

Scoping Document:
Issues and Options for Pelagic Longline
Bluefin Tuna Area-Based
and
Weak Hook Management



Prepared by NMFS, Highly Migratory Species (HMS) Management Division
March 2018

Purpose of this Document

This is a document prepared by the National Marine Fisheries Service (NMFS) for use in 2018 for scoping, a public process during which NMFS will consider a range of issues and options, as well as possible area-based and gear (weak hook) alternatives for management of incidental bluefin tuna catch that occurs during pelagic longline operations. The management options presented in this document are intended as a basis for further discussion about the need for such measures and the inclusion of other measures based on public comment, refinement of the objectives, and potential conservation and management measures to meet those objectives. Public comment should be submitted via www.regulations.gov or mail. Through the associated Federal Register notice of intent and notice of availability, NMFS is requesting comments on this document and on the management of Atlantic bluefin tuna, specifically including management options that are described in the scoping document and other potential options that could meet the purpose and need for this action.

The contents of this document are based upon written and oral comments, suggestions, and discussions about the management of Atlantic bluefin tuna since implementation of Amendment 7 to the 2006 Consolidated Atlantic Highly Migratory Species (HMS) Fishery Management Plan (FMP) (Amendment 7) by various members of the pelagic longline and other HMS fisheries, the HMS Advisory Panel, interested organizations, members of the public, and NMFS. Given the amount of consideration that many of the issues have received already through development of the 2006 Consolidated Atlantic HMS FMP and its amendments, scoping for this regulatory action will begin with a very brief summary of various measures designed to reduce bluefin tuna discards or interactions in the pelagic longline fishery, and then will include a discussion of the objectives of future action in this area, and an outline of potential management measures to meet those objectives. NMFS believes it will be more efficient to build upon previous discussions and such an approach may enable more effective and focused development of alternatives for analysis following scoping.

Structure of this Document

Background (Section 1), purpose and need (Section 2), and objectives (Section 3) are followed by information on possible management options (Sections 4 and 5). A discussion of next steps and a list of public scoping meetings is shown in Section 6.

Contents

1. Background	7
Pelagic Longline Fishery Management Overview	7
Northeastern United States Pelagic Longline Closed Area	8
Cape Hatteras and Spring Gulf of Mexico Gear Restricted Areas	9
Weak Hooks	10
IBQ Program	10
2. Purpose and Need for Scoping	13
3. Objectives	15
4. Potential Management	16
4.1 Northeastern United States Pelagic Longline Closed Area	16
Management Option A1: No Action	16
Management Option A2: Allow Access to the Northeastern United States Pelagic Longline Closed Area Based on Performance When the Area is Closed.	17
Management Option A3: Modify the Current Spatial and/or Temporal Coverage of the Northeastern United States Pelagic Longline Closed Area	18
Management Option A4: Provisional Application of the Northeastern United States Pelagic Longline Closed Area	19
Management Option A5: Elimination of the Northeastern United States Pelagic Longline Closed Area	19
4.2. Cape Hatteras Gear Restricted Area	28
Management Option B1: No Action	28
Management Option B2: Modify the Current Spatial and/or Temporal Coverage of the Cape Hatteras Gear Restricted Area	29
Management Option B3: Provisional Application of the Cape Hatteras Gear Restricted Area	30
Management Option B4: Elimination of the Cape Hatteras Gear Restricted Area	31
4.3. Gulf of Mexico Gear Restricted Areas	40
Management Option C1: No Action	40
Management Option C2: Implement Performance Access for the Spring Gulf of Mexico Gear Restricted Areas	41
Management Option C3: Modify the Current Spatial and/or Temporal Coverage of the Spring Gulf of Mexico Gear Restricted Areas	42

Management Option C4: Provisional Application of the Spring Gulf of Mexico Gear Restricted Areas	43
Management Option C5: Elimination of the Spring Gulf of Mexico Gear Restricted Areas.	44
5. Weak Hook Management	51
Management Option D1: No Action. Maintain current Gulf of Mexico pelagic longline weak hook requirements	51
Management Option D2: Seasonal requirement for Gulf of Mexico weak hooks	52
Management Option D3: Remove the Gulf of Mexico pelagic longline weak hook requirement	53
6. Public Scoping Meetings and Next Steps	58

List of Tables

Table 1 Overall revenue and effort in the pelagic longline fishery (2013-2016).	12
Table 2 Pelagic longline catch from 1996 and 1997 from the Northeastern United States pelagic longline closure.	21
Table 3 Pelagic longline catch from 2013 from the Northeast Central Statistical Area.	22
Table 4 Pelagic longline catch from 2014 from the Northeast Central Statistical Area.	23
Table 5 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2015 from the Northeast Central Statistical Area.	24
Table 6 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2016 from the Northeast Central Statistical Area.	25
Table 7 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2013 from the Cape Hatteras Gear Restricted Area.	33
Table 8 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2014 from the Cape Hatteras Gear Restricted Area.	34
Table 9 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2015 from the Cape Hatteras Gear Restricted Area.	35
Table 10 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2016 from the Cape Hatteras Gear Restricted Area.	36
Table 11 Changes in Cape Hatteras GRA access decision data over time for the pelagic longline fleet.	37
Table 12 Changes in Cape Hatteras GRA access decision data over time for the vessels denied access since program inception (2014-2018).	38
Table 13 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2013 from the Gulf of Mexico.	46
Table 14 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2014 from the Gulf of Mexico.	47
Table 15 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2015 from the Gulf of Mexico.	48
Table 16 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2016 from the Gulf of Mexico.	49

List of Figures

Figure 1 Map including the Northeastern United States closed area, Amendment 7 gear restricted areas, and affected area for weak hooks.	12
Figure 2 Bluefin tuna interactions in 1996 and 1997; data used for the 1999 FMP.	26
Figure 3 Bluefin tuna interactions before and after implementation of Amendment 7.	27
Figure 4 Bluefin tuna interactions before and after implementation of Amendment 7.	39
Figure 5 Bluefin tuna interactions before and after implementation of Amendment 7.	50
Figure 6 Gulf of Mexico pelagic longline bluefin tuna; number of fish per 1,000 hooks.	54
Figure 7 Gulf of Mexico pelagic longline white marlin CPUE (y-axis) by year.	55
Figure 8 Average Gulf of Mexico pelagic longline bluefin tuna catch by month; 2011-2016.	56
Figure 9 Average Gulf of Mexico pelagic longline bluefin tuna and white marlin.	57

List of Acronyms

BAYS	Bigeye, Albacore, Yellowfin, and Skipjack tuna (i.e., the BAYS tunas)
BFT	Bluefin tuna
DTS	Designated Target Species
CPUE	Catch-per-unit-effort
EIA	Environmental Impact Analysis
Plan	FMP Fishery Management
GRA	Gear Restricted Area
HMS	Highly Migratory Species
IBQ	Individual Bluefin Quota
ICCAT	International Commission for the Conservation of Atlantic Tunas
LAP	Limited Access Permit
MMPA	Marine Mammal Protection Act
MSA / MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
PLL	Pelagic Longline
POP	Pelagic Observer Program
VMS	Vessel Monitoring System

1. Background

NMFS is considering changes to the management of Atlantic Highly Migratory Species (HMS), with a focus on area-based management measures and weak hook management measures that were implemented to reduce interactions with and dead discards of bluefin tuna in the pelagic longline fishery. The [2006 Consolidated Atlantic HMS FMP](#) and its amendments contain a broad range of management objectives including (but not limited to): prevent overfishing of managed species, rebuild overfished Atlantic HMS stocks, monitor and control all components of fishing mortality so as to ensure long-term sustainability of the stocks and promote Atlantic-wide stock recovery, minimize bycatch and bycatch mortality to the extent practicable, manage for continuing optimum yield so as to provide the greatest overall benefit to the Nation, minimize to the extent practicable adverse social and economic impacts, provide a framework to take necessary action under [International Commission for the Conservation of Atlantic Tunas \(ICCAT\) recommendations](#), and simplify Atlantic HMS management. The objectives and potential measures listed in this document are intended to be catalysts for scoping and should not be viewed as the entire range of options that NMFS is considering. This document is intended to introduce several management options being considered for the pelagic longline fishery in order to engage the public as part of the rulemaking process.

Pelagic Longline Fishery Management Overview

The pelagic longline fishery for Atlantic HMS primarily targets swordfish, yellowfin tuna, and bigeye tuna in various areas and seasons. Secondary target species include dolphin, skipjack and albacore tuna, and, to a lesser degree, sharks. Although this gear can be modified (e.g., depth of set, hook type, hook size, bait) to target swordfish or tunas, it is generally a multi-species fishery. Pelagic longline vessel operators are opportunistic, switching gear style and making subtle changes to target the best available economic opportunity on each individual trip. Pelagic longline gear sometimes attracts and hooks non-target finfish with little or no commercial value as well as species that cannot be retained by commercial fishermen due to regulations, such as billfish. Pelagic longline gear may also interact with protected species such as marine mammals, sea turtles, and seabirds. Thus, this gear has been classified as a Category I fishery, or those fisheries which may result in frequent incidental mortality or serious injury of marine mammals, with respect to the Marine Mammal Protection Act (MMPA)¹. Any species that cannot be landed due to fishery regulations are required to be released, regardless of whether the catch is dead or alive (NMFS 2018).

¹ See description under Marine Mammal Protection Act List of Fisheries, <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-protection-act-list-fisheries>

The 1999 HMS FMP (which was combined with the Billfish FMP in 2006 to become the 2006 Consolidated Atlantic HMS FMP) established six different limited access permit (LAP) types: 1) directed swordfish, 2) incidental swordfish, 3) swordfish handgear, 4) directed shark, 5) incidental shark, and 6) Atlantic tunas longline. To reduce bycatch in the pelagic longline fishery, these permits were designed so that the swordfish directed and incidental permits are valid only if the permit holder also holds both a tunas longline and a shark permit. Similarly, the tunas longline permit is valid only if the permit holder also holds both a swordfish permit (directed or incidental, not handgear) and a shark permit. This allows limited retention of species that might otherwise have been discarded. As of October 2017, approximately 280 tunas longline LAPs had been issued. In addition, approximately 185 directed swordfish LAPs, 72 incidental swordfish LAPs, 221 directed shark LAPs, and 269 incidental shark LAPs had been issued (NMFS 2018).

There are a number of other restrictions for the pelagic longline fishery and Atlantic HMS commercial fisheries, including other time/area closures (i.e., Florida East Coast Closure, DeSoto Canyon Closure, Northeast Canyons and Seamounts Marine National Monument) which are summarized in the Atlantic HMS [Commercial Compliance Guide](#).

The management structure of the pelagic longline fishery was modified under Amendment 7 (79 FR 71510; December 2, 2014). Amendment 7 affected the Atlantic pelagic longline fishery in four ways: 1) two pelagic longline gear restricted areas (GRAs); 2) an Individual Bluefin Quota (IBQ) Program, which established vessel-specific bluefin allocations within the overall Longline category sub-quota for landings and dead discards and required retention of all legal-size bluefin tuna; 3) mandatory electronic monitoring of pelagic longline gear at haulback; and 4) catch reporting of each pelagic longline set using vessel monitoring systems (VMS). The GRAs and the IBQ Program are discussed in greater detail below. The expanded electronic monitoring and VMS reporting requirements were implemented to support the new IBQ Program and the inseason monitoring of the pelagic longline and purse seine fisheries, and are not discussed further in this document. The conservation and management measures in Amendment 7 became effective January 1, 2015, with two exceptions: electronic monitoring requirements in the pelagic longline fishery became effective on June 1, 2015. Trip level accountability requirements in the IBQ Program became effective on January 1, 2016, but IBQ requirements have been adjusted starting January 23, 2018 such that participants must secure enough quota to account for bluefin interactions or landings and meet minimum IBQ quota requirements on a quarterly basis. (NMFS 2018)

Northeastern United States Pelagic Longline Closed Area

The Northeastern United States Pelagic Longline closed area was implemented in 1999 to reduce bluefin tuna discards in the pelagic longline fishery (64 FR 29090, May 28, 1999). NMFS determined that the western Atlantic bluefin tuna stock was overfished in 1997. In addition, the

1998 ICCAT Recommendation on west Atlantic bluefin tuna required that all Contracting Parties, including the United States, minimize dead discards of bluefin tuna to the extent practicable, and set a country-specific dead discard allowance. Given the status of bluefin tuna and recommendations from ICCAT, at that time, NMFS investigated a range of different time/area options for locations with high bluefin tuna bycatch in the 1999 HMS FMP for Atlantic tunas, sharks, and swordfish. NMFS finalized the Northeastern United States closed area based on a redistribution analysis (disbursement analysis in the Final EIS) that showed that a closure during the month of June could reduce bluefin tuna discards by 55 percent in this area, without any substantial changes to target catch or other bycatch levels. This area is now closed from June 1 through June 30 each year and is located off the coast of New Jersey (Figure 1). Considerable effort has been occurring on the outer seaward edges of the closed area for the past 20 years. NMFS considered changes to the NE closed area during the scoping process for Amendment 7, but did not include actions for that area in the Amendment 7 rulemaking. Although no comments were received specific to the NE closure option during Amendment 7 scoping, there was general support for reducing the size and time of pelagic longline closed areas where possible.

Recently, NMFS has heard anecdotal reports from fishermen in the pelagic longline fishery that bluefin tuna concentrations have shifted from the NE closed area. As a result, fishing effort outside the NE closed area may now be occurring in areas with high bluefin tuna concentrations. In addition, pelagic longline fishermen have expressed that they believe NMFS should consider whether the NE closed area is still needed to limit bluefin tuna interactions given the apparent effectiveness of the IBQ Program. Given the issues raised, NMFS believes updated analyses are warranted to determine if it is still effective in minimizing bluefin tuna discards. NMFS is presenting a range of related management options for public consideration and comment during the scoping process.

Cape Hatteras and Spring Gulf of Mexico Gear Restricted Areas

Amendment 7 implemented several GRAs to reduce interactions of bluefin tuna with pelagic longline gear. One area is off the coast of Cape Hatteras and is closed from December 1 through April 30 annually. The Spring Gulf of Mexico GRAs consist of two areas in the central and eastern Gulf of Mexico. Both Gulf of Mexico GRAs are closed to pelagic longline gear from April 1 through May 31 annually. Each of these areas were identified as locations of high bluefin tuna concentrations and interactions with pelagic longline gear. The majority of interactions with bluefin tuna occurring in the Cape Hatteras GRA were limited to a few pelagic longline participants. Due to this dynamic, NMFS implemented in Amendment 7 performance measures to grant “qualified” fishery participants access to the area. Access is evaluated annually based on pelagic longline vessels’ ratio of bluefin tuna interactions to designated species (e.g., swordfish, yellowfin tuna, bigeye tuna, pelagic sharks, dolphin, wahoo) landings, compliance with the pelagic observer program, and timely submission of logbooks. In 2017, 101

out of 108 vessels were granted access to the Cape Hatteras GRA. The Spring Gulf of Mexico GRAs are closed to all vessels with pelagic longline gear onboard, instead of allowing performance-based access, because the distribution of interactions was more widespread across both the area of interest and fleet participants. In comparison, performance metrics were deemed more appropriate for the Cape Hatteras GRA given that high numbers of bluefin interactions in that area resulted from the fishing behavior of a small number of vessels.

Weak Hooks

From 2007-2010, NMFS conducted research on the use of weak hooks by pelagic longline vessels operating in the Gulf of Mexico to reduce bycatch of spawning bluefin tuna. Weak hooks are hooks that straighten to release large fish when they are captured. Research results showed that the use of a weak hook can significantly reduce the amount of bluefin tuna caught by pelagic longline vessels. Some reductions in the amount of target catch of yellowfin tuna and swordfish were noted but were not statistically significant. In 2011, a large year class of bluefin tuna was approaching maturity and was expected to enter the Gulf of Mexico to spawn for the first time. With these fish entering the Gulf of Mexico, NMFS implemented mandatory use of weak hooks on a year-round basis, to reduce bycatch of bluefin tuna. As mentioned above, in 2015, NMFS also implemented the Spring Gulf of Mexico GRAs and established specific Gulf of Mexico allocations as part of the IBQ Program to reduce discards of bluefin tuna. Recently, NMFS has received requests, including at the Spring 2017 Advisory Panel Meeting, to reevaluate the weak hook requirement. Specific suggestions of some Panel members were to remove the weak hook requirement since it may be redundant given IBQ regulations or to require weak hooks only when the greatest numbers of spawning bluefin tuna are present in the Gulf of Mexico.

IBQ Program

Amendment 7 also implemented an IBQ program, through which tradeable individual quota shares and allocations were established for qualified vessels. The program was designed to reduce the number of bluefin tuna dead discards by limiting the number of landings and dead discards each qualified participant could have each year. Other benefits of the IBQ program include: providing strong incentives to individual vessels to reduce bluefin tuna interactions and flexibility for vessels to continue to operate profitably, accommodating different fishing practices within the pelagic longline fleet, and creating new potential for revenue (from a market for leasable IBQ allocation). NMFS established three levels of IBQ shares (low, medium, and high) based on each eligible pelagic longline fishery participant's fishing history (2006-2012). Each level corresponds to a specific share percentage of the annual Longline category sub-quota that the qualified participant is allocated. A share percentage is equivalent to a certain amount (metric tons) of bluefin quota that is annually disbursed to a permitted vessel, called the "quota allocation" or "IBQ allocation," all of which is dependent on the total annual Longline category quota and in-season quota adjustments. Since implementation, NMFS has observed a decrease

in the number of bluefin tuna dead discards by vessels in the pelagic longline fishery, and the bluefin tuna Longline category quota as a whole has not been reached. Furthermore, while a small number of fishery participants entered quota “debt” (i.e., landings and/or dead discards exceeded the amount of IBQ allocation held by the permitted vessel), on each occasion the participant was able to lease enough quota to resolve the debt and avoid carrying forward debt into the new year. Starting on January 27, 2018, accounting for quota debt has shifted from a trip-level basis (whereby a participant with a permit in quota debt must reconcile the debt and meet the minimum regional IBQ requirement with leased IBQ allocation before the start of the next trip) to a quarterly basis (whereby a participant must lease and reconcile quota debt and meet the minimum regional IBQ requirement with IBQ allocation prior to departing on the first trip of a subsequent quarter) in order to provide additional flexibility for IBQ Program participants (82 FR 61489, December 28, 2017). Additional analysis on the performance of the IBQ Program has been initiated by NMFS in a draft Three-Year Catch Share Program Review document. As additional data and analyses become available, NMFS will incorporate them into subsequent rulemaking analysis.

It appears that the IBQ Program in tandem with other existing management measures has resulted in reductions in bluefin tuna dead discards that exceed the projected reductions in Amendment 7, which should have a positive ecological benefit for bluefin tuna. However, since 2013, two years prior to the IBQ Program being enacted, overall revenue and effort has declined in the pelagic longline fishery (Table 1), has initiated the review of current regulations and their impact to the pelagic longline fleet. Furthermore, NMFS has received suggestions from the public and HMS Advisory Panel members to reduce regulatory burden and to consider whether regulations intended to accomplish similar objectives may be duplicative and overly burdensome on fishery participants under current fishery conditions. Thus, NMFS is investigating ways to more effectively and efficiently manage the pelagic longline fleet including reviewing whether area management and weak hook regulations are still needed in order to maintain low rates of bluefin interactions and dead discards. Removal of these measures could reduce redundancies in regulations that are similar in effect and provide increased flexibility and opportunity for the pelagic longline fleet to harvest target species like yellowfin tuna and swordfish.

Table 1 Overall revenue and effort in the pelagic longline fishery (2013-2016); Source: HMS Logbook Data and relevant dealer data.

Year	Total Pelagic Longline Revenue	Effort (# of hooks)
2013	\$42,572,477	7,549,887
2014	\$34,523,359	6,984,239
2015	\$27,042,956	5,893,799
2016	\$25,322,560	5,278,750

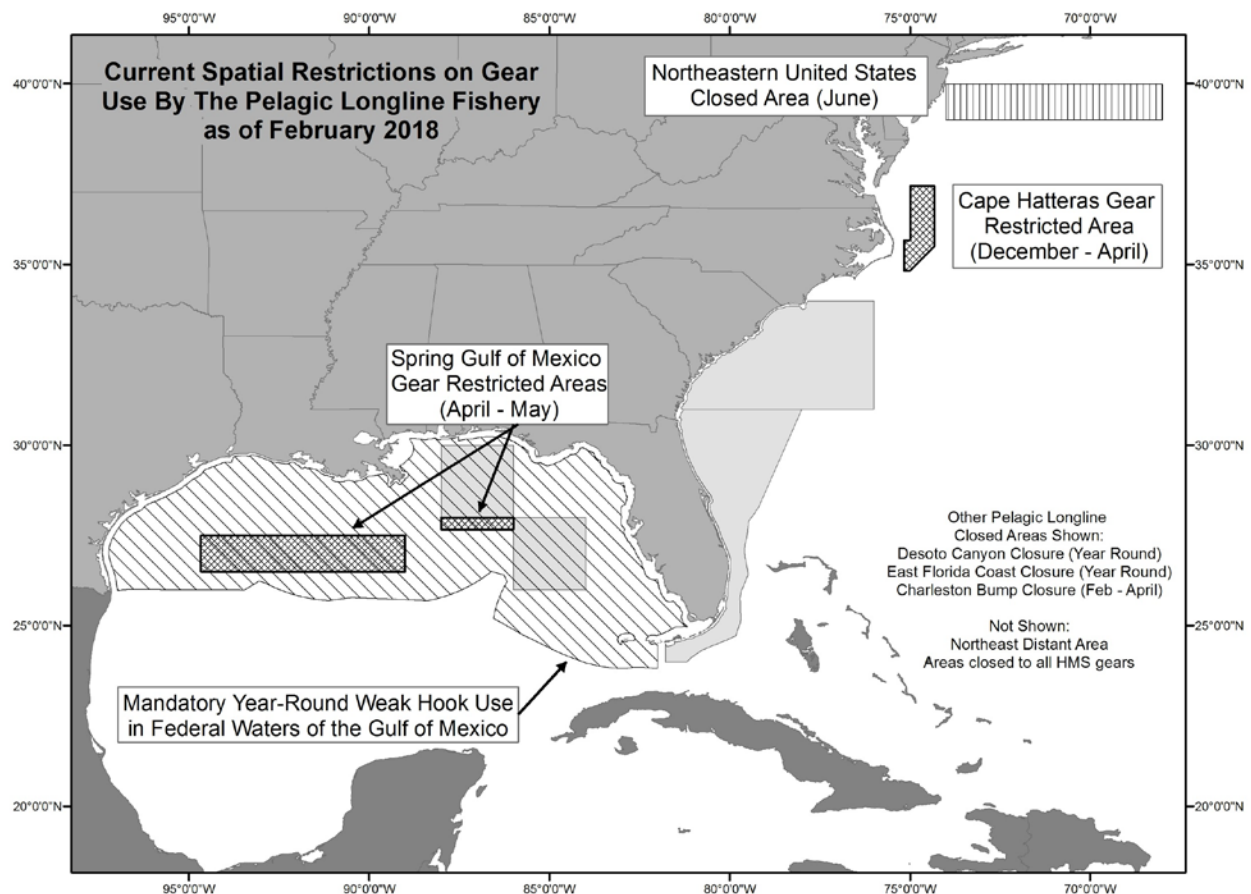


Figure 1 Map including the Northeastern United States closed area, Amendment 7 gear restricted areas, and affected area for weak hooks.

2. Purpose and Need for Scoping

At the Spring 2017 HMS Advisory Panel meeting, NMFS presented a summary of numerous requests from the public to determine whether the current suite of regulations is still needed to achieve management objectives for the pelagic longline fishery as identified in Amendment 7:

- Prevent overfishing and rebuild bluefin tuna, achieve on a continuing basis optimum yield, and minimize bluefin bycatch to the extent practicable by ensuring that domestic bluefin tuna fisheries continue to operate within the overall Total Allowable Catch set by ICCAT consistent with the existing rebuilding plan;
- Optimize the ability for all permit categories to harvest their full bluefin quota allocations; account for mortality associated with discarded bluefin in all categories; maintain flexibility of the regulations to account of the highly variable nature of the bluefin fishery; and maintain fairness among permit/quota categories;
- Reduce dead discards of bluefin and minimize reductions in target catch in both directed and incidental bluefin fisheries, to the extent practicable;
- Improve the timeliness and quality of catch data through enhanced reporting and monitoring to ensure that landings and dead discards do not exceed the quota and to improve accounting of all sources of fishing mortality.

Since implementation of Amendment 7 in 2015, NMFS has noted increased pelagic longline vessel accountability in fishing practices; however, effort within the pelagic longline fishery has decreased and quotas established for target species (*e.g.*, swordfish) are not being met. At the Fall 2017 HMS Advisory Panel meeting, NMFS presented a range of potential management issues and options for consideration that might: 1) optimize the ability of permit categories to harvest target species and still meet goals consistent with rebuilding and management plans and other species management objectives; and 2) revitalize the target longline fisheries, including increased swordfish landings within existing quotas. NMFS specifically received comments from pelagic longline participants and other interested parties, including comments at the Spring and Fall 2017 Atlantic HMS Advisory Panel meetings, to examine whether older fleet-wide measures such as gear requirements, area restrictions, or time/area closures may no longer be necessary to reduce bluefin tuna bycatch and still meet the objectives of the 2006 Consolidated HMS FMP and its amendments. The HMS Advisory Panel expressed support for the continued development of management options to be presented at the Spring 2018 Advisory Panel meeting.

There is a need to evaluate whether some current area-based and gear management measures are still necessary to reduce and/or maintain low numbers of pelagic longline bluefin tuna discards and interactions in light of recent successes with the IBQ Program; a recent shift in management focus towards individual vessel accountability in the pelagic longline fishery; continued

underachievement of quotas in target fisheries; comments from the public and the HMS Advisory Panel members indicating that certain regulations may be redundant in effect; and similarly, requests from the public and HMS Advisory panel members that we evaluate and potentially reduce regulatory burden or remove duplicative regulations. NMFS has therefore compiled several of the management options discussed at the Spring and Fall 2017 Advisory Panel meetings into this scoping document for purposes of obtaining additional public input. This scoping document may be used by NMFS during the public scoping process, in which NMFS will consider the range of issues and objectives, as well as possible management options that could be taken together or as standalone actions in a future rulemaking.

Although previous discussions covered a broader array of topics, the issues covered in this scoping document are limited to those management measures specifically intended to reduce bluefin tuna dead discards (*e.g.*, weak hooks, the Cape Hatteras and Gulf of Mexico Gear Restricted Areas, the NE Closed Area). Other time/area closures were enacted for reasons not specifically related to reducing bluefin tuna interactions and/or discards and are therefore not within the scope of this particular action.

3. Objectives

NMFS developed the following potential management objectives for scoping based upon the detailed suggestions of the HMS Advisory Panel, fishery participants, and the public regarding management of the pelagic longline fishery over the last several years. These specific objectives were designed and would be considered within the context of the current 2006 Consolidated Atlantic HMS FMP and its amendments, including revitalizing the swordfish fishery, ending overfishing, and meeting other legal obligations and conservation and management goals and requirements. There were common elements among the suggested management options to address multiple concerns regarding area and gear management. The potential objectives for any actions that would result from this scoping are as follows:

- Simplify and streamline Atlantic HMS management, to the extent practicable, focusing on reducing potential redundancies in regulations established to reduce bluefin tuna interactions that apply to the pelagic longline fishery;
- To the extent consistent with the goals and objectives below, pursue management strategies that emphasize *individual* vessel accountability over pelagic longline fleet-wide management measures;
- Continue to manage BFT bycatch within the PLL fishery to ensure that objectives related to bluefin tuna stock management are met, including international and domestic quotas and sub-quota allocations and limits, protection of spawning bluefin tuna on their spawning grounds, and appropriate gear restrictions (e.g., PLL is not an authorized gear for BFT directed fishing).
- Optimize the ability of the pelagic longline fishery to harvest target species quotas (e.g., swordfish), support flexibility of the regulations to account for the highly variable nature of the Atlantic HMS fisheries;
- Continue to account for mortality associated with discarded bluefin tuna and maintain incentives to reduce interactions with and dead discards of bluefin tuna in the pelagic longline fishery;
- Minimize, to the extent practicable, adverse social and economic impacts on related fisheries, fishing communities and recreational and commercial activities;
- Minimize, to the extent practicable, any disadvantage to U.S. fishermen in relation to foreign competitors (from MSA 304(g)(1)(c)); and
- Continue to prevent or end overfishing of relevant stocks, rebuild overfished stocks, minimize bycatch and bycatch mortality, and manage Atlantic HMS fisheries for continuing optimum yield consistent with the 2006 Consolidated Atlantic HMS FMP and its amendments, and all applicable laws.

4. Potential Management Options

4.1 Northeastern United States Pelagic Longline Closed Area

Management options discussed below are related to changes to the Northeastern United States pelagic longline closed area (Figure 2). This area is closed to fishing from June 1 through June 30 to all fishermen with pelagic longline gear onboard their vessels (see 50 CFR 635.21(c)(2)(i)). Management options include maintaining the current Northeastern United States closure, applying performance-based access to the closure, modifying the spatial boundaries and/or the temporal restrictions to the closure, provisionally applying the closure, or eliminating the closure. Relevant data related to this area and the relation of these options to current pelagic longline regulations and other management options in this document are presented in this section. Each of the management options for the Northeastern United States pelagic longline closed area are related to the objectives discussed in Section 3. All of the management options in this document can be considered together to evaluate the impact on catch of bluefin tuna, target species, and other bycatch.

Management Option A1: No Action

Description: This management option would maintain the current regulations of the Northeastern United States pelagic longline closed area from June 1 to June 30 annually as outlined at §635.21(c)(2)(i).

Justification: The rationale for the implementation of the Northeastern United States closure was described in the 1999 HMS FMP. The closed area was implemented due to high numbers of bluefin tuna discards occurring in the area compared to target catch levels. Logbook data submitted from 1996 and 1997 from the pelagic longline fleet was used to determine the effectiveness of the closure. Using a redistribution analysis, a 55 percent reduction in bluefin tuna catch and minimal reductions in target catch were projected once implemented. See Table 2 and Figure 2 for specific numbers of bluefin tuna catch, target species catch, and numbers of vessels interacting with bluefin tuna.

Pros: This would continue to protect any bluefin tuna that enter the area during the month of June.

Cons: This area has been closed to pelagic longline fishing for close to 20 years. Since the closure, no pelagic longline fishery data has been collected from the area and the way the gear is fished, regulated, and monitored has changed (e.g., hooks types, IBQs, and Electronic

monitoring). With this absence of any data, it is difficult to determine the levels of target catch and bycatch present in the area during the closure. Because of the IBQ Program and individual vessel accountability for bluefin tuna catch, vessels may no longer need additional fleet-wide management measures to avoid bluefin tuna interactions. Pelagic longline vessels must make decisions regarding fishing behavior based on the amount of IBQ allocation they each have access to, and that accountability could eliminate the need for this closure.

Management Option A2: Allow Access to the Northeastern United States Pelagic Longline Closed Area Based on Performance When the Area is Closed.

Description: This management option would maintain the current Northeastern United States pelagic longline closed area as described but allow access to the areas based on performance metrics outlined at 50 CFR § 635.14.

Justification: Performance metrics were implemented for the Cape Hatteras GRA to balance reducing bluefin tuna dead discards with providing reasonable fishing opportunities; to provide strong incentives to avoid bluefin tuna and to reduce dead discards by modifying fishing behavior; and to provide incentives to comply with reporting and monitoring requirements. In 1996 and 1997 during the month of June, 31 vessels had bluefin tuna interactions out of 38 vessels fishing in the Northeastern United States Pelagic Longline closed area. Recently, the majority of active vessels have qualified for access into the Cape Hatteras GRA. Given this dynamic, implementation of performance access in the Northeastern United States pelagic closed area may increase flexibility in the pelagic longline fishery and maintain low levels of bluefin tuna interactions and discards.

Pros: Most recently, 101 out of 108 vessels with fishing activity in the period analyzed were granted access to the Cape Hatteras GRA based on these performance metrics, so implementing performance-based access for the Northeastern United States closed area is not expected to restrict fishing activities for most of the active fleet. Low levels of bluefin tuna discards could also be achieved by allowing access to vessels demonstrating the ability to avoid bluefin tuna. Since implementing the performance metrics, compliance with the Pelagic Observer Program and with timely logbook submission has increased, as described under Management Option B1, and implementing performance metrics for additional areas would further reinforce that increased compliance. Implementing performance metrics for the Northeastern United States closed area would also allow for the collection of data that could be used in future management actions via a process that has already been proven to mitigate risk in other bluefin bycatch hotspots.

Cons: For pelagic longline vessels that do not qualify for access under current regulations, access would remain restricted. Such restrictions may not be necessary, however, given the individual

vessel accountability for bluefin tuna catch implemented through the IBQ Program, vessels may not need additional incentive through performance access to avoid bluefin tuna in the area.

Pelagic longline vessels must make decisions regarding fishing behavior based on the amount of bluefin tuna quota they each have access to, and that accountability could eliminate the need for fleet-wide area closures or to rely on a ratio of bluefin tuna interactions to target species landings to predict fishing behavior. However, granting access to the majority of the active fleet under the current performance metrics may not maintain the same level of reductions in bluefin tuna dead discards estimated in the 1999 HMS FMP.

Management Option A3: Modify the Current Spatial and/or Temporal Coverage of the Northeastern United States Pelagic Longline Closed Area

Description: This option would modify the current area by modifying the spatial and/or temporal extent of the Northeastern United States closed area.

Justification: The geographic extent and the timing of the Northeastern United States closed area were based on high bluefin tuna discard levels from 1996 and 1997 (Figure 2 and Table 2), and updated analyses including more recent years of data could show spatial and/or temporal shifts in interaction rates in relation to surrounding areas. In that case, making a corresponding modification to the closed area could better optimize reductions in bluefin tuna interactions under current regulatory and fishing conditions. Figure 3 shows bluefin tuna interactions in the area of the Northeastern United States closed area when it is open, as well as the surrounding area, in 2013 through 2016.

Pros: Adjustments to the Northeastern United States closed area to target locations that have the highest bluefin interactions in space or time could be more reflective of the current fishing environment and may be more efficient at maintaining a low rate of interactions with minimal effect to target catch levels.

Cons: Modifying the Northeastern United States closed area could negatively impact target species catch, depending on the overlap of the new areas with areas of high target species catch. Modifying the Northeastern United States closed area while continuing to exclude all access by pelagic longline vessels would have some of the same cons described under Management Option A1 (*i.e.*, this measure would not emphasize individual vessel accountability). While this may be more reflective of the current fishing environment, it would create some uncertainty for the fishery that could inhibit long-term business planning and additional administrative burden for analysis and rulemakings.

Management Option A4: Provisional Application of the Northeastern United States Pelagic Longline Closed Area

Description: This management option would allow the Northeastern United States Pelagic Longline closed area to remain open until bluefin tuna bycatch (landings and discards) reaches a level that triggers a closure of the area in June (or by another designated point of time) of a given year. The trigger level of bluefin tuna catch could be based on analysis of current data from the areas surrounding the closed area or based on historical data that justified the implementation of the Northeastern United States pelagic longline closed area. Relevant data could include bluefin tuna interactions, bluefin tuna dead discard levels, ratio of bluefin tuna interactions to target species catch, or other relevant data as identified through scoping and future rulemaking.

Justification: This option could be a more precise way to administer the Northeastern United States pelagic longline closed area if and when bluefin tuna catches reach a trigger level. Bluefin tuna catches may not be high in a given year for the beginning of the period the closure is normally in place, or at all, and in that case it would not be necessary to apply the closure.

Pros: Provisional application would mean that this area would be open to pelagic longline vessels to fish for target species for a greater proportion of the year, or year-round. It would also be a more precise tool to reduce bluefin tuna dead discards in years when such a reduction is needed based on current fishery conditions, rather than for one month out of every year. Implementing provisional access for the Northeastern United States closed area would also allow for the collection of data that could be used in future management actions.

Cons: Provisional application would introduce new uncertainty in fishery operations for pelagic longline vessels regarding if and when the Northeastern United States pelagic longline closed area would be effective in a given year. When the closure is effective, the same cons described under Management Option B1 would apply. Fishery managers would need to track bluefin tuna from this area inseason to determine when the trigger level is reached, similar to tracking the NED bluefin tuna quota. This level of tracking could increase administrative burden for NMFS.

Management Option A5: Elimination of the Northeastern United States Pelagic Longline Closed Area

Description: This management option would eliminate the current Northeastern United States pelagic longline closed area restrictions as outlined at § 635.21(c)(2)(i).

Justification: Continued application of the Northeastern United States pelagic longline closed area may no longer be an effective management tool to reduce bluefin tuna interactions and dead discards while providing reasonable fishing opportunities for target catch consistent with other management objectives.. The benefits and effectiveness of the Northeastern United States pelagic longline closed area could be re-analyzed under current regulatory and fishing conditions since implementation of Amendment 7. In addition, the closure may contribute to decreased target species catch and increase in bluefin tuna interactions discards if migratory patterns have changed. In the 1999 HMS FMP, it was noted that negligible changes in target catch and other bycatch would occur, but those species may have also changed their spatial distributions in the area.

Pros: Recent data from 2013 through 2016 show that bluefin tuna interactions in the open areas of the Northeast Central Statistical Area are lower than in 1996 and 1997 (Table 2-Table 6). Although a portion of the Northeastern United States pelagic longline closed area is located in the MAB and a portion is located in the NEC, the catch data from 2013-2016 presented in this document are from the NEC statistical area. Due to the high number of bluefin tuna interactions in the seaward portion of the closure in 1996 and 1997, NMFS assumes that the effort that would have occurred in the closure during June is currently occurring in the open portions of the NEC. This could imply that interactions within the Northeastern United States pelagic longline closed area, during the month of June, would also not be as high. Although lower than 1996 and 1997 levels, there has also been an increasing number of bluefin tuna interactions outside the closed area from 2013 to 2016 (Table 2-Table 6) during the month of June, which could also mean there has been a change in the distribution of bluefin tuna. Eliminating the closed area would optimize the ability of the pelagic longline fleet to catch target species in this area year-round. Eliminating the closure could align the management of this area more towards a programmatic focus on individual accountability; vessel captains would make decisions about their fishing behavior based on the limits and provisions of the IBQ Program. Individual vessel accountability may eliminate the need to continue to restrict access to the Northeastern United States pelagic longline closed area.

Cons: Eliminating the current Northeastern United States pelagic longline closed area may not maintain the same level of reduced numbers of bluefin tuna dead discards noted since implementation in 1999. Anticipated effects of opening the area would be difficult to predict due to the lack of Simplify and streamline Atlantic HMS management, to the extent practicable, focusing on reducing potential redundancies in regulations established to reduce bluefin tuna interactions that apply to the pelagic longline fishery; data available from that area.

Table 2 Pelagic longline catch from 1996 and 1997 from the Northeastern United States pelagic longline closure.

1996-1997							
Month	Bluefin Tuna Kept	Bluefin Tuna Discarded Alive	Bluefin Tuna Discarded Dead	Swordfish Kept	Bigeye Tuna Kept	Yellowfi n Tuna Kept	Dolphin Kept
January	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0
May	3	85	67	34	131	85	11
June	38	824	440	559	1,196	1,778	2,076
July	18	166	72	601	623	2,089	2,121
August	2	8	2	1,039	1,394	2,785	418
September	0	0	1	429	717	1,343	292
October	0	2	0	100	1167	905	153
November	7	6	7	221	1261	804	17
December	13	40	24	289	282	78	2
Total	81	1,131	613	3,272	6,771	9,867	5,090

Source: HMS Logbook Data

Table 3 Pelagic longline catch from 2013 from the Northeast Central Statistical Area.

2013							
Month	Bluefin Tuna Kept	Bluefin Tuna Discarded Alive	Bluefin Tuna Discarded Dead	Swordfish Kept	Bigeye Tuna Kept	Yellowfin Tuna Kept	Dolphin Kept
January	0	0	0	19	5	0	1
February	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0
April	0	0	0	6	0	3	0
May	1	0	0	15	13	7	51
June	3	5	20	554	52	33	94
July	0	4	6	1332	279	294	641
August	0	13	10	884	331	690	296
September	0	0	0	404	418	392	64
October	0	0	0	510	222	571	54
November	0	0	0	0	0	1	0
December	0	0	0	0	0	0	0
Total	4	22	36	3724	1320	1991	1201

Source: HMS Logbook Data

Table 4 Pelagic longline catch from 2014 from the Northeast Central Statistical Area.

2014							
Month	Bluefin Tuna Kept	Bluefin Tuna Discarded Alive	Bluefin Tuna Discarded Dead	Swordfish Kept	Bigeye Tuna Kept	Yellowfin Tuna Kept	Dolphin Kept
January	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0
May	2	0	2	202	7	14	8
June	7	5	16	524	135	91	118
July	13	0	16	463	463	987	537
August	0	0	0	257	1105	958	236
September	0	0	0	171	839	368	137
October	0	0	0	92	321	213	128
November	2	0	0	55	59	328	4
December	0	0	0	0	0	0	0
Total	24	5	34	1764	2929	2959	1168

Source: HMS Logbook Data

Table 5 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2015 from the Northeast Central Statistical Area.

2015							
Month	Bluefin Tuna Kept	Bluefin Tuna Discarded Alive	Bluefin Tuna Discarded Dead	Swordfish Kept	Bigeye Tuna Kept	Yellowfin Tuna Kept	Dolphin Kept
January	0	0	0	2	2	2	0
February	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0
May	3	0	3	92	13	69	174
June	18	7	33	485	128	314	159
July	16	3	21	1194	1068	1025	35
August	0	0	0	339	1502	773	31
September	0	0	0	132	350	168	26
October	0	0	0	232	170	184	36
November	12	11	12	157	243	101	3
December	6	6	4	30	64	1	0
Total	55	27	73	2663	3540	2637	464

Source: HMS Logbook Data

Table 6 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2016 from the Northeast Central Statistical Area.

2016							
Month	Bluefin Tuna Kept	Bluefin Tuna Discarded Alive	Bluefin Tuna Discarded Dead	Swordfish Kept	Bigeye Tuna Kept	Yellowfin Tuna Kept	Dolphin Kept
January	2	1	0	2	4	0	0
February	0	0	0	0	1	0	0
March	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0
May	2	15	15	5	0	0	26
June	136	65	179	574	325	168	1227
July	24	10	14	700	30	113	65
August	1	3	4	136	303	575	77
September	0	0	0	527	249	593	64
October	0	0	3	272	301	238	83
November	0	0	0	3	0	0	0
December	0	0	0	0	0	0	0
Total	165	94	215	2219	1213	1687	1542

Source: HMS Logbook Data

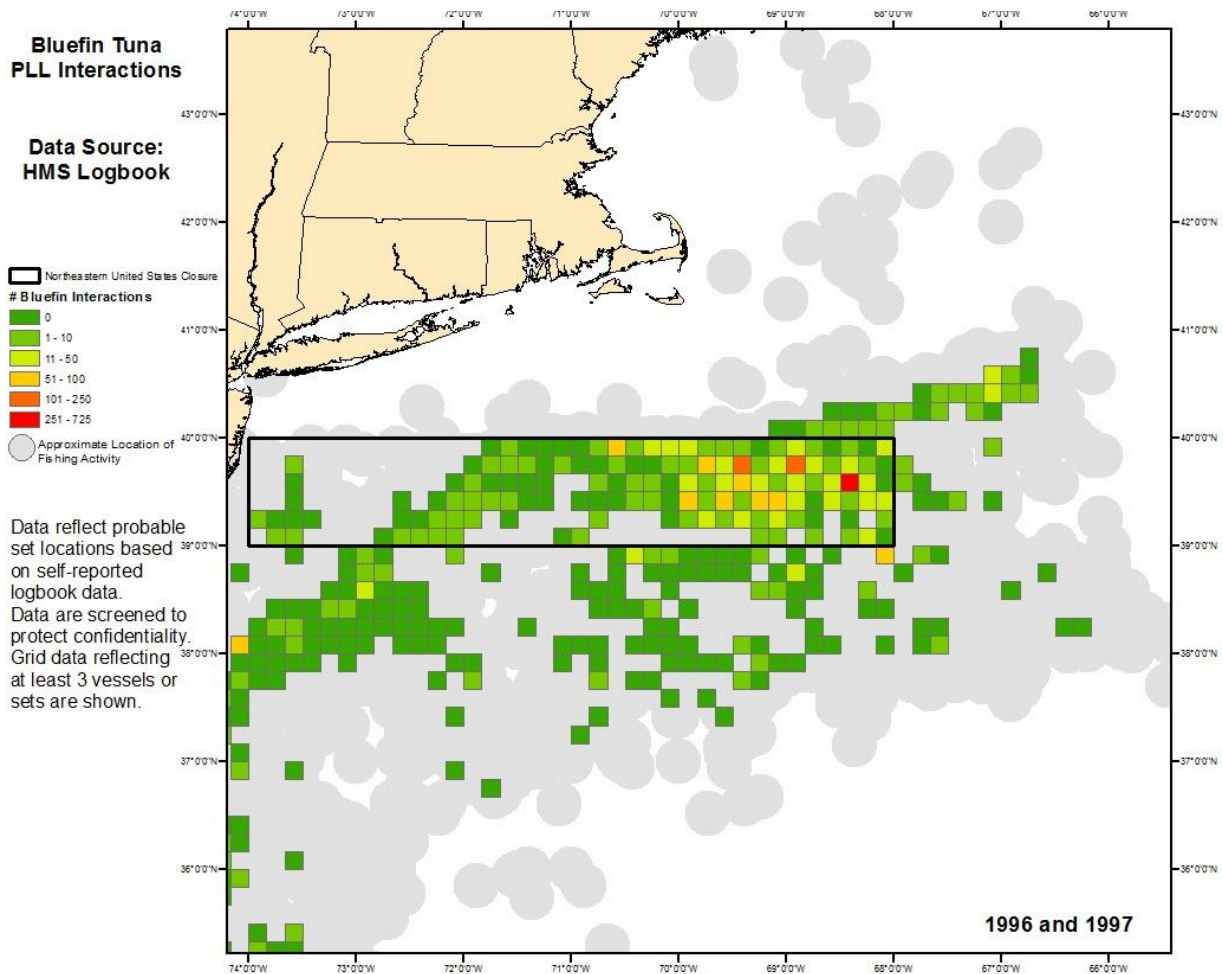


Figure 2 Bluefin tuna interactions in 1996 and 1997; data used for the 1999 FMP.

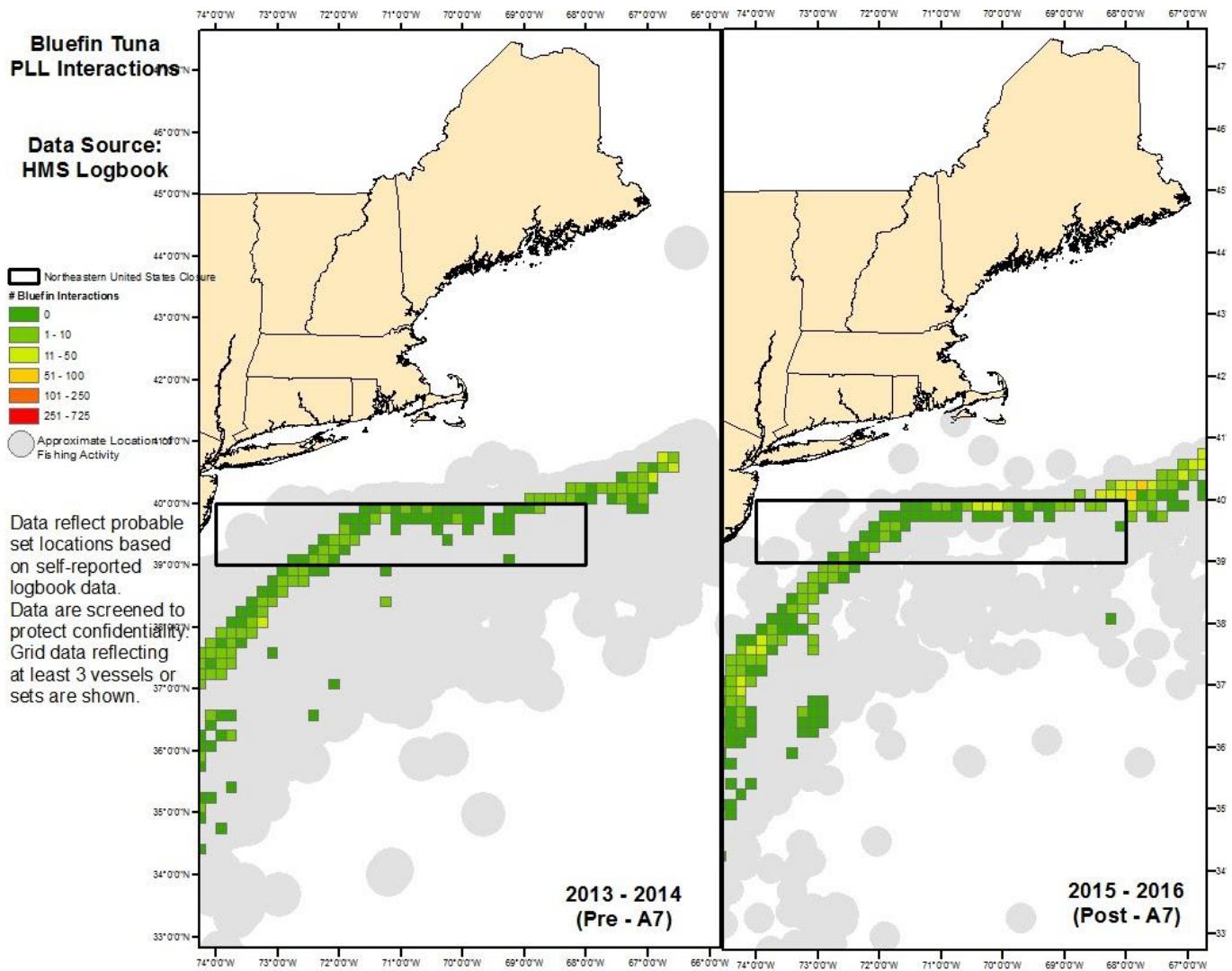


Figure 3 Bluefin tuna interactions before and after implementation of Amendment 7.

4.2. Cape Hatteras Gear Restricted Area

The following management options would consider changes to the existing Cape Hatteras GRA, which is in place from December 1 through April 30 of each year and allows restricted access by pelagic longline vessels that are “qualified” in accordance with performance metrics (see 50 CFR § 635.21(c)(2)(v) and (c)(3) and § 635.14). Management options include maintaining the current Cape Hatteras GRA, modifying the GRA, provisionally applying the GRA, or eliminating the GRA. The effectiveness of the Cape Hatteras GRA can be evaluated given the trends in bluefin tuna catch and behavior of the pelagic longline fleet since implementation of Amendment 7 and the IBQ Program, in order to consider what changes, if any, to the GRA may be to optimize fishing opportunity and quota use of target species (*e.g.*, swordfish) while still maintaining low levels of bluefin tuna interactions and discards. Management of the Cape Hatteras GRA is related to other management measures that serve to modify fishing behavior in order to reduce bluefin tuna dead discards, particularly to other pelagic longline closed areas and GRAs, as well as the IBQ Program. All of the management options in this document can be considered together to evaluate the impact on catch of bluefin tuna, target species, and other bycatch.

Management Option B1: No Action

Description: This option would maintain the current GRA off Cape Hatteras, NC, from December 1 through April 30 of each year, as well as the performance metrics for pelagic longline vessels to qualify for access to the GRA (see §635.21(c)(2)(v) and (c)(3) and §635.14).

Justification: The rationale for establishing this GRA was described in Amendment 7. The GRA was implemented to restrict the use of pelagic longline gear within a specific geographic area during a period when there is a high likelihood of bluefin catch to effectively reduce interactions and dead discards while providing reasonable fishing opportunities for target catch consistent with other management objectives.. Performance metrics were implemented to balance reducing bluefin tuna interactions and dead discards with providing reasonable fishing opportunities for target species; to provide strong incentives to avoid bluefin tuna and to reduce dead discards by modifying fishing behavior; and to provide incentives to comply with reporting and monitoring requirements. Analysis of logbook and observer data from 2006 through 2012 published in Amendment 7 showed that this area contained seasonally consistent concentrations of bluefin tuna and catches by the pelagic longline fleet. Average annual bluefin tuna interactions in this area during December through April in 2006 through 2012 were 469 fish (Table 4.8 of Amendment 7). Looking at the December through April time period, average annual bluefin tuna interactions in this area in 2013 and 2014 were 36 fish², while average annual bluefin tuna

² Average annual number of fish is calculated by summing the number of fish caught in each time period and dividing by the number of years (*e.g.*, 39 fish in 2013 + 33 fish in 2014 / 2 yrs = 36 fish).

interactions in the GRA in 2015 and 2016 were 11 fish (a 69 percent decrease between the two time periods) (Table 7-Table 10).

Pros: Maintaining the current area could contribute to maintaining the reduced numbers of bluefin tuna dead discards since implementation of Amendment 7. Most recently, 101 out of 108 vessels with fishing activity in the period analyzed were granted access to the Cape Hatteras GRA, therefore, this GRA is not restricting fishing activities for most of the active fleet. Since implementing the performance metrics, compliance with the Pelagic Observer Program and with timely logbook submission has increased (Table 11). Furthermore, even the vessels denied access due to a high rate of bluefin interactions over the three years of the program have shown improvements in compliance with Pelagic Observer Program requirements (7.74 percent increase in the number of compliant trips on average) and logbook reporting requirements (reduction in the average reporting time by 30 days) (Table 12). Therefore, performance access can provide a strong incentive for improvement with fishery regulations.

Cons: The GRA reduces the fishing opportunity of those pelagic longline vessels that do not qualify for access. Given the individual vessel accountability for bluefin tuna catch implemented through the IBQ Program, vessels may not need additional incentive through a performance metric to avoid bluefin tuna. Pelagic longline vessels must make decisions regarding fishing behavior based on the amount of bluefin tuna quota they each have access to, and that accountability could eliminate the need to rely on a ratio of bluefin tuna interactions to target species landings to predict fishing behavior. Individual vessel accountability through the IBQ program may also reduce or eliminate the need to directly restrict access to an area of high bluefin interactions. The geographic extent and the timing of the GRA are based on bluefin tuna interactions from 2006 through 2012, and updated analyses could show spatial and/or temporal shifts in high interaction areas.

Management Option B2: Modify the Current Spatial and/or Temporal Coverage of the Cape Hatteras Gear Restricted Area

Description: This option would modify the spatial and/or temporal coverage of the current GRA based on updated analyses of bluefin tuna interactions in this area.

Justification: The geographic extent and the timing of the GRA are based on bluefin tuna interactions from 2006 through 2012, and updated analyses including more recent years of data could show spatial and/or temporal shifts in high interaction areas. In that case, making a corresponding modification to the GRA would better optimize reductions in bluefin tuna interactions under current regulatory and fishing conditions. Figure 4 shows the spatial distribution of bluefin tuna interactions in the two years preceding and following Amendment 7 implementation, and bluefin tuna interactions by year in this area from 2013 through 2016,

respectively. Table 7 through Table 10 show bluefin tuna interactions throughout the year in the area covered by the Cape Hatteras GRA.

Pros: An evaluation of recent interaction data could indicate that adjustments to the GRA are appropriate to target locations that have the highest bluefin interactions in space or time. Resulting modifications would be more reflective of the current fishing environment and may be more efficient at maintaining a low rate of interactions. Modifying the GRA could further provide reasonable fishing opportunities for target catch consistent with other management objectives, from the current GRA. The modified GRA would maintain the same performance metrics and would continue to impact only a small number of pelagic longline vessels that do not qualify for access. Maintaining the performance metrics could also continue to modify fishing behavior by providing incentives to reduce dead discards by avoiding bluefin tuna, and compliance with reporting and monitoring requirements.

Cons: Modifying the GRA could negatively impact target species catch, depending on the overlap of the new area in space and time with areas of high target species catch. A modified GRA using the same performance metrics to determine access would have some of the same cons described under Management Option B1 (*i.e.*, for vessels that do not qualify for access and individual vessel accountability through the IBQ Program). Adjusting the temporal or spatial boundaries on the GRA would establish a precedent of periodic GRA evaluation and updates to the GRAs. While this may be more reflective of the current fishing environment, it would create some uncertainty for the fishery that could inhibit long-term business planning and additional administrative burden for analysis and rulemakings.

Management Option B3: Provisional Application of the Cape Hatteras Gear Restricted Area

Description: This option would allow the Cape Hatteras GRA to remain open to all pelagic longline vessels do not meet the performance criteria of the GRA. The trigger level of bluefin tuna catch could be based on analysis of current data from the GRA, such as bluefin tuna interactions, bluefin tuna dead discard levels, ratio of bluefin tuna interactions to target species catch, or other relevant data as identified through scoping and future rulemaking. NMFS could continue to analyze the three most-recent years of logbook and observer program data on an annual basis and provide notification of access decisions to participants in advance should the trigger level be reached.

Justification: This option could be a more precise way to apply the Cape Hatteras GRA if and when bluefin tuna catches reach a trigger level. Bluefin tuna catches may not be high in a given year for the first months the GRA is normally in place, or at all, and in that case it would not be necessary to apply the GRA.

Pros: Provisional application of the GRA would mean that this area would be open to all pelagic longline vessels to fish for target species for a greater proportion of the year, or year-round. It would also be a more precise tool to reduce bluefin tuna dead discards in years and during months that such a reduction is needed based on current fishery conditions, rather than for five months out of every year. Provisional application of the GRA while maintaining the same performance metrics should continue to impact only a small number of pelagic longline vessels that do not qualify for access. Maintaining the performance metrics could also continue to provide incentives to avoid bluefin tuna and to reduce dead discards by modifying fishing behavior, and create incentives to comply with reporting and monitoring requirements. Implementing provisional access would also allow for the collection of data on pelagic longline vessels fishing in this area.

Cons: Provisional application of the GRA would introduce new uncertainty in fishery operations for those pelagic longline vessels that do not qualify for access, regarding if and when the GRA would be effective in a given year. There is also the potential for individuals within the fleet to still affect fishing opportunities of other pelagic longline participants. For example, vessels that are qualified for access to the GRA could encounter high numbers of bluefin and trigger GRA implementation that could reduce fishing opportunities of non-qualified vessels; however, those qualified vessels would still be able to operate within the GRA. When the GRA is effective, the same cons described under Management Option B1 would apply. Fishery managers would need to track bluefin tuna catch from this area inseason to determine when the trigger level is reached, similar to tracking the NED bluefin tuna quota.

Management Option B4: Elimination of the Cape Hatteras Gear Restricted Area

Description: This option would eliminate the Cape Hatteras GRA.

Justification: Implementation of the Cape Hatteras GRA may no longer be an effective management measure to reduce bluefin tuna dead discards, providing reasonable fishing opportunities for target catch consistent with other management objectives. Likewise, performance metrics may no longer be an effective management measure to provide strong incentives to avoid bluefin tuna and to reduce dead discards by modifying fishing behavior. The benefits and effectiveness of the GRA could be analyzed under current regulatory and fishing conditions since implementation of Amendment 7. In addition, the Cape Hatteras GRA may contribute to decreased target species catch (i.e., swordfish). In 2006 through 2012, swordfish catch was high in this area from December through April (1,602 average annual swordfish kept over 5 months; Table 4.8 of Amendment 7) compared to May through November (1,141 average annual swordfish kept over 7 months). Looking at December through April, 1,230 swordfish were kept on average in this area in 2013 and 2014, while 874 swordfish were kept on average in

the GRA in 2015 and 2016 (Table 7-Table 10). Average annual number of yellowfin tuna and bigeye tuna kept in December through April in this area dropped in 2013 and 2014, compared to 2006 through 2012, but began to increase again in 2015 and 2016 (Table 7-Table 10; Table 4.8 of Amendment 7). Average annual number of dolphin kept in December through April in this area also dropped slightly in 2013 and 2014, compared to 2006 through 2012, but in 2015 and 2016 surpassed the number kept pre-Amendment 7 (Table 7-Table 10; Table 4.8 of Amendment 7).

Pros: Recent data from 2013 through 2016 show that bluefin tuna interactions in this area have decreased from the number of interactions in the period analyzed in Amendment 7 (as described under Management Option B1). Eliminating the GRA could optimize the ability of the pelagic longline fleet to catch target species in this area year-round, particularly swordfish. Eliminating the GRA could also allow vessels to make decisions on fishing behavior based on individual vessel accountability under the IBQ Program, which is effective throughout the fishery, rather than based on the bluefin tuna interaction performance metric, which applies to the entire fleet but impacts the portion of the fleet that wishes to fish a localized area of high bluefin interactions. Individual vessel accountability through the IBQ Program may eliminate the need to directly restrict access to this area of high bluefin interactions.

Cons: Eliminating the current area may not maintain the same level of reduced numbers of bluefin tuna dead discards since implementation of Amendment 7. Eliminating the GRA and related performance metrics could reduce incentives to comply with reporting and monitoring requirements, although this would need to be considered together with the possible use of performance metrics in management of other areas.

Table 7 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2013 from the Cape Hatteras Gear Restricted Area.

2013							
Month	Bluefin Tuna Kept	Bluefin Tuna Discarded Alive	Bluefin Tuna Discarded Dead	Swordfish Kept	Bigeye Tuna Kept	Yellowfin Tuna Kept	Dolphin Kept
January	21	3	0	1053	17	75	0
February	2	0	0	215	1	2	0
March	3	8	2	41	2	4	2
April	0	0	0	0	0	0	0
May	2	0	0	137	32	581	619
June	4	0	0	94	189	1480	814
July	0	2	0	121	310	767	408
August	0	0	0	100	151	1333	130
September	1	0	0	220	654	508	39
October	0	0	0	201	259	271	24
November	0	0	0	440	35	46	2
December	0	0	0	252	8	3	29
Total	33	13	2	2874	1658	5070	2067

Source: HMS Logbook Data

Table 8 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2014 from the Cape Hatteras Gear Restricted Area.

2014							
Month	Bluefin Tuna Kept	Bluefin Tuna Discarded Alive	Bluefin Tuna Discarded Dead	Swordfish Kept	Bigeye Tuna Kept	Yellowfin Tuna Kept	Dolphin Kept
January	2	1	1	366	15	9	0
February	4	0	1	111	0	1	0
March	6	0	2	6	0	2	0
April	14	2	0	24	1	12	10
May	0	0	0	30	37	85	1254
June	13	0	2	37	177	2113	1269
July	0	0	0	39	392	1527	54
August	0	0	0	57	388	1764	27
September	0	0	0	37	630	1186	10
October	0	0	0	173	425	1023	32
November	0	0	0	117	145	1078	2
December	0	0	0	392	51	91	0
Total	39	3	6	1389	2261	8891	2658

Source: HMS Logbook Data

Table 9 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2015 from the Cape Hatteras Gear Restricted Area.

2015							
Month	Bluefin Tuna Kept	Bluefin Tuna Discarded Alive	Bluefin Tuna Discarded Dead	Swordfish Kept	Bigeye Tuna Kept	Yellowfin Tuna Kept	Dolphin Kept
January	0	0	0	84	0	8	0
February	0	0	0	34	0	0	0
March	1	0	0	1	0	2	0
April	2	0	0	46	8	39	27
May	0	0	0	129	37	154	1396
June	1	0	0	60	78	633	2993
July	0	0	0	38	272	629	8
August	0	0	0	102	1057	1011	105
September	0	0	0	61	513	475	43
October	0	0	0	56	501	895	24
November	1	1	0	601	258	381	6
December	1	0	1	929	160	470	9
Total	6	1	1	2141	2884	4697	4611

Source: HMS Logbook Data

Table 10 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2016 from the Cape Hatteras Gear Restricted Area.

2016							
Month	Bluefin Tuna Kept	Bluefin Tuna Discarded Alive	Bluefin Tuna Discarded Dead	Swordfish Kept	Bigeye Tuna Kept	Yellowfin Tuna Kept	Dolphin Kept
January	1	1	0	199	7	14	0
February	9	4	0	24	3	7	0
March	0	0	0	0	0	0	0
April	0	1	0	194	82	233	87
May	2	0	0	38	53	227	963
June	10	17	12	64	238	3025	2318
July	0	1	0	109	445	2776	221
August	0	0	0	15	109	551	34
September	0	0	0	38	462	1268	131
October	0	1	0	175	371	435	11
November	1	0	0	173	475	424	2
December	0	0	0	236	207	158	0
Total	23	25	12	1265	2452	9118	3767

Source: HMS Logbook Data

Table 11 Changes in Cape Hatteras GRA access decision data over time for the pelagic longline fleet (i.e., those vessels that had data for analysis).

Metric* Evaluative Time Period	2014-2015 (2006-2012)	2015-2016 (2012-2014)	2016-2017 (2013-2015)	2017-2018 (2014-2016)
Average Bluefin Avoidance Ratio (# bluefin /lbs dw DTS) x 10,000	1.60	0.75	0.65	0.88
POP: Average % Compliant Trips *	89.08%	91.00%	93.48%	95.30%
Logbook: Average # Days Offload → Receipt by SEFSC **	46 days	35 days	24 days	24.5 days
Average DTS landings (lbs dw) / vessel	428,169	240,930	222,936	206,737

*Average Percent Compliant trips - vessels are scored based on compliance with POP requirements for each selected trip (e.g., communication protocols, USCG safety requirements, and observer deployment). For example, a vessel that met POP requirements for 8 out of 10 trips would have a compliance rate of 80 percent. This metric compiles vessel compliance percentages into a fleet-wide average.

**Average reporting time - the number of days between reported date of offloading and the date when the logbooks are received by the Southeast Fisheries Science Center's Logbook Program Office.

Table 12 Changes in Cape Hatteras GRA access decision data over time for the vessels denied access since program inception (2014-2018).

Metric* Evaluative Time Period	2014-2015 (2006-2012)	2015-2016 (2012-2014)	2016-2017 (2013-2015)	2017-2018 (2014-2016)
Average Bluefin Avoidance Ratio (# bluefin /lbs dw DTS) x 10,000	3.49	1.13	0.97	1.53
POP: Average % Compliant Trips	79.44%	81.69%	82.91%	87.18%
Logbook: Average # Days Offload → Receipt by SEFSC	61 days	43 days	30 days	29 days
Average DTS landings (lbs dw) / vessel	475,987	250,948	223,918	199,692
# Vessels Denied Access	34*	10	7	10

*of 34 vessels denied access, 14 fished in the Cape Hatteras GRA between 2006-2012.

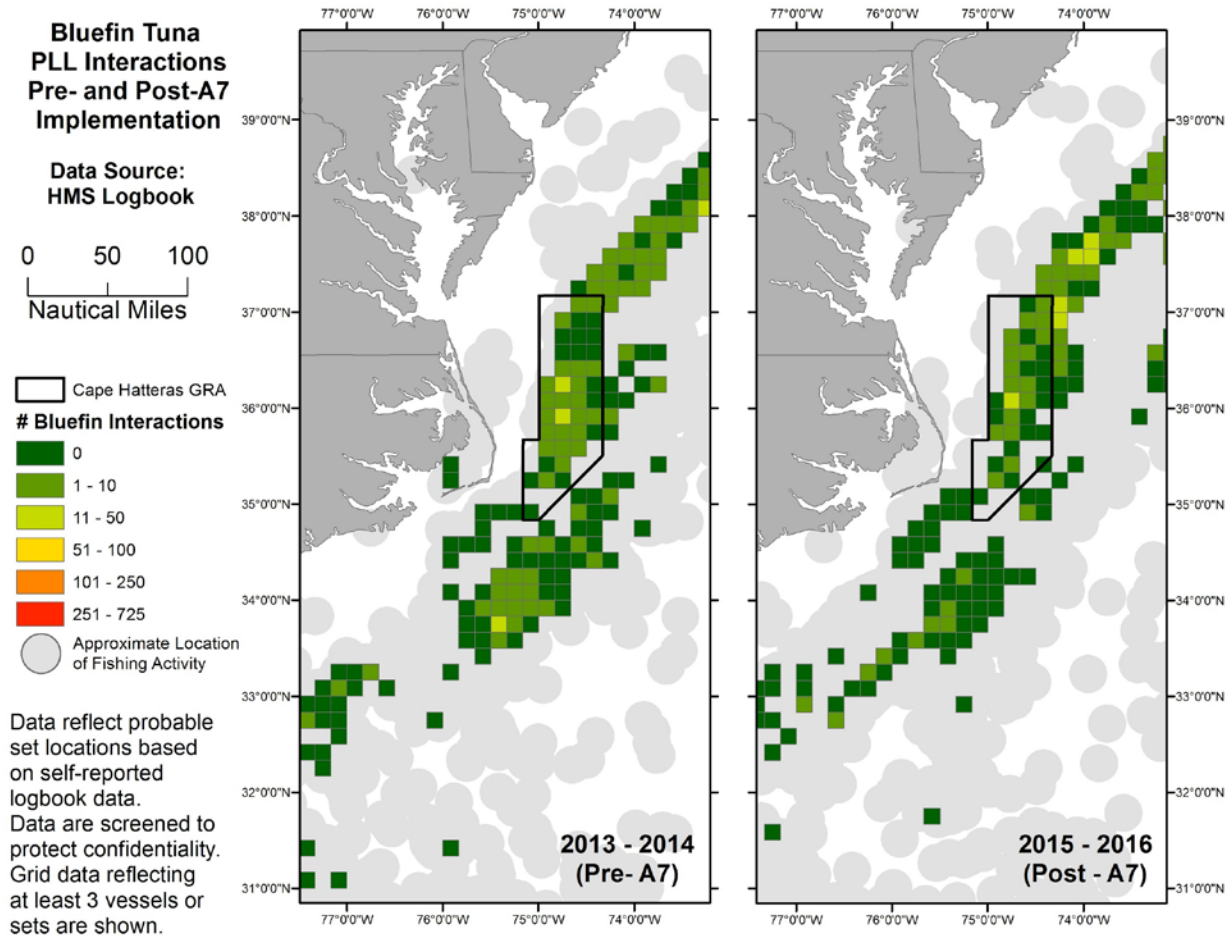


Figure 4 Bluefin tuna interactions before and after implementation of Amendment 7.

4.3. Gulf of Mexico Gear Restricted Areas

The following management options would consider changes to the existing Spring Gulf of Mexico GRAs, which are in place from April 1 through May 31 of each year (see 50 CFR 635.21(c)(2)(vi)). The Gulf of Mexico is the only recognized spawning area for western Atlantic bluefin tuna and NMFS should provide sufficient protections for bluefin tuna while spawning activities are occurring. These GRAs were implemented to reduce bluefin tuna interactions by pelagic longline vessels in areas and seasons with relatively high bluefin interaction rates. In Amendment 7, NMFS committed to conducting a three-year review to evaluate the effectiveness of the Spring Gulf of Mexico GRAs during the review of the IBQ Program and considering any changes at that time as appropriate. This scoping document initiates that review. Potential options considered include no action, implement performance access for the spring Gulf of Mexico GRAs, modify the current spatial and/or temporal coverage of those areas, provisional application of the Gulf of Mexico GRAs, and elimination of the spring Gulf of Mexico GRAs. Since the implementation of Amendment 7, the number of bluefin interactions and pelagic longline effort in the Gulf of Mexico has been reduced significantly. All of the management options in this document can be considered together to evaluate the impact on catch of bluefin tuna, target species, and other bycatch.

Management Option C1: No Action

Description: This management option would maintain the current Spring Gulf of Mexico GRAs from April 1 through May 31 of each year (see § 635.21(c)(2)(vi)).

Justification: These GRAs were first established in Amendment 7 (79 FR 71510; December 2, 2014). The rationale for establishing these GRAs was described in Amendment 7. HMS logbook and observer data from 2006 through 2012 indicated that historically there were relatively high bluefin tuna catch rates by pelagic longline vessels in this region. Average annual bluefin tuna interactions in this area during April and May in 2006 through 2012 were 102 fish (Table 4.17 of Amendment 7). With redistribution, as analyzed in Amendment 7, the Gulf of Mexico GRAs were expected to account for a 32 percent reduction in annual bluefin tuna interactions within the entire Gulf of Mexico. Because bluefin tuna in the Gulf of Mexico are comprised of large fish that are likely sexually mature or spawning, reducing interactions with pelagic longline gear in the Gulf of Mexico may also enhance spawning potential and stock growth. The area and timing of the GRAs were designed to maximize reduction in bluefin tuna interactions. The season during which the highest number of interactions occurs is a subset of the peak spawning season. The GRAs were implemented to provide a balance of achieving the principal objectives in Amendment 7 by reducing the time and areas restricted while reducing the potential for bluefin tuna interactions with pelagic longline gear.

Pros: Maintaining the current areas could contribute to maintaining the overall reduced numbers of bluefin tuna dead discards and reduced bluefin tuna interactions, particularly with large fish that are sexually mature or spawning, in the Gulf of Mexico since implementation of Amendment 7.

Cons: The GRAs further reduce the fishing opportunity of pelagic longline vessels fishing in the Gulf of Mexico, beyond the year-round DeSoto Canyon pelagic longline closed areas and other applicable closures. Given the individual vessel accountability for bluefin tuna catch implemented through the IBQ Program, vessels may not need additional measures in place to ensure they avoid bluefin tuna interactions. Pelagic longline vessels must make decisions regarding fishing behavior based on the amount of bluefin tuna quota they have access to, which may reduce or eliminate the need to directly restrict access to areas of higher bluefin tuna interactions. The geographic extent and the timing of the GRAs are based on bluefin tuna interactions from 2006 through 2012, and updated analyses could show spatial and/or temporal shifts in high interaction areas.

Management Option C2: Implement Performance Access for the Spring Gulf of Mexico Gear Restricted Areas

Description: This management option would allow access to the Gulf of Mexico GRAs based on the performance metrics described at 50 CFR § 635.14.

Justification: Performance metrics were implemented for the Cape Hatteras GRA to balance reducing bluefin tuna dead discards with providing reasonable fishing opportunities; to provide strong incentives to avoid bluefin tuna and to reduce dead discards by modifying fishing behavior; and to provide incentives to comply with reporting and monitoring requirements. The same justification would apply to implementing performance access for the Gulf of Mexico GRAs.

Pros: Allowing some vessels to fish in the Gulf of Mexico GRAs through implementation of performance access would allow NMFS to collect data on bluefin tuna interactions in that area in April and May. Most recently, 101 out of 108 vessels with fishing activity in the period analyzed were granted access to the Cape Hatteras GRA based on these performance metrics, so implementing performance access for the Gulf of Mexico GRAs would not restrict fishing activities for most of the active fleet. Low levels of bluefin tuna discards could also be achieved by allowing access to vessels demonstrating the ability to avoid bluefin tuna. Since implementing the performance metrics, compliance with the Pelagic Observer Program and with timely logbook submission has increased, and implementing performance metrics for additional areas would further reinforce that increased compliance. Implementing performance metrics for

the Spring Gulf of Mexico GRAs would also allow for the collection of data that could be used in future management actions via a process that has already been proven to mitigate risk in other bluefin bycatch hotspots.

Cons: The GRAs would still reduce the fishing opportunity of those pelagic longline vessels that do not qualify for access. Given the individual vessel accountability for bluefin tuna catch implemented through the IBQ Program, vessels may not need additional incentive through a performance metric to avoid bluefin tuna. Pelagic longline vessels must make decisions regarding fishing behavior based on the amount of bluefin tuna quota they each have access to, and that accountability could eliminate the need to rely on a ratio of bluefin tuna interactions to target species landings to predict fishing behavior. On the other hand, granting access to the majority of the active fleet under the current performance metrics may not maintain the same level of reduced numbers of bluefin tuna dead discards noted since implementation of Amendment 7, or the reduced interactions with large bluefin tuna that are likely sexually mature or spawning. [In analyses completed for Amendment 7](#), NMFS noted that Gulf of Mexico bluefin interaction patterns were different compared to the Cape Hatteras GRA where a small number of vessels were responsible for a large number of interactions. Rather, interactions were more evenly spread across vessels, and total interactions per vessel were generally smaller than off Cape Hatteras. Only 3 of 61 vessels that fished in the Spring Modified Gulf of Mexico GRA would have been denied access using the performance metrics finalized under Amendment 7. If present day fishing patterns in the Gulf of Mexico are similar to the time period considered under Amendment 7 (2006-2012), then the ecological impacts could be comparable to not implementing a GRA.

Management Option C3: Modify the Current Spatial and/or Temporal Coverage of the Spring Gulf of Mexico Gear Restricted Areas

Description: This option would modify the current areas by reducing or shifting the spatial and/or temporal extent of these GRAs.

Justification: The geographic extent and the timing of the GRAs are based on bluefin tuna interactions from 2006 through 2012, and updated analyses including more recent years of data could show spatial and/or temporal shifts in high interaction areas. In that case, making a corresponding modification to the GRAs could better optimize reductions in bluefin tuna interactions under current regulatory and fishing conditions. Figure 5 shows bluefin tuna interactions in this area in 2013 through 2016. Table 13 through Table 16 show bluefin tuna interactions throughout the year in the Gulf of Mexico.

Pros: An evaluation of recent interaction data could indicate that adjustments to the GRAs are appropriate to target locations that have the highest bluefin interactions in space or time.

Resulting modifications could be more reflective of the current fishing environment, and may be more efficient at maintaining a low rate of interactions. Modifying the GRAs could further provide reasonable fishing opportunities for target catch consistent with other management objectives from the current GRAs.

Cons: Modifying the GRAs could negatively impact target species catch, depending on the overlap of the new areas with areas of high target species catch. Modified GRAs that exclude all access by pelagic longline vessels could have some of the same cons described under Management Option C1 (*i.e.*, this measure would not emphasize individual vessel accountability through the IBQ Program). Adjusting the temporal or spatial boundaries on the GRA would establish a precedent of periodic GRA evaluation and updates to the GRAs. While this may be more reflective of the current fishing environment, it would create some uncertainty for the fishery that could inhibit long-term business planning and additional administrative burden for analysis and rulemakings.

Management Option C4: Provisional Application of the Spring Gulf of Mexico Gear Restricted Areas

Description: This option would suspend the effectiveness of the Gulf of Mexico GRAs until bluefin tuna catch reaches a level that triggers the GRAs to become effective. The trigger level of bluefin tuna catch could be based on analysis of current data from the areas surrounding the GRAs in April and May, and current data from June through March in the same areas covered by the GRAs. Trigger levels could also be developed from historical interaction levels occurring in the areas before the implementation of Amendment 7. Relevant data could include bluefin tuna interactions, bluefin tuna dead discard levels, ratio of bluefin tuna interactions to target species catch, or other relevant data as identified through scoping and future rulemaking.

Justification: This option is a more precise way to apply the Gulf of Mexico GRAs if and when bluefin tuna catches reach a trigger level. Bluefin tuna catches may not be high in a given year for the beginning of the period the GRAs are normally in place, or at all, and in that case it would not be necessary to apply the GRAs.

Pros: Provisional application would mean that these areas would be open to pelagic longline vessels to fish for target species for a greater proportion of the year, or year-round. It would also be a more precise tool to reduce bluefin tuna dead discards in years and during months that such a reduction is needed based on current fishery conditions, rather than for two months out of every year. Allowing vessels to fish in the Gulf of Mexico GRAs for all or part of April and May through provisional application of the GRAs would allow NMFS to collect data on bluefin tuna interactions in that area.

Cons: Provisional application would introduce new uncertainty in fishery operations for pelagic longline vessels regarding if and when the GRAs would be effective in a given year. When the GRAs are effective, the same cons described under Management Option C1 would apply. Fishery managers would need to track bluefin tuna catch from this area inseason to determine when the trigger level is reached, similar to tracking the NED bluefin tuna quota. There is also an increased risk of interactions with spawning western Atlantic bluefin tuna during the time that precedes a trigger being reached by fishing interactions.

Management Option C5: Elimination of the Spring Gulf of Mexico Gear Restricted Areas.

Description: This management option would eliminate the Spring Gulf of Mexico GRAs (currently defined at the regulations at § 635.21(c)(2)(vi)).

Justification: Implementation of the Gulf of Mexico GRAs may no longer be an effective management measure to effectively reduce bluefin tuna dead discards, providing reasonable fishing opportunities for target catch consistent with other management objectives.. The benefits and effectiveness of the GRAs could be re-analyzed under current regulatory and fishing conditions since implementation of Amendment 7. In addition, the GRAs may contribute to decreased target species catch, and may be redundant in effect to other regulations that have increased accountability for bluefin tuna interactions. In 2006 through 2012, 360 swordfish were kept on average in this area in April and May (Table 4.17 of Amendment 7), which, while not as high as landings in some other months (e.g., October and November), does represent a reduction in vessels' potential swordfish landings. In addition, 1,206 yellowfin tuna and 196 dolphin were kept on average in this area in April and May from 2006 through 2012 (Table 4.17 of Amendment 7), although landings were also higher in other months.

Pros: Recent data from 2013 through 2016 show that bluefin tuna interactions in the open areas of the Gulf of Mexico have decreased from the number of interactions in the period analyzed in Amendment 7, which could imply that interactions within the GRAs in April and May would also not be as high. In 2006 through 2012, average annual bluefin tuna interactions in the Gulf of Mexico EEZ were 246 bluefin (Table 4.15 of Amendment 7). In 2013 and 2014, average annual bluefin tuna interactions in the Gulf were 116 bluefin, and in 2015 and 2016 average annual bluefin tuna interactions in the Gulf were 73 bluefin (Table 13-Table 16), a 70 percent reduction from the period analyzed in Amendment 7. With redistribution, as analyzed in Amendment 7, the Gulf of Mexico GRAs were expected to account for a 32 percent reduction in annual bluefin tuna interactions within the entire Gulf of Mexico. Looking at only April and May, in 2006 through 2012, average annual interactions were 142 bluefin in the Gulf of Mexico EEZ (Table 4.15 of Amendment 7), which decreased to 26 bluefin in 2015 and 2016 (82 percent reduction). For comparison, looking at the months outside of the GRAs (January through March

and June through December) of 2006 through 2012, average annual interactions were 104 bluefin, which decreased to 47 bluefin in 2015 and 2016 (55 percent reduction). The much greater than anticipated reduction in overall Gulf bluefin tuna interactions, as well as a sharp reduction in bluefin tuna interactions during months not affected by the Gulf of Mexico GRAs, could imply that the reduction is not due to implementation of the GRAs alone. In addition, eliminating the GRAs would optimize the ability of the pelagic longline fleet to catch target species in this area year-round. Eliminating the GRAs would also allow vessels to make decisions on fishing behavior based on individual vessel accountability under the IBQ Program. Individual vessel accountability through the IBQ Program may eliminate the need to directly restrict access to these areas of high bluefin tuna interactions.

Cons: Eliminating the current Gulf of Mexico GRAs may not maintain the same level of reduced numbers of bluefin tuna dead discards since implementation of Amendment 7, or the reduced interactions with large bluefin tuna that are likely sexually mature or spawning. It could be more challenging to predict impacts of removing the GRA in an analysis based on a more recent time period (i.e., 2015-present), since data has not been collected from pelagic longline vessels in these areas since 2014.

Table 13 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2013 from the Gulf of Mexico.

2013							
Month	Bluefin Tuna Kept	Bluefin Tuna Discarded Alive	Bluefin Tuna Discarded Dead	Swordfish Kept	Bigeye Tuna Kept	Yellowfi n Tuna Kept	Dolphin Kept
January	8	2	0	1625	72	1652	45
February	1	2	0	1295	22	319	48
March	4	4	5	1805	7	653	8
April	14	4	5	1963	7	492	75
May	13	14	16	838	3	1591	381
June	3	6	6	290	8	2484	865
July	0	1	0	229	1	3126	1331
August	0	0	0	46	7	2226	408
September	0	0	0	88	11	1106	86
October	0	0	0	178	14	1587	57
November	0	0	0	349	13	1106	20
December	1	2	0	437	15	1251	27
Total	44	35	32	9143	180	17593	3351

Source: Atlantic HMS Logbook

Table 14 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2014 from the Gulf of Mexico.

2014							
Month	Bluefin Tuna Kept	Bluefin Tuna Discarded Alive	Bluefin Tuna Discarded Dead	Swordfish Kept	Bigeye Tuna Kept	Yellowfin Tuna Kept	Dolphin Kept
January	1	0	1	671	3	1640	28
February	2	0	0	808	22	467	8
March	9	1	1	1332	9	447	40
April	9	4	2	806	3	353	44
May	18	20	12	182	0	1684	42
June	9	5	17	115	1	2504	410
July	2	0	0	74	7	2478	895
August	0	0	0	41	4	1812	389
September	0	0	0	117	10	756	81
October	0	4	1	196	24	1125	55
November	0	0	0	216	25	842	44
December	3	0	0	360	45	1294	24
Total	53	34	34	4918	153	15402	2060

Source: HMS Logbook Data

Table 15 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2015 from the Gulf of Mexico.

2015							
Month	Bluefin Tuna Kept	Bluefin Tuna Discarded Alive	Bluefin Tuna Discarded Dead	Swordfish Kept	Bigeye Tuna Kept	Yellowfin Tuna Kept	Dolphin Kept
January	4	2	0	317	11	1809	33
February	4	0	0	203	5	529	16
March	1	2	2	234	25	649	13
April	1	4	2	267	3	274	65
May	2	6	0	130	2	371	85
June	4	4	0	50	2	729	276
July	1	4	1	165	5	1436	956
August	0	0	0	72	6	1301	210
September	0	0	0	183	33	837	91
October	0	0	0	129	36	900	34
November	0	1	0	257	23	533	33
December	0	1	2	388	39	535	37
Total	17	24	7	2395	190	9903	1849

Source: HMS Logbook Data

Table 16 Pelagic longline bluefin tuna interactions and numbers of select retained HMS target species from 2016 from the Gulf of Mexico.

2016							
Month	Bluefin Tuna Kept	Bluefin Tuna Discarded Alive	Bluefin Tuna Discarded Dead	Swordfish Kept	Bigeye Tuna Kept	Yellowfin Tuna Kept	Dolphin Kept
January	1	1	2	246	8	1081	21
February	0	2	4	206	7	529	11
March	5	11	7	448	15	390	14
April	3	6	5	349	3	665	61
May	3	11	9	54	6	2177	56
June	2	13	11	134	5	2750	170
July	0	0	0	132	3	3213	124
August	0	0	0	200	2	942	27
September	0	1	0	252	10	607	16
October	0	0	0	265	15	828	18
November	0	0	1	386	45	1132	2
December	0	0	0	288	19	1234	5
Total	14	45	39	2960	138	15548	525

Source: HMS Logbook Data

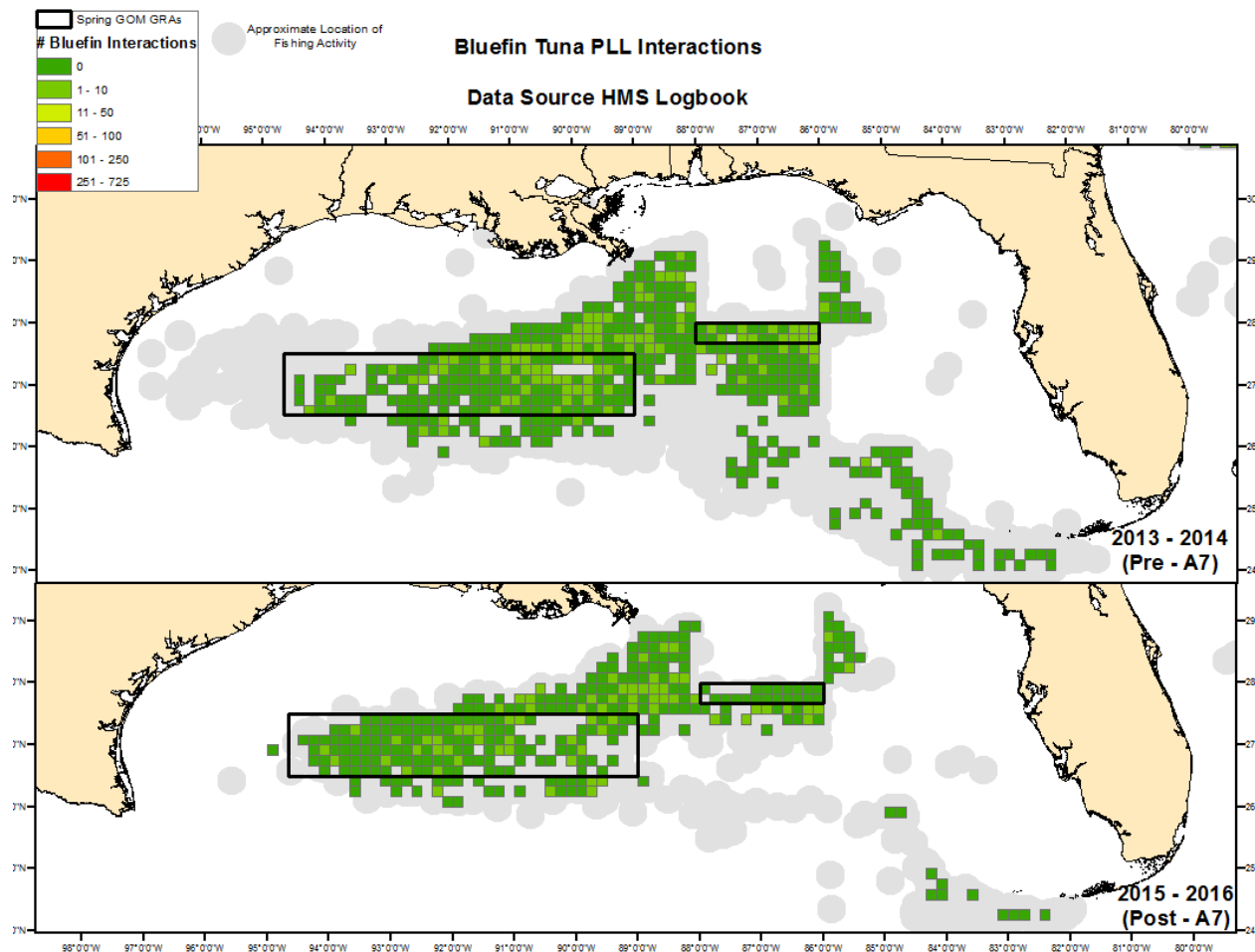


Figure 5 Bluefin tuna interactions before and after implementation of Amendment 7.

5. Weak Hook Management

Weak hooks are hooks made with a thinner wire gauge than the material typically used in the PLL fishery outside the Gulf of Mexico. The Gulf of Mexico is a known spawning area for western Atlantic bluefin tuna and NMFS should provide sufficient protections for bluefin tuna while spawning activities are occurring. Weak hooks can allow incidentally hooked bluefin tuna to escape capture because the hooks are more likely to straighten when a large, heavy fish such as bluefin tuna is hooked. Lighter target species remain hooked. There is evidence that in the Gulf of Mexico the use of weak hooks reduces the capture of bluefin tuna and, therefore, reduces dead discards. On May 5, 2011, NMFS implemented a requirement that pelagic longline vessels fishing in the Gulf of Mexico must use weak hooks (76 FR 18653; April 5, 2011).

Due to the implementation of management measures in Amendment 7, the CPUE of bluefin tuna in the Gulf of Mexico has decreased, thus, the weak hook requirement to reduce CPUE of large bluefin tuna may be duplicative in effect and no longer needed (Figure 6). Amendment 7 measures, including IBQs, have given fishermen greater individual accountability and incentive to reduce bluefin tuna interactions. The following options consider ways to modify weak hook requirements to reduce bluefin tuna regulations that are duplicative in effect in the Gulf of Mexico pelagic longline fishery and optimize the ability for pelagic longline fishery participants to harvest their target species. All of the management options in this document can be considered together to evaluate the impact on catch of bluefin tuna, target species, and other bycatch.

Management Option D1: No Action. Maintain current Gulf of Mexico pelagic longline weak hook requirements

Description: This management option would maintain the current weak hook requirement as a year-round requirement for use of these hooks on pelagic longline gear in the Gulf of Mexico. Weak hooks were implemented in the Gulf of Mexico to reduce the bycatch of bluefin tuna in order to maximize spawning potential of these fish. Weak hooks are used year round in the Gulf of Mexico to minimize bluefin tuna mortality while fishing for target species (yellowfin tuna and swordfish).

Justification: Weak hooks, in conjunction with other regulations, have reduced dead discards of bluefin tuna in the Gulf of Mexico from an annual average of 119 fish from 2008-2010 to an annual average of 34 fish from 2011-2016 (pelagic longline logbook data). Maintaining low levels of dead discards is necessary to allow for continued long-term improvement of the stock and protect bluefin tuna that are entering their spawning grounds.

Pros: Keeping the current weak hook requirement would maintain current low levels of bluefin tuna dead discards in the Gulf of Mexico.

Cons: Anecdotal reports from fishermen indicated that the unwanted release of large target catch species (e.g.; swordfish) may also be occurring when weak hooks are used. Bycatch of other species, such as white marlin, may be higher when this hook is deployed as indicated by the original weak hook research conducted by NOAA and pelagic longline CPUEs since implementation of the weak hook (Figure 7).

Management Option D2: Seasonal requirement for Gulf of Mexico weak hooks

Description: This management option would require the use of weak hooks on pelagic longline gear in the Gulf of Mexico only from March through June, when spawning bluefin tuna are abundant as shown in (Figure 8) and CPUE levels (Figure 9) in the Gulf of Mexico. Spawning bluefin tuna migrate into and out of the Gulf of Mexico seasonally to spawn. Spawning bluefin generally leave the Gulf of Mexico in the summer and migrate toward northern feeding areas in the summer and fall. Weak hooks would only be used during periods of spawning or high bluefin tuna abundance levels.

Justification: NMFS recognizes that seasonal implementation of the weak hook rule would remove some protection to bluefin tuna that might otherwise be released when caught on a weak hook outside of the March - June period. However, NMFS believes that implementation of the IBQ program has limited bluefin tuna interactions that would otherwise occur if the IBQ program was not in place, thus due to the reduction in interactions, bluefin tuna mortalities are effectively reduced already during the month outside of the March-June time period. Seasonal weak hook use in the Gulf of Mexico may also decrease the catch of white marlin during the summer months when weak hooks are not deployed (Figure 9). An increase in the catch rate of white marlin was noted during the original weak hook research, but was not statistically significant. Limiting the weak hook requirement to certain months could continue to achieve a reduction in bluefin tuna mortality and could decrease the amount of white marlin caught on pelagic longline gear, while reducing regulatory burden on pelagic longline vessels for most of the year.

Pros: This option could continue to protect bluefin tuna during the spawning season when they are most prevalent in the Gulf of Mexico while allowing for additional flexibility of hook type choice for fishermen during other times of the year. This option could also address the anecdotal reports of reduced catches of large target species by allowing fishermen to use hooks that are stronger when weak hooks are not in use. Seasonal weak hook use could potentially decrease the catch of white marlin during the summer months (Figure 9).

Cons: If analyses show that weak hook requirements are duplicative in effect with Amendment 7 IBQ management measures that focus on individual accountability, then seasonal application of weak hook regulations may not be needed in the Gulf of Mexico to achieve significant reductions in bluefin tuna dead discards. Having a seasonal requirement may also increase the cost to pelagic longline fishermen due to the need to buy multiple hook types.

Management Option D3: Remove the Gulf of Mexico pelagic longline weak hook requirement

Description: Remove the weak hook requirement for pelagic longline fishing vessels in the Gulf of Mexico.

Justification: Weak hooks were implemented in the Gulf of Mexico prior to the implementation of the IBQ Program, which maximizes individual accountability for interactions with bluefin tuna. This potentially makes the weak hook requirement a duplicative regulation preventing fishermen from fully exploiting target catches.

Pros: This option could reduce the regulatory burden on pelagic longline fishermen and increase opportunities to land target species. Bycatch of other species, such as white marlin, may be lower when this hook is not deployed as indicated by the original weak hook research conducted by NOAA and pelagic longline CPUEs since implementation of the weak hook (Figure 8).

Cons: This option has the potential to increase retention of legal size bluefin tuna during spawning season in the Gulf of Mexico, potentially leading to a more rapid use of IBQ allocation and higher mortality of large, mature bluefin tuna when they are in spawning condition on known spawning grounds.

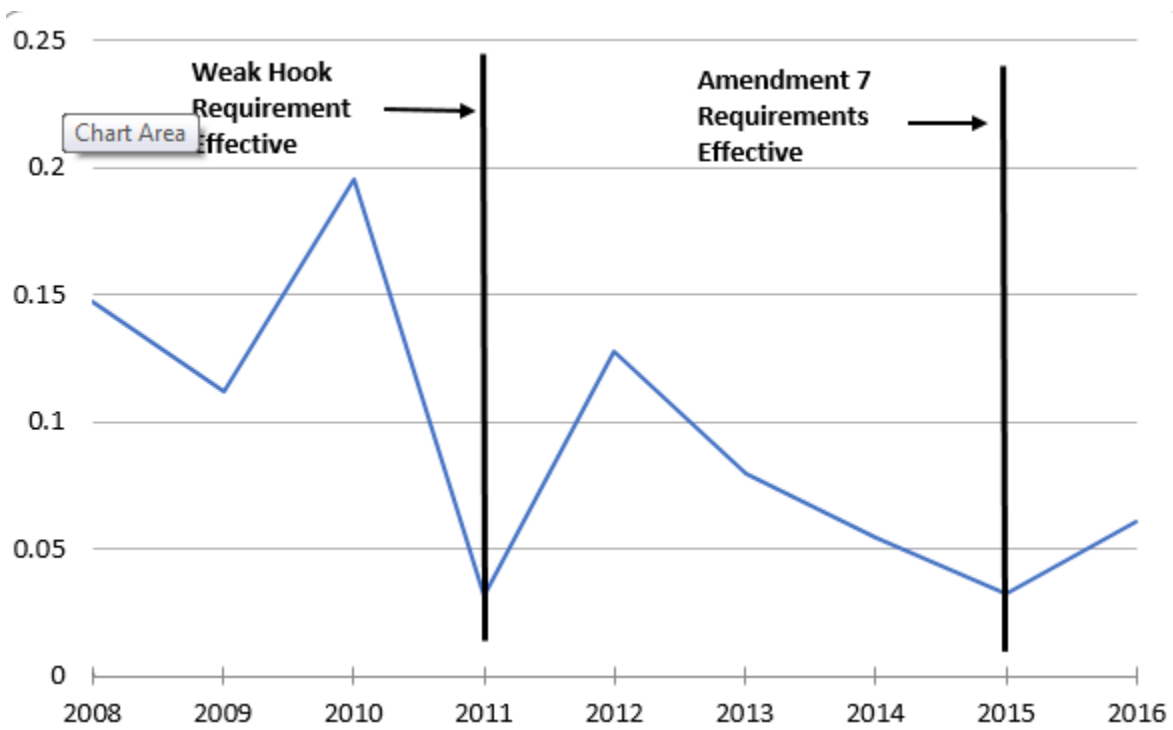


Figure 6 Gulf of Mexico pelagic longline bluefin tuna; number of fish per 1,000 hooks (y-axis).

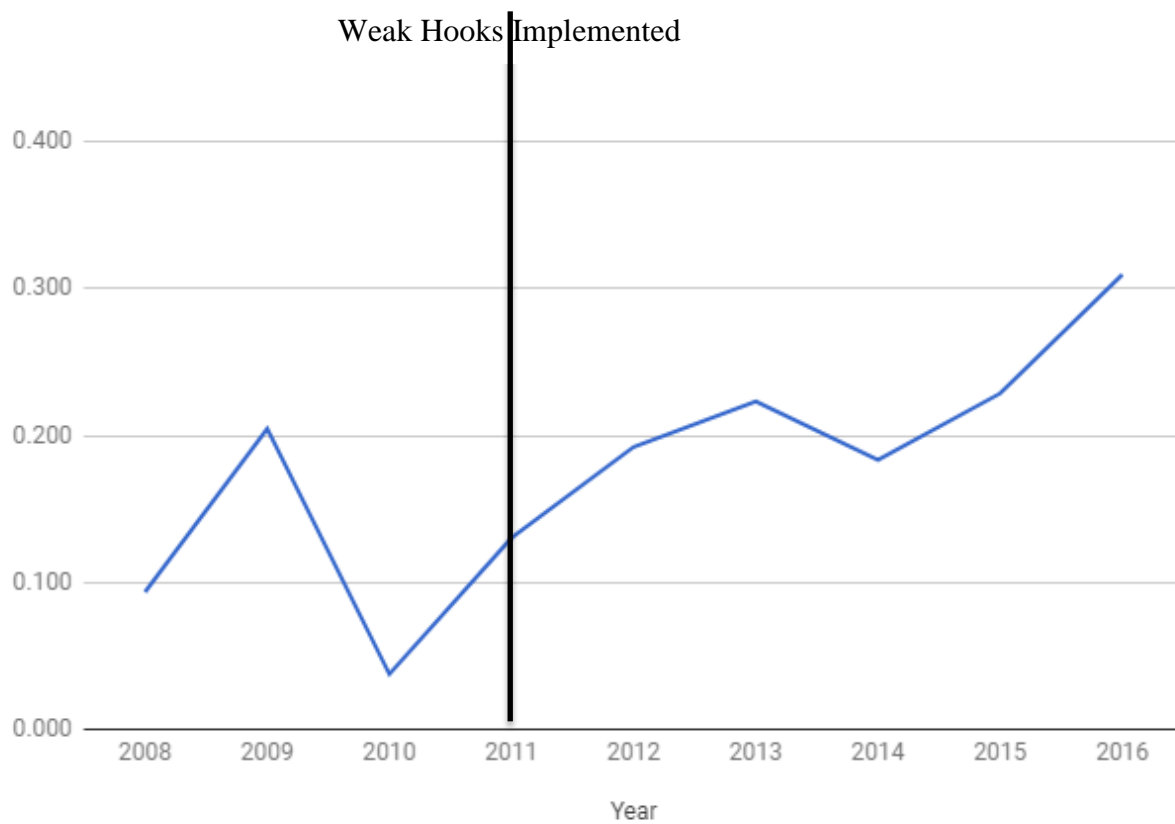


Figure 7 Gulf of Mexico pelagic longline white marlin CPUE (# white marlin per 1,000 hooks) (y-axis) by year.

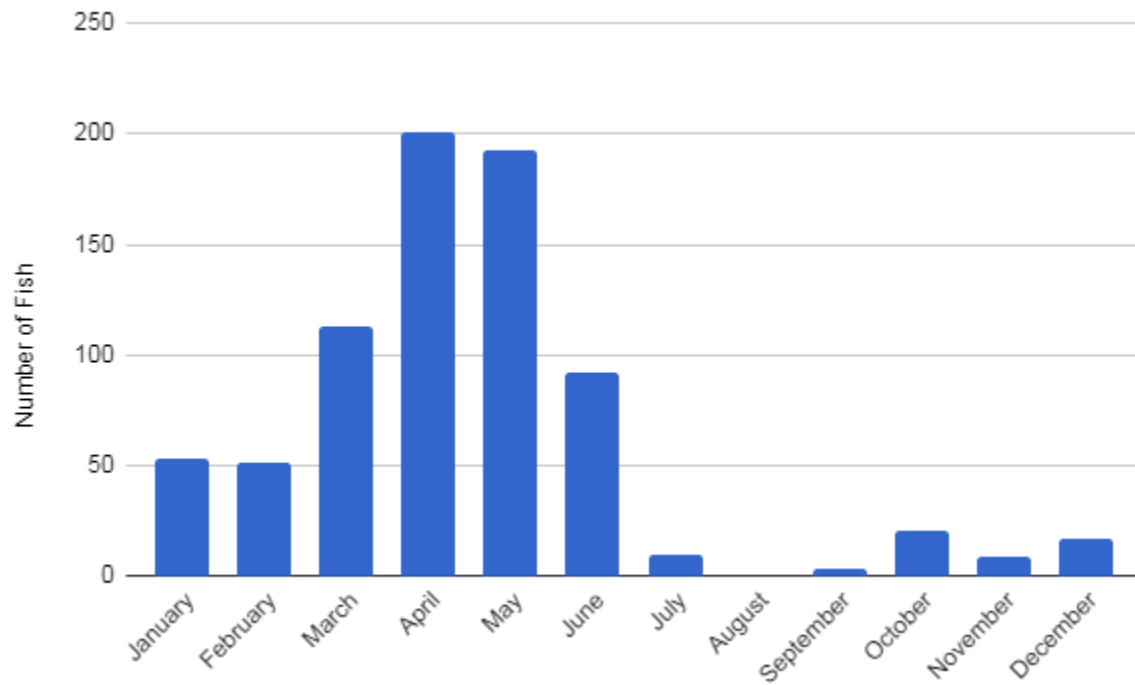


Figure 8 Average Gulf of Mexico pelagic longline bluefin tuna catch by month; 2011-2016.
(Source: HMS Logbook data)

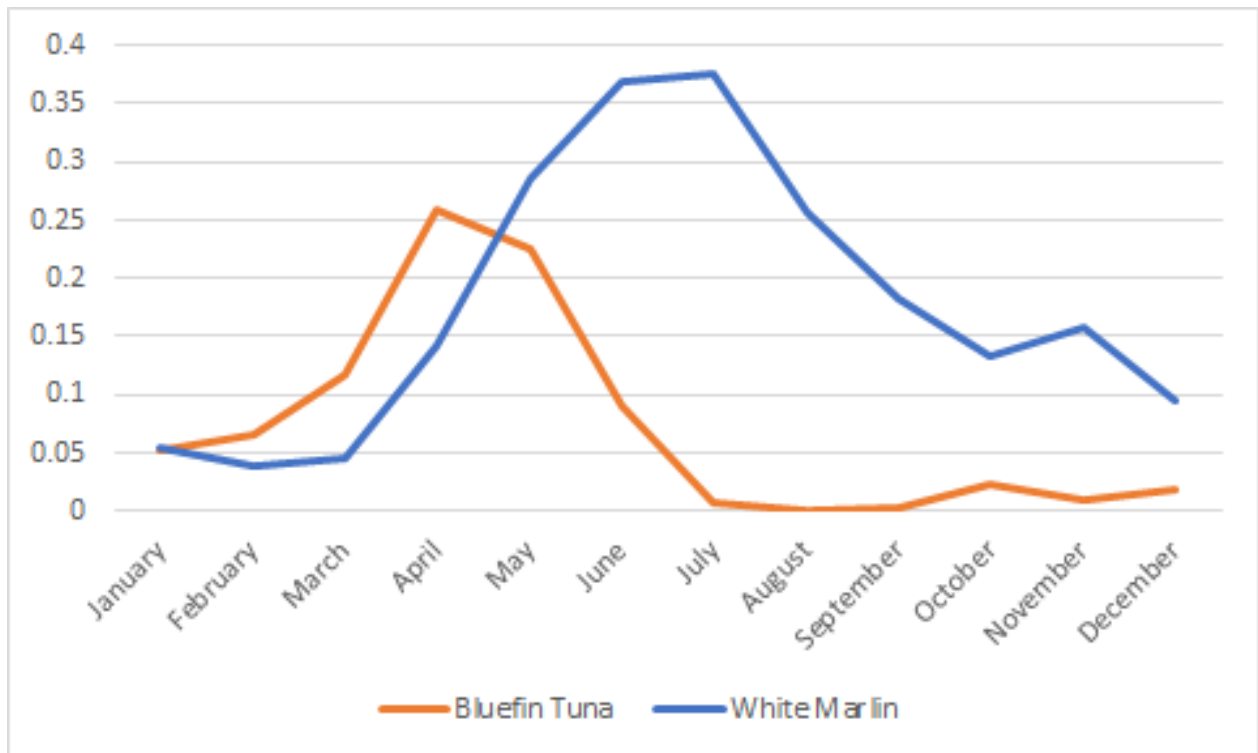


Figure 9 Average Gulf of Mexico pelagic longline bluefin tuna and white marlin; number of fish per 1000 hooks (y-axis) by month; 2011-2016.

(Source: HMS Logbook data).

6. Public Scoping Meetings and Next Steps

The publication of this scoping document and associated Notice of Intent initiates the public process during which NMFS will consider a range of issues and options, as well as possible alternatives for the regulations that affect the time and area restrictions, and hook types for the Atlantic pelagic longline fishery.

NMFS encourages participation, by all persons affected or otherwise interested in the management of bluefin tuna or other HMS species, in the process to determine the scope and significance of issues to be analyzed in a draft environmental impact analysis and regulatory action. Depending on the results of the scoping process, the environmental impact analysis will include either an Environmental Assessment or an Environmental Impact Statement. All such persons are encouraged to submit written comments to www.regulations.gov or the HMS Management Division by mail (see the Notice of Intent for contact information), or comment at one of the scoping meetings or public webinar.

During the scoping process, NMFS will hold scoping meetings in the geographic areas that may be affected by these measures, including locations on the Atlantic and Gulf of Mexico coasts. NMFS will consult with the Atlantic HMS Advisory panel at a meeting held in Silver Spring, Maryland (March 6-9, 2018). NMFS will also host a public webinar to ensure that individuals that cannot attend an in-person meeting still have an opportunity to submit comments to NMFS. After scoping has been completed and public comment gathered and analyzed, NMFS will determine if it is necessary to proceed with preparation of a draft environmental impact analysis and proposed rule, which would include additional opportunities for public comment. The scope of the draft environmental impact analysis would consist of the range of actions, alternatives, and impacts to be considered. Alternatives may include, but are not limited to, the following: not amending the current regulations (*i.e.*, taking no action); developing a regulatory action that contains management measures such as those described in the scoping document; or other reasonable courses of action. This scoping process also will identify, and eliminate from further detailed analysis, issues that may not meet the purpose and need of the action.

The process of developing a regulatory action is expected to take approximately two years. In addition to future HMS Advisory Panel input, public comment and future analyses, there are other relevant events anticipated that may impact the development of this regulatory action, including implementation of a quota rule for Atlantic bluefin tuna and North Atlantic albacore, the three-year review of the IBQ program, and the ICCAT annual meeting in November 2018. Until the draft environmental impact analysis and proposed rule are finalized or until other regulations are put into place, the current regulations remain in effect.