from all sectors) are impacted by prohibiting fishing in the top of Lang Bank.
- Concern from fishers that while fighting fish or drifting, they may inadvertently drift into the edge of closed area, during the closed season.
- Fishers do not think trolling activities in the area at such depths would affect managed reef fish species.



**Figure 2.** Bathymetry map of Lang Bank, ST. Croix USVI. The blue dashed line represents the boundary of the red hind spawning aggregation area closure managed by the Caribbean Fishery Management Council. Source: *Garcia-Sais et al. 2014*



**Figure 3.** Benthic habitat map of Lang Bank, ST. Croix USVI. The blue dashed line represents the boundary of the red hind spawning aggregation area closure managed by the Caribbean Fishery Management Council. Source: *Garcia-Sais et al. 2014*

# Fishing Activities in the Lang Bank SPAG

- **Recreational landings are not available at this time.**
- **Commercial Landings**
  - List of reported commercial landings from various hook and line gear for years 2012-2022 by fishermen from rows AP and AQ and columns 30-31 in the St. Croix grid map (Figure 1). Wahoo and dolphinfish were in the top five landed species, by weight (pounds).
  - Other pelagic species not managed by the CFMC or HMS that appeared in the commercial landings included rainbow runner, barracuda, little tunny, and king mackerel.
  - From 2012-2022, 96% of dolphinfish reported by commercial fishermen in St. Croix were with handline gear, followed by rod and reel gear (2%). During the same period, 91% of wahoo were reported with handline gear, followed by rod and reel (6%).

Species	Total Pounds 2012-2022
Yellowtail snapper	4,503
Wahoo	4,446
Schoolmaster	2,016
Dolphinfish	1,263
Blackfin snapper	1,215
Silk snapper	1,210
Red Hind grouper	623
Rainbow Runner	418
Barracuda	402
Queen snapper	390
Coney grouper	383
Mutton snapper	288
Bar jack	251
Little Tunny	195
Horse-Eye jack	131
Queen triggerfish	109
King mackerel	100

**Table 3** (from Options Paper).

Approximate total commercial landings from the Lang Bank red hind spawning area reported using hook and line gear from 2012-2022. All landings data are preliminary.

## **Potential Options to Modify the Red Hind Spawning Aggregation Area East of St. Croix**

Note - At this time, the proposed options would not modify the gear prohibitions in the red hind closure area (i.e., fishing with pots, traps, bottom longlines, gillnets or trammel nets is prohibited year-round in the red hind spawning aggregation area east of St. Croix).

1. Maintain the current regulations in the seasonal area closure: From December 1 through the last day of February, each year, (all) fishing would continue to be prohibited in the red hind spawning aggregation area east of St. Croix.
2. Allow fishermen (commercial and/or recreational) to catch or possess Council-managed pelagic species (i.e., dolphin and wahoo) during the seasonal closure.
3. Allow fishermen (commercial and/or recreational) to catch or possess Council-managed and non-managed pelagic fish during the seasonal closure.
  - Based on commercial landings and testimony during Council meetings, non-managed pelagic species may include king mackerel, little tunny, rainbow runner, barracuda
4. Allow fishermen (commercial and/or recreational) to catch or possess any species of fish (managed and non-managed), except for Council-managed reef fish during the seasonal closure.



## **Potential Options to Modify the Red Hind Spawning Aggregation Area East of St. Croix (Cont.)**

5. Allow fishermen (commercial and/or recreational) to use only certain gear types and/or methods (e.g. trolling, drift fishing) to fish for certain species (e.g, Council-managed, non-managed, or both).
  - This option would benefit from input from the St. Croix DAP.
  - For this and previous options it is important to analyze information on bycatch (e.g., what other species have been harvested while fishing for pelagic species by trolling, hook and line, other, what is the potential to bring up reef fish from deeper waters).
6. Adjust the boundaries of the seasonal area closure to exclude zones that have been historically used for pelagic and other fishing (e.g., HMS).
  - Based on spatial analysis of the area, including, but not limited to bathymetry, rugosity, habitat areas where spawning activities occur, areas where the presence of Nassau grouper has been documented, use of the water column (vertical structure of the fish community).
7. Other options

## Atlantic Highly Migratory Species Management and Fishing Activities in the Lang Bank Area

To make changes to the management of HMS, the Council could formally request NMFS to evaluate modifying regulations for the Atlantic HMS in the Lang Bank seasonally closed area, as needed.

50 CFR 635.2 - [Highly migratory species](#) (HMS) means bluefin, bigeye, yellowfin, albacore, and skipjack tunas; swordfish; sharks (listed in Table 1 of appendix A to part 635); white marlin; blue marlin; sailfish; longbill spearfish; and roundscale spearfish.

- Species that inhabit the top of the water column and are typically fished in the Lang Bank area. Many of these species are active during the December through end of February closure (from testimony at Council meetings):
  - Tunas such as yellowfin, bigeye, skipjack, and albacore
  - Swordfish
  - Billfish such as white marlin, blue marlin, sailfish, and longbill spearfish

NMFS Atlantic HMS is currently developing [Amendment 15 to the 2006 Consolidated HMS FMP: Spatial Management and Electronic Monitoring](#). The proposed changes could have impacts to the management of HMS fishing activities in the U.S. Caribbean. For a list of authorized gear types in federal waters under the Atlantic HMS FMP, see the [HMS Compliance Guides](#).



# Action Items and Next Steps

December  
2023

- Council reviews Options Paper and discusses which actions to consider
- Council asks for this topic to be added to the next SSC and St. Croix DAP meeting agendas

Jan-Mar  
2024

- SSC and St. Croix DAP provide input on potential options

April  
2024

- Based on SSC and DAP input, Council refines what action to take
- Council asks staff to develop an amendment to the St. Croix FMP

*Questions?*

