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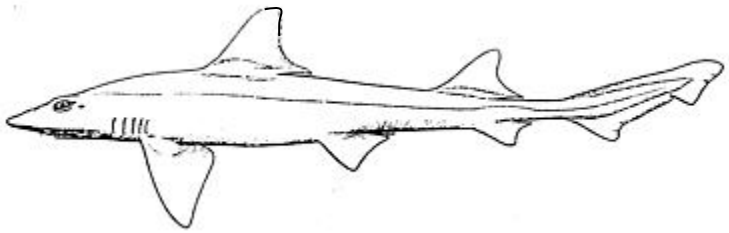
AMENDMENT 9 TO THE 2006 CONSOLIDATED ATLANTIC HIGHLY MIGRATORY SPECIES FISHERY MANAGEMENT PLAN

Including:
A Draft Environmental Assessment
A Draft Regulatory Impact Review
An Initial Regulatory Flexibility Analysis



United States Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Office of Sustainable Fisheries
Highly Migratory Species Management Division

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ABSTRACT

Proposed Action: Implement Draft Amendment 9 to the 2006 Consolidated Atlantic Highly Migratory Species Fishery Management Plan

Type of statement: Environmental Assessment (EA), Regulatory Impact Review (RIR), and Initial Regulatory Flexibility Analysis (IRFA)

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Abstract: Draft Amendment 9 to the 2006 Consolidated Highly Migratory Species Fishery Management Plan proposes to increase the smoothhound shark annual quota previously finalized in Amendment 3 to the 2006 Consolidated Highly Migratory Species Fisheries Management Plan using updated landings data and to implement the smoothhound shark-specific requirements of a 2012 Shark Biological Opinion, and considers modifying current regulations related to the use of Vessel Monitoring Systems by Atlantic shark fishermen using gillnet gear. Except for certain Shark Conservation Act of 2010 (P.L. 111-348) (SCA) provisions, the management measures in draft Amendment 9 address "smoothhound sharks," which for purposes of this Amendment include smooth dogfish (*Mustelus canis)*, Florida smoothhound (*M. sinusmexicanus*), and Gulf smoothhound (*M. norrisi*). The draft Amendment also proposes to implement the smooth dogfish-specific provisions in the SCA. The SCA requires that all sharks landed in the United States be landed with their fins and tail naturally attached to the carcass but includes a limited exception for smooth dogfish). For the federal Atlantic shark fisheries, current regulations require all sharks to be landed with all fins naturally attached to the carcass, and the SCA's fins-attached requirement is being implemented nationwide through a separate ongoing rulemaking. Thus, this draft Amendment addresses only the provision contained in the SCA that allows fin removal at sea of Atlantic smooth dogfish. The action will also establish an effective date for previously-adopted shark management measures finalized in Amendment 3 to the 2006 Consolidated HMS FMP and the 2011 HMS Trawl Rule, although those measures are not elements of Amendment 9.

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1.0 INTRODUCTION

1.1 BACKGROUND

Before 2010, federal management measures did not exist for smoothhound sharks, except for restrictions on finning. In the 1999 Fishery Management Plan (FMP) for Atlantic Tunas, Swordfish, and Sharks (1999 FMP), smoothhound sharks were included in a federal fishery management unit that included deep water and other sharks solely to prevent finning. These species were removed from the fishery management unit in the 2003 Amendment 1 to the 1999 FMP since they became protected from finning under the Shark Finning Prohibition Act (67 FR 6124, February 11, 2002) and the FMP measures therefore were no longer needed. In 2008, the Atlantic States Marine Fisheries Commission (ASMFC) adopted management measures for smoothhound sharks in state waters; the ASMFC measures were effective in January 2010.

In 2010, through Amendment 3, NMFS determined that smoothhound sharks were in need of federal conservation and management measures and that they would appropriately be included within the HMS-managed stocks, given the wide geographic distribution and range of smoothhound sharks and the Secretarial management authority over HMS, including "oceanic sharks," in the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). Details about NMFS' authority and decision to manage smoothhound sharks can be found in the Final Environmental Impact Statement (EIS) for Amendment 3. At that time "smoothhound sharks" referred to a species complex consisting of smooth dogfish and Florida smoothhounds (75 FR 30484, June 1, 2010). The final rule implementing Amendment 3 published in June 2010 and delayed the effective date of the smoothhound shark management measures until approximately 2012 pending approval for the data collection under the Paperwork Reduction Act (PRA) by the Office of Management and Budget (OMB), to provide time for implementation of a permit requirement, to provide time for NMFS to complete a BiOp under section 7 of the ESA, and to provide time for affected fishermen to change business practices, particularly as it related to keeping the fins attached to the carcass through offloading (June 1, 2010, 75 FR 30484). OMB approved the PRA data collection in May of 2011 and NMFS met informally with smoothhound shark fishermen along the east coast in the fall of 2010.

In January 2011, the President signed the Shark Conservation Act of 2010 (SCA). The SCA requires that all sharks landed in the United States be landed with their fins naturally attached to the carcass but included a limited exception for smooth dogfish (*Mustelus canis*), which is described in detail below in Section 1.3. Throughout this document, the term "fins" includes both the tail and the fins of the shark.

Also, in 2011, NMFS published a final rule regarding trawl gear (August 10, 2011, 76 FR 49368). The HMS trawl rule, among other things, allowed for the retention of smoothhound sharks caught incidentally with trawl gear, provided that total smoothhound shark catch on board or offloaded does not exceed 25 percent of the total catch by weight.

In November 2011, NMFS published a rule (76 FR 70064, November 10, 2011) that delayed the effective date for all smoothhound shark management measures in both Amendment 3 and the 2011 trawl rule indefinitely to provide time for NMFS to consider the smooth dogfish-specific provisions in the SCA and for NMFS to finalize a Biological Opinion on the federal actions in Amendment 3, among other things.

Since that time, the 2012 Atlantic Shark Biological Opinion (2012 Shark BiOp) on federal actions in Amendment 3 has been completed. Except for consideration of the smooth dogfish-specific measures in the SCA, all reasons for delaying implementation of Amendment 3 and the 2011 HMS trawl gear rule have been addressed. Thus, NMFS is ready to make effective most of the previously-finalized smoothhound shark measures from Amendment 3 and the 2011 HMS trawl gear rule. New landings information and data about the smoothhound shark fishery have become available, and Draft Amendment 9 considers that new information and data and resulting adjustments to the quota, as well as implementation of smooth dogfish-specific provisions of the SCA. This action is amending the HMS FMP because of the significant modification to the Atlantic smoothhound shark quota based upon updated landings information.

1.2 STOCK COMPOSITION

During the development of Amendment 3 in 2009, molecular and morphological research at that time indicated that Florida smoothhound (*Mustelus norrisi*) had been historically misclassified as a separate species from smooth dogfish (*M. canis*) (Jones, pers. comm.). Additionally, the Southeast Fisheries Science Center (SEFSC) advised that there were insufficient data at the time to separate smooth dogfish and Florida smoothhound into two separate species, and that they should be treated as a single stock until scientific evidence indicated otherwise. Accordingly, in Amendment 3, NMFS decided to manage both Florida smoothhound sharks and smooth dogfish together as "smoothhound sharks" because of this taxonomic correction and based upon SEFSC advice. Since the finalization of Amendment 3 in 2010, additional scientific information has become available from the SEFSC regarding species identification of smoothhound sharks. This updated scientific data shows that Florida smoothhound, smooth dogfish, and Gulf smoothhound (*M. sinusmexicanus*) are separate species and that there may be additional smoothhound species (e.g., *M. hagmani*, smalleye smoothhound) in the Gulf of Mexico.

The majority of the landings in the commercial smoothhound fishery currently occur in the mid-Atlantic region. Scientific evidence indicates that smooth dogfish are almost exclusively the species found in this area and along the coast throughout the Atlantic region, however, there have been a very limited number of Florida smoothhounds reported off of southern Florida (Jones et al 2014). In the Gulf of Mexico region, all three *Mustelus* species are commonly found.

Identification between these species is difficult, and all three species' range overlap in the Gulf of Mexico. Jones et al. (2004) noted that the most commonly used macroscopically visible external characteristics such as dermal denticle and labial furrow differences, cannot be reliably used for species identification. Some limited success has been achieved by using other external

characteristics such as hyomandibular pore distribution (Giresi et al 2012) but misidentification is still common, especially for juvenile specimens. Data examined for the ongoing SEDAR 39 smoothhound stock assessment found that during shark surveys, Florida smoothhound was only correctly identified 40 percent of the time and Gulf smoothhound was only correctly identified 64 percent of the time, with the greatest identification difficulty occurring between Gulf smoothhound and smooth dogfish (Giresi pers comm). Thus, it is unlikely that shark fishermen and enforcement officers would be able, without very specific training, to tell these three species of smoothhound sharks apart, without genetic analyses to differentiate between the three species, which is impractical and not feasible to require during routine fishing operations.

Because of the overlap in range between the different species and the extreme difficulty in distinguishing among the three species, NMFS will continue to group all the smoothhound species (all *Mustelus* species that are currently known and those that may be discovered within the U.S. EEZ of the Atlantic, Gulf of Mexico, and Caribbean) together within the term "smoothhound sharks" for management purposes[1] and will manage them as a complex. The SCA, however, explicitly limits the fin-removal exception to commercial fishing for smooth dogfish. Given the above issues, NMFS examines two alternatives for applying the exception for smooth dogfish: one that applies the exception along the Atlantic Coast and the Florida Coast in the Gulf of Mexico and a second that would apply the exception along the Atlantic Coast but not in the Gulf of Mexico. Given the enforcement challenges posed, NMFS is requesting public comment on alternatives for implementing and enforcing the SCA smooth dogfish exception.

1.3 PURPOSE, NEED, AND OBJECTIVES FOR THE ACTION

Proposed Action: In Draft Amendment 9, NMFS is proposing to increase the previously-adopted commercial quota for smoothhound sharks based on updated scientific information and data; proposing to implement limited exceptions from certain provisions of the SCA that specifically apply to smooth dogfish; proposing to implement Term and Condition 4 of the 2012 Shark BiOp, which required either net checks or soak time restrictions in the Atlantic shark gillnet fisheries; and proposing to reduce the vessel monitoring system (VMS) requirements for shark gillnet fishermen. Smoothhound sharks are not currently under active federal management, although this action will create effective conservation and management measures to manage them actively.

Establishing an effective date for previously-adopted shark management measures finalized in Amendment 3 to the 2006 Consolidated HMS FMP and in the 2011 HMS trawl rule

In addition to draft Amendment 9's management measures, this action will establish an effective date for certain conservation and management measures for smoothhound sharks finalized in Amendment 3. As described above, implementation of these measures was delayed indefinitely.

[1] The SEDAR 39 stock assessment scientists also decided to group these three species into a single stock in the Gulf of Mexico

Finalization of this action will implement an effective date for the previously-delayed Amendment 3 management measures for smoothhound sharks, including:

- A research set-aside quota;
- An accountability measure (AM) that closes the fishery when smoothhound shark landings reach, or are expected to reach, 80 percent of the quota;
- A requirement for a dealer permit for purchase of smoothhound sharks;
- A requirement for dealers to report smoothhound shark purchases;
- A smoothhound permit requirement for commercial and recreational fishing and retention;
- A requirement for vessels fishing for smoothhound sharks to carry an observer, if selected;
- A requirement for vessels fishing for smoothhound sharks to comply with applicable Take Reduction Plans pursuant to the Marine Mammal Protection Act; and
- A requirement for commercial vessels to sell catch only to federally-permitted shark dealers.

In addition, this action would implement an effective date for the smoothhound shark management measures in the 2011 HMS trawl rule published on August 10, 2011 (76 FR 49368). As described above, the HMS trawl rule allowed, among other things, for the retention of smoothhound sharks caught incidentally with trawl gear, provided that total smoothhound shark catch on board or offloaded does not exceed 25 percent of the total catch by weight.

FMP Amendment Adjusting the Quota for the Smoothhound Shark Fishery

When Amendment 3 was finalized, smoothhound shark data was available through 2007, although there was no stock assessment for the species. Updated information is now available -- in some cases for as recently as 2013 – although data on the number of participants, total catch, fishing techniques, spatial and temporal availability, etc., are still incomplete because of the lack of mandatory reporting requirements for this shark species. Data can be expected to improve in the future with implementation of the previously-delayed Amendment 3 requirements for a federal permit, dealer reporting, and observer coverage as well as of the smoothhound shark stock assessment. As stated in Amendment 3, NMFS's goal to date has been to characterize and collect data on the smoothhound fishery while minimizing changes in the fishery until it can be better assessed and additional management measures can be developed. Thus, as described in the final rule for Amendment 3, NMFS established a smoothhound shark quota using the best data available at that time equal to the highest reported annual landings between 1998 and 2007 plus two standard deviations in order to account for any underreporting due to the lack of smoothhound shark reporting

requirements and to follow advice from the Northeast and Southeast Fisheries Science Centers (June 1, 2010, 75 FR 30484).

Since publication of Amendment 3, NMFS has received updated reported landings data from the Atlantic Coastal Cooperative Statistics Program (ACCSP) that warrants adjustment of the quota established in Amendment 3, using the same methodology presented in Amendment 3 but with the new data. Additionally, NMFS has begun conducting a smoothhound shark stock assessment (SEDAR 39) (79 FR 17509, March 28, 2014; 79 FR 23327, April 28, 2014). In this action, NMFS analyzes quota alternatives ranging from the status quo (the quota calculated in Amendment 3) to adjusting the quota based on updated landings information to establishing the quota based on quota scenarios that could result from the ongoing stock assessment.

Implementation of the Smooth Dogfish-Specific Provisions in the Shark Conservation Act of 2010

On January 4, 2011, the Shark Conservation Act of 2010 (SCA) was signed into law (Public Law 111-348). This law amended the Magnuson-Stevens Act to provide greater protection from illegal "finning" of sharks. Among the provisions in subsection 103(a) of the SCA is a requirement that all sharks landed in the United States be maintained with the fins naturally-attached to the carcass through offloading. Subsection (b), however, provides the following exception: "The amendments made by subsection (a) do not apply to an individual engaged in commercial fishing for smooth dogfish (*Mustelus canis*) in that area of the waters of the United States located shoreward of a line drawn in such a manner that each point on it is 50 nautical miles from the baseline of a State from which the territorial sea is measured, if the individual holds a valid State commercial fishing license, unless the total weight of smooth dogfish fins landed or found on board a vessel to which this subsection applies exceeds 12 percent of the total weight of smooth dogfish carcasses landed or found on board." The SCA provides that ''State'' has the same meaning as in section 803 of Public Law 103–206 (16 U.S.C. 5102), which refers to "Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, the District of Columbia, or the Potomac River Fisheries Commission." To implement the exception, this Draft Amendment considers three issues–catch composition, state permit requirements, and geographic applicability of the exception–and explores alternatives for each issue.

Implementation of the 2012 Shark Biological Opinion

On December 12, 2012, following consultation under section 7(a)(2) of the Endangered Species Act (ESA), NMFS determined that the continued operation of the Atlantic shark and smoothhound shark fisheries is not likely to jeopardize the continued existence of Atlantic sturgeon, smalltooth sawfish, or any species of ESA-listed large whale or sea turtles. In order to avoid take prohibited by Section 9 of the ESA, NMFS must comply with the Reasonable and Prudent Measures (RPMs) and the Terms and Conditions (TCs) in the 2012 Shark BiOp. NMFS has reviewed the 2012 Shark BiOp and associated TCs and has determined that the current regulations meet the

specifications of all the TCs except for TC 4, which requires either net checks or soak time restrictions in the Atlantic shark gillnet fisheries. Therefore, draft Amendment 9 considers measures that would ensure the Atlantic shark gillnet fisheries operate consistent with TC 4 in the 2012 Shark BiOp.

Atlantic Shark Gillnet Vessel Monitoring System Requirements

This Draft Amendment would also reduce the requirement to use vessel monitoring systems (VMS) by shark fishermen using gillnet gear. Currently, federal directed shark permit holders with gillnet gear on board are required to use VMS, regardless of vessel location. This requirement was implemented as part of the 2003 Amendment 1 to the 1999 FMP to ensure shark gillnet vessels were complying with the Atlantic Large Whale Take Reduction Plan (ALWTRP) time/area closures and observer requirements (50 CFR 229.32). The ALWTRP requirements apply only to Atlantic directed shark limited access permit holders with gillnet gear on board in the Southeast U.S. Monitoring Area. At time of implementation in 2003, NMFS determined that requiring all gillnet fishermen with a directed shark permit to use VMS regardless of geographic location would simplify compliance and outreach, particularly if these fishermen regularly fished different regions, including in the Southeast U.S. Monitoring Area. Since then, however, it has become apparent that while some of these fishermen fish multiple regions, many do not fish in or even near the Southeast U.S. Monitoring Area. Thus, draft Amendment 9 considers measures to bring the VMS requirements in-line with the requirements of the ALWTRP.

Other Measures

Currently, the Atlantic shark fishery observer program is administered by the NMFS Southeast Fisheries Science Center (SEFSC). However, because a portion of the commercial smoothhound shark fishery occurs in the Northeast region, there is a possibility that the smoothhound shark observer program could be run by the NMFS Northeast Fisheries Science Center (NEFSC). The two regional science center observers programs differ in the way they notify fishermen of their selection to carry an observer. The SEFSC notifies fishermen in writing at the time of selection. This process is currently in the 50 CFR part 635 regulations. The NEFSC does not require written notification of selection and any vessel holding an applicable permit can be selected. Thus, NMFS is proposing changes to the observer regulations in 50 CFR part 635 to incorporate the relevant portions of the Northeast observer regulations found at 50 CFR part 648. In this action, NMFS proposes to update the regulatory text to reflect the observer selection process used by the NEFSC, complementing the existing selection process used by the SEFSC. These proposed changes are administrative in nature, will not have any biological, economic, or social impacts or impacts on the physical environment and are not anticipated to affect the current fishing level or practices in commercial highly migratory species fisheries, and, therefore, are not further analyzed in this document.

Purpose: The purpose of the proposed measures is to manage the Atlantic shark fisheries, including the smoothhound shark fishery, in a manner that maximizes resources sustainability while minimizing, to the greatest extent possible, the socioeconomic impacts on affected fisheries.

Need: To achieve this purpose, and to comply with existing statutes such as the Magnuson-Stevens Act and its objectives, NMFS has identified the following objectives with regard to this proposed action:

- Establish a commercial quota (also known as the commercial sector ACL) for smoothhound sharks;
- Implement the smooth dogfish-specific provisions of the SCA;
- Implement Term and Condition 4 of the 2012 Shark BiOp in the Atlantic shark fisheries;
- Implement VMS requirements in the Atlantic shark gillnet fisheries that are consistent with the requirements of the ALWTRP;
- Implement the previously-finalized smoothhound shark measures from Amendment 3 and the HMS Trawl Rule; and
- Implement observer requirements for the smoothhound shark fishery.

1.4 SCOPE AND ORGANIZATION OF THIS DOCUMENT

In considering the proposed management measures outlined in this document, NMFS is responsible for complying with a number of Federal statutes, including NEPA. Under NEPA, the purpose of an Environmental Assessment (EA) is to provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact and to aid in the Agency's compliance with NEPA when no environmental impact statement is necessary.

This document as an EA assesses potential impacts on the biological and human environments associated with the establishment under Federal regulation of various management measures for fisheries that catch and interact with Atlantic sharks. In this document, NMFS evaluates the potential impacts of these management-based alternatives on the fishery, along with other impacts (e.g., biological, social, and economic, see Chapter 4). The chapters that follow describe the proposed management measures and potential alternatives (Chapter 2), the affected environment as it currently exists (Chapter 3), the probable consequences on the human environment that may result from the implementation of the proposed management measures and their alternatives (Chapter 4), and any mitigating measures (Chapter 5).

In developing this document, NMFS adhered to the procedural requirements of NEPA, the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 C.F.R. 1500-1508) 28, and National Oceanic and Atmospheric Administration's (NOAA) procedures for implementing NEPA. NOAA Administrative Order (NAO) 216-6 identifies NOAA's procedures to meet the requirements of NEPA to:

- fully integrate NEPA into the agency planning and decision making process; fully consider the impacts of NOAA's proposed actions on the quality of the human environment;
- involve interested and affected agencies, governments, organizations and individuals early in the agency planning and decision making process when significant impacts are or may be expected to the quality of the human environment from implementation of proposed major Federal actions; and
- conduct and document environmental reviews and related decisions appropriately and efficiently.

The following definitions were generally used to characterize the nature of the various impacts evaluated in this EA. Chapter 4 describes more specifically how these definitions were used for each alternative.

- Short-term or long-term impacts. These characteristics are determined on a case-by-case basis and do not refer to any rigid time period. In general, short-term impacts are those that would occur only with respect to a particular activity or for a finite period. Long-term impacts are those that are more likely to be persistent and chronic.
- Direct or indirect impacts. A direct impact is caused by a proposed action and occurs contemporaneously at or near the location of the action. An indirect impact is caused by a proposed action and might occur later in time or be farther removed in distance but still be a reasonably foreseeable outcome of the action. For example, a direct impact of erosion on a stream might include sediment-laden waters in the vicinity of the action, whereas an indirect impact of the same erosion might lead to lack of spawning and result in lowered reproduction rates of indigenous fish downstream.
- Minor, moderate, or major impacts. These relative terms are used to characterize the magnitude of an impact. Minor impacts are generally those that might be perceptible but, in their context, are not amenable to measurement because of their relatively minor character. Moderate impacts are those that are more perceptible and, typically, more amenable to quantification or measurement. Major impacts are those that, in their context and due to their intensity (severity), have the potential to meet the thresholds for significance set forth in CEQ regulations (40 C.F.R. § 1508.27) and, thus, warrant heightened attention and examination for potential means for mitigation to fulfill the requirements of NEPA.
- Adverse or beneficial impacts. An adverse impact is one having unfavorable, or undesirable outcomes on the man-made or natural environment. A beneficial impact is one having positive outcomes on the man-made or natural environment. A single act might result in adverse impacts on one environmental resource and beneficial impacts on another resource.
- Cumulative impacts. CEQ regulations implementing NEPA define cumulative impacts as the "impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." (40 C.F.R. §

1508.7) Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time within a geographic area.

In addition to NEPA, NMFS must comply with other Federal statutes and requirements such as the Magnuson-Stevens Act, Executive Order 12866, and the Regulatory Flexibility Act. This document comprehensively analyzes the alternatives considered for all these requirements. Thus, Chapter 6 provides a summary of all the economic analyses and associated data. Chapter 7 meets the requirements under Executive Order 12866; and Chapter 8 provides the Initial Regulatory Flexibility Analysis required under the Regulatory Flexibility Act. Chapters 9 through 11 also provide additional information that is required under various statutes. While some of the chapters were written in a way to comply with the specific requirements under these various statutes and requirements, it is the document as a whole that meets these requirements and not any individual chapter.

2.0 SUMMARY OF THE ALTERNATIVES

NEPA requires that any Federal agency proposing a major federal action consider all reasonable alternatives, in addition to the proposed action. The evaluation of alternatives in an EA assists NMFS in ensuring that any unnecessary impacts are avoided through an assessment of alternative ways to achieve the underlying purpose of the project that may result in less environmental harm.

To warrant detailed evaluation, an alternative must be reasonable[2] and meet the purpose and need (see Chapter 1). Screening criteria are used to determine whether an alternative is reasonable. The following discussion identifies the screening criteria used in this EA to evaluate whether an alternative is reasonable; evaluates various alternatives against the screening criteria (including the proposed measures) and identifies those alternatives found to be reasonable; identifies those alternatives found not to be reasonable; and for the latter, the basis for this finding. Alternatives considered but found not to be reasonable are not evaluated in detail in this EA.

Screening Criteria – To be considered "reasonable" for purposes of this EA, an alternative must meet the following criteria:

- *An alternative must be consistent with the 10 National Standards set forth in the Magnuson-Stevens Act*
- *An alternative must be administratively feasible. The costs associated with implementing an alternative cannot be prohibitively exorbitant or require unattainable infrastructure.*
- *An alternative cannot violate other laws (e.g., SCA, ESA, MMPA).*
- *An alternative must be consistent with the 2006 Consolidated Atlantic HMS FMP and its amendments.*
- *An alternative must be consistent with the Terms and Conditions of the 2012 Shark BiOp.*

This chapter includes a full range of reasonable alternatives designed to meet the purpose and need for action described in Chapter 1. The environmental, economic, and social impacts of these alternatives are discussed in later chapters. Except for the four alternatives related to the updated smoothhound shark quota noted below, this action does not reconsider alternatives or decisions made in Amendment 3 that had delayed effective dates in 2011.

2 "Section 1502.14 (of NEPA) requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant." (CEQ, "NEPA's Forty Most Asked Questions" (available at http://ceq.hss.doe.gov/nepa/regs/40/40P1.HTM) (emphasis added))

2.1 ALTERNATIVES TO IMPLEMENT THE SMOOTH DOGFISH-SPECIFIC PROVISIONS IN SHARK CONSERVATION ACT OF 2010

Alternative A1: Do not implement the smooth dogfish-specific measures in the Shark Conservation Act of 2010. By default, Amendment 3's fins-attached requirement would apply to the smooth dogfish fishery (i.e., fins and tail of all smooth dogfish must remain naturally attached to the shark carcass through offloading)

This alternative would not implement the smooth dogfish provisions in the Shark Conservation Act of 2010. Instead, under this alternative, the smooth dogfish management measure requiring all smooth dogfish be landed with fins and tail naturally attached to the carcass that was contained in Amendment 3 to the 2006 Consolidated HMS FMP would be implemented.

Alternative A2: *Implement the smooth dogfish-specific measures in the Shark Conservation Act of 2010 to establish an allowance for the removal of smooth dogfish fins while at sea, considering eight sub-alternatives - Preferred Alternative*

This alternative would allow for a limited exception in the Atlantic smooth dogfish fishery to the fins-attached requirement in the Shark Conservation Act. This exception would allow fishermen engaged in commercial fishing for smooth dogfish to remove the fins of smooth dogfish while at sea, provided that the fin-to-carcass ratio of smooth dogfish when landed or onboard the vessel does not exceed 12 percent. This exception would apply only to fishing occurring within 50 nautical miles of shore.

The following eight sub-alternatives consider a variety of measures to implement this alternative, and are based on the smooth dogfish-specific language in the SCA (see Section 1.3). Specifically those sub-alternatives regarding "an individual engaged in commercial fishing for smooth dogfish (*Mustelus canis*)" are addressed under Issue 1 – Catch Composition, the alternatives regarding "if the individual holds a valid State commercial fishing license" are addressed in Issue 2 – State Fishing permit, and the alternatives regarding application are addressed under Issue 3 – Geographic Application of the SCA exception. The preferred sub-alternatives would be implemented and required as a group. In other words, a fisherman who intends to remove the fins of smooth dogfish at sea would need to meet the requirements of the preferred sub-alternatives from all three issues and be fishing in federal waters within 50 nautical miles of shore to be eligible for the exception. Meeting only one or two of the requirements would not allow fishermen to remove the fins of a smooth dogfish at sea; rather, the fisherman would need to keep the fins naturally attached through offloading. Additionally, fishermen fishing for smooth dogfish outside 50 nautical miles of shore and in the Gulf of Mexico would need to maintain the fins naturally attached through offloading, consistent with the SCA.

Issue 1: Catch Composition

The following sub-alternatives consider a variety of measures to implement the statutory language that refers to "an individual engaged in commercial fishing for smooth dogfish (*Mustelus canis*)."

Sub -Alternative A2-1a: Smooth dogfish can make up any portion of the retained catch (no other sharks can be retained)

This sub-alternative would prohibit the retention of any sharks other than smooth dogfish but would impose no other catch composition requirements as conditions for removing smooth dogfish fins at sea. Under this alternative, fishermen could remove the fins of a smooth dogfish regardless of the percentage of the catch smooth dogfish comprise onboard the vessel, provided no other sharks were retained. Shark species are often difficult to tell apart, particularly when dressed, so this restriction could prevent the illegal processing of non-smoothhound sharks at sea.

Sub -Alternative A2-1b: Smooth dogfish must make up at least 25 % of the retained catch (no other sharks can be retained)

To remove the fins of a smooth dogfish while at sea, smooth dogfish would have to make up at least 25 % of the total retained catch by weight, and no other shark species may be on board. Under this alternative, fishermen conducting both directed and incidental smooth dogfish trips could remove fins at sea. The fins of a smooth dogfish could be removed, provided no other sharks were retained. Shark species are often difficult to tell apart, particularly when dressed, so this restriction could prevent processing of non-smoothhound sharks at sea.

Sub -Alternative A2-1c: *Smooth dogfish must make up at least 75 % of the retained catch (no other sharks can be retained) – Preferred Alternative*

To remove the fins of a smooth dogfish while at sea, smooth dogfish would have to make up at least 75 % of the total retained catch by weight, and no other shark species may be on board. Under this alternative, fishermen would be fishing for smooth dogfish and retaining a limited amount of fish species other than non-smooth dogfish sharks. The fins of a smooth dogfish could be removed at sea, provided no other sharks were retained. Shark species are often difficult to tell apart, particularly when dressed, so this restriction could prevent illegal processing of non-smooth dogfish sharks at sea.

Sub -Alternative A2-1d: Smooth dogfish must make up 100 % of the retained catch

To remove the fins of a smooth dogfish while at sea, smooth dogfish would have to make up 100% of the total retained catch, by weight. Thus, no other species of fish or shark species could be on board if fishermen wanted to remove smooth dogfish fins at sea.

Issue 2: State Fishing Permit

The following sub-alternatives consider measures to implement the language of the regarding "if the individual holds a valid State commercial fishing license."

Sub -Alternative A2-2a: Require smooth dogfish-specific state commercial fishing permit in conjunction with the federal smoothhound permit

Under this alternative each State would need to issue a smooth dogfish-specific commercial fishing permit in order for fishermen to remove the fins of smooth dogfish while at sea. Fishermen would be required to hold a smooth dogfish-specific commercial state fishing permit in conjunction with the federal smoothhound shark permit.

Sub -Alternative A2-2b: *Require any state commercial fishing permit that allows smooth dogfish retention in conjunction with the federal smoothhound permit- Preferred Alternative*

Under this alternative fishermen would be required to hold a state commercial fishing permit that allows smooth dogfish retention in conjunction with the federal smoothhound shark permit in order to remove the fins of smooth dogfish while at sea. The state commercial fishing permit could be a smooth dogfish-specific commercial fishing permit that allows for retention of only smooth dogfish, a shark specific commercial fishing permit that allows for retention of any shark species, or a more general state commercial fishing permit that allows for the retention of smooth dogfish, sharks, and other species of fish.

Issue 3: Geographic Applicability of Exception

The following sub-alternatives consider measures regarding the geographic applicability of the exception to address identification and enforcement issues that arise from the SCA's specific application only to smooth dogfish. In the SCA, ''State'' has the meaning given that term in section 803 of Public Law 103–206 (16 U.S.C. 5102). P.L. 103-206 uses "State" to refer to "Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, the District of Columbia, or the Potomac River Fisheries Commission."

Sub-Alternative A2-3a: Apply the exception for smooth dogfish along the Atlantic Coast and to Florida's coast in the Gulf of Mexico.

This sub-alternative would apply the smooth dogfish exception 50 nautical miles from the baseline of all the States that fall under the SCA definition of "State," including along the west coast of Florida in the Gulf of Mexico. Figure 2.1 shows the affected area.

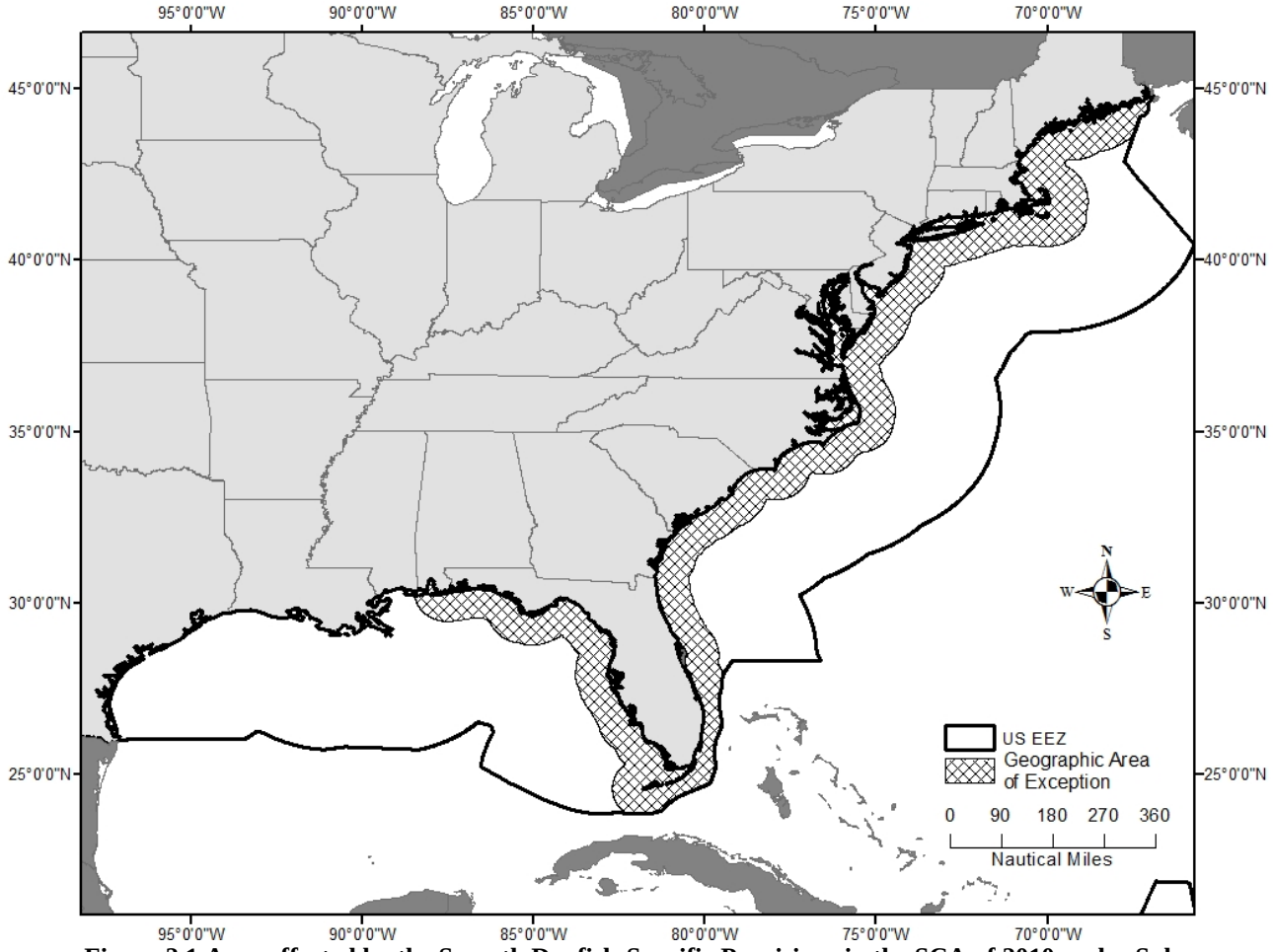

Figure 2.1 Area affected by the Smooth Dogfish-Specific Provisions in the SCA of 2010 under Sub-Alternative A2-3a.

Sub-Alternative A2-3b: *Apply the exception for smooth dogfish along the Atlantic Coast but not to Florida's coast in the Gulf of Mexico – Preferred Alternative*

The second alternative would apply the exception along only the Atlantic Coast from Maine until the shark management boundary between the Gulf of Mexico and the Atlantic regions. This boundary is defined as "a line beginning on the east coast of Florida at the mainland at 25^{0}20.4' N. lat., proceeding due east" (§ 635.27 (b)(1)). Figure 2.2 shows the affected area.

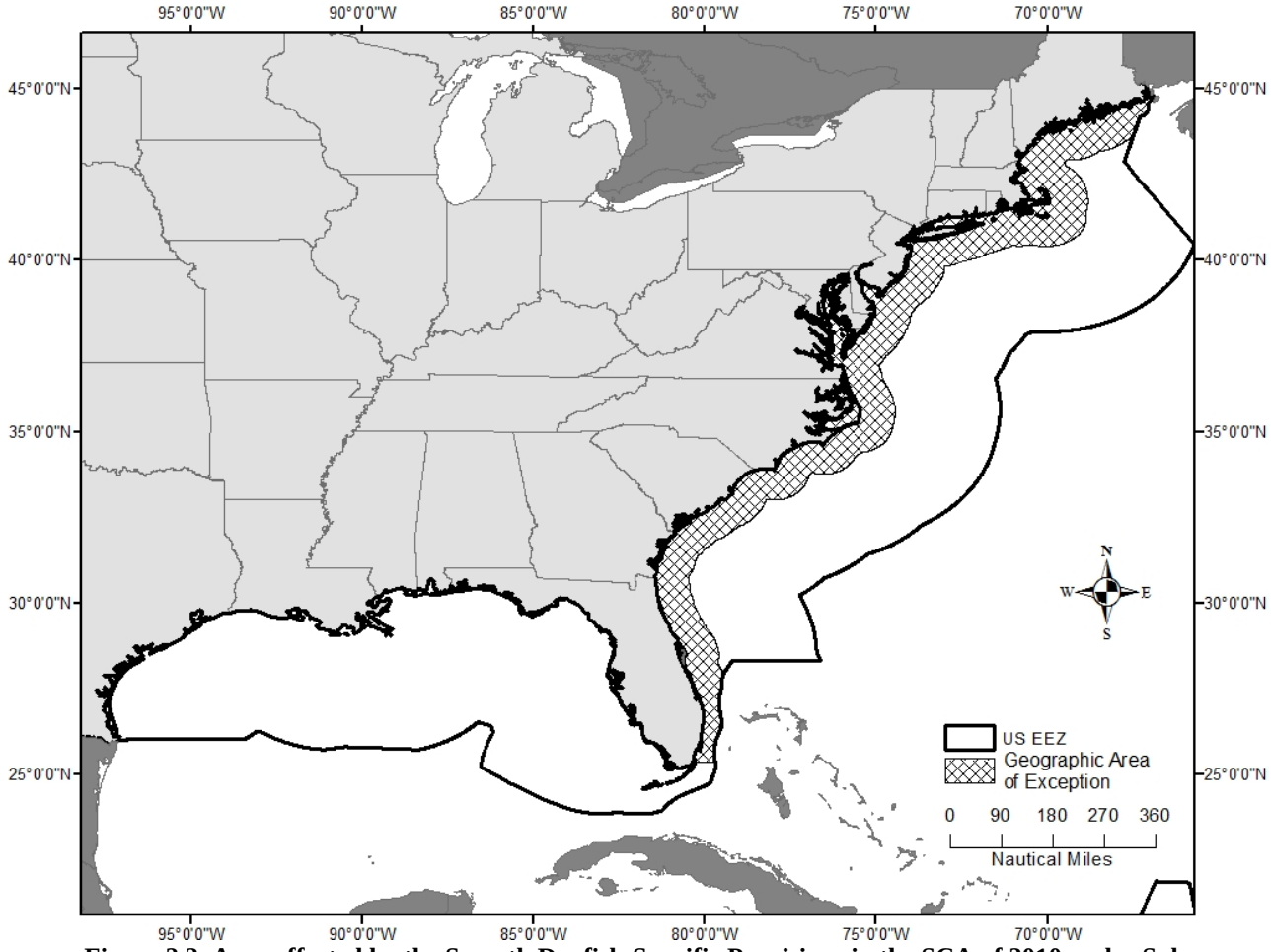

Figure 2.2 Area affected by the Smooth Dogfish-Specific Provisions in the SCA of 2010 under Sub-Alternative A2-3b.

2.2 COMMERCIAL QUOTA ADJUSTMENT FOR THE SMOOTHHOUND FISHERY

The following four alternatives consider the quota provisions for the smoothhound shark fishery based on the availability of new landings data and the scheduled stock assessment. In addition to the base quota, a small smoothhound shark research set-aside quota (6 mt ww) was considered and analyzed in Amendment 3. This action does not consider altering the research set-aside quota that was finalized in Amendment 3, and therefore it is not addressed in this impact analysis. Updated landings from the ACCSP Data Warehouse are shown in Table 2.1.

Table 2.1 Annual landings for smoothhound sharks, dressed weight (1998-2013); Source: ACCSP Data Warehouse

Year	Landings (lb dw)
1998	763,717
1999	927,902
2000	754,730
2001	855,798
2002	1,008,420
2003	1,038,457
2004	1,234,606
2005	864,552
2006	798,325
2007	1,147,532
2008	1,269,701
2009	1,898,250
2010	2,694,897
2011	1,951,055
2012	1,554,705
2013	1,462,274

Alternative B1: Implement a smoothhound shark quota that is equal to the maximum annual landings from 1998 – 2007 plus two standard deviations (715.5 mt) (established in Amendment 3)

Under Alternative B1, NMFS would maintain the previously-adopted quota in Amendment 3 (715.5 mt). The method used to calculate the Amendment 3 quota ("the Amendment 3 method") which was recommended by the NMFS SEFSC to account for underreporting in the smoothhound shark fishery was maximum landings plus two standard deviations, using 1998-2007 landings data available at that time. Figure 2.2 shows this quota alternative relative to recent landings.

Alternative B2 Establish a "rolling quota" each year based upon the previous five years of available data. Annual quota would be equal to maximum landings during the previous five years of available data plus two standard deviations (2015 quota would be 1,663 mt based on 2009-2013 data).

Under Alternative B2, NMFS would calculate a new annual quota each year through annual quota specifications using the calculation methodology in Alternative B1 (the Amendment 3 method) but using the previous five years of available data. This would result in a smoothhound shark quota

that would change each year and fluctuate with changes in the fishery. The annual quota could increase each year if fishing effort continues to increase or would decrease if fishing effort decreases. Using this methodology, the 2015 quota, based on 2009-2013 data, would be 1,663 mt. Figure 2.2 shows this quota alternative relative to recent landings.

Alternative B3 *Establish a smoothhound shark quota that is equal to the maximum annual landings from 2004-2013 plus two standard deviations (1,739.9 mt dw) – Preferred Alternative*

Under Alternative B3, the preferred alternative, NMFS would recalculate the smoothhound shark quota using the Amendment 3 quota calculation method of the maximum annual landings plus two standard deviations, using the last ten years of available data (*i.e*. 2004-2013). This alternative would not change the quota calculation methodology; rather, it would simply update the data used in the calculation to reflect the best available data. The maximum annual landings from 2004 to 2013 occurred in 2010 and were 1,222.4 mt dw. The standard deviation of annual landings from 2004 to 2013 was 258.7 mt dw. Therefore, the quota for smoothhound sharks using the Amendment 3 method and updated data from 2004 to 2013 would result in a quota of 1,739.9 mt dw. Figure 2.2 shows this quota alternative relative to recent landings.

Note that in Amendment 3, NMFS used a conversion factor of 1.39 to convert smoothhound shark data from whole weight to dressed weight, which is the conversion factor NMFS uses for quota tracking for other sharks. Since publication of the Amendment 3 final rule, NMFS has learned from ACCSP that this general shark conversion factor of 1.39 might not be appropriate for smoothhound sharks because of state and regional differences in smoothhound shark processing as well as morphological differences between smoothhound sharks and other sharks species. The updated data NMFS received from ACCSP did not use that conversion factor and has instead been converted to pounds dressed weight using the appropriate conversion factors based on state and regional smoothhound shark landings. These conversion factors are specific to the level of processing and region of landings and vary by State, but generally fall between 1 and 2.

Alternative B4 Establish a smoothhound shark quota(s) that reflects any necessary adjustments as a result of the 2014 smoothhound shark stock assessment

A smoothhound shark stock assessment is currently ongoing, the results of which could provide a better understanding of stock status and maximum sustainable fishing mortality. At this time, the date of final stock status determination is unknown, but it could occur before the conclusion of the rulemaking on Draft Amendment 9. Under Alternative B4, NMFS would establish an Atlantic and Gulf of Mexico smoothhound shark quota(s) based on the results of the 2014 Southeast Data Assessment and Review (SEDAR) stock assessment for smoothhound sharks. This alternative would allow NMFS to establish a quota using the best available science and could provide a maximum level of fishing mortality to ensure a sustainable fishery. In chapter 4, the ecological and socioeconomic impacts of this alternative are analyzed and discussed. Since the final stock status is not yet known,

NMFS would consider preparing a supplemental EA as appropriate or take other regulatory action if required by the stock assessment outcome. At this time, several different scenarios are considered including: 1) a quota(s) equal to approximately one-half the Alternative B1 quota (357.8 mt dw), 2) a quota(s) approximately equal to the Alternative B1 quota, 3) a quota(s) half way in between Alternatives B1 and B3, or 1,227.7 mt dw, and, 4) a quota(s) larger than Alternative B1, approximately equal to or greater than the quota under Alternative B3 (1,739.9 mt dw). Additionally, Chapter 4 will examine several different species complex and regional structures. As defined in the rulemaking associated with this action, the smoothhound shark stock complex includes the Florida smoothhound, smooth dogfish, and the Gulf smoothhound. Some or all these species could be divided into regional stocks between the Atlantic and Gulf of Mexico, depending on the stock assessment results. Again, additional environmental analyses and regulatory action may be considered if warranted by the stock assessment outcomes or depending on the magnitude of any resultant changes in management approaches.

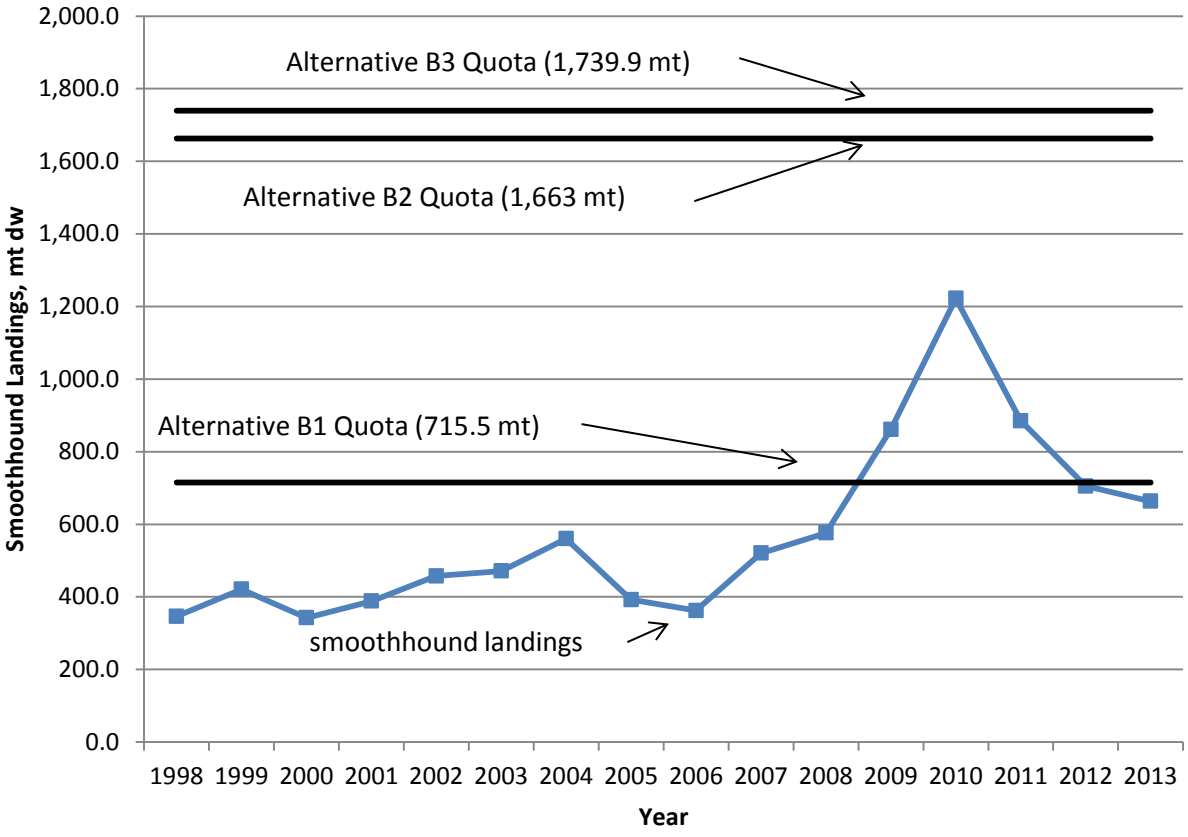

Figure 2.3 Three quota alternatives relative to recent smoothhound shark landings; Source: ACCSP Data Warehouse 1998-2013

2.3 BIOLOGICAL OPINION IMPLEMENTATION

The following four alternatives consider implementation of TC 4 contained in the 2012 Shark BiOp, which requires all Atlantic shark and smoothhound gillnet fishermen to either check their gear every 0.5 to 2.0 hours or soak their gear no longer than 24 hours. The Atlantic shark fishermen that use gillnet gear are currently required, per a TC of the 2001 BiOp on the Atlantic HMS fisheries, to conduct net checks every 0.5 to 2 hours to look for and remove any protected species including sea turtles and marine mammals.

Alternative C1: No Action. Do not take further action to implement TC 4 in the smoothhound shark fishery

Under Alternative C1, NMFS would not implement Term and Condition number four regarding net checks or a 24 hour maximum soak time in the Atlantic shark and smoothhound shark fisheries. This alternative would maintain status quo, which means gillnet fishermen with an Atlantic directed shark limited access permit would be required to conduct net checks every 0.5 to 2 hours.

Alternative C2 Require smoothhound shark gillnet fishermen to conduct net checks every 0.5 to 2 hours to look for and remove any sea turtles, marine mammals, smalltooth sawfish, or Atlantic sturgeon found in the net

Under Alternative C2, NMFS would require gillnet fishermen with a federal smoothhound shark permit to conduct net checks every 0.5 to 2 hours to look for and remove any sea turtles, marine mammals, smalltooth sawfish, or Atlantic sturgeon found in the net. In other words, under this alternative, all shark fishermen, including smoothhound shark fishermen, would be required to conduct net checks every 0.5 to 2 hours.

Alternative C3 Establish a gillnet soak time limit of 24 hours for smoothhound shark permit holders; fishermen holding both a directed Atlantic shark limited access permit and a smoothhound shark permit must abide by both soak time restrictions and net check requirements

Under Alternative C3, NMFS would require gillnet fishermen with a federal smoothhound shark permit to limit the soak time of gillnet gear to 24 hours to detect and release any incidentally taken ESA-listed species in a timely manner. Gillnet fishermen with an Atlantic directed shark limited access permit would still be required to conduct net checks every 0.5 to 2 hours. If a gillnet fishermen holds both an Atlantic directed shark limited access permit and a smoothhound shark permit, they must abide by both the 0.5 – 2 hour net check requirement and the 24 hour maximum soak time limit requirement.

Alternative C4 *Establish a soak time limit of 24 hours for sink gillnet gear and a 0.5 to 2 hour net check requirement for drift gillnet gear in the Atlantic shark and smoothhound shark fisheries – Preferred Alternative*

Under Alternative C4, the preferred alternative, NMFS would require gillnet fishermen with either a federal Atlantic shark or smoothhound shark permit to limit soak times to 24 hours when fishing with sink gillnet gear or require net checks every 0.5 to 2 hours if using drift gillnet gear to look for and remove any sea turtles, marine mammals, smalltooth sawfish, or Atlantic sturgeon found in the net. Sink and drift gillnet gear would be differentiated based upon the method of fishing. Drift gillnets would be defined as those that are unattached to the ocean bottom with a float line at the surface. Sink gillnet gear would be defined as those with a weight line that sinks to the ocean bottom, has a submerged float line, and is designed to be fished on or near the bottom. Under this alternative, the current net check requirement for Atlantic shark gillnet fishermen would be modified to be based on the type of gear being fished.

2.4 ATLANTIC SHARK GILLNET VESSEL MONITORING SYSTEM REQUIREMENTS

The following two alternatives consider a change to the existing Atlantic shark gillnet VMS requirements.

Alternative D1: No Action. Do not change VMS requirements for federal directed shark permit holders with gillnet gear on board.

Under Alternative D1, NMFS would not change VMS requirements for federal directed shark permit holders with gillnet gear on board. Vessels holding a directed Atlantic shark commercial fishing permit with gillnet on board would continue to be required to use VMS regardless of vessel location.

Alternative D2 *Require federal directed shark permit holders with gillnet gear on board to use VMS only in the Southeast U.S. Monitoring Area, pursuant to Atlantic Large Whale Take Reduction Plan requirements – Preferred Alternative*

Under Alternative D2, the preferred alternative, NMFS would modify the VMS requirements for federal directed shark permit holders with gillnet on board. Currently, vessels matching this description are required to use VMS regardless of vessel location. Alternative D2 would limit the VMS requirement to the Southeast U.S. Monitoring area (Figure 2.2.3), pursuant to ALWTRP requirements at 50 CFR 229.32 (h).

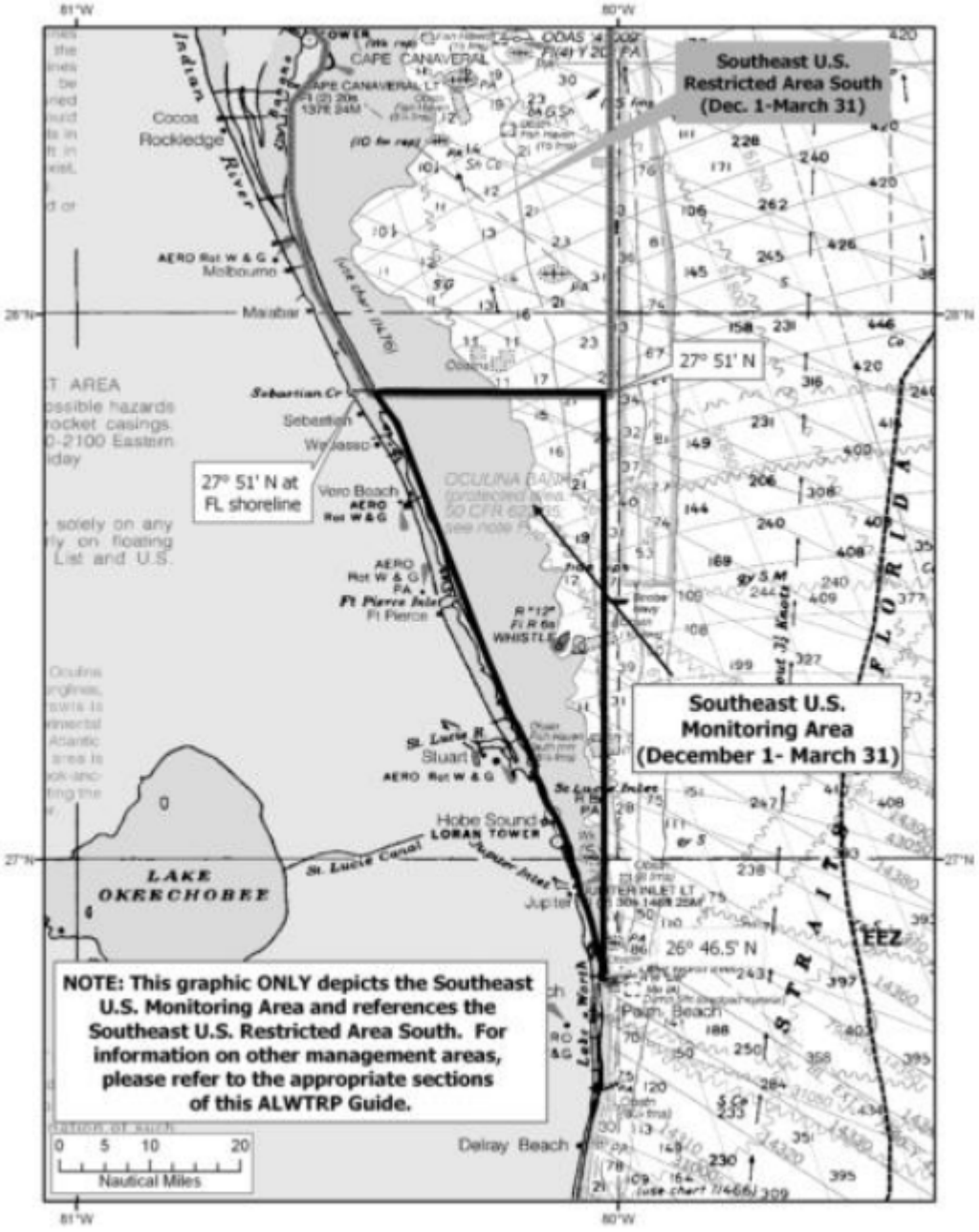

Figure 2.4 Southeast U.S. Monitoring Area; Source: Guide to the Atlantic Large Whale Take Reduction Plan, NOAA Fisheries

2.5 ALTERNATIVES CONSIDERED BUT NOT FURTHER ANALYZED

This section includes alternatives NMFS considered but decided not to further analyze because the alternatives did not meet the screening criteria, as described below.

Alternative E1: Require VMS if removing smooth dogfish fins at sea

Alternative E1 would require fishermen to purchase and install VMS units if they remove smooth dogfish fins while at sea to ensure that they are fishing only within the 50 nm area from Maine through Florida as specified in the smooth dogfish-specific provisions of the SCA. However, most smooth dogfish fishing occurs on the border between state and federal waters in the mid-Atlantic region and very little smooth dogfish fishing occurs outside of 50 nm or in the Gulf of Mexico. VMS units typically cost in excess of $2,500, not including installation. Due to the low value of smooth dogfish product, profits from smooth dogfish fishing trips are often low: from 2008 to 2012, average per trip revenue from smooth dogfish caught in gillnet gear was $598.50 (based on average per trip landings of 761 lb dw, although single trip landing were as high as 21,000 lb dw, equating to $16,514.40). The extra expense of VMS units could make the fishery less profitable without any conservation benefit, although some fishermen are required to have a VMS as a condition of other permits and wouldn't be impacted. As noted in Section 3.6.2, average annual smooth dogfish revenue per vessel ranges from $1,619 for incidental vessels to $15,365 for vessels primarily fishing for smooth dogfish. This is inconsistent with NS7 which requires "conservation and management measures [to], where practicable, minimize costs and avoid unnecessary duplication," and thus does not meet the screening criteria. Since this alternative would not result in any ecological advantages at this time but would place a burden on smooth dogfish fishermen that are not already required to have VMS per other regulations, it was considered but not further analyzed.

Alternative E2: Require VMS if retaining smooth dogfish

Under Alternative E2, a vessel must carry and operate an approved VMS unit to catch and retain smooth dogfish. A VMS unit would be required regardless of smooth dogfish landing condition. VMS units typically cost in excess of $2,500, not including installation. Due to the low value of smooth dogfish product, profits from smooth dogfish fishing trips are often low: from 2008 to 2012, average per trip revenue from smooth dogfish caught in gillnet gear was $598.50 (based on average per trip landings of 761 lb dw, although single trip landing were as high as 21,000 lb dw, equating to $16,514.40). The extra expense of VMS units could make the fishery less profitable or possibly not profitable without any conservation benefit, although some fishermen are required to have a VMS as a condition of other permits and wouldn't be impacted. As noted in Section 3.6.2, average annual smooth dogfish revenue per vessel ranges from $1,619 for incidental vessels to $15,365 for directed vessels. This is inconsistent with NS7 which requires "conservation and management measures [to], where practicable, minimize costs and avoid unnecessary duplication," and thus does not meet the screening criteria. Since this alternative would not result in any ecological

advantages but would place a burden on smooth dogfish fishermen, it was considered but not further analyzed.

Alternative E3: Require vessels to declare intent to embark on a trip where they would remove smooth dogfish fins at sea

Alternative E3 would require fishermen to contact NMFS and declare their intention to embark on a trip where smooth dogfish fins would be removed while at sea. The vessel would continue to operate under this declaration until the vessel operator calls in to cancel or modify the declaration. This could help target enforcement efforts. If an enforcement agent finds detached fins on board a vessel that has not declared this intent, the violation would be detectable. If enforcement decides to check a vessel that has declared this intent to ensure that only smooth dogfish (and no other sharks) were processed at sea, it would be easier to locate the vessel and meet it at the dock. It is possible that this alternative would likely have minor negative socioeconomic impacts because it would impose an extra burden and require extra planning time that could be spent on other, fishing-related activities. Dock-side and at-sea enforcement would still be effective without this requirement since those fishermen removing smooth dogfish fins at sea must have a federal smoothhound shark permit. Additionally, smooth dogfish shark carcasses can be differentiated from other, non-smoothhound sharks (see Mitigating Measures, Section 5.1) and the smooth dogfish fishery is largely guided by water temperature and the geographic location of the fishery will often be easily identified at any one time. For these reasons, NMFS has determined that the need for fishermen to declare their intent to remove smooth dogfish fins at sea is unnecessary and therefore this alternative was considered but not further analyzed.

3.0 AFFECTED ENVIRONMENT

This chapter serves several purposes. It describes the affected environment (the fishery, the gears used, the communities involved, *etc*.) and describes the current condition of the fishery, which serves as a baseline against which to compare potential impacts of the different alternatives. This chapter also provides a summary of information concerning the biological status of shark stocks; the marine ecosystems in the fishery management unit; the social and economic condition of the fishing interests, fishing communities, and fish processing industries; and, the best available scientific information concerning the past, present, and possible future condition of shark stocks, ecosystems, and fisheries.

3.1 BIOLOGY AND LIFE HISTORY OF SMOOTHHOUND SHARKS

As detailed in Section 1.2, smooth dogfish, Florida smoothhound, and Gulf smoothhound would be managed a single smoothhound shark complex because identification among these species is difficult, and all three species' range overlap in the Gulf of Mexico.

Smooth dogfish are a common coastal shark species found in the Atlantic Ocean from Massachusetts to northern Argentina. They are primarily demersal sharks that inhabit continental shelves and are typically found in inshore waters down to 200m depth (Compagno, 1984). Early studies on movement patterns found that smooth dogfish are nocturnal (Casterlin and Reynolds, 1979). Smooth dogfish is a migratory species that responds to changes in water temperature. They primarily congregate between southern North Carolina and the Chesapeake Bay in the winter. In the spring, smooth dogfish move along the coast when bottom water warms up to at least 6 to 7°C. As temperatures get colder, they move offshore to their wintering areas (Compagno, 1984). Figure 3.1 and Figure 3.2 show the distribution of smooth dogfish along the Atlantic Coast by month and season, respectively. These figures were taken directly from a SEDAR 39 Data Workshop Working Paper (S39-DW-28) and original references can be found in the caption under Figure 3.1.

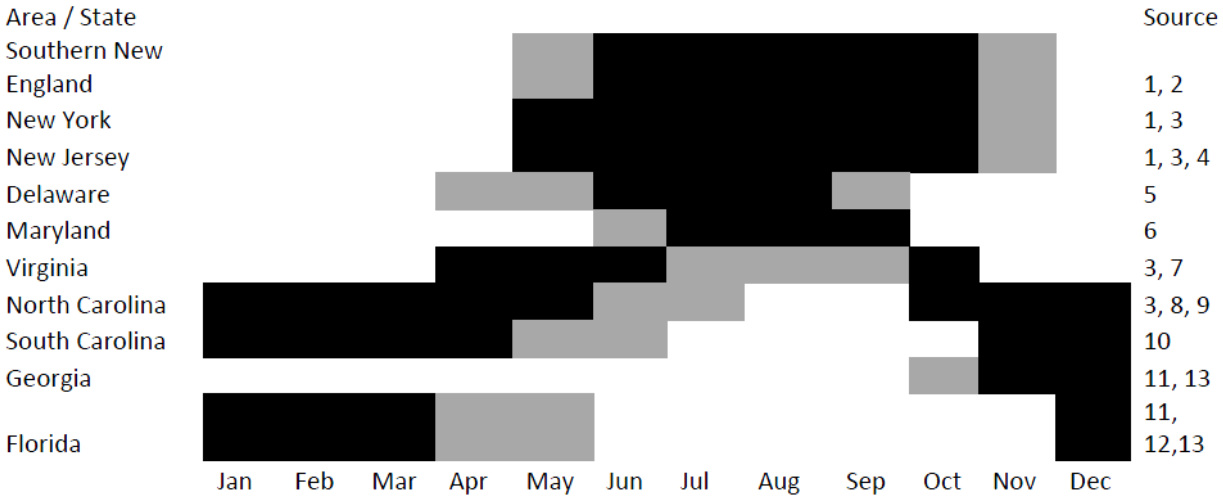

Figure 3.1 Seasonal distribution of Mustelus canis along the East coast of the United States. Months highlighted indicate presence while those in black represent peak abundance. References: 1. Bigelow and Schroeder (1948), 2. Skomal (2007), 3. NMFS Commercial Landings Database, 4. Rountree and Able (1996), 5. C. McCandless, personal communication, 6. Schwartz (1964), 7. Grubbs and Musick (2007), 8. UNC Longline Shark Database, 9. Jensen and Hopkins (2001), 10. Ulrich et al. (2007), 11. C. Belcher, personal communication, 12. Gelsleichter, personal communication. 13. Kohler et al. (2014)

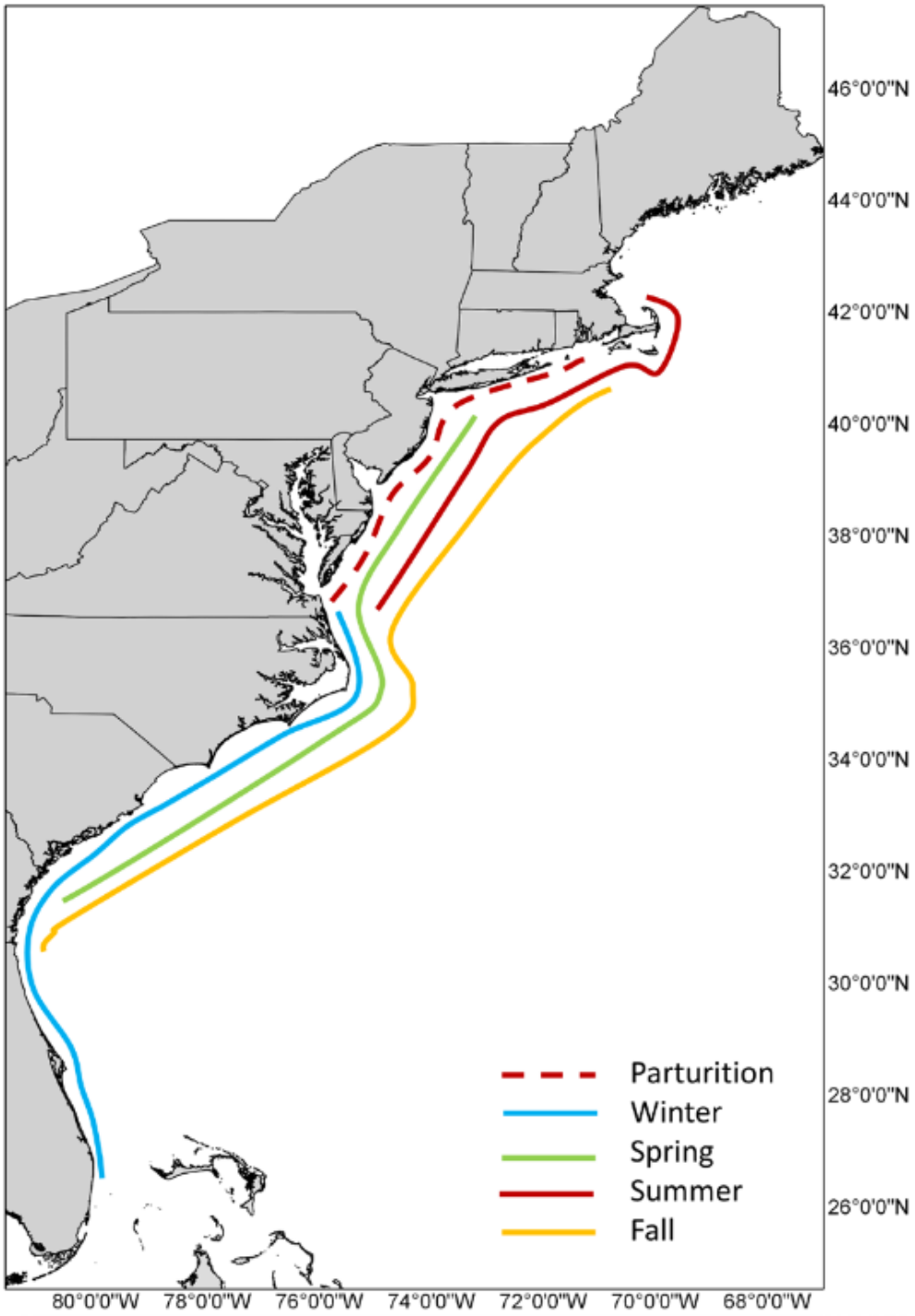

Figure 3.2 Seasonal distribution pattern of smooth dogfish along the East coast of the United States. Winter (Blue) is the distribution from December to February. Spring (Green) is the distribution from March through May. Summer (Red) is the distribution from June through August. Fall (Orange) is the distribution from September through November.

Smooth dogfish have diets that are dominated by invertebrates (Figure 3.3; Scharf *et al.*, 2000). They primarily feed on large crustaceans, consisting mostly of crabs (Gelsleichter *et al.*, 1999), but also rely heavily on American lobsters (Boudreau and Worm, 2010). In the New England waters during the spring, smooth dogfish feed on small bony fish, including menhaden, stickleback, wrasses, porgies, sculpins, and puffers (Compagno, 1984). In shallow, coastal mid-Atlantic waters smooth dogfish primarily feed on invertebrates (brachyuran and anomuran crabs, polychaetes and bivalves), although teleost fish (anchovies, Sciaenids, and *Paralichthys* spp) may also constitute a small part of the diet (Woodland et al., 2011).

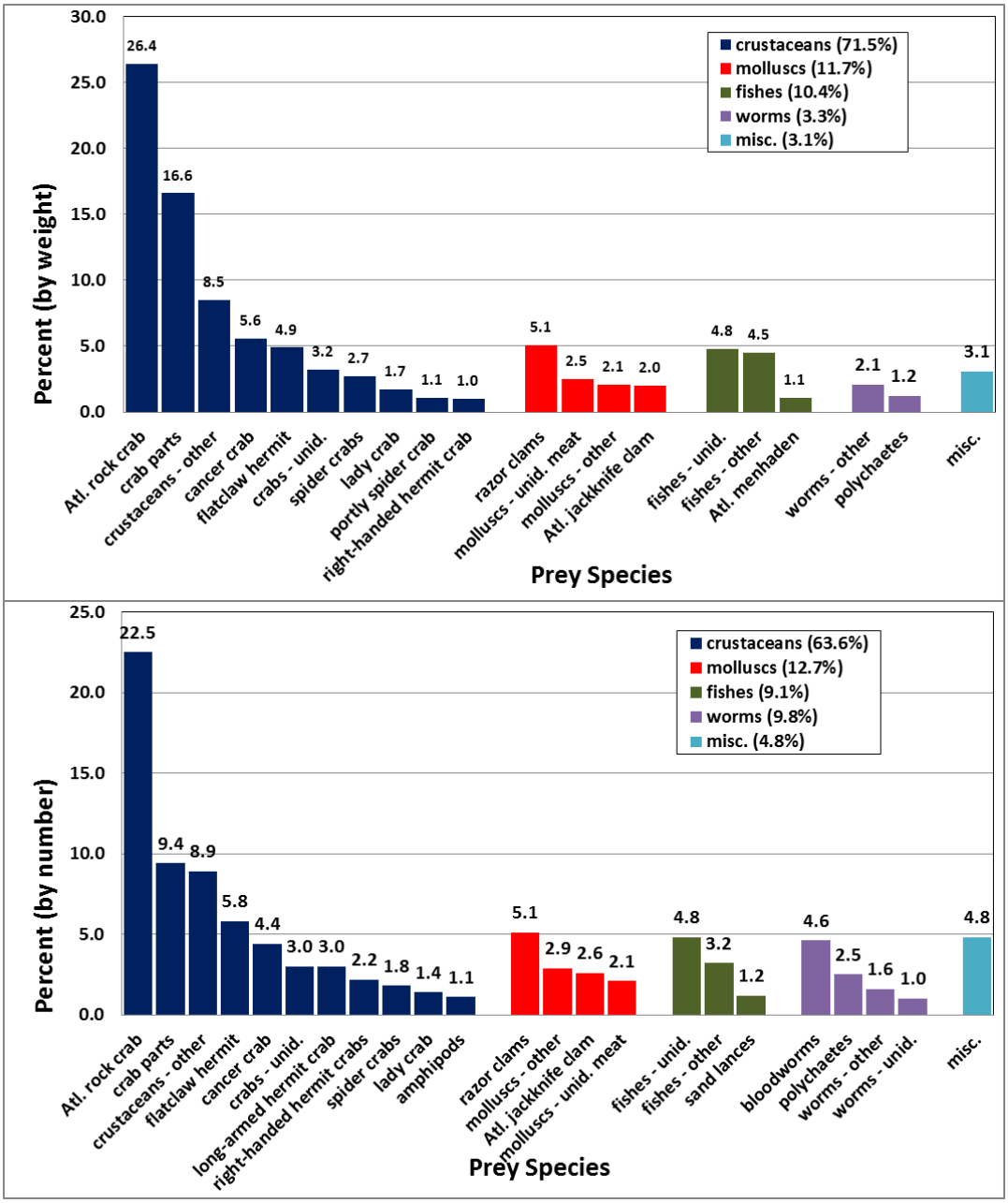

Figure 3.3 Diet analysis of coastal populations of smooth dogfish sampled in spring and fall NEAMAP trawl surveys. Source: C. Bonzak, NEAMAP, VIMS

The maximum size smooth dogfish can reach is approximately 150 cm total length (TL). Males mature at 2-3 years old (about 82 cm TL) and females mature between 4-7 years old, which is about 90 cm TL (Compagno, 1984; Conrath *et al.*, 2002). The length at 50 percent maturity for females is 102 cm TL, while males reach 50 percent maturity at 86 cm TL. NEAMAP spring and fall trawl survey data imply that coastal populations are primarily made up of large numbers of immature

and mature males (Figure 3.4). Fall surveys imply a more even ratio of immature males:females and mature males:near mature females. In both years, most of the largest number of smooth dogfish sampled was female. Female smooth dogfish have an 11–12 month gestation period with mating occurring between May and September. The fecundity of smooth dogfish ranges between 3 and 18 pups per litter (Conrath and Musick, 2002). The size range at birth is between 28 and 39 cm (Rountree and Able, 1996). Marsh creeks may be particularly important to newborn smooth dogfish during June and July. Young-of-year (YOY) pups grow rapidly in these areas to a size of 55-70 cm TL, prior to migration from the estuaries by the end of October. The abundance of YOY within estuaries strongly suggests that estuaries are critically important nursery habitats for smooth dogfish within the Mid-Atlantic Bight (Rountree and Able, 1996).

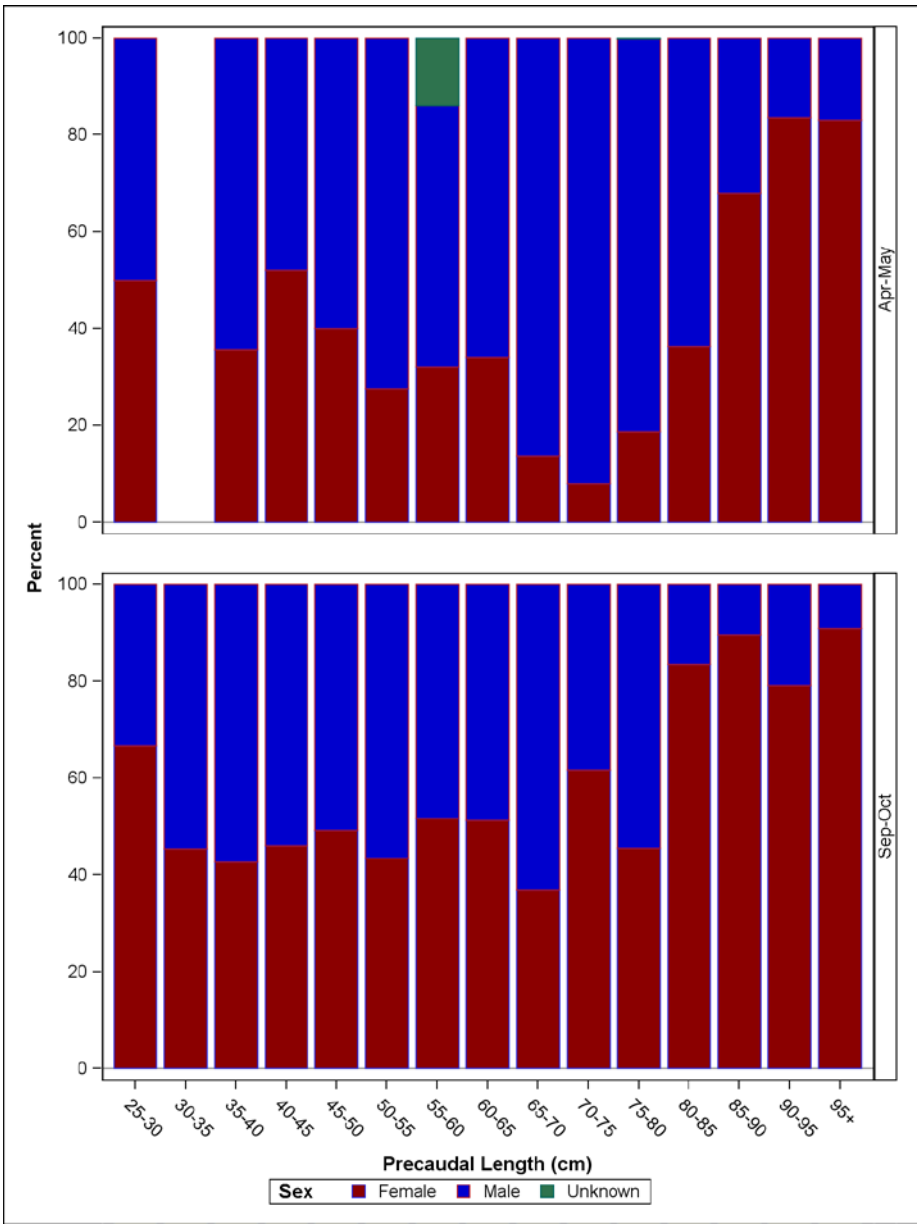

Figure 3.4 Sex ratios of coastal smooth dogfish by length category sampled in spring and fall NEAMAP trawl surveys. Source: C.Bonzak, NEAMAP, VIMS

Life history information about Florida smoothhound and Gulf smoothhound are not as readily available as that for smooth dogfish. It is likely that all three share some life history traits, though some differences in specific habitat and prey preference exist. Gulf smoothhound can be found throughout the Gulf of Mexico from South Florida to South Texas. Florida smoothhound is primarily found in the eastern Gulf of Mexico (Jones, et al. 2014)

3.2 SMOOTHHOUND HABITAT

When finalizing Amendment 3, available information was insufficient for the identification of essential fish habitat (EFH) for smoothhound neonates, juveniles and adults; therefore all life stages were combined in the EFH designation. Similarly, due to misidentification, particularly in the Gulf of Mexico, separate EFH designations for each of the three smoothhound shark species are not possible at this time. NMFS is currently in the process of reviewing EFH designations and may update smoothhound EFP designations in the future if appropriate (79 FR 15959, March 24, 2014).

Refer to Amendment 3 for a full description of the EFP designations for smoothhound sharks. During Amendment 3, NMFS used smoothhound shark encounter data from a variety of fishery independent surveys conducted along the U.S. east and gulf coasts (Figure 3.5) to generate EFH boundaries. The EFH boundaries are based on the 95 percent probability boundary using ESRI ArcGIS and Hawth's Analysis Tools (www.spatialecology.com) (Figure 3.6). The probability boundary was created by taking all of the available distribution points for the species at all life stage and creating a percent volume contour (PVC or probability boundary). A detailed description of the tool and the analytical approach used to create the boundary is provided in Amendment 1 to the 2006 Consolidated Atlantic HMS FMP. The probability boundary takes into account the distance between each point and the next nearest point, thereby excluding the least dense points (outliers) where the species occurred in relatively low numbers. The 95 percent probability boundary would include, on average, 95 percent of the points used to generate the probability boundary. Note that the specific EFH boundaries are the edited (i.e., clipped) 95 percent probability boundaries. In some areas the 95 percent probability boundary overlapped with the shoreline due to buffers that are created while generating the probability boundaries. The EFH was further adjusted by including specific areas deemed important through a primary literature review.

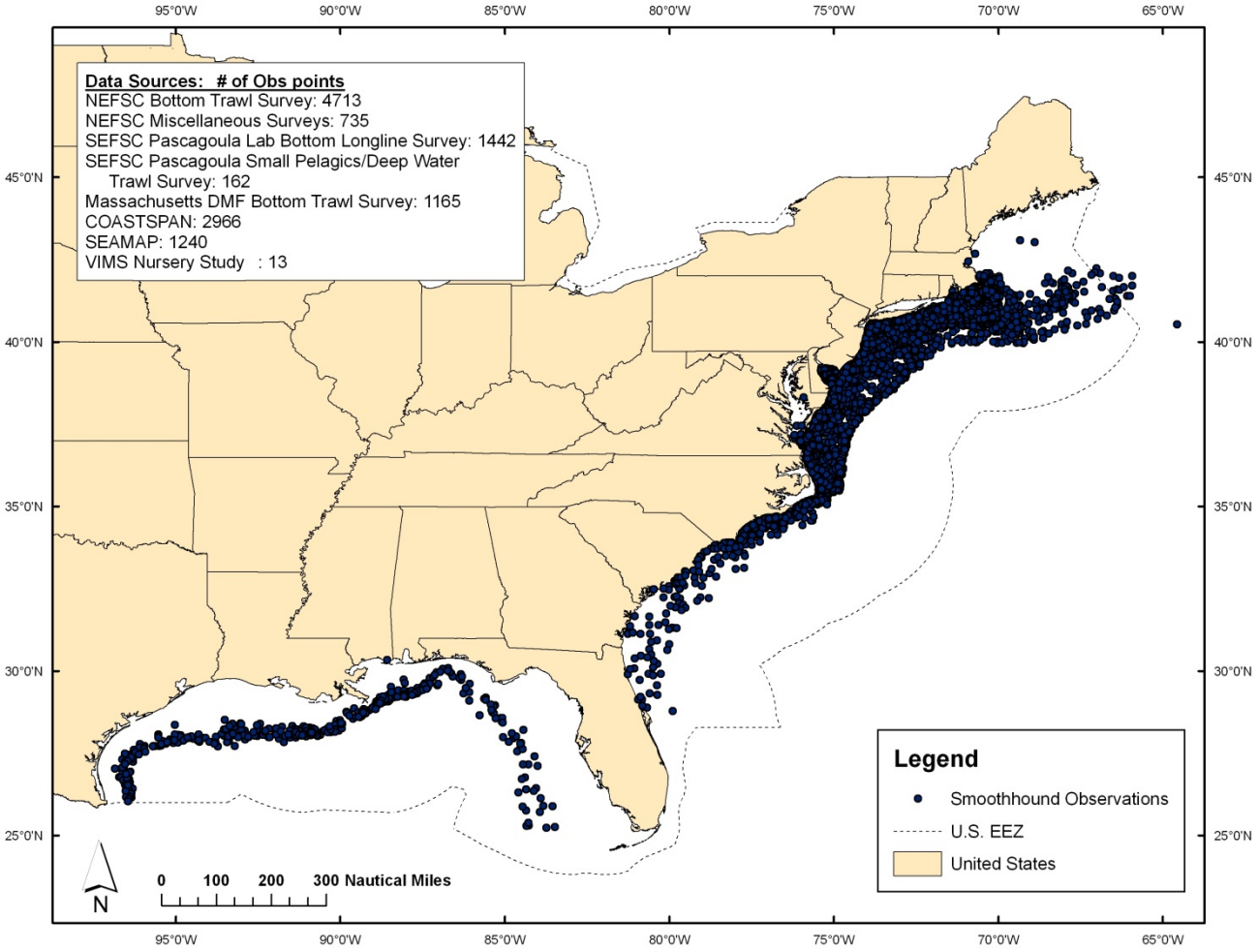

Figure 3.5 **Smoothhound shark observations from fishery-independent surveys.** Data sources: SEFSC, COASTSPAN, SEAMAP, VIMS Nursery Study

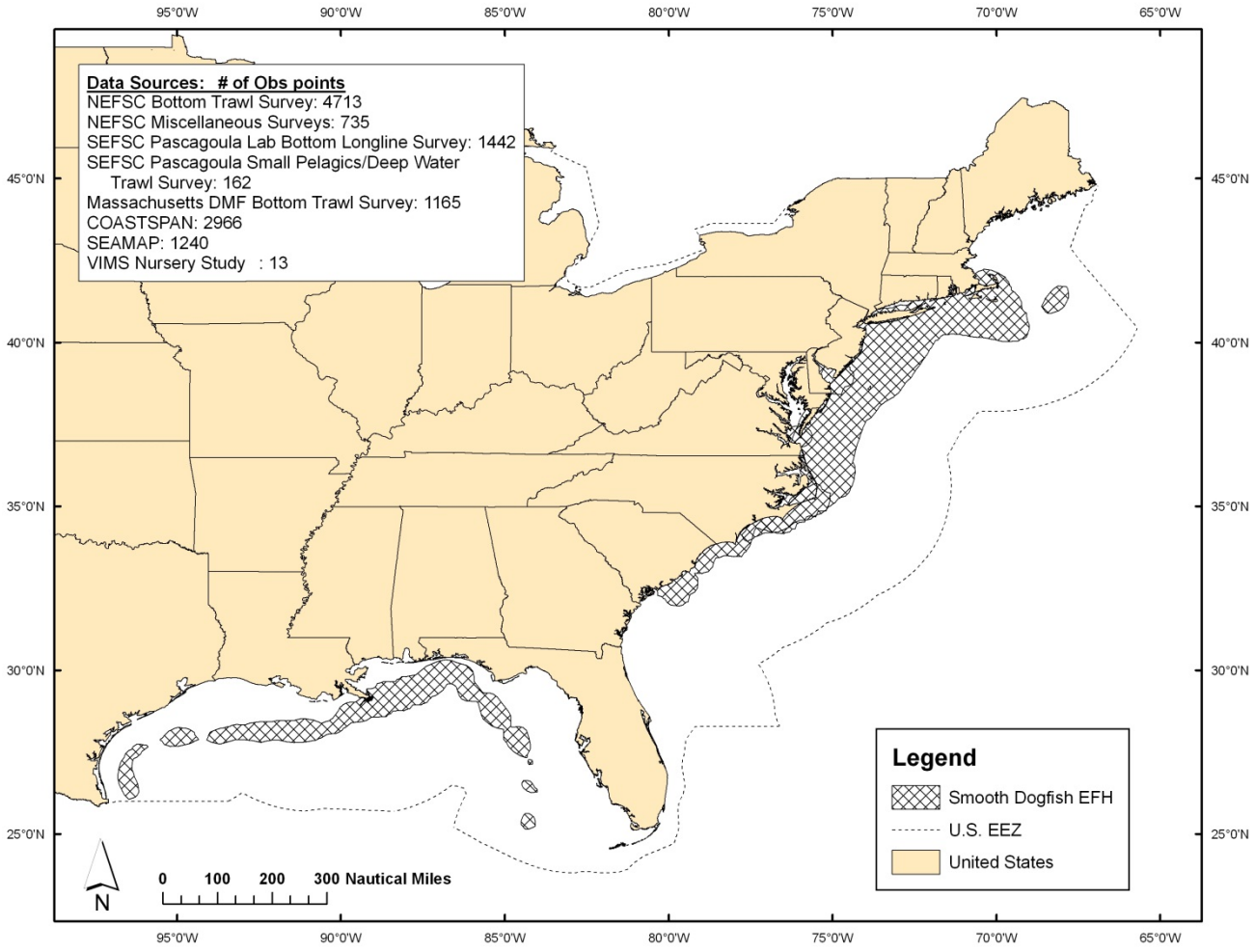

Figure 3.6 **Smoothhound shark EFH designation based on fisheries independent surveys.** Note: all life stages combined.

3.3 STOCK STATUS OF THE ATLANTIC SMOOTHHOUND

A smoothhound shark stock assessment is currently under way, the results of which could provide a better understanding of stock status and maximum sustainable fishing mortality.

Draft Amendment 9 considers implementing a smoothhound shark quota based on the current SEDAR 39 stock assessment if it is available before publication of the final rule. Smoothhound sharks have not been assessed. Therefore, the stock status is unknown and NMFS does not have the formal biological reference points to establish an overfishing limit (OFL) or allowable biological catch (ABC) for the fishery. Based upon existing data, it is apparent that the smoothhound fishery is substantial and has significant annual landings with a large directed component. Despite the lack of a formal stock assessment, the available fishery independent data, specifically NEFSC bottom trawl

and Northeast Area Monitoring and Assessment Program (NEAMAP) surveys, can provide insights into stock abundance. Since these surveys occur exclusively in the Atlantic, smooth dogfish are the only smoothhound shark species encountered, thus catch information is specific to this species only. Using this data, annual abundance indices can be calculated that show year-to-year changes in relative stock abundance. Standardized bottom trawl surveys conducted on continental shelf waters between Cape Hatteras, North Carolina and Nova Scotia are the central element of the NEFSC ecological and fishery research program (Link and Almeida 2000). The survey program was initiated by NMFS after the collapse of several important groundfish stocks in the 1950s and 1960s. Primary efforts are focused in fall and spring bottom trawl surveys, which have respectively been conducted since 1963 and 1968. Intermittent winter and summer trawl surveys were also conducted according to need and availability of funding. Trawl stations are selected using a stratified random sample design based on several criteria (latitude, regional and historical fishing patterns, water depth). All catch is sorted and weighed by species, and categorized by sex and maturity stage. Subsamples are often collected for specific studies as requested by federal, state, and academic institutions. Onboard processing methods for both the spring and fall survey are similar. Abundance indices were estimated by the NOAA Northeast Fisheries Science Center (NEFSC) from fall bottom trawl survey data. NEFSC biologists discouraged the use of spring trawl survey data because of the absence of inshore survey data from the Bigelow survey efforts from 2009 onward and the small fraction of smooth dogfish in the survey area in the spring. Therefore, only the fall bottom trawl survey abundance data are presented. NEFSC fall bottom trawl survey data (shown with confidence intervals for each year) suggest a gradual decline and stabilization in abundance through the late 1970s and 1980s in smoothhound populations sampled off the U.S. east coast in the fall of each year (Figure 3.7). However, consultations with the NEFSC have concluded that these changes in abundance are not necessarily a reflection of stock status. The relationship between the survey indices and overall population abundance has yet to be established. Such changes may simply reflect the seasonal availability of smooth dogfish in the survey areas.

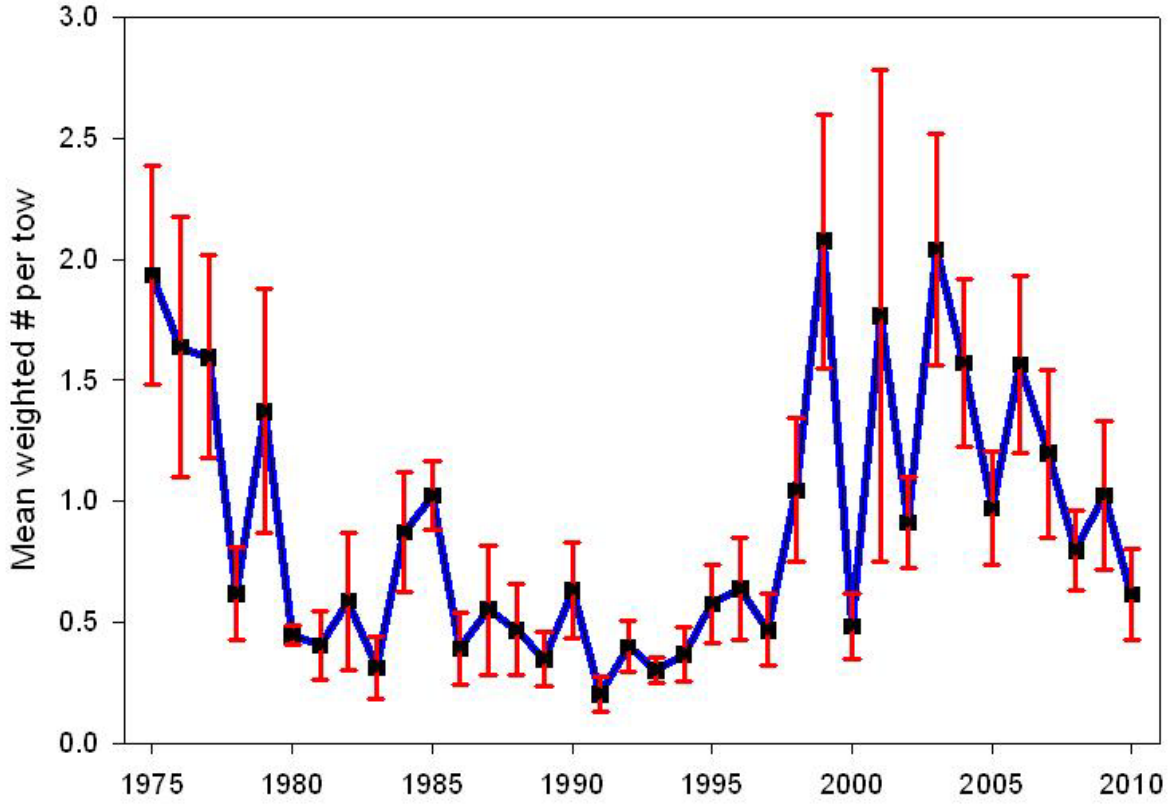

Figure 3.7 **NEFSC abundance indices based on the fall bottom trawl survey; error bars show one standard deviation.** Source: NMFS NEFSC

The second fishery independent survey NMFS looked at is NEAMAP. Since these surveys occur exclusively in the Atlantic, smooth dogfish are the only smoothhound shark species encountered, thus catch information is specific to this species only. The ASMFC drafted a resolution in 1997 to establish a Northeast Area Monitoring and Assessment Program NEAMAP. NEAMAP is a cooperative state-federal program designed to collect fisheries independent data from continental shelf waters. A primary NEAMAP goal was to design a trawl survey that would operate in coastal waters and sample regions that are depth-restrictive to the vessels used in the NEFSC bottom trawl survey. The NEAMAP surveys provide estimates of abundance, biomass, length frequency distribution, age structure, diet composition, and other parameters for fish and invertebrates in shallow coastal regions. The NEAMAP survey is designed to complement the NEFSC survey design by ensuring appropriate stratification of the survey area. The NEAMAP survey was designed to account for the NEFSC bottom trawl survey sample design and depth limitations of the new NEFSC vessel *Henry Bigelow*. The shallowest depth contour that is safely sampled by the *Henry Bigelow* is 18.3m; this depth contour is the deepest contour sampled by the NEAMAP inshore trawl survey. The surveys also overlap temporally (the NEFSC bottom trawl survey is typically conducted from March to May, while the NEAMAP surveys are typically conducted in April and May). Both surveys are conducted in coastal and offshore waters between Cape Hatteras, North Carolina and the U.S./Canadian border.

The same stratified random sample design has been used for spring and fall trawl surveys since the inception of the NEAMAP inshore trawl survey. Therefore, both the spring and fall trawl survey abundance indices were used in this analysis. NEAMAP survey data provide abundance indices for 2008 – 2012 based on raw catch data (Figure 3.8) and biomass (Figure 3.9) of smoothhound sampled in spring and fall inshore trawl surveys. Abundance indices for the spring survey decline from 2008 to 2012. Fall surveys show a fluctuation in abundance during this time period. The abundance declines seen in the fall inshore NEAMAP data follow a similar trend as the fall NEFSC fall bottom trawl survey abundance indices for the same time period. The contradictory trends in the spring versus fall surveys suggest availability changes.

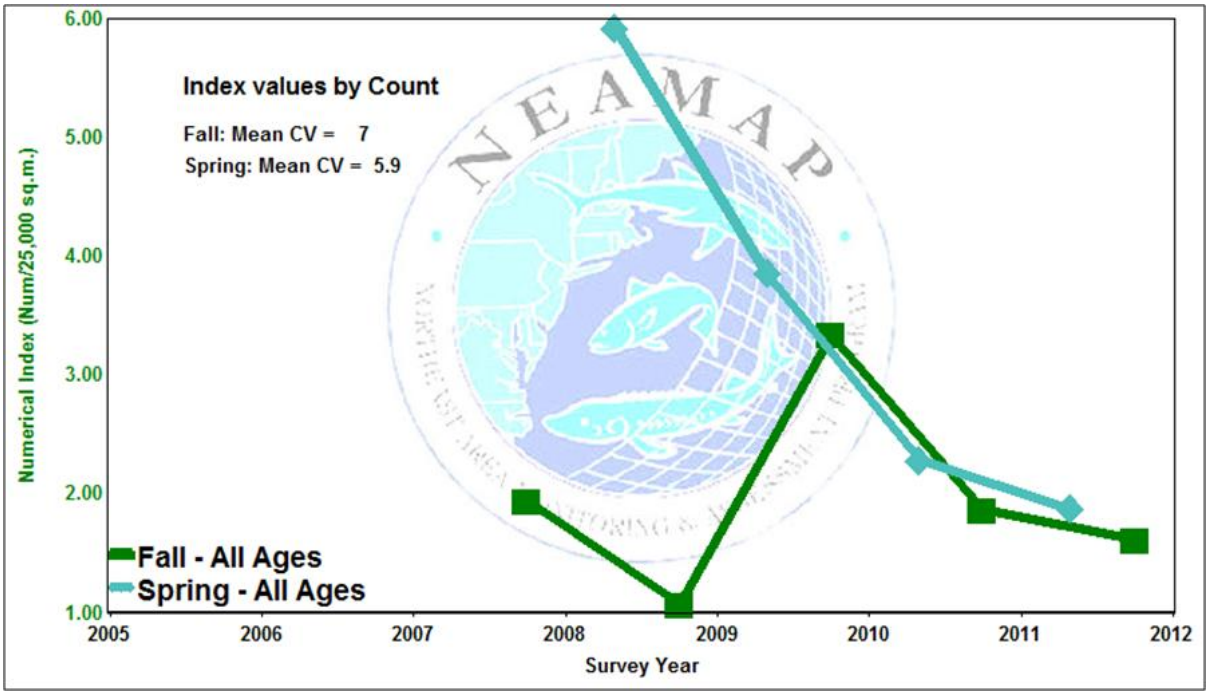

Figure 3.8 **NEAMAP spring and fall abundance indices estimated by raw counts of smooth dogfish encountered in surveys.** Source: C. Bonzak, NEAMAP, Virginia Institute for Marine Science.

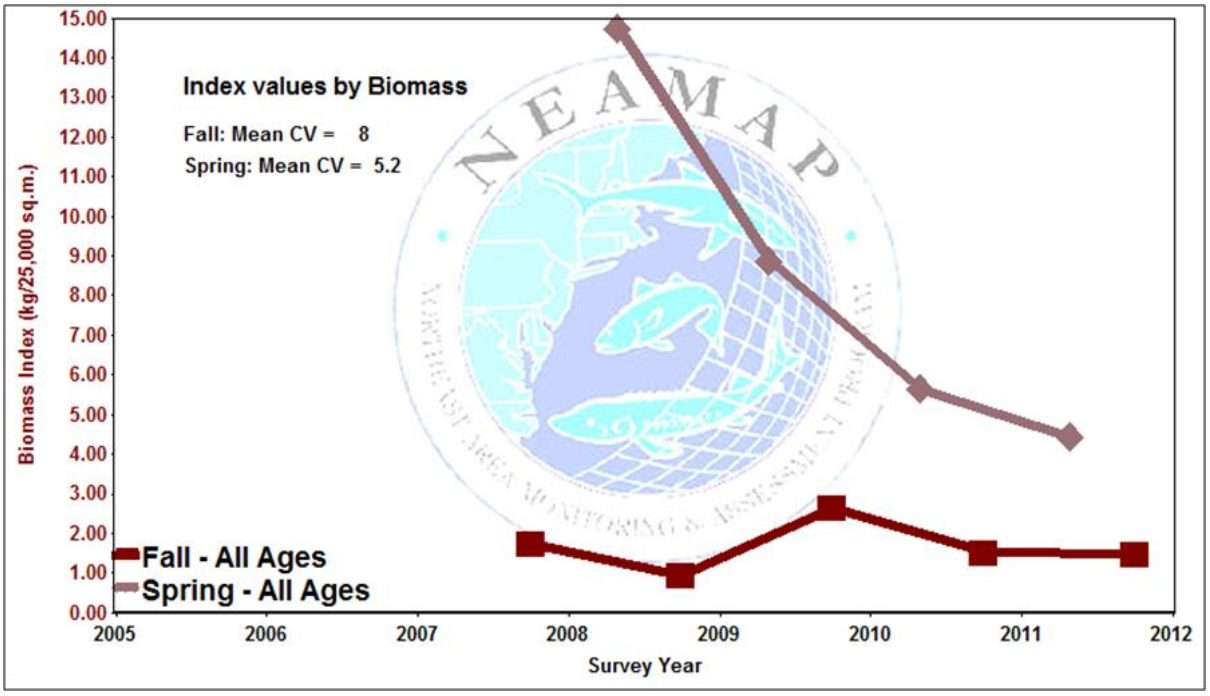

Figure 3.9 **NEAMAP spring and fall abundance indices based on biomass estimates of smooth dogfish survey data.** Source: C. Bonzak, NEAMAP, Virginia Institute of Marine Science

When comparing abundance indices to reported landings (Figure 3.10), more recent years suggest a decline in abundance and a concurrent increase in landings. However, given that the year with the greatest number of reported landings (1994) occurred at a time when abundance was low, and that abundance subsequently increased through the 2000s under fairly steady levels of exploitation, a direct causal relationship between landings and abundance cannot be established at this time. Additionally, the most recent abundance indices are at a level near those estimated for the years before the fishery developed in the early 1990s. In summary, no inferences of stock status can be made from this comparison.

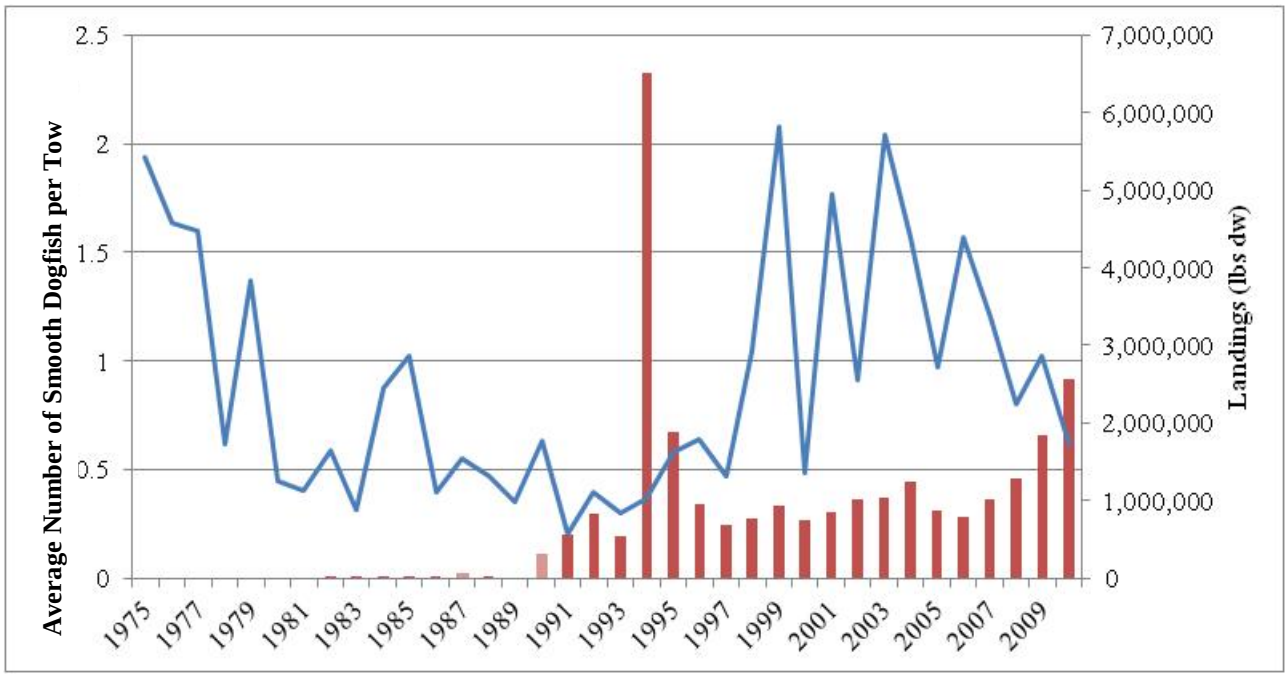

Figure 3.10 **Landings of smooth dogfish versus NEFSC abundance indices. Data before 1991 are shown in pink and represent data from the NOAA Office of Science and Technology fishery statistics webpage. Landings data shown in red are provided by ACCSP and include both confidential and non-confidential landings of smooth dogfish.** Source: ACCSP, NMFS Office of Science and Technology, P.Rago (NEFSC)

Average annual smooth dogfish weight was calculated using the NEFSC fall bottom trawl survey data used in the abundance indices estimates (Figure 3.11). Changes in average annual weight could indicate changes to stock structure, possibly resulting from fishing pressure. Figure 3.11 demonstrates a possible reduction in average weight between the early 1990s and the present of about 25 percent, from 4 kg to 3 kg. However, the most recent average weights are similar to those seen in the 1970s, late 1990s, and early 2000s.

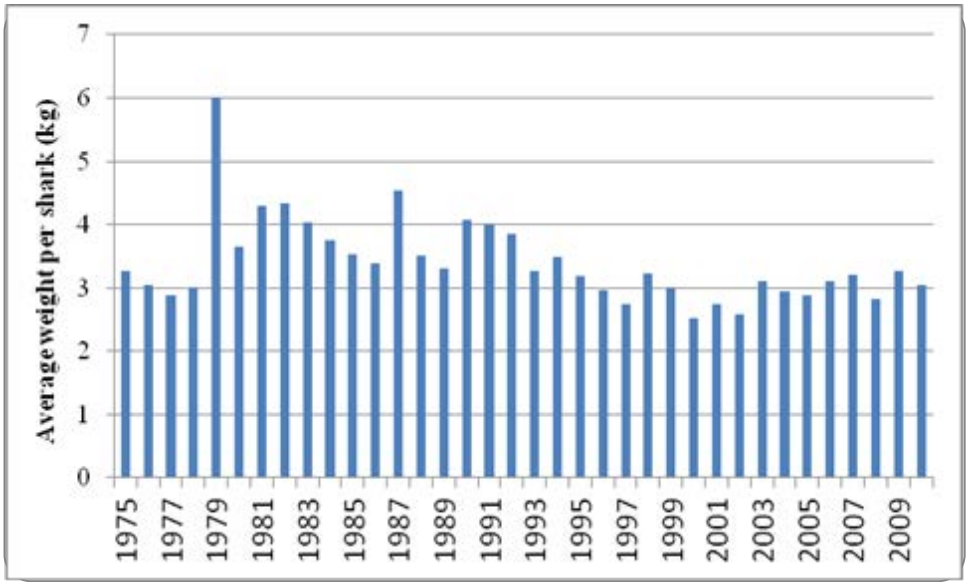

Figure 3.11 Average annual smooth dogfish weight, NEFSC fall bottom trawl survey data. Source: P. Rago, NOAA NEFSC

NEAMAP trawl surveys suggest consistent patterns in distribution of size and age classes across both males and females between 2007 and 2011 (Figure 3.12). The absence of changes in survey length frequencies provides no evidence of commercial fishery selectivity. NEAMAP data further suggests that a large number of the animals targeted in the spring fishery could be males (Figure 3.12), as evidenced by a greater proportion of males in the sample population. Fall samples suggest a more even sex ratio in the population. These NEAMAP size frequencies suggest no general change in average length of adult fish, rather, a major seasonal change in size composition. Fish below 46 cm are not observed in the spring.

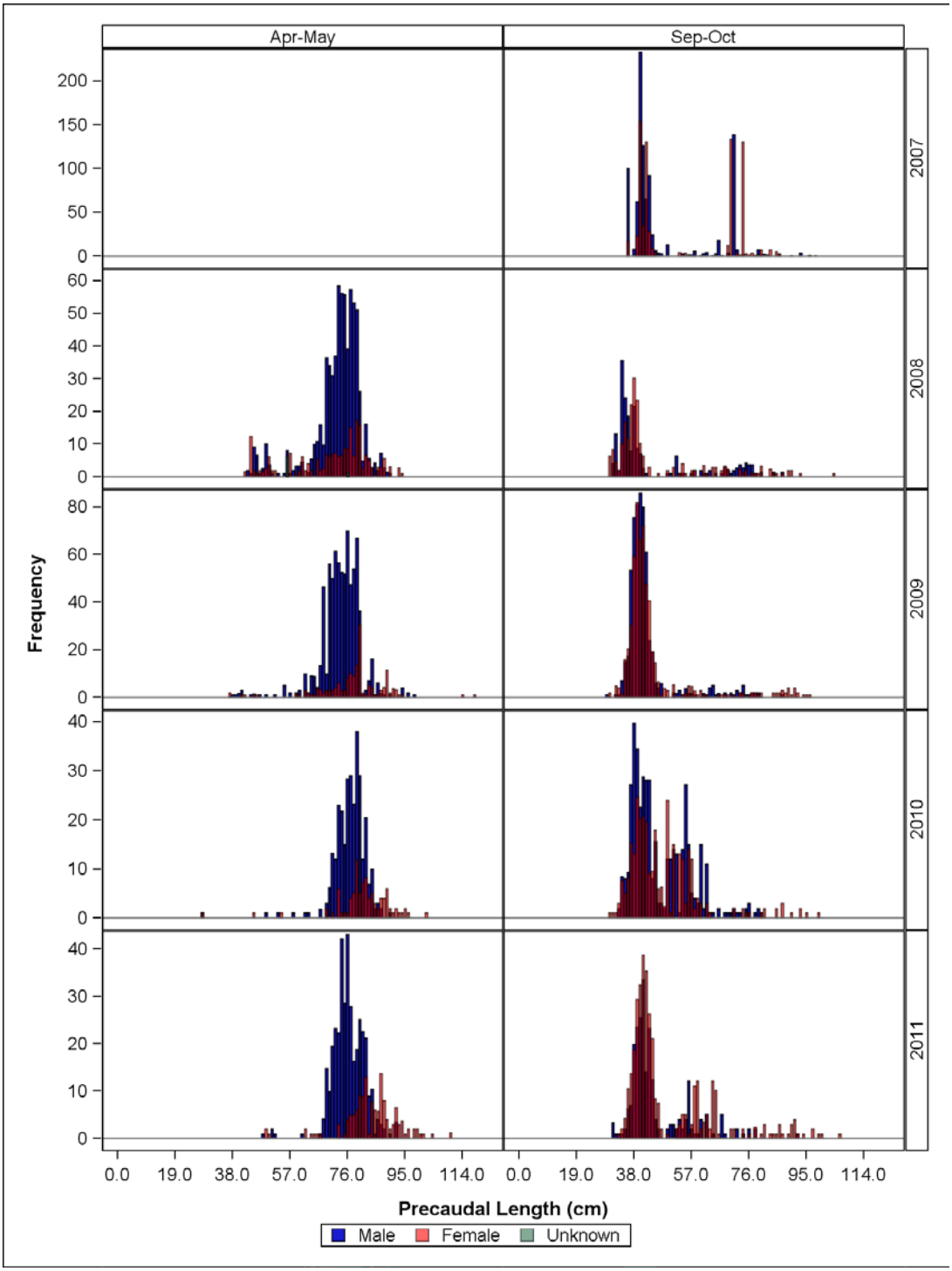

Figure 3.12. Sex-specific length distribution of smooth dogfish sampled in the NEAMAP spring and fall trawl surveys. Source: C.Bonzek, NEAMAP, Virginia Institute of Marine Science

Although this fishery independent data is useful for investigating the possible stock status of smoothhound sharks and will be useful in a stock assessment, no determinations of stock status can be made at this time. The relationship between the survey indices and overall population abundance has yet to be established. Such changes may simply reflect the seasonal availability of smooth dogfish in the survey areas. Abundance indices estimated using NEFSC and NEAMAP spring survey data have declined in the past few years, however, NEFSC data's longer time series shows that recent abundance declines are within the ranges seen before the fishery developed in the early 1990s. Similarly, the most recent average weight of smoothhound sharks caught in NEFSC fall bottom trawl survey is lower than the peaks seen in the early 1980s and early 1990s, but are similar to those seen in the 1970s and late 1980s before the directed fishery developed. Reductions in abundance index estimates and average weight could indicate that fishing pressure is too high or it could indicate natural population fluctuations or changes in availability. Thus, until additional data are gathered and a formal stock assessment is performed, the current stock status of smoothhound sharks remains unknown and it is difficult to determine whether current landings are sustainable. Draft Amendment 9 also considers implementing a quota(s) based on this stock assessment if it is available before publication of the final rule.

3.4 SMOOTHHOUND SHARK FISHERY DESCRIPTION

The commercial smoothhound shark fishery is composed of both directed and incidental catch and effort. At this time, the commercial fishery primarily catches smooth dogfish in the Mid-Atlantic region. Thus, the smoothhound shark fishery discussion focuses on smooth dogfish. The species is caught in a variety of gears, allowing the catch to be generally categorized as directed or incidental. Figure 3.13 shows a breakdown of landings by gear type.

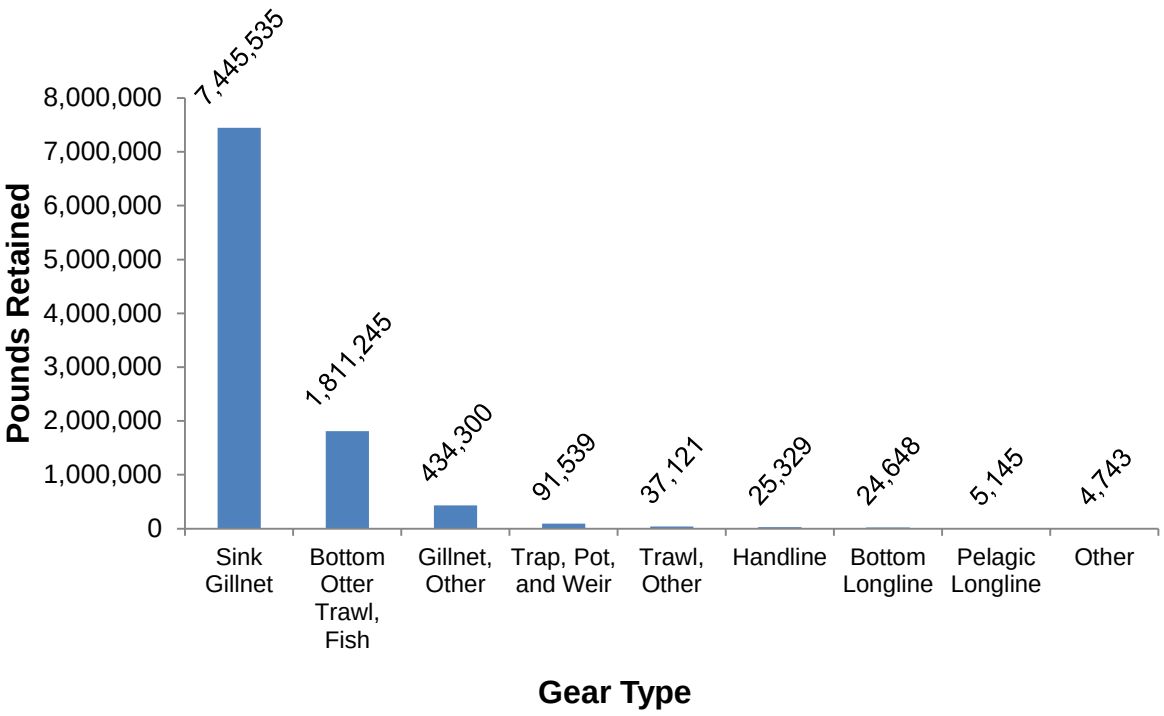

Figure 3.13 **Total Pounds of Smooth Dogfish Retained, by Gear Type (2003-2012).** Source: VTR Data, 2003-2012.

Figure 3.13 highlights the two major gear types used to catch and retain smooth dogfish, sink gillnet and bottom otter fish trawl gear. Generally, fishermen use sink gillnet to target smooth dogfish, although the species is often caught incidentally in this gear as well. Bottom trawl catches smooth dogfish incidentally while directing effort on other species (as noted in Section 1.1, it will be illegal for trawl fishermen to target smooth dogfish once management measures go into effect). The specifics of the sink gillnet and bottom trawl smooth dogfish fisheries are discussed in the following sections.

3.4.1 SINK GILLNET GEAR SMOOTH DOGFISH FISHERY

The directed smooth dogfish fishery overwhelming uses sink gillnets to target the species. However, smooth dogfish are still caught incidentally in gillnets while fishermen are directing effort on other species. Figure 3.14 presents a trip-level analysis of sink gillnet trips that retained smooth dogfish. Each bar on the graph represents a range of values of percent smooth dogfish catch relative to total catch. The majority of trips (67 percent) retained less that 75 percent smooth dogfish relative to total catch (5610 trips out of a total of 8428), indicating that most trips that retain smooth dogfish catch the species incidentally. The incidental smooth dogfish gillnet fishery most often occurs while directing effort on bluefish, croaker, spiny dogfish, monkfish, and skate (all species).

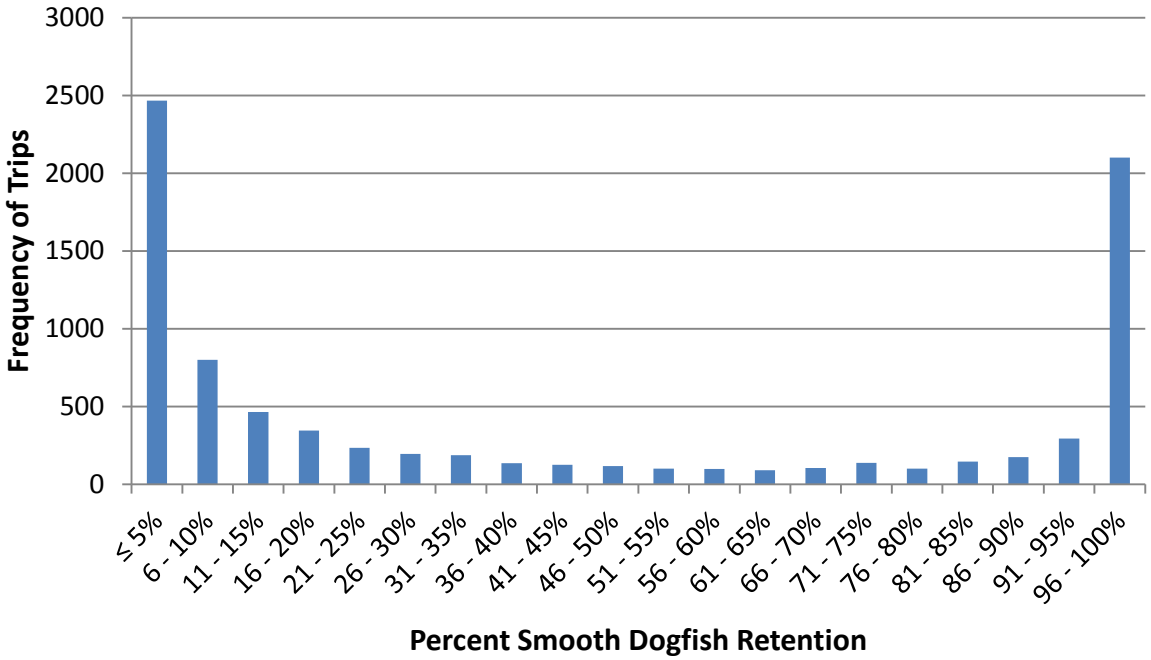

Figure 3.14 **Frequency of sink gillnet trips retaining varying percentages smooth dogfish relative to total catch**; Source: VTR Database 2003-2012

Although most trips that retain smooth dogfish caught in gillnet gear interact with the species incidentally, a substantial directed fishery exists, as indicated by the peak of trips on the right-hand side of Figure 3.14. In fact, directed trips account for the vast majority of landings, despite having fewer number of trips. Directed gillnet trips with at least 75 percent smooth dogfish relative to total catch are responsible for 81 percent of the total smooth dogfish retained catch between 2003 and 2012. Figure 3.15 shows the proportion of the total sink gillnet smooth dogfish landings attributed to the incidental and directed fisheries. From a total landings perspective, the smooth dogfish shark sink gillnet fishery is largely a directed fishery.

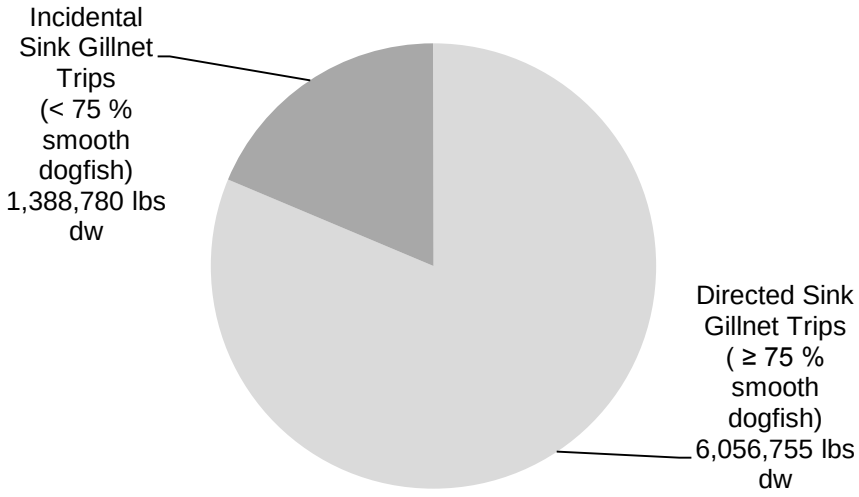

Figure 3.15 **Proportion of total directed vs. incidental landings of smooth dogfish caught in sink gillnet gear;** Source: VTR Data, 2003-2012

Between 2003 and 2012, 8,708 sink gillnet trips that retained smooth dogfish were reported through VTR. These trips occurred aboard 228 different vessels. Of these vessels, only 81 retained an annual average of at least 1,000 lbs of smooth dogfish, and only 54 retained an annual average of at least 10,000 lbs of smooth dogfish. Table 3.1 summarizes the total number of vessels and trips that land smooth dogfish caught in sink gillnet gear each year between 2003 and 2012. The table also lists the number of vessels, by year, with at least one trip landing greater than or equal to 75 percent smooth dogfish, by weight, relative to total catch. Additional landings data can be found in Section 3.5.

Table 3.1 Number of vessels and trips landing smooth dogfish in sink gillnet gear, by year; Source: VTR data, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of Trips	658	759	643	823	711	562	903	1200	1226	1223
Number of Vessels	76	75	68	78	78	69	87	98	95	94
Number of Vessels with a trip that landed ≥ 75 % smoothhound	18	21	19	21	26	29	41	47	42	46

3.4.2 BOTTOM OTTER FISH TRAWL SMOOTH DOGFISH FISHERY

Bottom otter fish trawl gear typically only interacts with smooth dogfish incidentally. When retained, smooth dogfish usually make up only a fraction of the total retained catch by weight. Figure 3.16 presents a trip-level analysis of otter bottom fish trawl trips that retained smooth dogfish. Each bar on the graph represents a range of values of percent smooth dogfish catch relative to total catch. The line is an additive total of all trawl trips that retained smooth dogfish. The vast majority (78 percent) of trips had total retained catches consisting of 15 percent or less smooth dogfish by weight. As the percent smooth dogfish catch increases, the frequency of trips quickly drops.

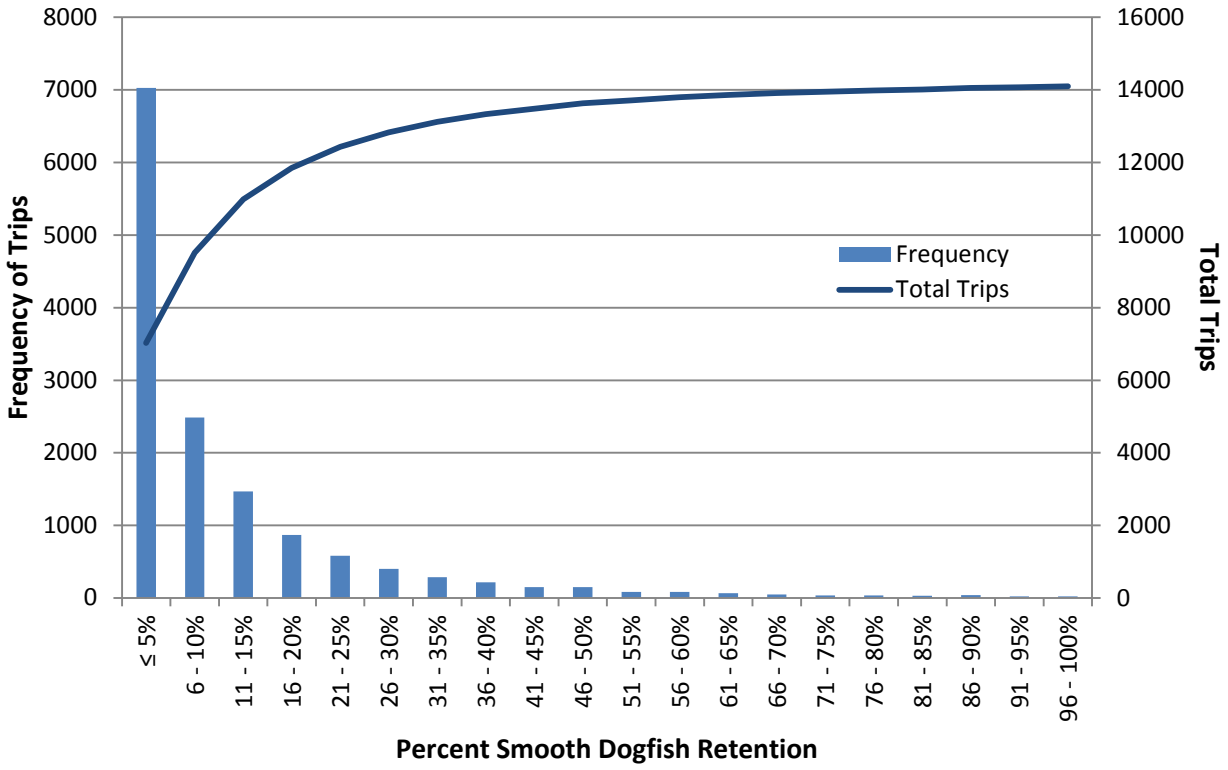

Figure 3.16 **Frequency of otter bottom fish trawl trips retaining varying percentages smooth dogfish relative to total catch**; Source: VTR Database 2003-2012

Although smooth dogfish are generally only caught incidentally in trawl gear, landings of the species caught in this gear are high due to the large number of trips and vessels involved in the fishery. Table 3.2 lists the number of vessels and trips catching smooth dogfish in bottom otter fish trawl gear per year. All large number of vessels catching the species on a large number of trips results in large annual landings. A few vessels show some consistency in catching smooth dogfish in trawl gear year to year, however, the majority does not appear to land the species consistently, indicative of an incidental fishery. From 2003-2012, a total of 264 vessels landed smooth dogfish that were caught in trawl gear, well above the maximum number of vessels in any one year.

Table 3.2 **Number of vessels and trips landing smooth dogfish caught in trawl gear, by year.** Source: VTR data, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of Vessels	77	80	80	84	99	79	101	95	88	92
Number of Trips	1841	1794	1489	1485	1623	1142	1298	1397	1402	1616

Bottom trawl fisheries that are the most likely to incidentally catch smooth dogfish include the squid trawl and Mid-Atlantic bottom trawl fisheries. Figure 3.17 and Figure 3.18 highlight the six targeted species most often caught along with smooth dogfish in otter bottom fish trawl gear. This graph utilizes VTR data queried to include all otter bottom fish trawl trips that caught smooth dogfish. All of the species caught on these trips were then amassed and the total for each species across all the trips was calculated. *Loligo* squid is the dominant target species with 27 percent of the trawl catch, followed by several other species routinely caught in the Mid-Atlantic bottom trawl fishery, including skate, fluke (summer flounder), whiting (silver hake), croaker, and scup. The "Other" category includes 116 species caught along with smooth dogfish, each of which separately constitutes less than three percent of the total catch from 2003 through 2012.

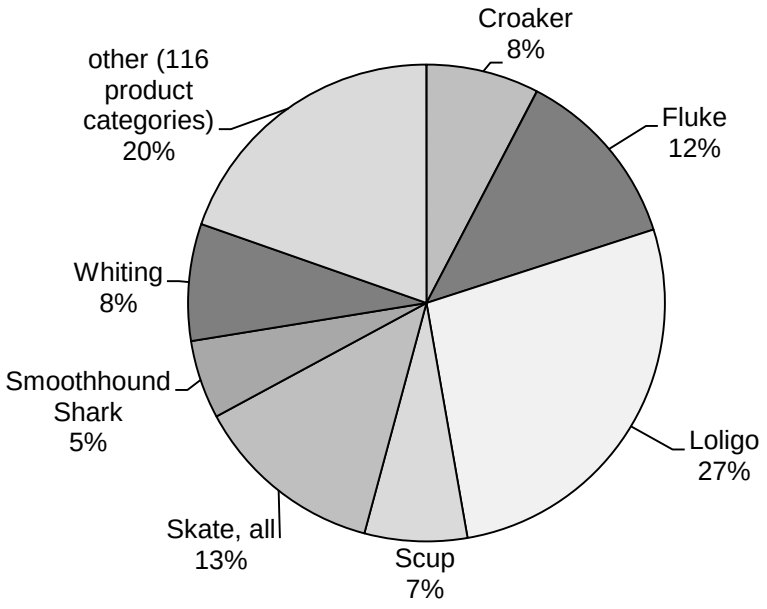

Figure 3.17 **Species caught with smooth dogfish in otter bottom fish trawl gear, relative levels;** Source - VTR data (2003 – 2012).

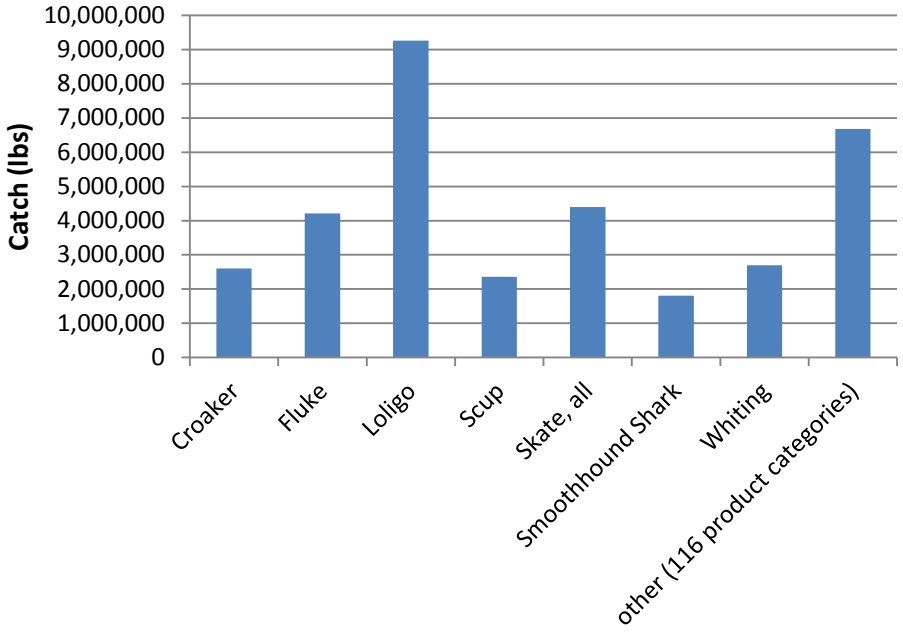

Figure 3.18 **Species caught with smooth dogfish in otter bottom fish trawl gear, absolute levels;** Source - VTR data (2003-2012).

As indicated in Figure 3.18, smooth dogfish are most frequently caught with trawl gear in the directed fisheries for *Loligo* squid, skate, fluke, scup, whiting (silver hake), and croaker.

3.5 CATCH AND LANDINGS OF SMOOTHHOUND SHARKS

Reported commercial landings of smoothhound sharks primarily come from smooth dogfish in the Mid-Atlantic States and few commercial landings have been reported in the Gulf of Mexico. Marine Recreational Information Program (MRIP) data shows that smoothhound sharks have been caught in the Gulf of Mexico over the past 10 years by recreational anglers, although estimated levels are not very precise. However, because the majority of available landings data is from smooth dogfish in the Atlantic, this discussion focuses on that region.

3.5.1 ANNUAL LANDINGS TRENDS

Annual landings of smooth dogfish are shown in Table 3.3 for 1998 – 2013. These data were obtained from the Atlantic Coastal Cooperative Statistics Program (ACCSP) Data Warehouse. Reported landings increased between 1998 and 2004, declined slightly in 2004 through 2006, and then increasing to a peak in 2010. In 2011 - 2013, total landings decreased (Figure 3.19).

Table 3.3 Annual landings for smooth dogfish, dressed weight (1998-2013); Source: ACCSP Data Warehouse

Year	Landings (lb dw)
1998	763,717
1999	927,902
2000	754,730
2001	855,798
2002	1,008,420
2003	1,038,457
2004	1,234,606
2005	864,552
2006	798,325
2007	1,147,532
2008	1,269,701
2009	1,898,250
2010	2,694,897
2011	1,951,055
2012	1,554,705
2013	1,462,274

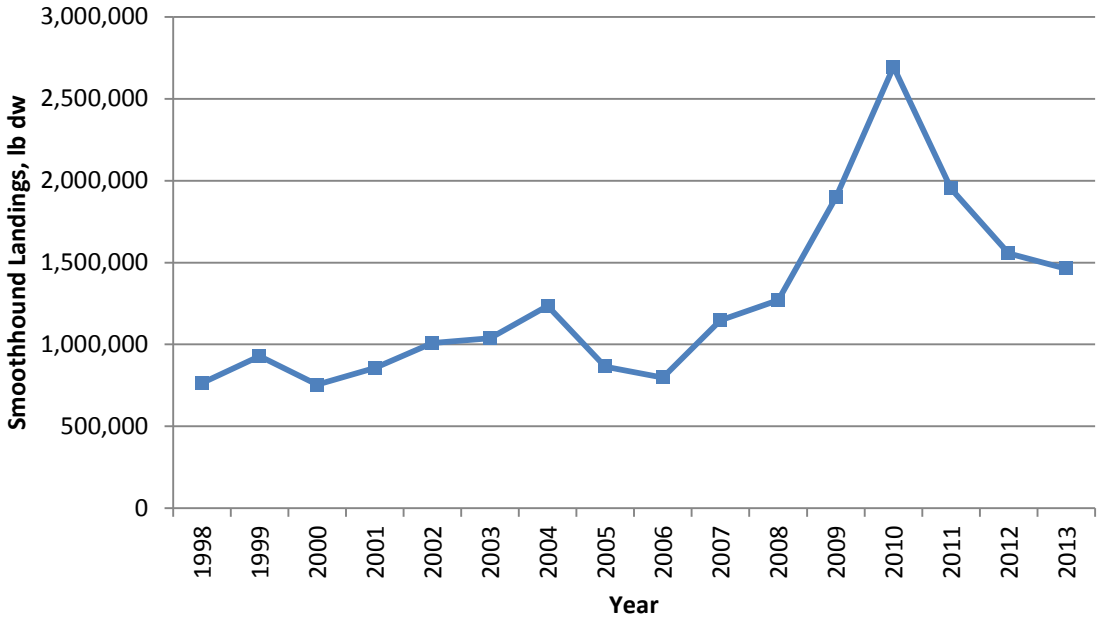

Figure 3.19 **Graphical representation of ACCSP smooth dogfish landings data;** Source: ACCSP Data Warehouse

The method used in Amendment 3 (maximum landings + 2 standard deviations) to calculate the preferred alternative resulted in a quota of 1,577, 319 lbs dw (715.5 mt dw). Annual landings between 1998 and 2008 fell below that quota; however, the landings in 2009 through 2011 exceeded the quota established in Amendment 3. Although the intent of the smoothhound quota measures in Amendment 3 were designed to collect data while minimizing changes in catch levels and catch rates in the fishery, had the Amendment 3 quota of 715.5 mt dw been effective, the smoothhound shark fishery would have exceeded the quota and subsequently been closed in 2009 through 2011.

3.5.2 GEOGRAPHIC DISTRIBUTION OF LANDINGS

A state-by-state breakdown of recent landings shows that four states, North Carolina, Virginia, New Jersey, and New York, are responsible for most of the landings (Figure 3.20). Of these states, New Jersey and North Carolina appear to be responsible for the recent increase in annual landings since 2008.

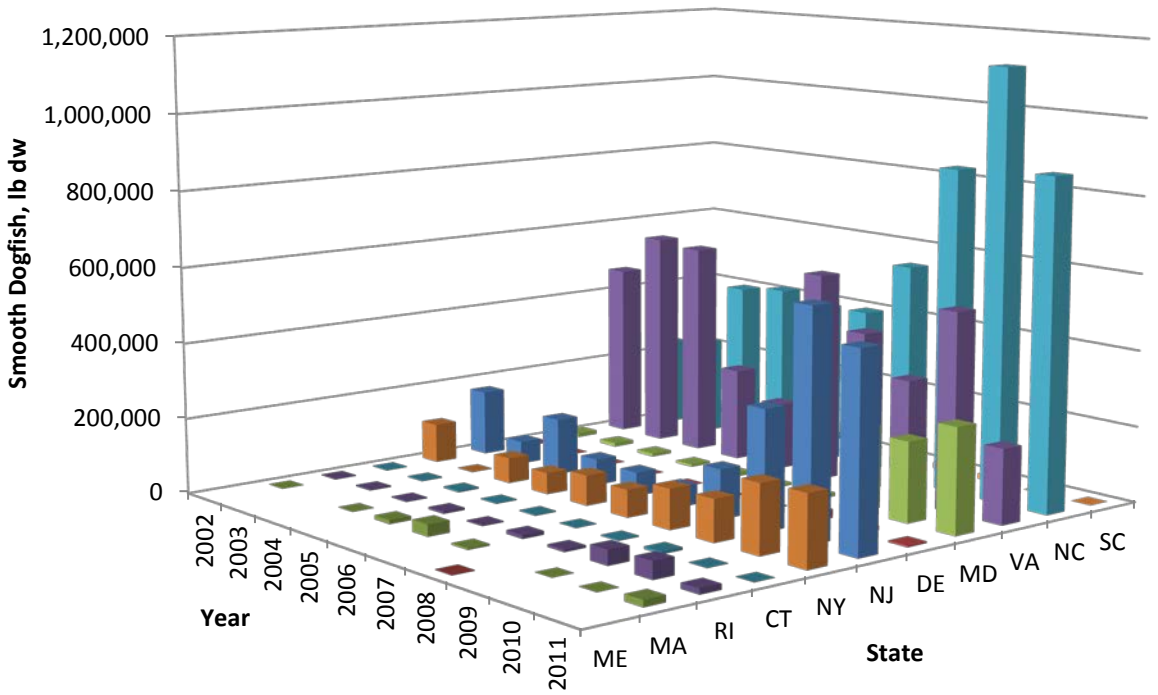

Figure 3.20 State landings of smooth dogfish, 2002-2011; Source: ACCSP Data Warehouse

The fishery in each of these four primary states occurs during distinct seasons as smooth dogfish migrate north from North Carolina as the water warms, then back south as the water cools. Figure 3.21 shows the fishery beginning in North Carolina in late winter/early spring and then moving to Virginia in late spring and early summer. Landings then pick up in New Jersey and New York during the summer months, before returning back to North Carolina for a small late-season fishery.

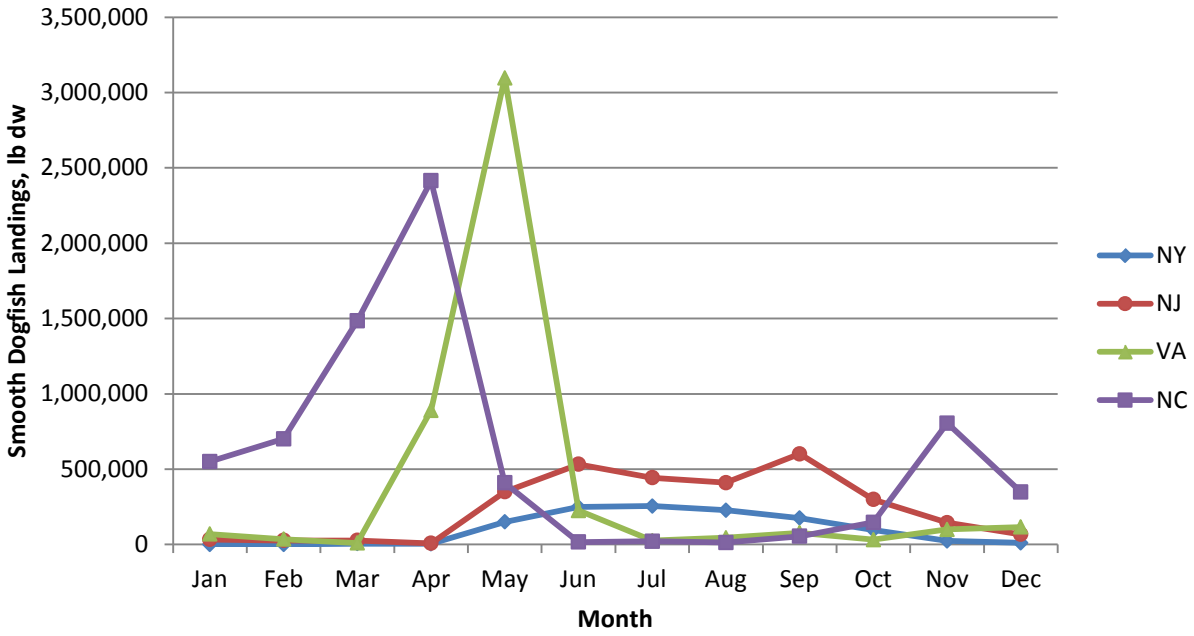

Figure 3.21 Monthly smooth dogfish landings in the four primary states, aggregated from 1998-2011; Source: ACCSP Data Warehouse

3.5.3 LANDINGS COMPARISON BY GEAR

ACCSP data is a particularly useful source of coast-wide landings data, providing the best available estimate of absolute harvest levels. However, due to the confidential nature of portions of that data, ACCSP is not particularly useful for analyzing major gear types in the fishery. VTR data is more useful in analyzing gear types used in the smooth dogfish fishery. The VTR database is maintained by the NMFS Northeast Regional Office (NERO). Federally permitted vessels in New England and the Mid-Atlantic are required to report landings in the VTR dataset, as are vessels fishing a Federal Northeast Multispecies Permit. The VTR database was queried for trips in which smooth dogfish were landed (1998-2012). These data represented 28 different gear types across a 15-year time period; however the most dominant gear types were gillnet, bottom otter trawl, and handline (Table 3.4).

Table 3.4 Smooth dogfish landings by gear type; Source: VTR Data, 1998-2012

Gear Type	Landings (lbs)
Sink Gillnet	9,993,415
Bottom Otter Trawl, Fish	2,357,922
Runaround/Strike Gillnet	256,422
Drift Gillnet	149,396
Gillnet, unspecified	75,349
Fish Trap	68,129

Bottom Longline	57,413
Handline	43,970
Other (20 gear types)	82,363

Landings trends by gear type suggest that landings of smooth dogfish from sink gillnets increased between 2008 and 2010, before decreasing in 2011 and 2012. Otter trawl and runaround gillnet landings were much lower (Figure 3.22).

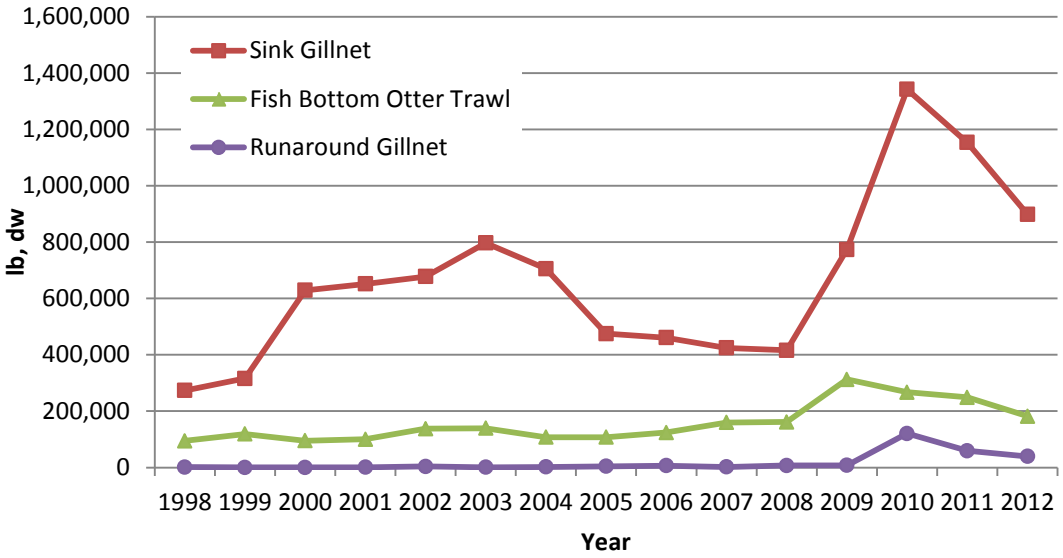

Figure 3.22 **Pounds of smooth dogfish landed from dominant gear types;** Source: VTR data, 1998-2012

Although sink gillnet gear is responsible for the greatest portion of landings, bottom otter trawl gear is used in a greater number of trips than sink gillnet gear (Figure 3.23). This is likely because the otter trawls are used to catch smooth dogfish incidentally while sink gillnets are more often used to directly target the species. Interestingly, although landings have been decreasing since 2010, sink gillnet and otter bottom trawl trips that retain smooth dogfish are increasing.

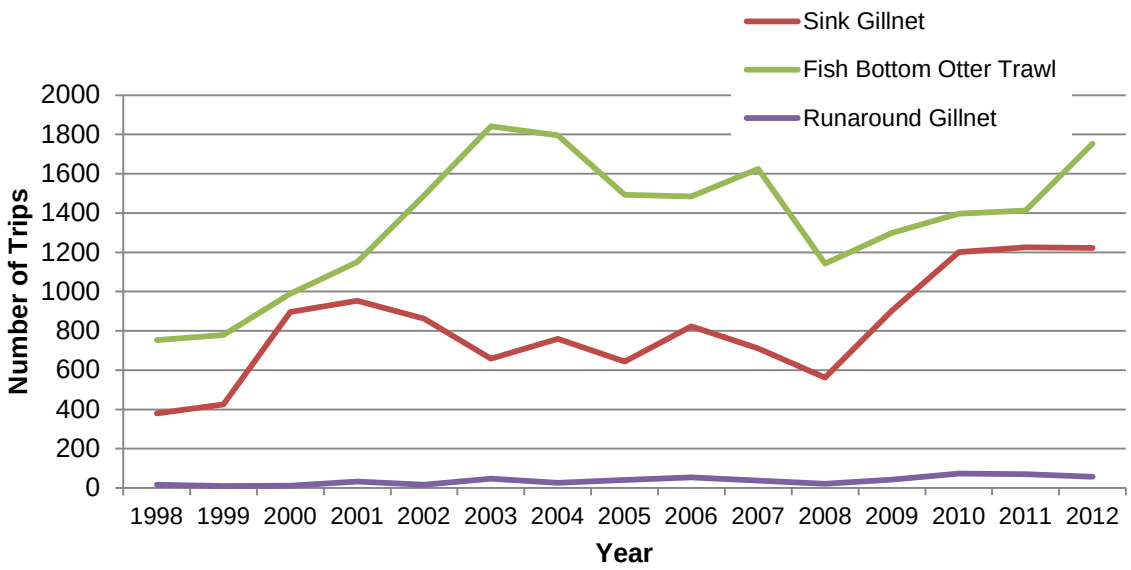

Figure 3.23 **Number of trips of each dominant gear type that landed smooth dogfish;** Source: VTR data, 1998-2012

3.6 SOCIAL AND ECONOMIC ASPECTS OF THE SMOOTHHOUND FISHERY

3.6.1 SOCIAL

The directed smoothhound fishery, which at this time only includes smooth dogfish, is a high-volume, low-value fishery that requires high throughput to cover trip expenses. Accordingly, directed smooth dogfish trips are labor-intensive. A large number of smooth dogfish must be caught and processed on board to provide a product that will get a high enough price to make a trip worthwhile. Community knowledge from smooth dogfish fishery participants indicate that smooth dogfish are difficult to handle and require fishermen to quickly subdue the fish to minimize danger to the crew from swinging tails and rough skin. Immediately after being subdued, the fish must be quickly processed to ensure it is edible. For all these reasons, the fishery is highly specialized, and although the barriers to entry are not much different than other gillnet fisheries, incentives to remain in the fishery do not always outweigh the labor costs. Regular participants in the fishery note that as some fisheries become more tightly regulated, several fishermen attempt to enter the smooth dogfish fishery each year. However, few stay in it for multiple seasons due to its labor-intensive nature. The result is a highly specialized core group of fishermen that have found ways to maximize efficiency to increase the probability of profitable fishing. The highly specialized nature of the fishery could be one reason why it has not extensively spread outside of the Mid-Atlantic region to other places such as the Gulf of Mexico.

Furthermore, based on information obtained from smooth dogfish fishermen and dealers, some of the smooth dogfish product that is landed enters local markets in the mid-Atlantic region. These markets are sometimes targeted toward low-income consumers therefore this smooth dogfish product provides an inexpensive source of protein and seafood in some communities.

The incidental fishery is much more diverse. Smoothhound sharks are caught and retained using a variety of gear including trawl nets and gillnets and are landed in a range of conditions including dressed and whole with fins still attached to the carcass. Characterizing the social aspects of the incidental fishery is difficult without more information. Once federal smoothhound shark management measures are in place, NMFS will begin to collect more information about the fishery and participants and will be able to fully characterize the incidental fishery.

3.6.2 ECONOMIC

Sink Gillnet Fishery

Average annual landings of smooth dogfish caught in sink gillnet gear between 2003 and 2012 based on VTR data were 744,553 lb dw. Using an average ex-vessel price of $0.58 for smoothhound shark meat and $1.72 for smooth dogfish fins (2013 dealer data; fin price based on fin grade rather than smooth dogfish -specific prices), and assuming a fin-to-carcass ratio of 12 percent (per the Shark Conservation Act of 2010, Public Law 111-348), revenues from the entire smooth dogfish sink gillnet fishery averages $585,516 per year (744,553 lb * $0.58 + 89,346 lb * $1.72). This total was caught by an annual average of 82 vessels (Table 3.1). Calculating average per vessel revenue across the entire sink gillnet smooth dogfish fishery is problematic because many vessels catch the species incidentally at low levels. As described in Figure 3.14 and Figure 3.15, a large number of vessels making a large number of trips catch and land smooth dogfish caught in this gear. However, a smaller subset of active vessels makes up the directed smooth dogfish sink gillnet fishery, which is responsible for the vast majority of landings. The potential revenues for those directed smooth dogfish fishermen would not be shown using this general approach of spreading the revenues equally across all active fishermen.

To show those revenues, it is more appropriate to examine the individual vessel revenues of the small subset of directed sink gillnet vessels. Average annual smooth dogfish landings from directed trips was 605,676 lb dw between 2003 and 2012 (Figure 3.15; directed trips defined as those that retained greater than or equal to 75 percent smooth dogfish, by weight, relative to total catch). Using an average ex-vessel price of $0.58 for smooth dogfish meat and $1.72 for smooth dogfish fins (2013 dealer data), and assuming a fin-to-carcass ratio of 12 percent (per the Shark Conservation Act of 2010, Public Law 111-348), revenue from smooth dogfish trawl revenue averages $476,303 per year (605,676 lb * $0.58 + 72,681 lb * $1.72). This average annual total was caught on an average of 281 trips, by an average of 31 vessels (Table 3.1). Average annual per vessel revenues from smooth

dogfish caught in the directed sink gillnet fishery was $15,365. Note, however, that this is an average and some vessels that heavily target the species could have substantially higher revenues.

Table 3.5 **Summary of revenues from the sink gillnet smooth dogfish fishery;** Source: VTR data, 2003-2012

	Average Annual Landings (lbs dw)	Average Total Annual Revenue (fins and meat)	Average Annual Number of Vessels (# of trips)	Average Annual per Vessel Revenue
Entire Fishery (directed and incidental)	744,553	$585,516	82 (843)	N/A (most vessels catch smooth dogfish incidentally)
Directed Fishery	605,676	$476,303	31 (281)	$15,365

Incidental Trawl Fishery

Although fishermen do not target smooth dogfish with trawl gear, and incidental smooth dogfish catch is usually a small percentage of total catch, trawl fishermen often retain and sell the species. Smooth dogfish are usually caught incidentally while trawl fishing for other species such as summer flounder, scup, croaker, silver hake, and *Loligo* squid. Based on VTR data from 2003-2012, an average of 181,125 lb dw of smooth dogfish per year were caught and retained in otter bottom trawl gear. Using an average ex-vessel price of $0.58 for smooth dogfish meat and $1.72 for smooth dogfish fins (NMFS 2012), and assuming a fin-to-carcass ratio of 12 percent (per the Shark Conservation Act of 2010, Public Law 111-348), revenue from smooth dogfish trawl revenue averages $142,437 per year (181,125 lb * $0.58 + 21,735 lb * $1.72). Annually, an average of 88 vessels incidentally catch and retain smooth dogfish, resulting in per vessel revenue of $1,619 annually.

3.7 GILLNET FISHERY FOR SHARKS OTHER THAN SMOOTHHOUND SHARKS

Gillnet gear is the primary gear for vessels directing on small coastal sharks (SCS), although vessels directing on other species can also catch shark species. Vessels participating in the shark gillnet fishery typically possess permits for other Council and/or state managed fisheries and will deploy nets in several configurations based on target species including drift, strike, and sink gillnets.

3.7.1 CURRENT MANAGEMENT

Many of the current commercial regulations for the non-smoothhound Atlantic shark fishery are the same for both the bottom longline and gillnet fishery, including, but not limited to: seasons, quotas, species complexes, permit requirements, authorized/prohibited species, and retention limits. Examples of regulations that are specific to shark gillnet fishing include: gillnet mesh size, requiring

that gillnets remain attached to the vessel, and the requirement to conduct net checks every two hours when gear is deployed.

3.7.2 RECENT CATCH, LANDINGS, AND DISCARDS

In 2012, a total of 316 sets comprising of various gillnet fisheries were observed. A total of 2 drift gillnet vessels were observed in 2012. A total of 5 strike gillnet fishery vessels were observed making 6 strike sets on 6 trips in 2012. A total of 62 trips making 302 sink net sets on 18 vessels were observed in 2012 (Mathers et al., 2013). Chapter 4 of the 2013 Atlantic HMS Stock Assessment and Fishery Evaluation (SAFE) Report summarizes shark species composition, disposition, and summary information for sharks caught during observed gillnet trips with observers onboard.

3.8 PROTECTED SPECIES INTERACTIONS IN HMS FISHERIES

This section examines the interaction between protected species and Atlantic HMS fisheries managed under the 2006 Consolidated HMS FMP. As a point of clarification, interactions are different than bycatch. Interactions take place between fishing gears and marine mammals, and seabirds while bycatch consists of the incidental take and discard of non-targeted finfish, shellfish, mollusks, crustaceans, sea turtles, and any other marine life other than marine mammals and seabirds. Following a brief review of the three acts (Marine Mammal Protection Act, Endangered Species Act, and Migratory Bird Treaty Act) affecting protected species, the interactions between HMS gears and each species is examined. Additionally, the interaction of seabirds and longline fisheries are considered under the auspices of the United States "National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries" (NPOA – Seabirds).

3.8.1 INTERACTIONS AND THE MARINE MAMMAL PROTECTION ACT

NMFS relies on both fishery-dependent and fishery-independent data to produce stock assessments for marine mammals in the Atlantic Ocean, Gulf of Mexico, and the Caribbean Sea. Draft stock assessment reports are typically published in January and final reports are typically published in the fall. Final 2012 stock assessment reports can be obtained on the web at: http://www.nmfs.noaa.gov/pr/sars/region.htm.

The following list of species outlines the marine mammal species that occur off the Atlantic and Gulf Coasts that are or could be of concern with respect to potential interactions with HMS fisheries.

Common Name	**Scientific Name**
Atlantic spotted dolphin	*Stenella frontalis*
Blue whale	*Balaenoptera musculus*
Bottlenose dolphin	*Tursiops truncatus*
Common dolphin	*Delphinis delphis*
Fin whale	*Balaenoptera physalus*

Harbor porpoise	*Phocoena phocoena*
Humpback whale	*Megaptera novaeangliae*
Killer whale	*Orcinus orca*
Long-finned pilot whale	*Globicephela melas*
Minke whale	*Balaenoptera acutorostrata*
Northern bottlenose whale	*Hyperoodon ampullatus*
Northern right whale	*Eubalaena glacialis*
Pantropical spotted dolphin	*Stenella attenuata*
Pygmy sperm whale	*Kogia breviceps*
Risso's dolphin	*Grampus griseus*
Sei whale	*Balaenoptera borealis*
Short-beaked spinner dolphin	*Stenella clymene*
Short-finned pilot whale	*Globicephela macrorhynchus*
Sperm whale	*Physeter macrocephalus*
Spinner dolphin	*Stenella longirostris*
Striped dolphin	*Stenella coeruleoalba*
White-sided dolphin	*Lagenorhynchus acutus*

Under MMPA requirements, NMFS produces an annual List of Fisheries (LOF) that classifies domestic commercial fisheries, by gear type, relative to their rates of incidental mortality or serious injury of marine mammals. The LOF includes three classifications:

1. Category I fisheries are those with frequent serious injury or mortality to marine mammals;
2. Category II fisheries are those with occasional serious injury or mortality; and
3. Category III fisheries are those with remote likelihood of serious injury or mortality to marine mammals.

The final 2013 MMPA LOF was published on August 29, 2013 (78 FR 53363). The Atlantic Ocean, Caribbean, and Gulf of Mexico large PLL fishery is classified as Category I (frequent serious injuries and mortalities incidental to commercial fishing) and the southeastern Atlantic shark gillnet fishery is classified as Category II (occasional serious injuries and mortalities). he following Atlantic HMS fisheries are classified as Category III (remote likelihood or no known serious injuries or mortalities): Atlantic tuna purse seine; Gulf of Maine and Mid-Atlantic tuna, shark and swordfish, hook-and-line/harpoon; southeastern Mid-Atlantic and Gulf of Mexico shark BLL; and Mid-Atlantic, southeastern Atlantic, and Gulf of Mexico pelagic hook-and-line/harpoon fisheries. Commercial passenger fishing vessel (charter/headboat) fisheries are subject to Section 118 and are listed as a Category III fishery. Recreational vessels are not categorized since they are not considered commercial fishing vessels.

Fishermen participating in Category I or II fisheries are required to register under the MMPA and to accommodate an observer aboard their vessels if requested. Vessel owners or operators, or

fishermen, in Category I, II, or III fisheries must report all incidental mortalities and serious injuries of marine mammals during the course of commercial fishing operations to NMFS. There are currently no regulations requiring recreational fishermen to report takes, nor are they authorized to have incidental takes (i.e., they are illegal)

3.8.2 INTERACTIONS AND THE ENDANGERED SPECIES ACT

Sea Turtles

NMFS has taken several significant steps to reduce sea turtle bycatch and bycatch mortality in domestic longline fisheries. On December 12, 2012, following consultation under section 7(a)(2) of the Endangered Species Act (ESA), NMFS determined that the continued authorization of the Atlantic shark and smoothhound shark fisheries is not likely to jeopardize the continued existence of hawksbill, green, Kemp's ridley, leatherback, and loggerhead sea turtles. No smalltooth sawfish were observed in shark gillnet fisheries in 2012 or 2013. In the shark bottom longline research fishery there was one interaction with a smalltooth sawfish in 2012 and two interactions in 2013. No sea turtles were observed in shark gillnet fisheries in 2012 or 2013. In the shark bottom longline research fishery there were two interactions with loggerhead sea turtles in 2012 and three interactions with loggerhead sea turtles in 2013.

Smalltooth sawfish

NMFS designated critical habitat for smalltooth sawfish in September 2009 (74 FR 45353). NMFS believes that smalltooth sawfish takes in the shark gillnet fishery are rare given the low reported number of takes and high rate of observer coverage. The fact that there were no smalltooth sawfish caught during 2001, when 100 percent of the fishing effort was observed, indicates that smalltooth sawfish takes (observed or total) most likely do not occur on an annual basis. The 2012 Shark BiOp determined that the continued operation of the Atlantic shark and smoothhound fisheries may result in up to 12 smalltooth sawfish takes (9 non-lethal, 3 lethal), annually. The non-lethal takes of up to nine smalltooth sawfish annually is not expected to have any measurable impact on the reproduction, numbers, or distribution of this species and is not expected to appreciably reduce the likelihood of survival and recovery of smalltooth sawfish. Therefore, NMFS determined that the continued authorization of the Atlantic shark fisheries, including the new smoothhound fishery, was not likely to jeopardize the continued existence of the United States distinct populations segment (DPS) of smalltooth sawfish. No smalltooth sawfish were observed in shark gillnet fisheries in 2012 or 2013. In the shark bottom longline research fishery there was one interaction with a smalltooth sawfish in 2012 and two interactions in 2013.

Atlantic Sturgeon

Five separate DPS of the Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) were listed under the ESA effective April 6, 2012 (77 FR 5914; February 12, 2012). From north to south, the

DPSs are Gulf of Maine, New York Bight, Chesapeake Bay, Carolina, and South Atlantic. The New York Bight, Chesapeake Bay, Carolina, and South Atlantic DPSs are listed as endangered, and the Gulf of Maine DPS is listed as threatened. NMFS determined that each of the DPSs was significant based on their persistence in a unique ecological setting and the loss of a DPS would result in a significant gap in the range of the species and constitute an important loss of genetic diversity. The 2012 Shark BiOp determined that the continued operation of the Atlantic shark and smoothhound shark fisheries were not expected to appreciably reduce the likelihood of survival and recovery of the 5 DPSs of Atlantic sturgeon. Therefore, NMFS determined that the continued authorization of the Atlantic shark fisheries, including the new smoothhound fishery, is also not likely to jeopardize the continued existence of the Gulf of Maine, New York Bight, Chesapeake Bay, Carolina, and South Atlantic DPSs of Atlantic sturgeon.

Interactions with Seabirds

The NPOA-Seabirds was released in February 2001, and calls for detailed assessments of longline fisheries, and, if a problem is found to exist within a longline fishery, for measures to reduce seabird bycatch within two years. Because interactions appear to be relatively low in Atlantic HMS fisheries, the adoption of immediate measures is unlikely.

Gannets, gulls, greater shearwaters, and storm petrels are occasionally hooked by Atlantic PLLs. These species and all other seabirds are protected under the MBTA. The majority of longline interactions with seabirds occur as the gear is being set. The birds eat the bait and become hooked on the line. The line then sinks and the birds are subsequently drowned.

Bycatch of seabirds in the shark BLL fishery has been virtually non-existent. A single pelican has been observed killed from 1994 through 2012. No expanded estimates of seabird bycatch or catch rates for the BLL fishery have been made due to the rarity of seabird takes

4.0 ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

This chapter considers and describes probable and potential impacts of each of the considered alternatives. The alternatives that are preferred by NMFS at this time are identified, and justification for this preference is explained.

4.1 SMOOTH DOGFISH PROVISIONS OF THE SHARK CONSERVATION ACT OF 2010

As described in Section 2.1, the following two alternatives and eight sub-alternatives consider the smooth dogfish provisions of the 2010 Shark Conservation Act. At this time, NMFS prefers Sub-Alternatives A2-1c, A2-2b, and A2-3b. As described in Chapter 2, if finalized, the preferred sub-alternatives would be implemented and required as a group. In other words, a fisherman who intends to remove the fins of smooth dogfish at sea would need to meet the requirements of all three of the preferred sub-alternatives and be fishing in federal waters within 50 nautical miles of shore. Meeting the requirements of only one or two of the sub-alternatives would not allow fishermen to remove the fins of a smooth dogfish at sea; rather, the fisherman would need to keep the fins naturally attached through offloading.

Alternative A1: Do not implement the smooth dogfish-specific measures in the Shark Conservation Act of 2010. By default, Amendment 3's fins-attached requirement would apply to the smooth dogfish fishery (i.e., fins and tail of all smooth dogfish must remain naturally attached to the shark carcass through offloading)

Alternative A2: *Implement the smooth dogfish-specific measures in the Shark Conservation Act of 2010 to establish an allowance for the removal of smooth dogfish fins while at sea, considering eight sub-alternatives - Preferred Alternative*

Issue 1: Catch Composition

Sub -Alternative A2-1a: Smooth dogfish can make up any portion of the retained catch (no other sharks can be retained)

Sub -Alternative A2-1b: Smooth dogfish must make up at least 25% of the retained catch (no other sharks can be retained)

Sub -Alternative A2-1c: *Smooth dogfish must make up at least 75% of the retained catch (no other sharks can be retained) – Preferred Alternative*

Sub -Alternative A2-1d: Smooth dogfish must make up at 100% of the retained catch

Issue 2: State Fishing Permit

Sub -Alternative A2-2a: *Require smooth dogfish-specific state commercial fishing permit in conjunction with the federal smoothhound permit - Preferred Alternative*

Sub -Alternative A2-2b: Require any state commercial fishing permit that allows smooth dogfish retention in conjunction with the federal smoothhound permit

Issue 3: Geographic Applicability of Exception

Sub-Alternative A2-3a: Apply the exception for smooth dogfish along the Atlantic Coast and to Florida's coast in the Gulf of Mexico

Sub-Alternative A2-3b: *Apply the exception for smooth dogfish along the Atlantic Coast but not to Florida's coast in the Gulf of Mexico - Preferred Alternative*

4.1.1 ECOLOGICAL IMPACTS

Alternative A1 would not implement the smooth dogfish-specific provisions in the SCA, and instead, the Amendment 3 requirement that all smooth dogfish be landed with the fins naturally attached to the carcass through offloading would be implemented, which is consistent with the current fins attached requirement for all federally managed sharks in the Atlantic. A full impacts analysis of the smooth dogfish fins attached measure that was finalized in Amendment 3 can be found in Section 4.3 of the Final EIS for Amendment 3 (NMFS 2009) and is hereby incorporated into this document by reference. As a summary, the Final EIS for Amendment 3 concluded that ecological impacts of the fins attached requirement were beneficial since this requirement would prevent shark finning at sea, would aid in the enforcement of shark finning regulations and greatly enhance species-specific data collection that would allow for more robust stock assessments and sustainable management of the fishery. For additional details, please see Section 4.3 of the Final EIS for Amendment 3 to the 2006 Consolidated HMS FMP.

Under Alternative A2, the fins of smooth dogfish could be legally removed while at sea provided that the catch occurred within 50 nm of shore, the ratio of fin-to-carcass weight remained less than or equal to 12 percent, and the requirements under the three preferred sub-alternatives were met. Smooth dogfish caught outside of 50 nm from shore would have to be landed with fins attached; however, it is unlikely that a large portion of the fishery occurs in that area. For fishermen operating outside of 50 nm from shore or in parts of the Gulf of Mexico, Alternative A2 would have the same impacts as Alternative A1 since the fins could not be removed at sea.

In the short-term, Alternative A2 would likely have direct neutral ecological impacts relative to the status quo. Currently, fishermen in the directed smooth dogfish fishery remove smooth dogfish fins at sea and that practice would continue under Alternative A2 provided certain criteria are met.

Thus, total effort and fishing mortality are unlikely to be affected. Since there would be additional restrictions on the removal of smooth dogfish fins at sea, including those outlined in the sub-alternatives, fishing mortality might decrease slightly since some fishermen may not meet all the criteria that would allow them to remove the fins at sea, but direct impacts to the smooth dogfish stocks would likely still be neutral because the reduction in mortality would not be large. When compared to Alternative A1, fishing mortality could be higher under Alternative A2 because Alternative A1 would be expected to significantly reduce directed smooth dogfish trips since fishermen would have to leave the smooth dogfish fins attached though offloading. Similarly, in the long-term, direct ecological impacts of Alternative A2 would likely be neutral; however it is difficult to further specify the long-term impacts because there is little evidence that the stock could not sustain the current fishing levels or rates since the stock status has not been assessed. If the fishing rates exceed the ability of the stock to sustain itself, then Alternative A2 might have negative impacts on smooth dogfish because fishing mortality would be too high. Both short-term and long-term indirect neutral ecological impacts would be expected under Alternative A2 because effort is likely to remain largely the same nor would impacts to incidentally-caught species. Indirect impacts to other shark species are explored under the catch composition sub-alternatives below.

Catch Composition Sub-Alternatives

Under Sub-Alternative A2-1a, smooth dogfish fins could be removed at sea regardless of the catch composition on board provided that no other shark species are retained. This sub-alternative would likely result in neutral direct short and long-term ecological impacts. Smooth dogfish are often caught incidentally in other directed fisheries. Currently, these incidentally caught smooth dogfish are retained and fins removed while at sea. Under this sub-alternative, this practice could continue and current fishing pressure on smooth dogfish would not increase and therefore would not be impacted. Although this sub-alternative would likely result in the highest landings of smooth dogfish relative to the other three catch composition sub-alternatives, there is little evidence that the stock could not sustain the current fishing levels or rates since the stock status has not been assessed. Indirect short and long-term ecological impacts would likely be neutral since effort is unlikely to be affected by this sub-alternative. Indirect impacts include those on other species caught along with smooth dogfish. Although this sub-alternative would likely have neutral ecological impacts, this measure would not limit the removal of smooth dogfish fins at sea to fishermen fishing for smooth dogfish. The smooth dogfish -specific provisions of the SCA apply specifically to an "individual engaged in commercial fishing for smooth dogfish" and not generally to an "individual engaged in commercial fishing." If smooth dogfish can make up any portion of the retained catch per this sub-alternative, the at-sea fin removal allowance would not be limited to those fishing "for" smooth dogfish and would not be consistent with the smooth dogfish-specific provisions in the SCA. For this reason, NMFS does not prefer this sub-alternative at this time.

Sub-Alternative A2-1b would require smooth dogfish to comprise 25 percent of the retained catch on board in order for fishermen to avail themselves of the limited at-sea fin removal allowance. No sharks other than smooth dogfish could be retained. Since smooth dogfish could be processed at

sea even when they make up a minor portion of the catch, Sub-Alternative A2-1b would allow some, but not all, fishermen engaged in incidental smooth dogfish trips to avail themselves of the limited at-sea fin removal allowance. This sub-alternative would be expected to result in neutral direct short and long-term ecological impacts. Smooth dogfish are often caught incidentally in other directed fisheries. Currently, these incidentally caught smooth dogfish can be retained and the fins removed while at sea. Under this sub-alternative, this practice could continue on incidental trips with at least 25 percent retained smooth dogfish catch. Since some incidental trips would not qualify for the at-sea fin removal allowance, specifically those with less than 25 percent retained smooth dogfish catch, landings would likely be slightly lower than those under Sub-Alternative A2-1a, under which there is no catch composition requirement. However, effort would be unlikely to change to a great extent and landings would likely remain near pre-SCA levels. Although this sub-alternative would likely result in the second highest landings of smooth dogfish relative to the other three catch composition sub-alternatives, there is little evidence that the stock could not sustain the current fishing levels or rates since the stock status has not been assessed thus direct impacts are expected to be neutral. Indirect short and long-term ecological impacts would also be expected to be neutral. Indirect impacts include those on other species caught along with smooth dogfish. Since effort is unlikely to be greatly affected by this sub-alternative, indirect impacts are likely neutral. Although this sub-alternative has neutral ecological impacts, this measure would not limit the at-sea fin removal allowance to those fishing for smooth dogfish. The smooth dogfish–specific provisions of the SCA applies specifically to an "individual engaged in commercial fishing for smooth dogfish" and not generally to an "individual engaged in commercial fishing." If smooth dogfish can make up 25 percent of the retained catch per this alternative, the at-sea fin removal allowance would not be limited to those fishing for smooth dogfish and would not be consistent with the SCA. For this reason, NMFS does not prefer this sub-alternative at this time.

Sub-Alternative A2-1c, a preferred sub-alternative, would require smooth dogfish to comprise 75 percent of the retained catch on board in order for fishermen to avail themselves of the limited at-sea fin removal allowance. No sharks other than smooth dogfish could be retained. NMFS chose this threshold because, as mentioned above, in other HMS fisheries the 75 percent retention of the target catch is considered a trip where a fisherman is fishing for the target species. Thus, implementing a target catch requirement of 75 percent smooth dogfish would ensure that only those fishermen fishing for smooth dogfish could remove the fins of smooth dogfish while at sea. This sub-alternative would likely have direct short and long-term minor beneficial impacts. Since this sub-alternative would preclude at-sea fin removal in trips with less than 75 percent retained smooth dogfish catch, landings of smooth dogfish could decrease. As detailed in Section 3.5, incidentally caught smooth dogfish make up 39 percent of total landings. Since incidentally-caught smooth dogfish could no longer have fins removed at sea, some portion of the catch would likely be discarded, potentially reducing total landings and fishing mortality, and providing minor direct, beneficial ecological impacts. Indirect ecological impacts to species caught with smooth dogfish would likely both be neutral in the short and long-term because fishing effort or rates are not expected to change under this sub-alternative. The only changes that would occur under this sub-alternative would be to the incidental smooth dogfish fishery. Fishermen in this fishery do not plan trips around smooth dogfish; rather, they

engage in fishing operations based on the target species availability and market. A prohibition on at-sea fin removal of smooth dogfish fins in the incidental fishery would not be expected to alter effort. Indirect impacts are generally positively correlated with effort. Since effort would not likely be affected, indirect impacts would be neutral. Since this sub-alternative would be unlikely to have adverse ecological impacts, is consistent with NMFS' interpretation of the smooth dogfish-specific provisions of the SCA, and provides some flexibility in retained catch, NMFS prefers this sub-alternative at this time.

Sub-Alternative A2-1d would require smooth dogfish to comprise 100 percent of the retained catch on board the vessel in order for fishermen to avail themselves of the at-sea fin removal allowance for smooth dogfish. This sub-alternative would likely have direct short and long-term minor beneficial ecological impacts on smooth dogfish. Like Sub-Alternative A2-1c, this sub-alternative would preclude at-sea fin removal in the incidental smooth dogfish fishery and could result in decreased landings of smooth dogfish. As detailed in Section 3.5, incidentally caught smooth dogfish make up 39 percent of total landings. Unlike Sub-Alternative A2-1c, this sub-alternative would also impact a subset of fishermen that fish for smooth dogfish but that also retain other species. This subset of smooth dogfish fishermen is shown in Figure 3.14. In that figure, there were 2,894 trips between 2000 and 2010 with landings that were at least 75 percent smooth dogfish, the proposed cut-off between directed and incidental trips. Of these 2,894 trips, 1,964 landed 100 percent smooth dogfish. Thus, 32 percent of the directed trips retained other species in addition to smooth dogfish. Based on discussions with fishery participants, the high volume directed smooth dogfish fishery rarely retains other species since profitability relies on systematic processing procedures and deviating from that procedure to retain other species can reduce efficiency. Since some trips could no longer remove smooth dogfish fins at sea, some smooth dogfish would likely be discarded, potentially reducing total landings and fishing mortality, and providing minor beneficial direct impacts. Indirect impact to species caught with smooth dogfish would likely both be neutral in the short and long-term. As noted above, this sub-alternative would impact the incidental smooth dogfish fishery and the subset of those fishing for smooth dogfish but that also retain other species. A prohibition on at-sea fin removal for smooth dogfish in the incidental fishery would not greatly alter effort since trips that retain incidentally-caught smooth dogfish would continue to fish for the targeted species and the subset of directed smoothhound fishermen that retain other species would likely continue to fish. Indirect impacts are generally positively correlated with effort. Since effort would not likely be greatly affected, indirect impacts are expected to be neutral. Although impacts to effort would be small and some minor beneficial impacts could occur, NMFS does not prefer this sub-alternative at this time. This sub-alternative would remove all flexibility with regards to what species can be retained on board those vessels that remove smooth dogfish fins at sea possibly increasing dead discards, which would be inconsistent with National Standard 9, without providing any clear benefits beyond those described for the preferred Sub-Alternative A2-1c.

State Fishing Permit Requirement Sub-Alternatives

Sub-Alternative A2-2a would require federally permitted smooth dogfish fishermen to obtain a smooth dogfish-specific State commercial fishing license in order to be able to remove smooth dogfish fins at sea. This sub-alternative would narrowly interpret the language in the smooth dogfish-specific provisions of the SCA that states an "individual engaged in commercial fishing for smooth dogfish.... if the individual holds a valid State commercial fishing license," to mean a smooth dogfish-specific State commercial fishing license and not a general state commercial license. Requiring a smoothhound shark-specific State fishing permit would likely lead to direct and indirect short and long-term neutral ecological impacts since this sub-alternative is unlikely to affect fishing effort since fishermen that currently target smoothhound sharks without a state permit would likely obtain this State permit. Because not all states have smooth dogfish-specific permits, NMFS does not prefer this alternative at this time but is seeking comments, particularly from the States, about their preferences and what approach would work best in conjunction with their state approach to permitting and state fishery objectives.

Under Sub-Alternative A2-2b, the preferred alternative, fishermen would require federally-permitted smooth dogfish fishermen to possess a State commercial fishing license that allows fishing for smooth dogfish in order to be able to remove smooth dogfish fins at sea. A "valid state commercial fishing license," would be any state license that allows the individual to engage in commercial fishing for smooth dogfish, whether it is smooth dogfish-specific, a general shark permit, or a general commercial fishing permit. This sub-alternative recognizes variations in state fishing permit processes that allow commercial fishing for smooth dogfish. It is likely that most smoothhound shark fishermen already hold this type of state permit and would be unaffected by this requirement. Therefore, this sub-alternative would be expected to have neutral direct and indirect short and long-term ecological impacts since fishing effort is not expected to change under this sub-alternative. Thus, NMFS prefers this sub-alternative at this time but is seeking comments, particularly from the States, about their preferences and what approach would work best in conjunction with their state approach to permitting and state fishery objectives.

Geographic Applicability of Exception Sub-Alternatives

NMFS considered two alternatives for Geographic Application of the SCA exception. Under Sub-Alternative A2-3a, the exception would apply along the Atlantic Coast and the Florida west coast in the Gulf of Mexico. As explained earlier, as a practical matter, smooth dogfish and other smoothhound species are indistinguishable in the field (Section 1.2). The best available scientific information indicates that smooth dogfish are the predominant smoothhound species along the Atlantic coast (only a handful of Florida smoothhound have ever been recorded in the Atlantic and those have been near southern Florida). In the Gulf of Mexico, however, there are at least three different smoothhound species, possibly four, with no practical way to readily distinguish among them (Jones et al 2014). This sub-alternative would apply the smooth dogfish exception 50 nautical miles from the baseline of all the States that fall under the SCA definition of "State," including the

west coast of Florida in the Gulf of Mexico. This sub-alternative could result in smoothhound sharks other than smooth dogfish indirectly falling under the exception, because they cannot be distinguished from smooth dogfish. NMFS expects neutral direct and indirect short and long-term ecological impacts because, at this time, there is no commercial fishery for smooth dogfish in the Gulf of Mexico. However, NMFS does not prefer this sub-alternative at this time because, if a fishery does develop, species misidentification could result in enforcement action.

Under Sub-Alternative 3b, the preferred sub-alternative, the exception would only apply along the Atlantic coast and not the Florida west coast in the Gulf of Mexico. By limiting the exception to the Atlantic region, as specified at § 635.27 (b)(1), this sub-alternative would ensure that the exception would only apply where the population is almost entirely smooth dogfish, reducing identification problems and inadvertent finning violations. NMFS expects neutral direct and indirect short and long-term ecological impacts because, at this time, there is no commercial fishery for smooth dogfish in the Gulf of Mexico. NMFS prefers this sub-alternative at this time because it simplifies enforcement and compliance without adverse impacts.

4.1.2 SOCIAL AND ECONOMIC IMPACTS

Alternative A1 would not implement the smooth dogfish-specific provisions in the SCA. As such, the Amendment 3 requirement that smooth dogfish be landed with their fins naturally attached to the carcass would be implemented. A full analysis of the impacts of the Amendment 3 smooth dogfish management measures relative to status quo (no active federal smoothhound shark management measures) can be found in Section 4.3 of the Final Environmental Impact Statement (EIS) for Amendment 3 (NMFS 2009) and is hereby incorporated into this document by reference. As a summary, the Final EIS for Amendment 3 concluded that socioeconomic impacts of the fins attached requirement for smooth dogfish were generally adverse since federal management of this species would establish restrictions in what is now a largely unregulated fishery. For details, please see Section 4.3 of the Final EIS for Amendment 3 to the 2006 Consolidated HMS FMP.

Under Alternative A2, the preferred alternative, smooth dogfish fishermen would likely experience direct short and long-term neutral socioeconomic impacts. An allowance for the removal of fins at sea for fishermen fishing from Maine through Florida could maintain current efficiency in the fishery and provide a highly processed product for fishermen to sell to dealers. For fishermen who fish outside of 50 nm or in the parts of Gulf of Mexico, socioeconomic impacts would be the same as those in Alternative A1. Total ex-vessel revenues for the entire fishery are currently $585,516 (Section 3.6.2). This value is unlikely to change substantially under Alternative A2.

Indirect short and long-term neutral socioeconomic impacts would be expected under Alternative A2 compared to Alternative A1. Indirect impacts are those experienced by entities supporting the smooth dogfish fishery, but not necessarily directly involved in the capture of the species. Supporting entities include bait and tackle suppliers, ice suppliers, dealers, and other similar businesses. Maintaining the profitability of the smooth dogfish fishery would maintain revenue to the supporting businesses, although they do not solely rely on the smooth dogfish fishery for income.

Catch Composition Sub-Alternatives

Sub-Alternative A2-1a would likely result in direct short and long-term minor beneficial socioeconomic impacts. Under this sub-alternative, smooth dogfish could make up any portion of the retained catch on board provided that no other shark species are retained. This sub-alternative would authorize fishermen to retain any non-shark species of fish while still availing themselves of the limited fins-attached exception for smooth dogfish. Smooth dogfish are often caught during other fishing operations, thus this sub-alternative would allow fishermen to maximize the profitability of each trip and allow individual operators the flexibility to make decisions, before the trip and while on the water, as to the retained catch composition that would maximize ex-vessel revenues. Incidental trips (*i.e.* trips where smooth dogfish make up less than 75 percent of the total retained catch) would be able to process smooth dogfish at sea when directing on other non-shark species. This would result in a larger number of trips able to legally process smooth dogfish at sea compared to preferred Sub-Alternative A2-1c. However, the Saving Clause of the SCA applies specifically to an "individual engaged in commercial fishing for smooth dogfish" and not generally to an "individual engaged in commercial fishing." Therefore, NMFS does not prefer this sub-alternative because it could be inconsistent with the smooth dogfish-specific provisions of the SCA.

Sub-Alternative A2-1b would require smooth dogfish to comprise 25 percent of the retained catch on board in order for fishermen to avail themselves of the limited fins-attached exception, likely resulting in direct short and long-term minor beneficial socioeconomic impact. Since smooth dogfish could be processed at sea even when they make up 25 percent of the catch, Sub-Alternative A2-1b would allow some, but not all, fishermen engaged in incidental smooth dogfish trips to avail themselves of the limited fins-attached exception. Smooth dogfish are often caught incidentally in other directed fisheries. Currently, these incidentally caught smooth dogfish can be retained and processed while at sea. Under this sub-alternative, this practice could continue on incidental trips with at least 25 percent retained smooth dogfish catch. Thus, this sub-alternative would allow fishermen the flexibility to increase the profitability of each trip and allow individual operators the flexibility to make decisions, before the trip and while on the water, as to the retained catch composition that would maximize ex-vessel revenues. Some incidental trips (*i.e.* trips where smooth dogfish make up less than 75 percent of the total retained catch) would be able to process smooth dogfish at sea when directing on other non-shark species. This would expand the number of trips able to legally process smooth dogfish at sea compared to the preferred alternative. However, the smooth dogfish-specific provisions of the SCA applies specifically to an "individual engaged in commercial fishing for smooth dogfish" and not generally to an "individual engaged in commercial fishing." Therefore, NMFS does not prefer this sub-alternative because it could be inconsistent with the smooth dogfish-specific provisions of the SCA.

Sub-Alternative A2-1c, a preferred sub-alternative, would require smooth dogfish to comprise 75 percent of the retained catch on board in order for fishermen to avail themselves of the limited fins-attached exception. NMFS chose this threshold because, as mentioned above, 75 percent

retention of the target catch is considered a trip where a fisherman is fishing for the target species in other HMS fisheries. Thus, implementing a target catch requirement of 75 percent smooth dogfish would preclude fishermen on incidental smooth dogfish trips from availing themselves of the fins-attached exception. Only those fishermen fishing for smooth dogfish and meeting all the other requirements would be able to remove the fins of the species while at sea. Because some fishermen catch smooth dogfish while fishing for other species, this sub-alternative is likely to have short and long-term direct, minor, adverse socioeconomic impacts since it would reduce flexibility, though not to the extent that Sub-Alternatives A2-1a and A2-1b would. The number of mixed species trips where fishermen could take advantage of the fins-attached exception would decrease. However, this sub-alternative is consistent with the smooth dogfish-specific provisions of the SCA since it limits the fins-attached exception to those fishing for smooth dogfish. This sub-alternative also provides more flexibility that Sub-Alternative A2-1d which would require 100 percent smooth dogfish retained catch. For these reason, NMFS prefers this sub-alternative at this time.

Sub-Alternative A2-1d would require smooth dogfish to comprise 100 percent of the retained catch on board the vessel in order for fishermen to avail themselves of the fins-attached exception for smooth dogfish. This sub-alternative would likely have short and long-term direct, minor negative socioeconomic impacts to those fishermen that catch smooth dogfish in conjunction with other species because it would reduce the number of mixed trips able to take advantage of the fins-attached exception, reducing flexibility in deciding which species to retain on each fishing trip and possibly reducing profitability. This sub-alternative could enhance enforcement efforts since catch would not need to be weighed; however, the enforcement benefits are expected to be minor. Accordingly, NMFS does not prefer this sub-alternative at this time.

State Fishing Permit Requirement Sub-Alternatives

Sub-Alternative A2-2a would require federal smoothhound permitted fishermen to obtain a smooth dogfish-specific state commercial fishing license in order to be able to remove smooth dogfish fins at sea. The requirement to obtain a smooth dogfish-specific state commercial fishing license may be more difficult for fishermen who are in states that do not have smooth dogfish-specific permits in place. This sub-alternative could result in the increased burden on fishermen to obtain another permit, and depending upon the state, could result in an additional permit charge which could have short and long-term direct, minor negative socioeconomic impacts. Since most permits are generally valid for one year, fishermen would likely need to renew the permit each year for as long as they wish to retain smoothhound sharks and remove the fins while at sea. Because not all states have smooth dogfish-specific permits, NMFS does not prefer this alternative at this time but is seeking comments, particularly from the States, about their preferences and what approach would work best in conjunction with their state approach to permitting and state fishery objectives.

Sub-Alternative A2-2b, the preferred sub-alternative, would likely have neutral short and long-term direct impacts. Under this sub-alternative, fishermen would be required to hold a state commercial fishing permit appropriate for the harvest of smooth dogfish in state waters. It is likely,

however, that most smooth dogfish fishermen already hold this type of state permit and would be unaffected by this requirement (neutral direct short and long-term socioeconomic impacts). This sub-alternative would likely be the most straightforward for compliance since the permit requirement would be the simpler than Sub-Alternative A2-2a. Thus, NMFS prefers this sub-alternative at this time but is seeking comments, particularly from the States, about their preferences and what approach would work best in conjunction with their state approach to permitting and state fishery objectives.

Short-term and long-term indirect socioeconomic impacts resulting from all sub-alternatives of Alternative A2 would be expected to be neutral as these sub-alternatives address measures to facilitate enforcement and, although some alternative may have minor direct impacts to fishermen, businesses supporting the smooth dogfish fishery (e.g. bait and tackle sales, ice suppliers, dealers) are unlikely to see any substantial social or economic impacts resulting from these sub-alternatives.

Geographic Applicability of Exception Sub-Alternatives

NMFS considered two alternatives for Geographic Application of the SCA exception. Under Sub-Alternative A2-3a, the exception would apply along the Atlantic Coast and the Florida west coast in the Gulf of Mexico. As explained earlier, as a practical matter, smooth dogfish and other smoothhound species are indistinguishable in the field. The best available scientific information indicates that smooth dogfish are the predominate smoothhound shark species along the Atlantic coast (only a handful of Florida smoothhound have ever been recorded in the Atlantic and those have been near southern Florida) (Giresi et al 2014). In the Gulf of Mexico, however, there are at least three different smoothhound species, with no practical way to readily distinguish among them. This sub-alternative would apply the smooth dogfish exception 50 nautical miles from the baseline of all the States that fall under the SCA definition of "State," including the west coast of Florida in the Gulf of Mexico. This sub-alternative could result in smoothhound sharks other than smooth dogfish indirectly falling under the exception, because they cannot be distinguished from smooth dogfish. NMFS expects neutral direct and indirect short and long-term socioeconomic impacts because, at this time, there is no commercial fishery for smooth dogfish in the Gulf of Mexico. However, NMFS does not prefer this sub-alternative at this time because, if a fishery does develop, species misidentification could result in enforcement action.

Under Sub-Alternative 3b, the preferred sub-alternative, the exception would only apply along the Atlantic coast and not the Florida west coast in the Gulf of Mexico. By limiting the exception to the Atlantic region, as specified at § 635.27 (b)(1), this sub-alternative would ensure that the exception would only apply where the population is almost entirely smooth dogfish, reducing identification problems and inadvertent finning violations. NMFS expects neutral direct and indirect short and long-term socioeconomic impacts because, at this time, there is no commercial fishery for smooth dogfish in the Gulf of Mexico. NMFS prefers this sub-alternative at this time because it simplifies enforcement and compliance without adverse impacts.

4.1.3 CONCLUSION

NMFS prefers Alternative A2 and Sub-Alternatives A2-1c, A2-2a, and A2-3b because they implement the smooth dogfish-specific provisions of the SCA by narrowly focusing the at-sea fin removal allowance on the smooth dogfish fishery as specified by the SCA and would provide a profitable, sustainable directed smooth dogfish fishery, consistent with the SCA, while ensuring that other species of sharks are not affected by this at-sea fin removal allowance.

4.2 QUOTA ADJUSTMENTS FOR THE SMOOTHHOUND SHARK FISHERY

As described in Section 2.2, the following four alternatives consider the quota provisions for the smoothhound shark fishery based on the availability of new landings data and in anticipation of an upcoming assessment this year. Such an assessment could indicate a need to modify the quota established here and, depending on the results of the stock assessment, could require other changes to the fishery in order to be consistent with the Magnuson-Stevens Act, the 2006 Consolidated Atlantic HMS FMP, and other statutes. Draft Amendment 9 also considers implementing a quota based on this stock assessment in the event that the assessment is available before publication of the final rule and if it requires quota adjustments (Alternative B4). In addition to the base quota, a small smoothhound shark research set-aside quota (6 mt ww) was considered and analyzed in Amendment 3. This action does not consider altering the research set-aside quota that was finalized in Amendment 3, and therefore it is not addressed in this impact analysis.

Alternative B1: Implement a smooth dogfish quota that is equal to the maximum annual landings from 1998 – 2007 plus two standard deviations (715.5 mt) (established in Amendment 3)

Alternative B2 Establish a "rolling quota" each year based upon the previous five years of available data. Annual quota would be equal to maximum landings during the previous five years of available data plus two standard deviations (2015 quota would be 1,663 mt based on 2009-2013 data).

Alternative B3 *Establish a smoothhound quota that is equal to the maximum annual landings from 2004-2013 plus two standard deviations (1,739.9 mt dw) – preferred alternative*

Alternative B4 Establish a smoothhound shark quota(s) that reflects any necessary adjustments as a result of the 2014 smoothhound shark stock assessment

4.2.1 ECOLOGICAL IMPACTS

Given the current open-access nature of the fishery, the implementation of *any* quota alternative could potentially have short- and long-term beneficial ecological impacts as it would provide a mechanism to regulate the amount of fishing mortality on the stocks and subsequent effects on EFH and protected resources.

Alternative B1 would implement the quota finalized in Amendment 3 (715.5 mt dw). Establishing a smoothhound shark quota equal to the maximum annual landing between 1998-2007 plus two standard deviations (1,577,319 lb dw) would maintain the quota within the scope of landing levels analyzed in Amendment 3, but the quota would be lower than reported landings from 2009 through 2011. A full analysis of the impacts of the Amendment 3 smoothhound shark quota measures can be found in Section 4.3 of the Final EIS for Amendment 3. In the short term, this alternative is not expected to have any direct negative ecological impacts, as the population would likely not change quickly in response to lower catch rates. In the long term, this alternative could have direct, moderate beneficial ecological impacts on the stock by capping effort and reducing overall landings through quota restrictions, which may benefit the smoothhound shark stocks. However, since the status of the stock is unknown, it is difficult to predict the level of catch that will maintain the smoothhound shark stock at a sustainable level and there is no indication that the recent increases in catches are causing the species to decline (see Section 3.3). Alternative B1 would not allow landings to increase, may not fully account for historical underreporting within the fishery, and would not account for increased fishing activity and reported landings in 2009 – 2011. As such, this quota could be considered overly restrictive to the fishery, contrary to the intent of Amendment 3 to minimize changes to the fishery until more is known about the fishery and stock, and therefore, NMFS does not prefer this alternative at this time.

Alternative B2 would implement a "rolling quota" each year based on the previous five years of available data. Under this alternative, the annual quota would be equal to maximum annual landings during the previous five years of available data plus two standard deviations. Using this methodology, the 2015 quota would 1,663 mt dw based on 2009-2013 data. At this time, the proposed quota under this alternative is higher compared to the quotas under Alternatives B1 and B3 and, if catches increase in the future, this quota would also continue to increase. Per the intent of Amendment 3, smoothhound management measures were designed to collect data while minimizing changes to how the fishery currently operates. Since landings data are likely underestimated due to underreporting, setting the quota above current landings levels should allow the fishery to continue at current levels. However, the intent of Amendment 3 was to accommodate existing effort within the fishery as opposed to promoting increased effort. This alternative could potentially allow for the substantial growth of the fishery should landings increase in consecutive years. For example, if fished at the maximum quota, the rolling quota approach in this alternative could lead to an exponential increase in the quotas through time. This growth in quota could lead to negative ecological impacts to smoothhound sharks compared to Alternatives B1 and B3.

In the short term, Alternative B2 is not expected to have direct ecological impacts, as the population is not expected to respond to catch rates within a year or two due to the fact that female smoothhound sharks do not reach maturity until 4 to 7 years old and they pup every 2 to 3 years. However, long-term direct and indirect ecological impacts could be adverse if the fishery is allowed to continue to grow exponentially. While the smoothhound shark stock status is unknown and it is difficult to predict the level of catch that will maintain the stock at a healthy level, it is unclear at this time whether the population can withstand a quota that is constantly increasing when landings increase. For these reasons, NMFS does not prefer alternative B2 at this time.

Alternative B3, the preferred alternative, would establish a smoothhound shark quota of 1,739.9 mt dw which is equal to the maximum annual landings from the ten most recent years of available data (*i.e.* 2004-2013) plus two standard deviations. The quota alternative that was finalized in Amendment 3 was selected because NMFS, with guidance from the NEFSC and SEFSC, determined that adding two standard deviations to the maximum annual landings was the best way to account for any underreporting in the fishery while minimizing changes in catch levels and catch rates in the smoothhound shark fishery. While the quota under the current preferred alternative B3 is higher than the quota calculated under Alternative B1, it caps the quota at a level that reflects the current operation of the smoothhound shark fishery without allowing the quota to increase in the future if reported landings increase. As stated when establishing this methodology in Amendment 3, since landings data could be underestimated due to underreporting, setting the quota above current reported landings levels should allow the fishery to continue at current levels, minimizing changes to the fishery while collecting information on catch and participants.

In the short-term, this preferred alternative is expected to have neutral direct ecological impacts on the smoothhound stock, as the quota- setting approach in Amendment 3 minimizes changes in the fishery. Alternative B3 could have long-term direct minor adverse ecological impacts due to a potential for increased landings of smoothhound compared to Alternatives B1 and B2, which would lower quotas. Allowable effort and landings would be higher in Alternative B3 than Alternative B1; however, landings would be constrained with a cap that prevents uncontrolled growth of the fishery. Implementing such a cap on landings would likely help ensure that the smoothhound stock is maintained at a healthy level. This preferred alternative appropriately adjusts the Amendment 3 quota and remains within the range of alternatives considered in the Amendment 3 rulemaking. The intent of Amendment 3 was to minimize changes in catch levels and catch rates in the fishery in order to allow for the collection of catch and participant information pending completion of a stock assessment to guide federal management. Setting a quota above reported landings would ensure that the fishery does not prematurely close. As stated in the purpose and need of Amendment 3 and this document, the smoothhound management measures are designed to collect data while minimizing changes in catch levels and catch rates in the fishery. To achieve this goal, it is important to ensure that the smoothhound quota is set at a level that allows current fishing practices to continue. A smoothhound shark stock assessment is scheduled in 2014 and NMFS will consider the results of the assessments and make any necessary quota adjustments at that time. As explained below, this draft amendment also considers another alternative that would further adjust the quota(s)

if necessary based on this stock assessment if it is available before publication of the final rule. As detailed in Section 3.3, although not conclusive, fishery-independent surveys do not indicate that fishing pressure is too high, despite varying levels of exploitation over the past several years. For the reasons stated above, NMFS currently prefers this alternative.

Alternative B4 would implement a TAC and smoothhound shark quota(s) consistent with the results of the 2014 smoothhound shark stock assessment if the results become available before publication of the final rule for this action. Additional environmental analyses and regulatory action may be considered if warranted by the stock assessment outcomes, depending on the magnitude of any resultant changes in management approaches that may result. For administrative efficiency, however, the draft amendment is analyzing several possible quota outcomes from the stock assessment to avoid duplicative rulemaking and to ensure swift adoption of appropriate management measures in the event that the stock assessment results result in quota recommendations that are within the scope and range of this ongoing rulemaking. Although the assessment results are not yet available, the potential impacts resulting from adoption of this alternative can still be analyzed by examining different stock assessment result scenarios. The stock assessment will look at the three species that make up the smoothhound shark complex: Florida smoothhound, smooth dogfish, and Gulf smoothhound. Since these species cannot easily be differentiated in the field without genetic analyses, they will be managed as a group, regardless of how the stock assessment breaks down the stocks. This approach is similar to how small coastal sharks, hammerhead sharks, and aggregated large coastal sharks management groups are currently managed under single quota for each management group. For the entire smoothhound shark complex, we are analyzing four potential recommendations that may from the assessment: 1) one or more of the stocks is found to be overfished but not experiencing overfishing, 2) one or more of the stocks is found to be experiencing overfishing but not yet overfished, 3) one or more of the stocks is found to be overfished and experiencing overfishing, or 4) all stocks are found to not be overfished or experiencing overfishing (healthy).

Regardless of the overcome, the stock assessment should provide an OFL, ABC, and TAC that would provide for a sustainable fishery and implement a rebuilding plan and/or stop overfishing if necessary. As described in the mechanism for establishing ACLs and ABCs in Amendment 3 to the 2006 Consolidated HMS FMP (Figure 4.1), these levels would be the basis of the commercial quota, after accounting for other sources of mortality such as recreational catch and dead discards. To analyze the impacts of implementing a quota based upon the upcoming stock assessment, this section will consider four scenarios relative to Alternative B1. The commercial quota under Alternative B1 would be 715.5 mt dw which is lower than recent reported annual landings that exceeded 900 mt dw, even without accounting for underreporting. The four considered scenarios are: 1) a quota(s) equal to approximately one-half the Alternative B1 quota (357.8 mt dw), 2) a quota(s) approximately equal to the Alternative B1 quota, 3) a quota(s) half way in between Alternatives B1 and B3, or 1,227.7 mt dw, and, 4) a quota(s) larger than Alternative B1, approximately equal to or greater than the quota under Alternative B3 (1,739.9 mt dw). The 2014 smoothhound shark stock assessment could separate one or more of the stocks into regional stocks between the Atlantic and Gulf of Mexico. For the purposes of these analyses, NMFS assumed one overarching quota but these alternatives and analyses

could apply to multiple regions as well. If the quotas are broken into regions, additional environmental analyses and regulatory action may be considered.

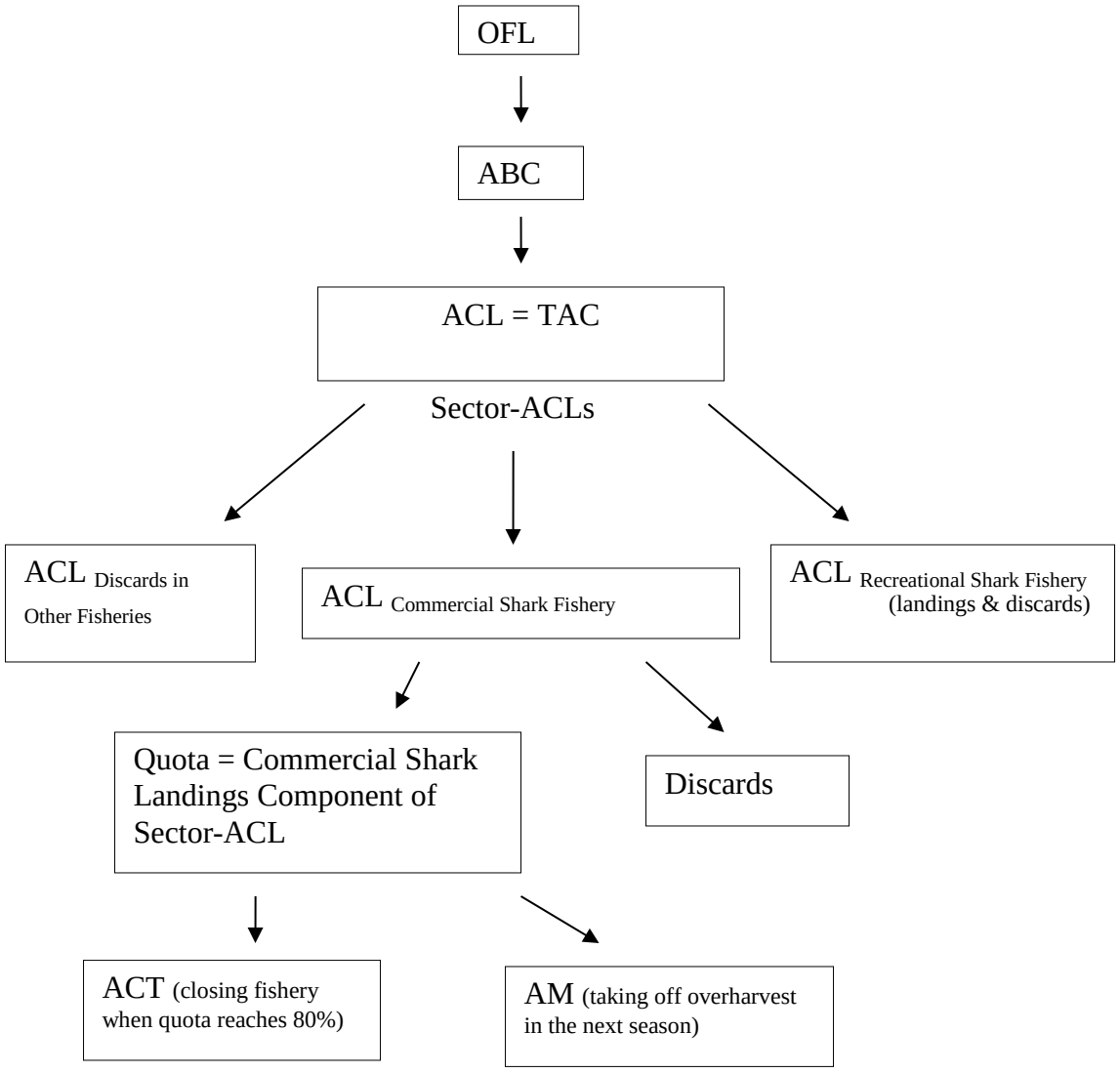

Figure 4.1 Generalized mechanism for establishing ABCs/ACLs under Amendment 3. * Currently, ACL=ABC as no ABC has been designated in recent shark stock assessments; future shark stock assessments should identify an ABC.

If the stock assessment determines that one or more of the smoothhound shark stocks is overfished and/or experiencing overfishing and fishing mortality should be significantly lower than the quota established under Amendment 3, and lower than current fishing mortality levels then reducing fishing mortality to a scientifically-determined level would protect smoothhound sharks from further overharvest. Under Alternative B4 scenario 1, the stock assessment would determine

that the commercial smoothhound shark quota should be set at approximately 357.8 mt dw, one-half of the quota proposed under Alternative B1. In this scenario, Alternative B4 would likely have short and long-term moderate direct beneficial ecological impacts. In this scenario, Alternative B4 would also likely have short and long-term moderate indirect ecological benefits on incidentally-caught species. The reduction in effort would provide a proportional reduction in interactions. Since this quota level is below recent landings, this scenario would be likely to result in fishery closures before the end of each fishing year.

Under Alternative B4 scenario 2, the stock assessment would determine that the commercial smoothhound shark quota should be set at approximately 715.5 mt dw, the quota under Alternative B1. This scenario would have the same practical effect as Alternative B1 and would have the same expected impacts: neutral ecological impacts in the short-term and direct, moderate beneficial ecological impacts in the long-term on the stock by capping effort and reducing overall landings through quota restrictions, which likely would benefit the smoothhound shark stocks. Since this quota level is below recent landings, this scenario would be likely to result in fishery closures before the end of each fishing year, assuming fishing were to continue at current levels.

Under Alternative B4 scenario 3, the stock assessment would determine that the commercial smoothhound shark quota should be set at approximately 1,227.7 mt dw, about halfway in between the quotas considered under Alternatives B1 and B3. Although this is an increase in the quota, and consequently fishing mortality, relative to Alternative B1, scenario 3 would likely provide short and long-term minor direct beneficial ecological impacts since fishing mortality would be capped at a level recommended by scientific advice. In this scenario, Alternative B4 would also likely have short and long-term minor indirect ecological adverse impacts on incidentally-caught species, relative to Alternative B1 since effort would increase. This increase in effort would result in a proportional increase in interactions compared to Alternative B1, but similar interaction levels compared to Alternative B3. Since this quota level is near recent landings, this scenario could allow the fishery to operate the entire fishing year without a quota closure; however, landings may currently be underreported so this quota could be below actual landings.

Under Alternative B4 scenario 4, the stock assessment would determine that the commercial smoothhound shark quota should be set at approximately equal to or greater than 1,739.9 mt dw, the quota under preferred Alternative B3. Although this is an increase in the quota, and consequently fishing mortality, relative to Alternative B1, scenario 4 would likely provide short and long-term minor direct beneficial ecological impacts since fishing mortality would be capped at a level recommended by scientific advice. In this scenario, Alternative B4 would also likely have short and long-term minor indirect ecological adverse impacts on incidentally-caught species, relative to Alternative B1 since effort would increase. Since this quota is above recent landings, it would be unlikely to result in a quota closure before the end of each fishing year.

Although Alternative B4 would provide for scientifically-based catch limits, the stock assessment is not yet final and NMFS does not know that it will be available before the final rule for this action. Therefore, NMFS does not prefer this alternative at this time.

4.2.2 SOCIAL AND ECONOMIC IMPACTS

Alternative B1 would implement the quota measures identified in Amendment 3 (715.5 mt dw) based on the calculation of quotas from a historical period in the fishery (1998 to 2007). The quotas would be calculated by taking maximum landings between 1998 and 2007, and adding two standard deviations. In Amendment 3, this alternative was selected in part because NMFS determined that adding two standard deviations to the maximum landings data available at that time best accounted for underreporting in the fishery. However, this alternative would not account for recent years of data in which reported landings were significantly higher (2009 through 2011). Because the actual reported landings are higher than this quota, fishermen would be prevented from fishing at current levels, resulting in lost revenues. In 2011, the most recent year when landings exceeded the Amendment 3 quota, total smoothhound shark landings totaled 2,078,251 lb dw (ACCSP data) resulting in ex-vessel revenues across the entire smoothhound sink gillnet fishery of $1,634,337 (2,078,251 lb of meat, 249,390 lb of fins). Implementation of the Amendment 3 quota (715.5 mt dw) would result in ex-vessel revenues of only $1,240,460 (1,577,391 lb of meat, 189,287 lb of fins), which is $393,877 less than current ex-vessel revenues. Both of these estimates assume $1.72/lb for fins, $0.58/lb for meat, and a 12 percent fin-to-carcass ratio (prices based on 2013 dealer data and fin-to-carcass ratio based on the SCA).

Alternative B1 is likely to have direct, minor adverse socioeconomic impacts in the short term because the quota under Alternative B1 does not reflect current reporting landing levels of smoothhound sharks. The VTR data for the Northeastern United States shows that an average of 31 vessels between 2002 and 2012 directed on smoothhound shark (Table 3.5). However, these vessels fish opportunistically on multiple species of coastal migratory fish and elasmobranches, and it is unlikely that any sector within the fishing industry in the Northeast (fisherman, dealer, or processor) relies wholly upon smoothhound sharks. Longer-term impacts are expected to be neutral given the small size of the fishery and the generalist nature of the sink gillnet fishery. However, this alternative is not consistent with the intention of Amendment 3, which was to minimize changes to the fishery while information on catch and participants was collected. This information would be helpful for stock assessment purposes. Therefore, NMFS does not prefer this alternative at this time.

Alternative B2 would establish a rolling smoothhound quota set above the maximum annual landings for the preceding five years; this quota would be recalculated annually to account for the most recent landing trends within the smoothhound complex (2015 quota would be 1,663 mt dw based on 2009-2013 data). The 2015 quota under this alternative is likely to result in annual revenues of $2,883,139 (3,666,250 lb of meat, 439,950 lb of fins) assuming an ex-vessel price of $1.72 lb for fins and $0.58 lb for meat. Per the intent of Amendment 3, smoothhound management measures are designed to collect data while minimizing changes in catch levels and catch rates in the fishery.

Setting the quota above current landings levels should allow the fishery to continue, rather than be closed, allowing for NMFS to collect more information that can be used in future stock assessments. This alternative is consistent with the intent of Amendment 3, which was to minimize changes to the fishery while information on catch and participants was collected. When compared to Alternative B1, this alternative would allow the fishery to continue at the rate and level observed in recent years into the future without having to be shut down prematurely. Because landings in the smoothhound fishery are likely underreported, it is unclear at this time whether the increase in reported landings is due to existing smoothhound fishermen reporting in anticipation of future management or increased effort (e.g., new entrants into the fishery). Given the fishery would expect to operate as it currently does, NMFS anticipates in the short term, indirect, minor, positive socioeconomic impacts for shark dealers and processor. While a rolling quota would cover all current reporting and likely cover underreporting of landings, the fishery could grow exponentially if reporting landings continue to increase over consecutive years. Long term direct socioeconomic impacts of this alternative when compared to the Alternative B1 may be minor and adverse, if a constantly changing, and likely increasing, quota results in stock declines and in turn a potential loss of revenue to the fishing industry. The rolling quota could also lead to lower quotas in consecutive years if landings decrease over time. Thus, the changing nature of the rolling quota could lead to uncertainty in the fishery and could cause direct and indirect minor adverse socioeconomic impacts in the long term. Based on the uncertain nature of a rolling quota from year to year by not specifying an overall quota cap and its potential minor adverse socioeconomic impacts in the long term, Alternative B2 is not NMFS' preferred alternative at this time.

Alternative B3, the preferred alternative, would create a smoothhound quota equal to the maximum annual landings from 2004-2013 plus two standard deviations and would equal 1,739.9 mt dw. This alternative establishes a smoothhound quota two standard deviations above the maximum annual landings reported over the last ten years. This quota would result in potential annual revenues in the entire fishery of $3,016,460 (3,835,784 lb of meat, 460,294 lb of fins) assuming an ex-vessel price of $1.72 lb for fins and $0.58 for meat. Per the intent of Amendment 3, smoothhound management measures were designed to collect data while minimizing changes in catch levels and catch rates in the fishery. Setting the quota above current landings levels should allow the fishery to continue throughout the year, rather than be closed for part of the year, allowing NMFS to collect year-long information that can be used in future stock assessments. NMFS anticipates direct moderate, beneficial short- and long-term socioeconomic impacts with implementing a quota based on maximum recent annual landings plus two standard deviations to allow for a buffer for potential unreported landings during that time. This would allow the fishery to continue at the landings rate and level reported in recent years. Because landings in the smoothhound fishery may be underreported, it is unclear at this time whether the increase in reported landings is due to existing smoothhound fishermen reporting in anticipation of future management or increased effort. Under this alternative, NMFS anticipates the fishery would operate as it currently does resulting in indirect moderate positive socioeconomic impacts in the short- and long-term for shark dealers and processors. Unlike Alternative B1, Alternative B3 accounts for recent trends in the fishery and the best available landings data as recalculated and reported by ACCSP reflects recent behavior in the

fishery, and provides an appropriate buffer to account for underreporting in the fishery. Alternative B3 provides for more stability in the fishery due to a quota that does not change from year to year as in Alternative B2. Additionally, providing a maximum cap on the fishery would allow fishermen, dealers, and processors to make better business decisions based on a more predictable yield (assuming that the fishery is fished to near-full capacity each year). Therefore, Alternative B3 is NMFS' preferred alternative at this time.

Alternative B4 would implement a smoothhound shark quota(s) consistent with the results of the 2014 smoothhound shark stock assessment if the results become available before publication of the final rule for this action. For the entire smoothhound shark complex, there are four potential recommendations from the assessment: 1) one or more of the stocks is found to be overfished but not experiencing overfishing, 2) one or more of the stocks is found to be experiencing overfishing but not yet overfished, 3) one or more of the stocks is found to be overfished and experiencing overfishing, or 4) all stocks are found to not be overfished or experiencing overfishing (healthy). To analyze the impacts of implementing a quota(s) based upon the upcoming stock assessment, this section will consider four scenarios relative to Alternative B1. The commercial quota under Alternative B1 would be 715.5 mt dw which is lower than recent annual landings that exceeded 900 mt dw, despite underreporting. The four considered scenarios are: 1) a quota(s) equal to approximately one-half the Alternative B1 quota, 2) a quota(s) approximately equal to the Alternative B1 quota, 3) a quota(s) half way in between Alternatives B1 and B3, or 1,227.7 mt dw, and, 4) a quota(s) larger than Alternative B1, approximately equal to or greater than the quota under Alternative B3 (1,739.9 mt dw). The 2014 smoothhound shark stock assessment could separate one or more of the stocks into regional stocks between the Atlantic and Gulf of Mexico. For the purposes of these analyses, NMFS assumes one overarching quota but these alternatives and analyses could apply to multiple regions as well.

Under Alternative B4 scenario 1, the stock assessment would determine that the commercial smoothhound shark quota should be set at approximately 357.8 mt dw, one-half of the quota under Alternative B1. In this scenario, Alternative B4 would likely have short and long-term moderate direct adverse socioeconomic impacts because the quota does not reflect current reporting landing levels of smoothhound sharks. Both directed and incidental fishermen that catch and sell smoothhound sharks would be impacted since the quota would be unlikely to last all year and landings would decrease. In 2010 and 2011, total reported smoothhound shark landings have exceeded 900 mt dw which is likely an underestimate due to underreporting. At 900 mt dw, across the entire fishery, potential annual revenues in the entire fishery are $1,560,328 (1,984,140 lb of meat, 238,097 lb of fins), assuming an ex-vessels price of $1.72 lb for fins and $0.58 for meat. Under Alternative B4 scenario 1, fishery-wide revenues would drop to $620,317.

Under Alternative B4 scenario 2, the stock assessment would determine that the commercial smoothhound shark quota should be set at approximately 715.5 mt dw, the quota under Alternative B1. Like Alternative B1, this scenario would likely result in short-term minor direct adverse socioeconomic impacts because the quota does not reflect current reporting landing levels of

smoothhound sharks. Longer-term impacts are expected to be neutral given the small size of the fishery and the generalist nature of the sink gillnet fishery.

Under Alternative B4 scenario 3, the stock assessment would determine that the commercial smoothhound shark quota should be set at approximately 1,227.7 mt dw, about halfway in between the quotas under Alternative B1 and preferred Alternative B3. This quota would be an increase above current reported landings; however, due to underreporting, this quota could be below total landings. Although this quota could accommodate most, if not all, of the current level of smoothhound shark landings, it represents an increase relative to Alterative B1, thus, this scenario would likely result in short and long-term minor beneficial socioeconomic impacts. The larger quota would allow for more landings and higher total revenues. While Alternative B1 would allow for total ex-vessel revenue of $1,240,460, Alternative B4 scenario 3 would allow for annual total ex-vessel revenue across the entire fishery of $2,128,459 (2,706,587 lb of meat, 324,790 lb of fins), assuming an ex-vessels price of $1.72 lb for fins and $0.58 for meat.

Under Alternative B4 scenario 4, the stock assessment would determine that the commercial smoothhound shark quota should be set at approximately equal to or greater than 1,739.9 mt dw, the quota under preferred Alternative B3. Although this is an increase in the quota, and consequently fishing mortality, relative to Alternative B1, scenario 4 would likely provide short and long-term minor direct beneficial ecological impacts since fishing mortality would be capped at a level recommended by scientific advice. This quota would result in potential annual revenues in the entire fishery of $3,016,460 (3,835,784 lb of meat, 460,294 lb of fins), assuming an ex-vessels price of $1.72 lb for fins and $0.58 for meat. In this scenario, Alternative B4 would likely also have short and long-term minor indirect ecological adverse impacts on incidentally-caught species, relative to Alternative B1 since effort would increase.

None of the Alternative B4 scenarios would have a large impact on supporting businesses such as dealers or bait, tackle, and ice suppliers since these businesses do not solely rely on the smoothhound shark fishery. The smoothhound shark fishery is small relative to other fisheries. Thus, all scenarios under Alternative B4 would likely result in short and long-term indirect neutral socioeconomic impacts. Although this alternative would provide for scientifically-based catch limits, the stock assessment is not yet final and NMFS does not know that it will be available before the final rule for this action publishes. Therefore, NMFS does not prefer this alternative at this time.

4.2.3 CONCLUSION

NMFS prefers this Alternative B3 because it allows the smoothhound shark fishery to continue at its current landings level using updated data, is consistent with the intent and approach of Amendment 3, would not unnecessarily limit fishermen or close the fishery, and would allow NMFS to gather more data and information. Further, the preferred alternative adequately protects the stock because it provides a cap on landings that will prevent future growth in the fishery until a stock assessment can be completed.

4.3 BIOLOGICAL OPINION IMPLEMENTATION

The following four alternatives consider implementation of TC 4contained in the 2012 Atlantic Shark and Smoothhound Shark Fisheries Biological Opinion (BiOp), which requires all Atlantic shark and smoothhound gillnet fishermen to either check their gear at least every 2.0 hours, or soak their gear no longer than 24 hours. Atlantic shark fishermen are currently required to conduct net checks at least every 2 hours to look for and remove any protected species. At this time, NMFS prefers Alternative C3.

Alternative C1: No Action. Do not take further action to implement TC 4 in the smoothhound shark fishery

Alternative C2 Require smoothhound shark gillnet fishermen to conduct net checks at least every 2 hours to look for and remove any sea turtles, marine mammals, smalltooth sawfish, or Atlantic sturgeon found in the net

Alternative C3 Establish a gillnet soak time limit of 24 hours for smoothhound shark permit holders; fishermen holding both a directed Atlantic shark limited access permit and a smoothhound shark permit must abide by both soak time restrictions and net check requirements

Alternative C4 *Establish a soak time limit of 24 hours for sink gillnet gear and a 2 hour net check requirement for drift gillnet gear in the Atlantic shark and smoothhound shark fisheries – Preferred Alternative*

4.3.1 ECOLOGICAL IMPACTS

Alternative C1 would not implement the BiOp Term and Condition that would require all smoothhound shark permit holders to either check their gillnet gear at least every 2.0 hours or limit their soak time to no more than 24 hours. This alternative would have neutral short and long-term direct ecological impacts to smoothhound sharks. Under Alternative C1, smoothhound shark fishermen would continue to fish as they do now, which would not affect catch rates or levels or impact the smoothhound shark stock. Similarly, this alternative would result in neutral short and long-term indirect ecological impacts. Since effort and catch would not be impacted, no indirect impacts to incidentally caught fish species are expected. However, adverse ecological impacts to protected resources would be expected under this alternative. Gillnet soak time limits and net checks were specifically required under the 2012 Shark BiOp for the Atlantic shark and smoothhound shark fisheries to minimize impacts to protected resources. While gillnet soak time restrictions and net check requirements would mitigate bycatch mortality of a variety of protected resources, these measures were specifically designed to protect sea turtles and Atlantic sturgeon that might be

incidentally captured in this gear type. Although the current net check requirement would remain in place for the Atlantic shark gillnet fishery, adoption of Alternative C1 would not implement any net checks requirements or soak time restrictions for fishermen with smoothhound shark permits, likely resulting in short and long-term minor adverse impacts on protected resources. Because this alternative does meet the requirements of the Terms and Conditions of the 2012 Shark BiOp, NMFS does not prefer this alternative at this time.

Alternative C2 would require smoothhound shark fishermen to conduct net checks at least every 2.0 hours to look for and remove any protected species. This alternative would impact smoothhound shark fishing effort since it would require fishermen to change current fishing practices. Some smoothhound shark gillnet fishermen fish multiple nets at one time or deploy their net(s), leave the vicinity, and return at a later time. Alternative C2 would require these fishermen to check each gillnet at least once every 2 hours, making fishing with multiple nets or leaving nets unattended difficult. The result would be a reduction in effort, which, if the reduction is large enough, could lead to a slower catch rate of smoothhound sharks and a reduction in overall landings. This resulting reduction in smoothhound shark fishing mortality would likely lead to direct neutral short-term ecological impacts since the stock can likely sustain current harvest levels. However, in the long-term, direct minor beneficial ecological impacts would be expected since this alternative would likely slow the growth of the fishery because catch rates would be reduced if fishermen have to modify fishing methods. The reduction in effort would also lead to short and long-term indirect minor beneficial ecological impacts since fishing impacts to incidentally-caught fish species would be proportionally reduced as a result of the implementation of net checks and reduced effort. This alternative would likely have short and long-term minor beneficial impacts on protected resources since it would implement one of the Terms and Conditions of the 2012 BiOp to minimize impacts on protected resources. Requiring smoothhound shark fishermen to check their gillnets at least every two hours, as currently required of all other Atlantic shark fishermen, would limit the amount of a time a protected resource would be entangled in a gillnet, potentially decreasing bycatch mortality. However, as noted above, this alternative would alter the fishing methods of some smoothhound shark fishermen. Since other alternatives comply with the 2012 Shark BiOp Terms and Conditions and minimize impacts to protected resources while not dramatically altering current smoothhound shark fishing methods, NMFS does not prefer this alternative at this time.

Alternative C3 would both establish a gillnet soak time limit of 24 hours for smoothhound shark permit holders and maintain the net-check requirement for Atlantic shark limited access permit holders. Under this alternative, fishermen holding both an Atlantic shark limited access permit and a smoothhound shark permit must abide by both the 24 hour soak time restriction and conduct net checks at least every 2 hours. This alternative would likely result in short and long-term, direct and indirect, neutral ecological impacts. Requiring smoothhound shark fishermen to limit gillnet soak times to 24 hours would not change current fishing effort, catch levels, or catch rates. For fishermen with both permits, this alternative could reduce smoothhound shark fishing effort since it would require those fishermen to change current fishing practices. However, any reductions in effort would likely be small since only fishermen with both permits would be affected and so ecological impacts to

smoothhound sharks and incidentally-caught fish species are likely to be neutral. This alternative would likely have short and long-term minor beneficial impacts on protected resources since it would implement one of the Terms and Conditions of the 2012 Shark BiOp to minimize impacts on protected resources. Limiting gillnet soak times to 24 hours would limit the amount of time an entangled protected species was caught in the gear, which is particularly important for Atlantic sturgeon that experience higher mortality after being entangled for greater than 24 hours. This alternative would create a disadvantage for smoothhound fishermen that hold both permits since they would need to check their nets at least every two hours but fishermen without a shark permit would not. Since this alternative does not have any ecological benefits and disadvantages a sub-group of smoothhound shark fishermen, NMFS does not prefer this alternative at this time. Although this alternative would provide benefits to protected resources by complying with the 2012 BiOp, other alternatives that are less disruptive would provide equal benefits.

Alternative C4, the preferred alternative, would establish a soak time limit of 24 hours for fishermen using sink gillnet gear and a 2 hour net check requirement for fishermen using drift gillnet gear in the Atlantic shark and smoothhound shark fisheries. Drift gillnets would be defined as those that are unattached to the ocean bottom with a float line at the surface and sink gillnet gear would be defined as those with a weight line that sinks to the ocean bottom, has a submerged float line, and is designed to be fished on or near the bottom. Most smoothhound shark gillnet fishermen would be required to limit soak times to 24 hours since they primarily use sink gillnet gear. This requirement would not significantly change smoothhound shark fishing practices. With regard to other Atlantic shark fishermen, fishermen who use sink gillnet gear would be required to limit soak times to 24 hours and those that use drift gillnets would be required to perform net checks at least every 2 hours. Currently, all Atlantic shark fishermen that use gillnet gear to fish for or who are in possession of any large coastal, small coastal, or pelagic shark, regardless of gillnet type, are required to perform net checks at least every 2 hours (see § 635.21(e)(3)(v)). During the net checks, fishermen are required to look for and remove any sea turtles, marine mammals, or smalltooth sawfish. Only a few Atlantic shark limited access permit holders use gillnet gear and the proportions of each type (e.g. sink or drift) vary in any one year. Fishermen are not required to report the type of gillnet gear used, so the proportion of each type is best estimated using data from observed gillnet trips, although it is important to note that not all observed trips targeted sharks. From 2009 through 2012, the portion of gillnet trips that used sink gillnet gear ranged from a low in 2009 of 47 percent, up to 87 percent, 100 percent, and 93 percent in 2010-2012, respectively. For a variety of reasons (e.g., reduced LCS retention limits and gillnet gear fishing restrictions), it appears that the fishery has moved predominately to sink gillnet gear. Shark gillnet fishermen that use sink gillnet gear would no longer be required to perform net checks at least every 2 hours under this alternative. Instead, they would be required to limit soak times to 24 hours. In the 2002 rulemaking that implemented the net checks (July 9, 2002, 67 FR 45393), NMFS stated that the net checks would be unlikely to impact the bycatch of species that are not protected resources. This statement was made because the net checks do not require fishermen to remove or disentangle any animals except protected species during the net checks. In the 2012 BiOp, the requirement to use either net checks or the 24 hour set limitation was determined to ensure that any incidentally taken ESA-listed species are detected and released in a

timely manner, reducing the likelihood of mortality. As such, this action would likely result in short and long-term direct minor adverse ecological impacts because the target species, sharks, could remain in the gillnet for longer periods of time before being released, reducing the chances of a live release. Similarly, this alternative could result in short and long-term indirect neutral ecological impacts to non-target, incidentally caught fish species and bycatch because net checks do not require fishermen to remove or disentangle any animals except protected species during the net checks. This alternative would likely have, however, short and long-term minor beneficial impacts on protected resources since it would implement one of the Terms and Conditions of the 2012 Shark BiOp to minimize impacts on protected resources. Since this alternative complies with the Biological Opinion, has only minor adverse direct and indirect ecological impacts to other species, and allows all smoothhound shark gillnet fishermen to continue current fishing practices (unlike Alternative C3), NMFS prefers Alternative C4 at this time.

4.3.2 SOCIAL AND ECONOMIC IMPACTS

Alternative C1 would not implement the BiOp term and condition that would require all smoothhound shark permit holders to either check their gillnet gear at least every 2.0 hours or limit their soak time to no more than 24 hours. This alternative would likely result in short and long-term neutral direct socioeconomic impacts. Under Alternative C1, smoothhound shark fishermen would continue to fish as they do now and so this alternative would not have economic impacts that differ from the status quo. Similarly, this alternative would likely result in neutral short and long-term indirect socioeconomic impacts since supporting businesses including dealers and bait, tackle, and ice suppliers would not be impacted.

Alternative C2 would require smoothhound shark fishermen using gillnet gear to conduct net checks at least every 2.0 hours to check for and remove any protected species, and would likely result in short and long-term direct moderate adverse socioeconomic impacts. Some smoothhound shark gillnet fishermen fish multiple nets at one time or deploy their net(s), leave the vicinity, and return at some later time. Alternative C2 would require these fishermen to check each gillnet at least once every 2 hours, making fishing with multiple nets or leaving nets unattended difficult. This would likely lead to a reduction in effort and landing levels, resulting in lower ex-vessel revenues. Quantifying the loss of income is difficult without information characterizing the fishery including the number of nets fished. However, limiting the amount of fishing effort in this manner is likely to reduce total landings of smoothhound sharks or, in order to keep landing levels high, extend the length of trips. Landings of incidentally caught fish species could be reduced as well, although under preferred sub-Alternative A2-1c, smoothhound shark fishermen that wish to process at sea could not retain other species. This alternative would not have a large impact on supporting businesses such as dealers or bait, tackle, and ice suppliers since these businesses do not solely rely on the smoothhound shark fishery. The smoothhound shark fishery is small relative to other fisheries. Thus, Alternative C2 would likely result in short- and long-term indirect neutral socioeconomic impacts. Since this alternative would reduce landings without ecological benefit, NMFS does not prefer this alternative at this time.

Alternative C3 would establish a gillnet soak time limit of 24 hours for smoothhound shark permit holders. Under this alternative, fishermen holding both an Atlantic shark limited access permit and a smoothhound shark permit must abide by the 24 hour soak time restriction and conduct net checks at least every 2 hours. This alternative would likely result in short and long-term direct minor adverse socioeconomic impacts to those smoothhound permitted fishermen that also have an Atlantic shark limited access permit and therefore would be required to check their nets at least every 2 hours. Currently, smoothhound shark gillnet fishermen sometimes fish multiple nets or leave nets unattended for short periods of time. Rarely are these nets soaked for more than 24 hours, thus, this alternative would not impact smoothhound shark gillnet fishermen that do not have an Atlantic shark limited access permit. Adverse socioeconomic impacts resulting from this alternative would likely occur to the subset of smoothhound shark fishermen that also hold an Atlantic shark limited access permit. These smoothhound shark fishermen would be at a disadvantage compared to other smoothhound shark fishermen that do not have an Atlantic shark limited access permit because they would be required to check their gillnets at least every 2 hours which is a large change in the way the smoothhound shark fishery currently operates. Dropping the Atlantic shark permit to avoid the net check requirement is unlikely to be feasible since Atlantic shark permits are limited access and cannot be easily obtained. Additionally, pelagic longline fishermen are required to have an incidental or directed shark permit when targeting swordfish or tunas, even if they are not fishing for sharks, due to the likelihood of incidental shark catch. In practical terms, this could result in smoothhound shark gillnet fishermen abiding by the 2 hour net check requirement even if they do not fish for Atlantic sharks and only hold a Atlantic shark limited access permit to fish for swordfish or tunas (note that gillnets cannot be used to target swordfish or tunas, but some vessels may switch gears between trips). For this subset of fishermen, basing gillnet requirements on permit types could introduce fishing inefficiencies when compared to other smoothhound fishermen, likely resulting in adverse socioeconomic impacts to these fishermen. The number of fishermen that would be adversely affected is unknown since NMFS does not yet know which vessel will obtain a smoothhound shark fishing permit. It is unlikely that this alternative would have a large impact on supporting businesses such as dealers or bait, tackle, and ice suppliers since these businesses do not solely rely on the smoothhound shark fishery. The smoothhound shark fishery is small relative to other fisheries. Thus, Alternative C3 would likely result in short and long-term indirect neutral socioeconomic impacts. Due to the adverse direct economic impacts to some smoothhound shark fishermen resulting from the change in fishing practices, NMFS does not prefer this alternative at this time.

Alternative C4, the preferred alternative, would establish a soak time limit of 24 hours for fishermen using sink gillnet gear and a 2 hour net check requirement for fishermen using drift gillnet gear in the Atlantic shark and smoothhound shark fisheries. Drift gillnets would be defined as those that are unattached to the ocean bottom with a float line at the surface and sink gillnet gear would be defined as those with a weight line that sinks to the ocean bottom, has a submerged float line, and is designed to be fished on or near the bottom. Alternative C4 would likely result in neutral short and long-term direct socioeconomic impacts. Smoothhound shark fishermen, who typically use sink gillnets, would be required to limit soak times to 24 hours and as discussed above, this requirement is

unlikely to significantly alter smoothhound shark fishing practices. Drift gillnet fishermen, who are more likely to target Atlantic sharks rather than smoothhound sharks, would be required to check their nets at least every 2 hours, as is currently required. Thus, this alternative is unlikely to have any socioeconomic impacts to Atlantic shark and smoothhound shark fishermen since it would not change current fishing practices. Similarly, this alternative would likely result in neutral short and long-term indirect socioeconomic impacts since supporting businesses including dealers and bait, tackle, and ice suppliers should not be impacted. Alternative C4 would impact the approximately 31 vessel that annually direct on smoothhound sharks with gillnet gear (annual average from 2003-2013, Table 3.1). Since Alternative C4 would have minimal economic impact but is still consistent with the 2012 Shark BiOp, NMFS prefers this alternative at this time.

4.3.3 CONCLUSION

The requirements of preferred Alternative C4 would not impact the majority of Atlantic shark and smoothhound shark fishermen since normal fishing operations would not be affected. Since Alternative C4 would implement one of the requirements of the 2012 Shark BiOp, would likely result in beneficial impacts for protected resources since these measures would mitigate gillnet impacts, and have minimal economic impact, NMFS prefers this alternative at this time.

4.4 ATLANTIC SHARK GILLNET VESSEL MONITORING SYSTEM REQUIREMENTS

The following two alternatives consider a change to the existing Atlantic shark gillnet Vessel Monitoring System (VMS) requirements.

Alternative D1: No Action. Do not change VMS requirements for federal directed shark permit holders with gillnet gear on board.

Alternative D2 *Require federal directed shark permit holders with gillnet gear on board to use VMS only in the Southeast U.S. Monitoring Area, pursuant to Atlantic Large Whale Take Reduction Plan requirements – Preferred Alternative*

4.4.1 ECOLOGICAL IMPACTS

Alternative D1 would not change current VMS requirements for directed shark permit holders with gillnet gear on board. Currently whenever a vessel issued a directed shark limited access permit is away from port with a gillnet on board from November 15-April 15, it must have VMS on board regardless of where the vessel is fishing. These VMS requirements were put in place in 2004 (69 FR 51010) as an enforcement tool for complying with ALWTRP requirements set forth in 50 CFR 229.32, which help to minimize the risk to large whales in the area including right, humpback, and fin whales. The ALWTRP regulations have several restricted and monitoring areas that are closed to

gillnet fishing certain times of the year and require that fishermen meet certain requirements in order to fish in those areas during other times of the year. Per 50 CFR 229.32 (h) (2)(i), Atlantic shark gillnet fishermen are only required to have VMS if they are fishing in the Southeast U.S. Monitoring Area. Since NMFS has determined that VMS is not necessary for Atlantic shark gillnet fishermen in the other ALWTRP restricted areas, requiring VMS onboard regardless of where these fishermen are fishing is not expected to have direct or indirect beneficial ecological impacts to protected whale species. Therefore, the No Action alternative would have neutral short and long-term direct and indirect ecological impacts. VMS requirements do not impact incidentally caught species. Because this alternative requires VMS in the Southeast U.S. Monitoring Area as required by the ALWTRP, it could have short and long-term moderate beneficial impacts for protected resources. This VMS requirement is an enforcement tool to help ensure gillnet fishermen are abiding by gillnet fishing requirements in the Southeast U.S Monitoring Area such as minimum mesh sizes, nighttime fishing prohibitions, and soak time restrictions. Due to significant costs associated with obtaining and operating VMS units, it may not be necessary to require VMS for Atlantic shark gillnet vessels if it is not required by the ALWTRP. Therefore, because this alternative would have neutral ecological impacts and potential adverse socioeconomic impacts related with maintaining the current VMS requirements, NMFS does not prefer this alternative at this time.

Alternative D2, the preferred alternative, would require federal directed Atlantic shark limited access permit holders with gillnet gear on board to use VMS only in the vicinity of the Southeast U.S. Monitoring Area (Figure 2.2.3), pursuant to ALWTRP requirements. This alternative is expected to have neutral short and long-term direct and indirect ecological impacts. These VMS requirements are an enforcement tool for complying with the ALWTRP requirements and would not affect catch. VMS requirements do not impact incidentally caught species. Alternative D2 would likely provide short and long-term moderate beneficial impacts for protected resources because it maintains the requirement to have VMS on board when gillnet fishing in the U.S. Southeast Monitoring Area, as required in the ALWTRP. The difference between this alterative and the No Action alternative, Alternative D1, is that this alternative would limit the VMS requirement for Atlantic shark permit holders using gillnet gear to the vicinity of the Southeast U.S. Monitoring Area. Requirements to minimize large whale interactions would not change, only the geographic area of the VMS requirement. For this reason, protected resource impacts resulting from Alternative D2 are the same as for Alternative D1. Thus, because this alternative maintains the VMS requirements for large whales consistent with the ALWTRP, and at the same time, reduces adverse socioeconomic impacts, NMFS prefers this alternative at this time.

4.4.2 SOCIAL AND ECONOMIC IMPACTS

Alternative D1 would maintain the current requirement of requiring Atlantic shark permit holders fishing with gillnet gear to have VMS on board from November 15- April 15, regardless of where the vessel is fishing. These VMS requirements were put in place as an enforcement tool for complying with the ALWTRP requirements set forth in 50 CFR 229.32. Per 50 CFR 229.32 (h)(2)(i) Atlantic shark gillnet fishermen are only required to have VMS if they are fishing in the Southeast

U.S. Monitoring Area. Purchasing and installing a VMS unit costs fishermen around $3,500 and monthly data transmission charges cost, on average, approximately $44.00. Because these monthly costs are currently incurred whenever a shark gillnet fishermen is fishing from November 15- April 15, these costs can affect the fishermen's annual revenues. Although the affected fishermen already have VMS installed, they continue to pay for transmission and maintenance costs, and could need to buy a new unit if theirs fails. It is possible that a NMFS VMS reimbursement program could defray part of the purchase cost, but is not certain. Thus, it is likely that this alternative could have short and long-term direct minor adverse socioeconomic impacts to fishermen due to the cost of purchasing and maintaining a VMS unit, and has the same economic impact as Alternative D2, therefore, NMFS does not prefer this alternative at this time.

Alternative D2, the preferred alternative, would change the gillnet VMS requirements and would require federal directed shark permit holders with gillnet gear on board to use VMS only in the vicinity of the Southeast U.S. Monitoring Area, pursuant to ALWTRP requirements, and would have short and long-term direct minor beneficial socioeconomic impacts. Atlantic shark gillnet fishermen fishing in the vicinity of the Southeast U.S Monitoring Area would still incur the installation costs of the VMS, but data transmission would be limited to those times when the vessel is in this area. Furthermore, shark gillnet fishermen outside of this area that do not fish in the vicinity of the Southeast U.S Monitoring Area would not need to install a VMS unit or, if they already have one, maintain the VMS unit or replace a malfunctioning one. Thus, the socioeconomic impacts from this alternative, while still adverse, are of a lesser degree than those under Alternative D1, the No Action alternative. This alternative would likely result in neutral short and long-term indirect socioeconomic impacts since supporting businesses including dealers and bait, tackle, and ice suppliers would not be impacted. Since this alternative is more in line with the requirements of the ALWTRP and because it would reduce socioeconomic impacts while still maintaining beneficial ecological impacts for protected whale species, NMFS prefers this alternative at this time.

4.4.3 CONCLUSION

NMFS prefers this Alternative D2 since it is consistent with the requirements of the ALWTRP and because it would result in smaller socioeconomic impacts while still maintaining beneficial ecological impacts for protected whale species.

4.5 IMPACTS ON ESSENTIAL FISH HABITAT

The Magnuson-Stevens Act, 16 U.S.C. 1855(b)(1), as implemented by 50 C.F.R. § 800.815, requires NMFS to identify and describe EFH for each life stage of managed species and to evaluate the potential adverse effects of fishing activities on EFH §800.815(a)(2) including the cumulative effects of multiple fisheries activities. If NMFS determines that fishing gears are having an adverse effect on HMS EFH, or other species' EFH, then NMFS must include management measures that minimize adverse effects to the extent practicable.

The preferred measures for implementing the smooth dogfish-specific provisions of the SCA define "commercial fishing for smooth dogfish" based on catch composition, and require a state fishing permit to remove the fins of a smooth dogfish at sea, would maintain the current efficiency and functionality of the smooth dogfish fishery, and have no bearing on EFH considerations. The requirements of holding a state fishing permit are administrative in nature and would not affect EFH. The preferred alternative for the establishment of a smoothhound shark quota is designed to maintain the current effort and landings in the fishery. While the preferred alternative would include a slight increase in the quota compared to recent landings, that increase is a result of assumed underreporting in this previously unmanaged fishery. If the increase results in an actual increase in landings, the preferred quota alternative could increase the risk of EFH impacts from sink gillnet gear. However, NMFS determined in Amendment 3 that EFH impacts from the primary gear used to target smoothhound sharks (sink gillnets) were minimal and temporary in nature, and NMFS has not received information that would suggest otherwise. NMFS considers these assessments to remain valid, and assumes any implementation of quota will have neutral short- and long-term, direct and indirect impacts on EFH.

EFH designation for smoothhound sharks was detailed in Chapter 11 of Amendment 3. In the 2006 Consolidated HMS FMP and Amendment 1 to the 2006 Consolidated HMS FMP, NMFS reviewed the various gear types with the potential to affect EFH and, based on the best information available at this time, NMFS has determined that fishing for HMS using gillnet, bottom longline, or pelagic longline gear is not likely to adversely affect EFH for smoothhound sharks. Thus, there is no evidence to suggest that implementing any of the preferred alternatives in this action would adversely affect EFH to the extent that adverse effects could be identified on the habitat or fisheries.

4.6 IMPACTS ON PROTECTED RESOURCES

On December 12, 2012, consistent with Section 7(b)(4) of the ESA, the NMFS SERO PRD determined that the continued operation of the Atlantic shark and smoothhound shark fisheries is not likely to jeopardize the continued existence of Atlantic sturgeon, smalltooth sawfish, or any species of ESA-listed large whale or sea turtles. In order to be exempt from take prohibitions established by Section 9 of the ESA, NMFS must comply with the RPMs and TCs listed in the 2012 Shark BiOp. One purpose of this amendment is to propose measures to implement the 2012 Shark BiOp TCs that are specific to the Atlantic shark and smoothhound shark fisheries.

Currently, federal directed shark permit holders with gillnet gear on board are required to use VMS regardless of vessel location. This requirement was originally implemented to comply with the ALWTRP requirements at 50 CFR 229.32. However, the current ALWTRP regulations require federal directed shark permit holders with gillnet gear on board to use VMS only when fishing in a certain area in the South Atlantic. Thus, another purpose of Draft Amendment 9 is to examine measures to bring current VMS regulations for federal directed shark permit holders using gillnet gear in-line with the current requirements of the ALWTRP at 50 CFR 229.32.

Specific protected resources impacts that would result from each of the alternatives are as follows.

Smooth Dogfish Provisions of the Shark Conservation Act of 2010

Protected resources impacts resulting from the adoption of any of the alternative or sub-alternatives to implement the SCA are expected to be neutral. All of the alternatives and sub-alternatives address the limited fins-attached exception in the SCA and would not impact fishing effort levels or rates, beyond those expected and described under Alternative A2.

Quota Adjustments for the Smoothhound Shark Fishery

Each of the alternatives considered for implementing a smoothhound shark quota would have different impacts on protected resources since effort under each alternative is different and there is likely a positive correlation between fishing effort and protected resource interactions. Alternative B1 would implement the lowest quota and would likely lead to short and long-term moderate beneficial impacts on protected resources. Alternative B2 would introduce a quota, however, this quota could increase as landings increased, likely resulting in minor adverse impacts on protected resources. Alternative B3 would implement a quota that would not change if landings increase in subsequent years and thus would not allow the fishery to expand as in Alternative B2. Therefore, Alternative B3 would likely lead to short and long-term minor beneficial impacts on protected resources. Alternative B4 could have a range of benefits depending on the results of the upcoming smoothhound shark stock assessment, but largely, they would be beneficial. A scientifically-determine quota(s) would provide short and long-term ecological benefits and the resulting sustainable fishery would ensure long-term economic benefits for the fishermen. Unless the stock assessment indicates that current fishing levels are unsustainable, short-term economic impacts are unlikely. However, the stock assessment is not yet available and NMFS does not know that it will be available before the final rule for this action publishes. Therefore, NMFS does not prefer this alternative at this time.

Biological Opinion Implementation

Alternative C1, the No Action alternative, would likely have short and long-term minor adverse impacts on protected resources. Gillnet soak time limits and net checks were specifically required under the 2012 BiOp for the Atlantic shark and smoothhound shark fisheries to minimize impacts to protected resources. While gillnet soak time restrictions and net check requirements would impact a variety of protected resources, these measures were designed to protect sea turtles and Atlantic sturgeon that might be incidentally captured in this gear type. Although the net check requirement would remain in the Atlantic shark gillnet fishery, adoption of Alternative C1 would not implement any measures in the smoothhound shark gillnets fishery, likely resulting in minor short and long-term adverse impacts on protected resources.

Alternative C2 would likely have short and long-term minor beneficial impacts on protected resources since it would implement Term and Condition number four of the 2012 BiOp to minimize impacts on protected resources. Requiring smoothhound shark fishermen to check their gillnets at least every two hour, as currently required of Atlantic shark fishermen, would limit the amount of a time a protected resource would be entangled in a gillnet, decreasing potential bycatch mortality.

Alternative C3 would likely have short and long-term minor beneficial impacts on protected resources since it would implement one of the Terms and Conditions of the 2012 BiOp to minimize impacts on protected resources. Limiting gillnet soak times to 24 hours would limit the amount of time an entangled protected resource was caught in the gear, which is particularly important for Atlantic sturgeon that experience higher mortality after being entangled for greater than 24 hours. This alternative would also maintain the currently required net checks in place for the Atlantic shark gillnet fishermen and would continue to provide beneficial impacts to protected resources especially sea turtles. This alternative would also comply with the 2012 Shark BiOp.

Alternative C4, the preferred alternative, would likely have short and long-term minor beneficial impacts on protected resources since it would implement Term and Condition number four of the 2012 Shark BiOp to minimize impacts on protected resources. Limiting gillnet soak times would limit the amount of time an entangled protected resource was caught in the gear, which is particularly important for Atlantic sturgeon that experience higher mortality after being entangled for greater than 24 hours.

Atlantic Shark Gillnet Vessel Monitoring System Requirements

Alternative D1 likely provides short and long-term moderate beneficial impacts for protected resources because it would maintain VMS requirements in the Southeast U.S. Monitoring Area. This VMS requirement is an enforcement tool to help ensure shark gillnet fishermen are abiding by gillnet fishing requirements specified in the ALWTRP such as minimum mesh sizes, nighttime fishing prohibitions, and soak time restrictions. These requirements help to minimize the risk to large whales in the area including right, humpback, and fin whales.

Like Alternative D1, Alternative D2 would maintain the VMS requirement as an enforcement tool to help ensure shark gillnet fishermen are abiding by gillnet fishing requirements in the Southeast U.S Monitoring Area such as minimum mesh sizes, nighttime fishing prohibitions, and soak time restrictions. The only difference from Alternative D1 is that it would limit the VMS requirement to the vicinity of the Southeast U.S. Monitoring Area, consistent with the regulations of the ALWTRP at 50 CFR 229.32(h)(2)(i). Requirements to minimize large whale interactions would not change, only the geographic area of the VMS requirement. For this reason, protected resource impacts resulting from Alternative D2 are the same as for Alternative D1.

4.7 ENVIRONMENTAL JUSTICE CONCERNS

Executive Order 12898 requires agencies to identify and address disproportionately high and adverse environmental effects of its regulations on minority and low-income populations. To determine whether environmental justice concerns exist, the demographics of the affected area should be examined to ascertain whether minority populations and low-income populations are present. If so, a determination must be made as to whether implementation of the alternatives may cause disproportionately high and adverse human health or environmental effects on these populations.

Community profile information are available in the 2006 Consolidated HMS FMP (Chapter 9), a recent report by MRAG Americas, and Jepson (2008) titled "Updated Profiles for HMS Dependent Fishing Communities" (Appendix E of Amendment 2 to the 2006 Consolidated HMS FMP), and in the 2012 HMS SAFE Report. The MRAG report updated community profiles presented in the 2006 Consolidated HMS FMP, and provided new social impacts assessments for HMS fishing communities along the Atlantic and Gulf of Mexico coasts. The 2011 and 2012 SAFE Reports include updated census data for all coastal Atlantic states, and some selected communities that are known centers of HMS fishing, processing or dealer activity. Demographic data indicate that coastal counties with fishing communities are variable in terms of social indicators like income, employment, and race and ethnic composition.

The preferred alternatives were selected to minimize ecological and economic impacts and provide for the sustained participation of fishing communities. The preferred alternatives would not have any effects on human health nor are they expected to have any disproportionate social or economic effects on minority and low-income communities. Implementing the smooth dogfish provisions of the Shark Conservation Act would likely have neutral effects on minorities and low-income members of communities because the number of fishermen, dealers, and processors in the smooth dogfish fishery are small and most of these fishermen, dealers, and processors target multiple species and are not wholly dependent on smooth dogfish. Allowing fishermen to remove smooth dogfish fins at sea would provide direct and indirect, minor, beneficial socioeconomic impacts because these actions are necessary to protect the quality of the meat of this high volume fishery. Implementing a 75 percent target catch requirement would provide fishermen some flexibility in which species they retain, but would still limit the fins-attached exception to fishermen fishing for smooth dogfish. State permit requirements are expected to have neutral short and long term requirements, since most fishermen likely already have a commercial state fishing permit. The preferred quota alternative would likely also have neutral to slightly positive effects for minority and low-income participants in the fishery. The establishment of a quota (and management measures) would allow for better management decisions and place a cap on effort to protect the smoothhound stock; these actions should allow the fishery to continue in a sustainable manner in the future. In addition, the preferred alternatives herein would allow NMFS to collect additional information on the universe of smoothhound fishermen. More information about the fishery would allow NMFS to anticipate and better respond to future social justice concerns.

The preferred alternative to implement the 2012 Shark BiOp would base gillnet soak time restrictions and net check requirements on gillnet gear type. Alternative C4 would establish a soak time limit of 24 hours for fishermen using sink gillnet gear and a 2 hour net check requirement for fishermen using drift gillnet gear in the Atlantic shark and smoothhound shark fisheries. These requirements would protect protected resources while minimizing negative socioeconomic impacts on fishermen. Similarly, the preferred alternative to modify shark gillnet VMS requirements would result in beneficial socioeconomic impacts since VMS requirements would be limited to those fishing in the vicinity of the Southeast U.S. Monitoring Area consistent with the regulations of the ALWTRP at 50 CFR 229.32(h)(2)(i).

4.8 COASTAL ZONE MANAGEMENT ACT (CZMA) CONCERNS

NMFS has determined that these proposed regulations are consistent to the maximum extent practicable with the enforceable policies of those coastal states in the Atlantic, Gulf of Mexico, and Caribbean that have approved coastal zone management programs. Letters will be sent to those states requesting their concurrence.

4.9 CUMULATIVE IMPACTS

Cumulative impacts are the impacts on the environment that result from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR § 1508.7). A cumulative impact includes the total effect on a natural resource, ecosystem, or human community due to past, present, and reasonably foreseeable future activities or actions of federal, non–federal, public, and private entities. Cumulative impacts may also include the effects of natural processes and events, depending on the specific resource in question. Cumulative impacts include the total of all impacts to a particular resource that have occurred, are occurring, and would likely occur as a result of any action or influence, including the direct and reasonably foreseeable indirect impacts of a federal activity. The goal of this section is to describe the cumulative ecological, economic and social impacts of past, present and reasonably foreseeable future actions with regard to the management measures presented in this document.

Since the smoothhound shark stocks have not previously been actively managed at the federal level, there are no currently effective actions of federal, non-federal, public or private entities that are affecting the smoothhound shark stock or smoothhound shark fishery. If the smoothhound shark stock assessment is not available before publication of the final rule for this action, a future action to implement those results is likely. Except for any necessary action resulting from the stock assessment, no future actions are specifically planned for the smoothhound shark fishery at this time. However, future actions are likely as NMFS begins to gather data on the operation of the fishery, conduct stock assessments, and is better able to characterize the smoothhound shark fishery. As

NMFS learns more about the fishery through permitting, reporting, and observer requirements, better measures can be developed that will more effectively manage the fishery.

The Atlantic shark fishery has had a number of past rules but two in particular affect the shark gillnet fishery that would be impacted by this amendment. Amendment 3 to the 2006 Consolidated HMS FMP (75 FR 30484, 6/1/2010), among other things, established separate blacknose shark and non-blacknose SCS quotas, applicable across both the Atlantic and Gulf of Mexico regions. This action was in response to a stock assessment that found blacknose sharks were overfished with overfishing occurring. These species are typically targeted with gillnet gear. Amendment 5a to the 2006 Consolidated HMS FMP (78 FR 40318, 7/3/2013) divided the blacknose and non-blacknose SCS quotas into separate regional quotas in response to a new stock assessment that determined that there are separate blacknose shark stocks in the Atlantic and Gulf of Mexico. Additionally, Amendment 5a established a separate blacktip shark quota in the Gulf of Mexico. This species is sometimes targeted with gillnet gear, however, this fishing method is more prevalent in the Atlantic, although greatly diminished since the retention limit was reduced in Amendment 2 to the 2006 Consolidated HMS FMP (73 FR 35778, 6/24/2008). Upcoming actions affecting the Atlantic shark gillnet fishery are possible, particularly following upcoming SCS stock assessments.

This analysis also considers cumulative socio-economic impacts that may occur under these alternatives as a result of this, previous rulemakings, and anticipated future rulemakings. In addition to this draft amendment, Amendment 3 and the 2011 Rule to Modify the Retention of Incidentally-Caught Highly Migratory Species in Atlantic Trawl Fisheries (76 FR 49368; August 10, 2011) are the only published or anticipated rules to directly impact the smoothhound shark fishery. Until permit and reporting requirements are in place, NMFS is unable to determine the universe of fishermen and their fishing effort on smoothhound sharks, and fully evaluate the cumulative impacts of this draft Amendment and previous rulemakings. However, NMFS anticipates that the cumulative direct and indirect socio-economic impacts separate from the short and long-term impacts, of all alternatives considered are likely neutral (*i.e.* not affected by previous rulemakings) in the short and long-term.

On December 2, 2011, NMFS published a final rule updating VMS requirements. The purpose of the action was to facilitate enhanced communication with HMS vessels at sea, provide HMS fishery participants with an additional means of sending and receiving information at sea, ensure that HMS VMS units are consistent with the current VMS technology and type approval requirements that apply to newly installed units, and to provide NMFS enforcement with additional information describing gear onboard and target species. The action applied to all vessels with Atlantic HMS permits that are required to use VMS, including: vessels with pelagic longline gear, vessels with bottom longline gear in the vicinity of the mid-Atlantic closed area (between 33° N and 36° 30' N) from January 1 to July 31, and shark gillnet vessels fishing between November 15 and April 15. The existing requirement to provide location reports using VMS, on an hourly basis, when vessels are away from port, was maintained. The fishery declaration system, where fishermen use their E-MTU VMS to report target fishery and gear types possessed two hours prior to leaving the dock, allows NMFS to more accurately track and monitor vessels for compliance with the regulations

for relevant fisheries. Vessels are also required to notify NMFS at least three hours prior to landing. These requirements are often referred to as “hail-in/hail-out” provisions and have been implemented in other Atlantic fisheries where E-MTU VMS are required. Due to some unforeseen technical issues, the effective date of this action was delayed, but all measures became effective on January 1, 2013.

NMFS published a final rule on November 14, 2013 (78 FR 68757), that implemented measures to reduce the burden on fishermen who may not be engaged in HMS fishing at all times while also ensuring that NOAA OLE receives the information needed to enforce HMS regulations. These measures changed the current hail-in/hail-out requirements, required 24/7 hourly position reports, and provided the flexibility to "declare out" of the fishery for specified periods of time as opposed to hailing in or hailing out on each trip. The rule requires that all VMS units remain on continually in order to provide hourly position reports 24 hours a day, 7 days a week. The rulemaking in combination with the preferred VMS alternative in this draft Amendment will help to streamline the current requirements and provide beneficial socioeconomic impacts to the affected Atlantic HMS fishermen.

In June 2013, SEDAR 34 began to assess Atlantic and Gulf of Mexico bonnethead and sharpnose sharks. The results of this assessment are expected in early 2014 and depending on the results, could require additional rulemaking which would impact the Atlantic shark gillnet fishery. At this time, NMFS expects a SEDAR assessment of smoothhound sharks in 2014. This assessment could also result in additional rulemaking in the smoothhound shark fishery. This draft amendment also considers implementing a quota based on this stock assessment if it is available before publication of the final rule (Alternative B4).

4.10 COMPARISON OF ALTERNATIVES

Table 4.1 provides a qualitative comparison of the impacts associated with the various alternatives considered in this amendment. This table summarizes the impacts that were discussed in detail in Sections 4.1 - 4.4.

Table 4.1 Comparison of alternatives considered

Alternative	Quality	Timeframe	Ecological	Protected Resources	Socioeconomic
Alternative A1: Do not implement the smooth dogfish-specific measures in the Shark Conservation Act of 2010. By default, Amendment 3's fins-attached requirement would apply to the smooth dogfish fishery (i.e., fins and tail of all smooth dogfish must remain naturally attached to the shark carcass through offloading)	Direct	Short-term	O+	O	O-
		Long-term	O+	O	O-
	Indirect	Short-term	O+	O	O-
		Long-term	O+	O	O-

Alternative	Quality	Timeframe	Ecological	Protected Resources	Socioeconomic
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Alternative A2: *Implement the smooth dogfish-specific measures in the Shark Conservation Act of 2010 to establish an allowance for the removal of smooth dogfish fins while at sea, considering eight sub-alternatives - Preferred Alternative*	Direct	Short-term	O	O-	O
		Long-term	O	O	O
	Indirect	Short-term	O	O	O
		Long-term	O	O	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Sub -Alternative A2-1a: Smooth dogfish can make up any portion of the retained catch (no other sharks can be retained)	Direct	Short-term	O	O	O+
		Long-term	O	O	O+
	Indirect	Short-term	O	O	O
		Long-term	O	O	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Sub -Alternative A2-1b: Smooth dogfish must make up at least 25% of the retained catch (non-smooth dogfish catch must be non-shark)	Direct	Short-term	O	O	O+
		Long-term	O	O	O+
	Indirect	Short-term	O	O	O
		Long-term	O	O	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O

Alternative	Quality	Timeframe	Ecological	Protected Resources	Socioeconomic
Sub -Alternative A2-1c: *Smooth dogfish must make up at least 75% of the retained catch (no other sharks can be retained) – preferred alternative*	Direct	Short-term	O+	O	O-
		Long-term	O+	O	O-
	Indirect	Short-term	O	O	O
		Long-term	O	O	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Sub -Alternative A2-1d: Smooth dogfish must make up at 100% of the retained catch	Direct	Short-term	O+	O	O-
		Long-term	O+	O	O-
	Indirect	Short-term	O	O	O
		Long-term	O	O	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Sub -Alternative A2-2a: Require smooth dogfish-specific state commercial fishing permit	Direct	Short-term	O	O	O-
		Long-term	O	O	O-
	Indirect	Short-term	O	O	O
		Long-term	O	O	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Sub -Alternative A2-2b: *Require any state commercial fishing permit that allows smooth dogfish retention in conjunction with the federal*	Direct	Short-term	O	O	O
		Long-term	O	O	O

Alternative	Quality	Timeframe	Ecological	Protected Resources	Socioeconomic
smoothhound permit - preferred alternative	Indirect	Short-term	O	O	O
		Long-term	O	O	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Sub-Alternative A2-3a: Apply exception for smooth dogfish along the Atlantic Coast and to Florida's coast in the Gulf of Mexico.	Direct	Short-term	O	O	O
		Long-term	O	O	O
	Indirect	Short-term	O	O	O
		Long-term	O	O	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Sub-Alternative A2-3b: *Apply exception for smooth dogfish along the Atlantic Coast but not to Florida's coast in the G*ulf of Mexico.- Preferred Sub-Alternative	Direct	Short-term	O	O	O
		Long-term	O	O	O
	Indirect	Short-term	O	O	O
		Long-term	O	O	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Alternative B1: Implement a smoothhound shark quota that is equal to the maximum annual landings from 1998 – 2007 plus two standard deviations (715.5 mt)	Direct	Short-term	O	Ø$_{+}$	O$_{-}$
		Long-term	Ø$_{+}$	Ø$_{+}$	O
	Indirect	Short-term	O	Ø$_{+}$	O
		Long-term	O	Ø$_{+}$	O

Alternative	Quality	Timeframe	Ecological	Protected Resources	Socioeconomic
	Cumulative	Short-term	O	Ø +	O
		Long-term	O	Ø +	O
Alternative B2: Establish a "rolling quota" each year based upon the previous five years of available data. Annual quota would be equal to maximum landings during the previous five years of available data plus two standard deviations (2012 quota would be 1865.0 mt based on 2006-2010 data).	Direct	Short-term	O	O -	O +
		Long-term	Ø -	O -	O -
	Indirect	Short-term	O	O -	O +
		Long-term	Ø -	O -	O -
	Cumulative	Short-term	O	O -	O
		Long-term	O	O -	O
Alternative B3: *Establish a smoothhound shark quota that is equal to the maximum annual landings from 2002-2011 plus two standard deviations (1,782.2 mt dw) – Preferred Alternative*	Direct	Short-term	O	O +	Ø +
		Long-term	O -	O +	Ø +
	Indirect	Short-term	O	O +	Ø +
		Long-term	O -	O +	Ø +
	Cumulative	Short-term	O	O +	O
		Long-term	O	O +	O
Alternative B4: Establish a smoothhound shark quota(s) that reflects any necessary adjustments as a result of the 2014 smoothhound shark stock assessment	Direct	Short-term	O	O	O - - O +
		Long-term	O +	O	O - - O +
	Indirect	Short-term	O	O	O - - O +
		Long-term	O	O	O - - O +
	Cumulative	Short-term	O	O	O - - O +
		Long-term	O	O	O - - O +

Alternative	Quality	Timeframe	Ecological	Protected Resources	Socioeconomic
Alternative C1 No Action**.** Do not take further action to implement TC 4 in the smoothhound shark fishery	Direct	Short-term	O	O⁻	O
		Long-term	O	O⁻	O
	Indirect	Short-term	O	O⁻	O
		Long-term	O	O⁻	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Alternative C2 Require smoothhound shark gillnet fishermen to conduct net checks at least every 2 hours to look for and remove any sea turtles, marine mammals, smalltooth sawfish, or Atlantic sturgeon found in the net t	Direct	Short-term	O	O⁺	O⁻
		Long-term	O⁺	O⁺	O⁻
	Indirect	Short-term	O	O⁺	O
		Long-term	O	O⁺	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Alternative C3 Establish a gillnet soak time limit of 24 hours for smoothhound shark permit holders; fishermen holding both a directed Atlantic shark limited access permit and a smoothhound shark permit must abide by both soak time restrictions and net check requirements	Direct	Short-term	O	O⁺	O⁻
		Long-term	O	O⁺	O⁻
	Indirect	Short-term	O	O⁺	O
		Long-term	O	O⁺	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Alternative C4 *Establish a soak time limit of 24 hours for sink gillnet gear and a 2 hour net check requirement for drift gillnet gear in the Atlantic shark*	Direct	Short-term	O⁻	O⁺	O
		Long-term	O⁺	O⁻	O

Alternative	Quality	Timeframe	Ecological	Protected Resources	Socioeconomic
and smoothhound shark fisheries – Preferred Alternative	Indirect	Short-term	O	O⁻	O
		Long-term	O	O⁻	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Alternative D1: No Action. Do not change VMS requirements for federal directed shark permit holders with gillnet gear on board.	Direct	Short-term	O	O	O⁺
		Long-term	O	O	O⁺
	Indirect	Short-term	O	O	O
		Long-term	O	O	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O
Alternative D2 *Require federal directed shark permit holders with gillnet gear on board to use VMS only in the Southeast U.S. Monitoring Area, pursuant to Atlantic Large Whale Take Reduction Plan requirements – Preferred Alternative*	Direct	Short-term	O	O	O⁺
		Long-term	O	O	O⁺
	Indirect	Short-term	O	O	O
		Long-term	O	O	O
	Cumulative	Short-term	O	O	O
		Long-term	O	O	O

Symbol Key:

O Neutral Impacts

O⁻ Minor Adverse Impacts

O⁺ Minor Beneficial Impacts

Ø⁻ Moderate Adverse Impacts

Ø⁺ Moderate Beneficial Impacts

5.0 MITIGATION AND UNAVOIDABLE ADVERSE IMPACTS

5.1 MITIGATING MEASURES

If NMFS implements preferred alternative A2 to establish an allowance for the removal of smooth dogfish fins while at sea, some constituents have expressed concern that enforcement of the fins-attached requirement in all other shark fisheries could be compromised. This concern is primarily attributed to the difficulty in identifying the species of sharks when fins have been removed. To ensure that this limited exception, if implemented, does not impact other shark stocks, NMFS specifically developed the sub-alternatives under A2 to limit the scope of the exception. The specific advantages of the catch composition, state permit, and geographic applicability sub-alternatives are discussed in detail in Chapters 2 and 4.

In addition to these sub-alternatives, several other mitigating measures are either in place or could be used to ensure that a limited smooth dogfish fin removal allowance does not impact other shark stocks. Currently, all shark dealer permit holders are required to attend shark identification workshops as a condition of their permit renewal. This requirement has virtually eliminated uncategorized shark reports by federal shark dealers. Consequently, the shark identification workshops decrease the likelihood that dealers would unknowingly purchase sharks other than smooth dogfish without the fins naturally attached.

Smoothhound sharks also have a unique physical feature that can make the species easy to identify from other shark species (although identification/differentiation within the smoothhound shark complex among the three different species is extremely difficult, as discussed previously), regardless of whether and to what extent the carcass has been processed. Many shark species have an interdorsal ridge that runs between the first and second dorsal fin. This interdorsal ridge appears as a peak or crease in the skin that runs medially across the back and has, in the past, been the basis for categorizing allowed and prohibited sharks due to the ease with which the feature can be identified. Smoothhound sharks are the only commonly encountered shark species in the Atlantic Ocean and Gulf of Mexico that has an interdorsal ridge that extends forward of the first dorsal fin, forming a "pre-dorsal ridge." This pre-dorsal ridge can be used for positive species identification, regardless of the condition of the carcass, as long as some portion of this pre-dorsal area is intact, as is the case in most dressed sharks. Although this feature is shared by all three species of smoothhound sharks and thus may help distinguish them from non-smoothhound sharks, it is not helpful in distinguishing among the smoothhound species (i.e., smooth dogfish v. Florida smoothhound). Thus, to avoid illegal finning of smoothhound species not covered by the SCA exception, he geographic applicability of the smooth dogfish-specific provisions of the SCA would be limited to only the Atlantic Ocean in the preferred sub-alternatives and not in the Gulf of Mexico. In the Atlantic Ocean, and especially in the area of the directed fishery, smooth dogfish is likely the only smoothhound shark species that would be encountered, thus, is the only shark with a pre-dorsal ridge in the affected area. NMFS can communicate this distinguishing feature to both enforcement agents and the public to reduce the likelihood of misidentification. Fins can sometimes be identified to specific species,

however, this is more difficult for agents that are not shark experts. Often times, to ensure accurate identification of detached fins, enforcement relies on genetic analyses, rather than identification by sight; such analyses are costly and cannot be done immediately.

Changes to the quota considered in preferred Alternative B3 are expected to maintain effort at current levels but could arguably result in some increase to effort to the extent that underreporting is overestimated. To mitigate any adverse impacts resulting from this alternative, NMFS evaluated catch trends of Atlantic smoothhound sharks found in Chapter 3. NMFS also plans to assess the status of smoothhound sharks though the SEDAR process in 2014. NMFS will monitor landings through mandatory shark dealer reports, and will close the fishery when landings reach, or are projected to reach, 80 percent of the quota. In January 2013, NMFS implemented an electronic dealer reporting system that tracks the quota with greater temporal resolution and includes landings from most states from Maine through Texas, including the Caribbean, thereby providing greater protection against quota overages.

The purpose of preferred alternative C4 is to implement the Terms and Conditions of the 2012 Atlantic Shark Smoothhound Shark BiOp. This measure would mitigate and minimize impacts to protected resources and no further mitigation measures are necessary. Similarly, preferred alternative D2 complies with measures in the ALWTRP, the purpose of which is to mitigate and minimize impacts to large whales and so no further mitigation measures are necessary.

5.2 UNAVOIDABLE ADVERSE IMPACTS

Preferred alternative A2, allows for a limited exception in the Atlantic smooth dogfish fishery to the SCA fins attached requirement, and could result in unavoidable direct adverse short-term ecological impacts and indirect adverse short and long-term ecological impacts. These unavoidable adverse ecological impacts are primarily the result of increased fishing efficiency and the associated increase in fishing pressure directly on the smooth dogfish stock and indirectly on bycatch species and essential fish habitat. There are unavoidable minor adverse socioeconomic impacts associated with each of the preferred sub-alternatives under Alternative A2. The preferred sub-alternatives for catch composition and the state permit requirements help to limit the fins-attached exception to those fishermen that are fishing for smooth dogfish. Additionally, these minor socioeconomic adverse impacts are offset by the moderate beneficial socioeconomic impacts that would result from the implementation of Alternative A2.

Preferred Alternative B3 would establish a smoothhound quota that is equal to the maximum annual landings from 2004-2013 plus two standard deviations (1,739.9 mt dw) and is the largest quota of all the considered alternatives. There are no adverse ecological impacts associated with this alternative in the short-term, however, direct long-term minor adverse ecological impacts are possible. Although the smoothhound shark seems to be able to withstand current fishing pressure in the short-term, NMFS do not know the long term implications of this quota without a stock

assessment. For this reason, NMFS intends to conduct a smoothhound shark stock assessment in 2014. There are no adverse socioeconomic impacts associated with this alternative.

Preferred Alternative C4 would implement a soak time limit in the smoothhound shark gillnet fishery, in compliance with the 2012 Smoothhound Shark and Atlantic Shark BiOp. The alternative would establish a soak time limit of 24 hours for fishermen using sink gillnet gear and a 2 hour net check requirement for fishermen using drift gillnet gear in the Atlantic shark and smoothhound shark fisheries. Atlantic shark gillnet fishermen that have moved to sink gillnet gear would no longer be required to perform net checks at least every 2 hours under this alternative. Instead, they would be required to limit soak times to 24 hours. As such, Alternative C4 would result in short and long-term direct minor adverse ecological impacts because the target species, sharks, could remain in the gillnet for longer periods of time before being released, reducing the chances of a live release. Alternative C4 would likely result in neutral short and long-term direct socioeconomic impacts. Smoothhound shark fishermen, who typically use sink gillnets, would be required to limit soak times to 24 hours and as discussed above, this requirement is unlikely to significantly alter smoothhound shark fishing practices. Drift gillnet fishermen, who are more likely to target Atlantic sharks other than smoothhound sharks, would be required to check their nets every 2 hours, as is currently required. Thus, this alternative is unlikely to have to have any socioeconomic impacts since it would not change current fishing practices.

Preferred Alternative D2 would modify VMS requirements for shark the shark gillnet fishery to better reflect the requirements of the ALWTRP. This alternative would narrow the geographic range of the VMS requirement to the vicinity of the Southeast U.S Monitoring Area. This VMS measure is strictly an enforcement tool and likely would not have any adverse ecological impacts. Similarly, reducing the number of fishermen that need a VMS unit and the area in which they need to transmit would likely have beneficial socioeconomic impacts for fishermen.

5.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

No irreversible or irretrievable commitments of resources are expected from the management measures preferred in this EA.

6.0 ECONOMIC EVALUATION

Note that all dollars are reported in nominal dollars, consistent with methods used in the 2006 Consolidated HMS FMP.

6.1 NUMBER OF VESSELS AND PERMIT HOLDERS

This section further describes the number of vessels and permit holders that may be affected by this draft amendment. The commercial smoothhound shark permit requirement has not yet been

implemented so NMFS does not have precise information on the universe of fishermen that would be affected by this amendment. VTR data, however, can provide some context for the number of vessels that participate in the fishery. Table 6.1 shows the number of vessels and trips, by year, that reported landing smooth dogfish regardless of gear type.

Table 6.1 Number of vessels and trips landing smooth dogfish, by year; Source: VTR data, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of Vessels	247	253	245	292	320	242	297	295	282	277
Number of Trips	4137	3861	3584	3744	4056	2960	3407	3952	3969	4195

As discussed in Section 3.4, sink gillnet and otter bottom trawls are the two gears most often used to catch and retain smooth dogfish. Between 2003 and 2012, 8,708 sink gillnet trips that retained smooth dogfish were reported through VTR. These trips occurred aboard 228 different vessels over the 10 years. Of these vessels, only 81 vessels retained an annual average of at least 1,000 lbs of smooth dogfish, and only 54 vessels retained an annual average of at least 10,000 lbs of smooth dogfish. Table 6.2 summarizes the total number of vessels and trips that land smooth dogfish caught in sink gillnet gear each year between 2003 and 2012. The table also list the number of vessels, by year, with at least one trip landing greater than or equal to 75 percent smooth dogfish, by weight, relative to total catch. Additional landings data can be found in Section 3.5.

Table 6.2 Number of vessels and trips landing smooth dogfish in sink gillnet gear, by year; Source: VTR data, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of Trips	658	759	643	823	711	562	903	1200	1226	1223
Number of Vessels	76	75	68	78	78	69	87	98	95	94
Number of Vessels with a trip that landed ≥ 75 % smooth dogfish	18	21	19	21	26	29	41	47	42	46

Although smooth dogfish s are generally only caught incidentally in trawl gear, landings of the species caught in this gear can be high due to the large number of trips taken by vessels involved in the trawl fishery. Table 6.3 lists the number of vessels and trips catching smooth dogfish s in bottom otter fish trawl gear per year. A few vessels show some consistency in catching smooth dogfish s in trawl gear year to year, however, the majority of vessels do not appear to land the species consistently, indicative of an incidental fishery. From 2003-2012, a total of 264 vessels landed smoothhound sharks that were caught in trawl gear, well above the maximum number of vessels in any one year.

Table 6.3 **Number of vessels and trips landing smooth dogfish caught in trawl gear, by year.** Source: VTR data, 2003-2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of Vessels	77	80	80	84	99	79	101	95	88	92
Number of Trips	1841	1794	1489	1485	1623	1142	1298	1397	1402	1616

Gillnet fishermen with an Atlantic shark permit would also be affected by this amendment. As of July 11, 2013, there are 216 directed shark and 261 incidental shark permit holders. Logbook records indicate that there are usually about 10 Atlantic shark directed permit holders that use gillnet gear in any year. However, the universe of directed permit holders using gillnet gear can change from year to year and could include anyone who holds an Atlantic shark directed permit.

6.2 GROSS REVENUES OF COMMERCIAL FISHERMEN

See Section 3.6.2 for a detailed discussion of smoothhound shark commercial revenues.

The Atlantic shark gillnet fishery generally targets SCS. Ex-vessel prices for SCS and shark fins by region can be found in Table 6.4.

Table 6.4 **Average Ex-vessel Prices per Pound for Atlantic HMS, by Area (2004-2011);** Sources: Dealer weighout slips from the Southeast Fisheries Science Center (SEFSC), Gulf of Mexico includes: TX, LA, MS, AL, and the west coast of FL. S. Atlantic includes: east coast of FL. GA, SC, and NC dealers reporting to SEFSC. Mid-Atlantic includes: NC dealers reporting to NEFSC, VA, MD, DE, NJ, NY, and CT. N. Atlantic includes: RI, MA, NH, and ME. For bluefin tuna, all NC landings are included in the Mid-Atlantic.

Species	Area	2004	2005	2006	2007	2008	2009	2010	2011
Small coastal sharks	Gulf of Mexico	0.35	0.47	0.51	0.58	0.62	0.69	0.55	0.58
	S. Atlantic	0.67	0.71	0.68	0.80	0.78	0.71	0.79	0.81
	Mid-Atlantic	0.44	0.39	0.45	0.43	0.48	0.57	0.57	0.59
	N. Atlantic	-	-	-	-	-	-	-	-
Shark fins	Gulf of Mexico	15.76	16.22	16.40	13.22	14.94	15.09	16.48	15.11
	S. Atlantic	12.55	13.93	13.24	11.44	12.73	13.15	15.35	14.91
	Mid-Atlantic	7.72	10.58	9.82	6.12	3.74	3.62	6.83	3.50
	N. Atlantic	1.39	4.55	6.23	3.24	3.00	3.67	2.40	1.60

7.0 REGULATORY IMPACT REVIEW

7.1 DESCRIPTION OF MANAGEMENT OBJECTIVES

Please see Chapter 1 for a description of the objectives of draft Amendment 9.

7.2 DESCRIPTION OF FISHERY

Please see Chapter 3 for a description of fishery and environment that could be affected by Draft Amendment 9.

7.3 STATEMENT OF PROBLEM

Please see Chapter 1 for a description of the problem and need for this draft amendment.

7.4 DESCRIPTION OF EACH ALTERNATIVE

Please see Chapter 2 for a summary of each alternative suite and Chapter 4 for a complete description of each alternative suite and its expected ecological, social, and economic impacts. Chapters 3 and 6 provide additional information related to the economic impacts of the alternative suites.

7.5 ECONOMIC ANALYSIS OF EXPECTED EFFECTS OF EACH ALTERNATIVE RELATIVE TO THE BASELINE

Table 7.1 shows the net economic benefits and costs of each of the alternatives analyzed in this EA.

Table 7.1 Net Economic Benefits and Costs of Alternatives.

Alternative	Net Economic Benefits	Net Economic Costs
Alternative A1: Do not implement the smooth dogfish -specific provisions of the Shark Conservation Act of 2010. By default, Amendment 3's fins-attached requirement would apply to the smooth dogfish fishery (i.e., fins of all smooth dogfish must remain naturally attached to the shark carcass through offloading)	This alternative would implement management measures and would begin data collection for the fishery that, in the long term, would provide economic benefits to fishermen and communities.	Under this alternative, fishermen would not be able to remove smooth dogfish fins at sea, reducing efficiency and landings.

Alternative	Net Economic Benefits	Net Economic Costs
Alternative A2: *Implement the smooth dogfish -specific provisions of the Shark Conservation Act of 2010 to establish an allowance for the removal of smooth dogfish fins while at sea, considering eight sub-alternatives - preferred alternative*	Would allow for the removal of smooth dogfish fins at sea, and therefore would maintain current efficiencies and landings for fishermen from Maine to Florida that fish within 50 nm of shore.	Would reduce the number of trips that can remove smooth dogfish fins at sea, relative to the status quo. Smooth dogfish would likely have a lower ex-vessel price if not fully processed.
Sub -Alternative A2-1a: Smooth dogfish can make up any portion of the retained catch (no other sharks can be retained)	Would maintain current flexibility in processing retained catch at sea and thereby maintaining current value of the fishery.	Both incidental and directed trips could remove smooth dogfish fins at sea, possibly resulting in greater fishing mortality.
Sub -Alternative A2-1b: Smooth dogfish s must make up at least 25% of the retained catch (no other sharks can be retained)	Would maintain some of the current flexibility in processing the retained catch, thereby allowing some fishermen to maintain current value of the fishery. Fishermen could still retain other valuable species.	Both incidental and directed trips could remove smooth dogfish fins at sea possibly resulting in greater fishing mortality relative to the preferred sub-alternative.
Sub -Alternative A2-1c: *Smooth dogfish must make up at least 75% of the retained catch (no other sharks can be retained) - preferred alternative*	Would maintain some of the current flexibility in processing the retained catch, thereby allowing some fishermen to maintain current value of the fishery. Fishermen could still retain other valuable species.	Larger number of trips, relative to Sub-Alternative A2-1d, could remove smooth dogfish fins at sea possibly resulting in greater fishing mortality
Sub -Alternative A2-1d: Smooth dogfish s must make up at 100% of the retained catch	Reduced number of trips could remove smooth dogfish fins at sea resulting in reduced fishing pressure and long-term economic sustainability of the fishery.	No flexibility to retain other valuable species.
Sub -Alternative A2-2a: Require smoothhound shark-specific state commercial fishing permit in conjunction with the federal smoothhound permit	No economic benefits associated with this sub-alternative beyond those that already exist.	Additional permit requirement could result in additional labor to apply for the permit in addition to the permit cost.
Sub -Alternative A2-2b: *Require any state commercial fishing permit that allows smooth dogfish in conjunction with the federal smoothhound permit- preferred alternative*	No economic benefits associated with this sub-alternative beyond those that already exist.	Additional permit requirement could result in additional labor to apply for the permit in addition to the permit cost. However, many fishermen would likely already hold this type of permit.

Alternative		Net Economic Benefits	Net Economic Costs
Sub-Alternative A2-3a: Apply exception for smooth dogfish along the Atlantic Coast and to Florida's coast in the Gulf of Mexico.		None in the short-term since there is no commercial fishery in the Gulf of Mexico. In the long-term, could prevent inadvertent violations due to misidentification of smoothhound species in the Gulf of Mexico if a commercial fishery develops in that region	None in the short-term since there is no commercial fishery in the Gulf of Mexico. No costs in the long term if a fishery develops in the region.
Sub-Alternative A2-3b: *Apply exception for smooth dogfish along the Atlantic Coast but not to Florida's coast in the Gulf of Mexico - preferred alternative*		None in the short-term since there is no commercial fishery in the Gulf of Mexico. In the long-term, could simplify compliance and reduce violations if a fishery develops in that region.	None in the short-term since there is no commercial fishery in the Gulf of Mexico. In the long-term, could prevent fishermen from removing the fins of smooth dogfish at sea, leasing to increased labor cost and possibly a lower value product if a commercial fishery develops in that region.
Alternative B1: Implement a smoothhound shark quota that is equal to the maximum annual landings from 1998 – 2007 plus two standard deviations (715.5 mt)		Reduces total landings from current levels to ensure that fishing mortality is restricted and sustainable.	The quota would be lower than current landings, resulting in resulting in $393,934 of unrealized income, relative to 2011 landings.
Alternative B2: Establish a "rolling quota" each year based upon the previous five years of available data. Annual quota would be equal to maximum landings during the previous five years of available data plus two standard deviations (2015 quota would be 1,663 mt based on 2009-2013 data).		Quota would allow for the current level of landings and would allow for growth in the fishery.	If the quota grows to unsustainable levels, the result could be a closed or less productive fishery resulting in unrealized income.
Alternative B3: *Establish a smoothhound shark quota that is equal to the maximum annual landings from 2004-2013 plus two standard deviations (1,739.9 mt) – preferred alternative*		Quota would allow for the current level of landings.	Would limit growth in the fishery.
Alternative B4: Establish a smoothhound shark quota that reflects any necessary adjustments as a	**Scenario 1:** A TAC and quota approximately on-half of the B1 quota.	Would ensure a sustainable fishery and maximize access to the resource in the long-term.	The quota would be lower than 2011 landings, resulting in resulting in $1,014,020 of unrealized income, relative to 2011 landings, the most recent year when landings exceeded the Amendment 3 quota

Alternative		Net Economic Benefits	Net Economic Costs
result of the 2014 smoothhound shark stock assessment	**Scenario 2:** A TAC and quota approximately equal to the B1 quota.	Would ensure a sustainable fishery and maximize access to the resource in the long-term.	The quota would be lower than 2011 landings, resulting in resulting in $393,877 of unrealized income, relative to 2011 landings, the most recent year when landings exceeded the Amendment 3 quota
	Scenario 3: A TAC and quota half way between the quotas in alternatives B1 and B3.	Would ensure a sustainable fishery and maximize access to the resource in the long-term. Would maintain total fishery revenue near current levels. Potential annual revenues in the entire fishery of $2,128,458.	Would limit growth in the fishery, possibly limiting short-term revenue gains.
	Scenario 4: A TAC and quota larger than the B1 quota and approximately equal to or greater than the B3 quota.	Would ensure a sustainable fishery and maximize access to the resource in the long-term. Would maintain total fishery revenue near current levels. Potential annual revenues in the entire fishery of $3,016,460.	Would limit growth in the fishery, possibly limiting short-term revenue gains.
Alternative C1: No Action. Do not take further action to implement TC 4 in the smoothhound shark fishery		Gillnet fishermen targeting smoothhound sharks would not need to comply with gillnet fishing restrictions, possibly maintaining current efficiencies.	Protected resources including sea turtles and sturgeon have an existence value. This value is diminished if there are not adequate protections in place.
Alternative C2: Require smoothhound shark gillnet fishermen to conduct net checks at least every 2 hours to look for and remove any sea turtles, marine mammals, smalltooth sawfish, or Atlantic sturgeon found in the net		Protected resources including sea turtles and sturgeon have an existence value. This value is protected if there are adequate protections in place.	This alternative would limit effort in the smoothhound shark gillnet fishery. Currently, smoothhound shark gillnet fishermen sometimes fish multiple nets or leave nets unattended. This alternative would eliminate those practices, increasing trip costs and/or decreasing landings.

Alternative	Net Economic Benefits	Net Economic Costs
Alternative C3: Establish a gillnet soak time limit of 24 hours for smoothhound shark permit holders; fishermen holding both a directed Atlantic shark limited access permit and a smoothhound shark permit must abide by both soak time restrictions and net check requirements	Gillnet fishermen targeting smoothhound sharks would not need to comply with gillnet fishing restrictions, possibly maintaining current efficiencies.	Currently, smoothhound shark fishermen rarely soak gillnets for more than 24 hours and Atlantic shark fishermen already abide by the net check requirement. Fishermen only holding one permit are unlikely to be affected. Fishermen holding both permits, however, would be affected. Smoothhound shark fishermen that also hold an Atlantic shark permit and that fish with gillnet gear would need to perform net-checks at least every 2 hours. This would limit effort in the fishery, increasing trip costs and/or decreasing landings.
Alternative C4: *Establish a soak time limit of 24 hours for sink gillnet gear and a 2 hour net check requirement for drift gillnet gear in the Atlantic shark and smoothhound shark fisheries – Preferred Alternative*	Gillnet fishermen targeting smoothhound sharks would not need to comply with gillnet fishing restrictions, possibly maintaining current efficiencies.	Smoothhound shark fishermen, who typically use sink gillnets, would be required to limit soak times to 24 hours, thus this alternative is unlikely to significantly alter fishing practices. Drift gillnet fishermen, would are more likely to target sharks than smoothhound sharks, would be required to check their nets at least every 2 hours, as is currently required. Thus, this alternative is unlikely to have to have any socioeconomic impacts
Alternative D1: No Action. Do not change VMS requirements for federal directed shark permit holders with gillnet gear on board.	No economic benefits associated with this alternative beyond those that already exist.	Fishermen that do not fish in the vicinity of the Southeast U.S. Monitoring Area would need to install and/or maintain a VMS and incur data transmission costs.
Alternative D2: *Require federal directed shark permit holders with gillnet gear on board to use VMS only in the Southeast U.S. Monitoring Area, pursuant to Atlantic Large Whale Take Reduction Plan requirements – Preferred Alternative*	Reduced costs for gillnet fishermen outside of the vicinity of the Southeast U.S. Monitoring Area. Fishermen would only need to turn on VMS (incurring transmission costs) when in that vicinity. Fishermen that never fish in that area would not need to install a VMS unit.	Some fishermen may avoid the productive fishing grounds around the vicinity of the Southeast U.S. Monitoring Area to avoid the VMS requirement, resulting in unrealized income.

7.6 CONCLUSION

As noted above under E.O. 12866, a regulation is a "significant regulatory action" if it is likely to: (1) have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; and (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the legal mandates, the President's priorities, or the principles set forth in the Executive Order; or, (4) raise novel legal or policy issues arising out of legal mandates, the president's priorities, or the principles set forth in this Executive Order. Pursuant to the procedures established to implement section 6 of E.O. 12866, the Office of Management and Budget has determined that this action is significant. A summary of the expected net economic benefits and costs of each alternative, which are based on supporting text in Chapters 4 and 6, can be found in Table 7.1.

8.0 INITIAL REGULATORY FLEXIBILITY ANALYSIS

The Initial Regulatory Flexibility Analysis (IRFA) is conducted to comply with the Regulatory Flexibility Act (5 USC 601 et. seq.) (RFA). The goal of the RFA is to minimize the economic burden of federal regulations on small entities. To that end, the RFA directs federal agencies to assess whether the proposed regulation is likely to result in significant economic impacts to a substantial number of small entities, and identify and analyze any significant alternatives to the proposed rule that accomplish the objectives of applicable statutes and minimize any significant effects on small entities. Certain data and analysis required in an IRFA are also included in other Chapters of this document. Therefore, this IRFA incorporates by reference the economic analyses and impacts in Chapter 4 of this document.

8.1 DESCRIPTION OF THE REASONS WHY ACTION IS BEING CONSIDERED

In compliance with section 603(b)(1) of the Regulatory Flexibility Act, the proposed action is designed to implement the smooth dogfish provisions of the Shark Conservation Act of 2010 and to implement the smoothhound sharks measures in Amendment 3 to the 2006 Consolidated HMS FMP (75 FR 30484, June 1, 2010) and the 2011 Atlantic HMS Trawl Rule (76 FR 49368, August 10, 2011) that are currently on hold. This action also reexamines the smoothhound shark quota that would be implemented along with the Amendment 3 measures. NMFS has updated landings data that could necessitate a recalculation of the quota. See Section 1.3 for more information.

On December 12, 2012, consistent with Section 7(b)(4) of the ESA, NMFS determined that the continued operation of the Atlantic shark and smoothhound shark fisheries is not likely to jeopardize the continued existence of Atlantic sturgeon, smalltooth sawfish, or any species of ESA-listed large whale or sea turtles. In order to be exempt from take prohibitions established by Section 9 of the ESA, NMFS must comply with the RPMs and TCs listed in the 2012 Shark BiOp. One purpose of Amendment 9 is to propose measures to implement the 2012 Shark BiOp TCs that are specific to the Atlantic shark and smoothhound shark fisheries. See Section 1.3 for more information.

Currently, federal directed shark permit holders with gillnet gear on board are required to use VMS regardless of vessel location. This requirement was originally implemented to comply with the ALWTRP requirements at 50 CFR 229.32. However, these requirements require federal directed shark permit holders with gillnet gear on board to use VMS only when fishing in a certain area in the South Atlantic. Thus, another purpose of this rulemaking is to examine measures to bring current VMS regulations for federal directed shark permit holders using gillnet gear in-line with the current requirements of the ALWTRP at 50 CFR 229.32. See Section 1.3 for more information.

8.2 STATEMENT OF THE OBJECTIVES OF, AND LEGAL BASIS FOR, THE DRAFT AMENDMENT

Please see Chapter 1 for a full description of the objectives of this action. In compliance with section 603(b)(2) of the Regulatory Flexibility Act, the management goals and objectives of this action are to provide for the sustainable management of smoothhound sharks and Atlantic shark species under authority of the Secretary consistent with the requirements of the Magnuson-Stevens Act and other statutes which may apply to such management, including the ESA and the Marine Mammal Protection Act (MMPA). The management objectives are to achieve the following:

- Implement the smooth dogfish provisions of the SCA
- Implement other measures, as necessary, to ensure that the smooth dogfish provisions of the SCA do not negatively impact the sustainable fishery of other shark species
- Reexamine the smoothhound shark quota in light of updated landings data
- Implement the Term and Condition of the 2012 Smoothhound Shark and Atlantic Shark Biological Opinion related to gillnet impacts on ESA-listed species
- Reexamine Atlantic shark gillnet VMS regulation in compliance with the ALWTRP, per the MMPA

8.3 DESCRIPTION AND ESTIMATE OF THE NUMBER OF SMALL ENTITIES TO WHICH THE DRAFT AMENDMENT WILL APPLY

Section 603(b)(3) requires Agencies to provide an estimate of the number of small entities to which the rule would apply.

On June 12, 2014, the Small Business Administration (SBA) issued a final rule revising the small business size standards for several industries effective July 14, 2014 (79 FR 33647; June 12, 2014). The rule increased the size standard for Finfish Fishing from $ 19.0 to 20.5 million. Id. at 37400 (Table 1). NMFS has reviewed the analyses prepared for this action in light of the new size standards. Under the former, lower size standards, all entities subject to this action were considered small entities, thus they all would continue to be considered small entities under the new standards. NMFS does not believe that the new size standards affect analyses prepared for this action and solicits public comment on the analyses in light of the new size standards. Under these standards, NMFS considers all Atlantic HMS permit holders subject to draft Amendment 9 to be small entities.

As discussed in Section 6.1, NMFS does not have exact numbers on affected commercial fishermen. The smoothhound shark commercial permit has not yet been created, so NMFS does not know how many smoothhound shark fishermen will be impacted. Table 6.1 shows an annual average of 275 vessels reported retaining smooth dogfish through VTR from 2003 – 2012. This is NMFS' best estimate of affected smoothhound shark fishermen.

While the retention of sharks in federal waters requires one of two limited access commercial shark permits, these permits do not specific gear type, including gillnets. For this

reason, NMFS does not know the exact number of affected shark gillnet fishermen. As of July 11, 2013, there are 216 directed shark and 261 incidental shark permit holders. Logbook records indicate that there are usually about 10 Atlantic shark directed permit holders that use gillnet gear in any year. However, the universe of directed permit holders using gillnet gear can change from year to year and could include anyone who holds an Atlantic shark directed permit.

As of July 11, 2013, there are 96 Atlantic shark dealers. These dealers could be affected by these measures to varying degrees. Not all of these dealers purchase smoothhound sharks and those that due are concentrated in the Mid-Atlantic region. NMFS will know more about the number of affected dealers when smoothhound reporting requirements go into place. Similarly, not all of these dealers purchase Atlantic sharks caught with gillnet gear. The number is likely low and is concreted in Florida and the Gulf of Mexico.

NMFS has determined that the proposed rule is not likely to affect any small governmental jurisdictions. More information regarding the description of the fisheries affected, and the categories and number of permit holders can be found in Chapter 3.

8.4 DESCRIPTION OF THE PROJECTED REPORTING, RECORD-KEEPING, AND OTHER COMPLIANCE REQUIREMENTS OF THE DRAFT AMENDMENT, INCLUDING AN ESTIMATE OF THE CLASSES OF SMALL ENTITIES WHICH WILL BE SUBJECT TO THE REQUIREMENTS OF THE REPORT OR RECORD

The federal commercial smoothhound shark permit requirement analyzed in Amendment 3 to the 2006 Consolidated HMS FMP will become effective upon the effective date of this rule. NMFS submitted a PRA change request to The Office of Management and Budget (OMB) to add this permit to the existing HMS permit PRA package (OMB control number 0648-0327). OMB subsequently accepted the change request to add the federal commercial smoothhound shark permit to the HMS permit PRA package.

On November 15, 2013, NMFS published a final rule (78 FR 68757) that modifies declaration requirements for Atlantic shark fishermen using VMS. The final rule implements requirements for operators of vessels that have been issued Atlantic HMS permits and are required to use their VMS units to provide hourly position reports 24 hours a day, 7 days a week (24/7). The final rule implements requirements allowing the operators of such vessels to make declarations out of the fishery when not retaining or fishing for Atlantic HMS for specified periods of time that encompass two or more trips. These changes alter the burden estimates under the existing HMS permit PRA package (OMB control number 0648-0327).

8.5 IDENTIFICATION OF ALL RELEVANT FEDERAL RULES WHICH MAY DUPLICATE, OVERLAP, OR CONFLICT WITH THE DRAFT AMENDMENT

Under section 603(b)(5) of the Regulatory Flexibility Act, agencies must identify, to the extent practicable, relevant Federal rules which duplicate, overlap, or conflict with the proposed rule. Fishermen, dealers, and managers in these fisheries must comply with a number of international agreements, domestic laws, and other FMPs. These include, but are not limited to, the Magnuson-Stevens Act, the Atlantic Tunas Convention Act, the High Seas Fishing

Compliance Act, the Marine Mammal Protection Act, the Endangered Species Act, the National Environmental Policy Act, the Paperwork Reduction Act, and the Coastal Zone Management Act. This proposed rule has also been determined not to duplicate, overlap, or conflict with any other Federal rules.

8.6 DESCRIPTION OF ANY SIGNIFICANT ALTERNATIVES TO THE DRAFT AMENDMENT THAT ACCOMPLISH THE STATED OBJECTIVES OF APPLICABLE STATUTES AND THAT MINIMIZE ANY SIGNIFICANT ECONOMIC IMPACT OF THE DRAFT AMENDMENT ON SMALL ENTITIES

One of the requirements of an IRFA is to describe any alternatives to the proposed rule which accomplish the stated objectives and which minimize any significant economic impacts. These impacts are discussed below and in Chapters 4 and 6 of this document. Additionally, the Regulatory Flexibility Act (5 U.S.C. § 603 (c) (1)-(4)) lists four general categories of "significant" alternatives that would assist an agency in the development of significant alternatives. These categories of alternatives are:

1. Establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities;
2. Clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities;
3. Use of performance rather than design standards; and
4. Exemptions from coverage of the rule for small entities.

In order to meet the objectives of this proposed rule, consistent with the Magnuson-Stevens Act, ATCA, and the ESA, NMFS cannot establish differing compliance requirements for small entities or exempt small entities from compliance requirements. Thus, there are no alternatives discussed that fall under the first and fourth categories described above. NMFS does not know of any performance or design standards that would satisfy the aforementioned objectives of draft Amendment 9 while, concurrently, complying with the Magnuson-Stevens Act. As described below, NMFS analyzed several different alternatives in this proposed rulemaking and provides rationale for identifying the preferred alternative to achieve the desired objective.

The alternatives considered and analyzed are described below. The IRFA assumes that each vessel will have similar catch and gross revenues to show the relative impact of the proposed action on vessels.

Alternatives to Implement the Smooth Dogfish-Specific Provisions of the Shark Conservation Act of 2010

With regards to the implementation of the SCA, NMFS considered two alternatives. Alternative A1, which would not implement the smooth dogfish-specific provisions of the SCA and would instead implement the fins attached requirement finalized in Amendment 3, and Alternative A2, which proposes to implement the smooth dogfish-specific provisions of the SCA and has sub-alternatives that address the specific elements of the of the smooth dogfish-specific provisions.

Alternative A1 would not implement the smooth dogfish-specific provisions of the SCA and would require all smooth dogfish to be landed with fins naturally attached. This alternative would change current fishing practices since smooth dogfish caught in the directed and incidental fisheries are fully processed while at sea. As a result, this Alternative A1 would likely lead to reduced landings and a lower ex-vessel price since the product would not be fully processed. This could lead to adverse socioeconomic impacts.

Under Alternative A2, the preferred alternative, an allowance for the removal of smooth dogfish fins at sea would increase efficiency in the smooth dogfish fishery and provide a more highly processed product for fishermen to sell to dealers. Quantifying the financial benefits is difficult since baseline effort and increases in efficiency cannot be calculated, but the benefit would fall somewhere between the two extremes of $0 and $585,516, the ex-vessel value of the entire fishery (Section 3.6.2). The benefit to individual vessels is likely equal to the average annual per vessel revenues from smooth dogfish caught in the directed sink gillnet fishery was which was $15,365.

Supporting entities, such as bait and tackle suppliers, ice suppliers, dealers, and other similar businesses, could experience increased revenue if the efficiency of fin removal at sea results in a higher quality product. However, while supporting businesses would benefit from the increased profitability of the fishery, they do not solely rely on the smooth dogfish fishery. In the long-term, it is likely that changes in the smooth dogfish fishery would not have large impacts on these businesses.

Catch Composition Sub-Alternatives

Under Sub-Alternative A2-1a, smooth dogfish could make up any portion of the retained catch on board provided that no other sharks are retained. This sub-alternative would authorize smooth dogfish fishermen to retain any non-shark species of fish while still availing themselves of the at-sea fin removal allowance. Smooth dogfish are often caught incidentally during other fishing operations, thus this sub-alternative would allow fishermen to maximize the profitability of each trip and allow individual operators the flexibility to make decisions, before the trip and while on the water, as to the retained catch composition that would maximize ex-vessel revenues. Under this alternative, fishermen could remove smooth dogfish fins at sea during any type of trip including those trips that are directing on other non-shark species. This alternative would maintain the current practice in the fishery and vessels could continue to have ex-vessel revenues of $585,516 per year (Section 3.6.2).

Under Sub-Alternative A2-1b, fishermen could avail themselves of the at-sea fin removal allowance only if smooth dogfish comprise 25 percent of the retained catch on board. This sub-alternative would authorize smooth dogfish fishermen to retain some non-shark species of fish while still availing themselves of the at-sea fin removal allowance. Smooth dogfish s are often caught incidentally during other fishing operations, thus this sub-alternative would allow fishermen to increase the profitability of each trip and allow individual operators the flexibility to make decisions, before the trip and while on the water, as to the retained catch composition that would increase ex-vessel revenues. This increase in flexibility would be to a lesser extent than Sub-Alternative A2-1a which would not have a catch composition requirement, but greater than

the other sub-alternatives that limit the fins-attached exception to the directed fishery. This sub-alternative would decrease total ex-vessel revenues relative to the current level of $585,516 per year (Section 3.6.2).

Under Sub-Alternative A2-1c, a preferred sub-alternative, fishermen could avail themselves of the at-sea fin removal allowance only if smooth dogfish comprise 75 percent of the retained catch on board. NMFS chose this threshold because in other HMS fisheries 75 percent retention of the target catch is considered a trip where the fisherman is fishing for that species. Thus, implementing a target catch requirement of 75 percent smooth dogfish would limit the at-sea fin removal allowance to those fishing for smooth dogfish. Because some fishermen catch smooth dogfish while fishing for other species, this sub-alternative is likely to reduce flexibility and would decrease the number of mixed species trips where fishermen could take advantage of the at-sea fin removal allowance. An annual average of 275 vessels land smooth dogfish (2003-2012) but only around 30 vessels (annual average 2003-2012) fish for smooth dogfish in any given year. For this reason, approximately 245 vessels in the mixed species fishery would be impacted by sub-Alternative A2-1c.

Sub-Alternative A2-1d would require smooth dogfish to comprise 100 percent of the retained catch on board the vessel in order for fishermen to avail themselves of the at-sea fin removal allowance for smooth dogfish. This sub-alternative would eliminate the ability of mixed trips to take advantage of the at-sea fin removal, and would reduce flexibility in deciding which species to retain on each fishing trip. However, approximately 30 vessels (annual average 2003-2012) on directed smooth dogfish trips often only retain smooth dogfish due to the processing practices in place. Thus, these fishermen would not be impacted by a 100 percent smooth dogfish requirement and would benefit from the ability to remove the smooth dogfish fins at sea.

State Fishing Permit Requirement Sub-Alternatives

Sub-Alternative A2-2a would require federal smoothhound permitted fishermen to obtain a smooth dogfish-specific state commercial fishing license in order to be able to remove smooth dogfish fins at sea. The requirement to obtain a smooth dogfish-specific state commercial fishing license may be more difficult for fishermen who are in states that do not have smooth dogfish-specific permits in place. This sub-alternative would result in the increased burden on fishermen to obtain another permit, and depending upon the state, could result in an additional permit charge. Since most permits are valid for one year, fishermen would likely need to renew the permit each year for as long as they wish to retain smooth dogfish and remove the fins while at sea. Because not all states have smooth dogfish-specific permits, NMFS does not prefer this alternative at this time but is seeking comments, particularly from the States, about their preferences and what approach would work best in conjunction with their state approach to permitting and state fishery objectives.

Sub-Alternative A2-2b, the preferred alternative, would require fishermen to hold any state commercial fishing permit that allows retention of smooth dogfish. It is likely, however, that most smooth dogfish fishermen already hold this type of state permit and would be unaffected by this requirement. This sub-alternative would likely be the most straightforward for regulatory compliance since the permit requirement would be the simpler than sub-alternative

A2-2a. Thus, NMFS prefers this sub-alternative at this time but is seeking comments, particularly from the States, about their preferences and what approach would work best in conjunction with their state approach to permitting and state fishery objectives.

Geographic Applicability of Exception Sub-Alternatives

NMFS considered two alternatives for Geographic Application of the SCA exception. Under Sub-Alternative A2-3a, the exception would apply along the Atlantic Coast and the Florida west coast in the Gulf of Mexico. As explained earlier, as a practical matter, smooth dogfish and other smoothhound species are indistinguishable. The best available scientific information indicates that smooth dogfish are likely the only smoothhound shark species along the Atlantic coast. In the Gulf of Mexico, however, there are at least three different smoothhound species, with no practical way to distinguish among them. This sub-alternative would apply the smooth dogfish exception 50 nautical miles from the baseline of all the States that fall under the SCA definition of "State." This sub-alternative could result in other smoothhound sharks indirectly falling under the exception, because they cannot be distinguished from smooth dogfish. NMFS does not expect any impacts because there is no commercial fishery for smooth dogfish in the Gulf of Mexico at this time. However, NMFS does not prefer this sub-alternative at this time because, if a fishery does develop, species misidentification could result in enforcement action.

Under Sub-Alternative 3b, the preferred sub-alternative, the exception would only apply along the Atlantic coast and not the Florida west coast in the Gulf of Mexico. By not extending the exception into the Gulf of Mexico, this sub-alternative would ensure that the smooth dogfish fins attached exception would only apply along the Atlantic Coast where the population is almost entirely smooth dogfish, reducing identification problems and inadvertent finning violations. NMFS does not expect any impacts because, at this time, there is no commercial fishery for smooth dogfish in the Gulf of Mexico. NMFS prefers this sub-alternative at this time because it simplifies enforcement and compliance without adverse impacts.

Quota Adjustment for the Smoothhound Fishery

With regards to the smoothhound quota alternatives, NMFS considered 4 alternatives. Alternative B1, which would implement the smoothhound shark quota finalized in Amendment 3, Alternative B2, which would establish a rolling quota based on the most recent five years of landings data, Alternative B3, the preferred alternative, which would calculate the smoothhound quota using the same method as in Amendment 3 but would use updated smoothhound landings information and Alternative B4 which would establish smoothhound shark quotas that reflect any necessary adjustments as a result of the 2014 smoothhound shark stock assessment.

Alternative B1 would implement the quota finalized in Amendment 3 (715.5 mt dw), which was based on the calculation of quotas from a historical period in the fishery (1998 to 2007) and adding two standard deviations. Current reported smoothhound shark landings are higher than the quota level in Alternative B1. As such, implementing this quota would prevent fishermen from fishing at current levels, resulting in lost revenues. In 2011, the most recent year when the landings exceeded the Amendment 3 quota, total smoothhound shark landings totaled

2,078,251 lb dw (ACCSP data) resulting in revenues across the entire smoothhound shark fishery of $1,634,337 (2,078,251 lb of meat, 249,390 lb of fins). Implementation of the Amendment 3 quota (715.5 mt dw) would result in ex-vessel revenues of only $1,240,460 (1,577,391 lb of meat, 189,287 lb of fins), which is $393,877 less than 2011 ex-vessel revenues. Both of these estimates assume $1.72/lb for fins, $0.58/lb for meat based on 2013 HMS dealer data, and a 12 percent fin-to-carcass ratio from the SCA. Seventy-six percent of all landings in the smoothhound shark fishery come from sink gillnets and there are approximately 82 vessels that use sink gillnet gear to fish for smoothhound sharks. Assuming an average of 82 sink gillnet vessels fishing for smoothhound sharks, the quota in this alternative would result in annual ex-vessel revenues of $15,128 per vessel which is less than 2011 ex-vessel revenues of $19,931 per vessel. This is an average across all directed and incidental sink gillnet vessels and this individual annual vessel ex-vessel revenue may fluctuate based on the degree to which fishermen direct on smoothhound sharks.

The quota in Alternative B1 does not accurately characterize current reported landings of smoothhound sharks. The VTR data for the Northeastern United States shows that an average of 31 vessels between 2002 and 2012 directed on smoothhound shark (Table 3.5). These vessels likely fished opportunistically on multiple species of coastal migratory fish and elasmobranches, and it is unlikely that any sector within the fishing industry in the Northeast (fisherman, dealer, or processor) relies wholly upon smoothhound sharks. Longer-term impacts are expected to be neutral given the small size of the fishery and the generalist nature of the sink gillnet fishery.

Alternative B2 would establish a rolling smoothhound shark quota set above the maximum annual landings for the preceding five years; this quota would be recalculated annually to account for the most recent landing trends within the smoothhound complex (2015 quota would be 1,663 mt dw based on 2009-2013 data). The 2015 quota under this alternative is likely result in annual revenues of $2,883,139 (3,666,250 lb of meat, 439,950 lb of fins) assuming an ex-vessel price of $1.72 lb for fins and $0.58 lb for meat based on 2013 HMS dealer data. Seventy six percent of all landings in the smoothhound shark fishery come from sink gillnets and there are approximately 82 vessels that use sink gillnet gear to fish for smoothhound sharks. Assuming an average of 82 sink gillnet vessels fishing for smoothhound sharks, the quota in this alternative would result in individual vessel annual revenues of $35,160 which is more than 2011 ex-vessel revenues of $19,931 per vessel. This is an average across all directed and incidental sink gillnet vessels and this individual annual vessel revenue may fluctuate based on the degree to which fishermen direct on smoothhound sharks.

Per the intent of Amendment 3, smoothhound management measures are designed to characterize and collect data while minimizing changes in catch levels and catch rates in the fishery. This goal necessitates a quota near actual exploitation levels. Thus, setting the quota above current landings levels should allow the fishery to continue, rather than be closed, allowing for NMFS to collect more information that can be used in future stock assessments. Alternative B2 is consistent with the intent of Amendment 3, which was to minimize changes to the fishery while information on catch and participants was collected. Because landings in the smoothhound shark fishery are likely underreported, it is unclear at this time whether the increase in reported landings is due to existing smoothhound fishermen reporting in anticipation of future management or increased effort (e.g., new entrants into the fishery). While a rolling

quota would cover all current reporting and likely cover all underreporting of landings, the fishery could grow exponentially if reported landings continue to increase over consecutive years, possibly resulting in stock declines and in turn a potential loss of revenue to the fishing industry. The rolling quota could also lead to lower quotas in consecutive years if landings decrease over time. Thus, the changing nature of the rolling quota could lead to uncertainty in the fishery and could cause direct and indirect minor adverse socioeconomic impacts in the long term.

Alternative B3, the preferred alternative, would create a smoothhound quota equal to the maximum annual landings from 2004-2013 plus two standard deviations and would equal 1,739.9 mt dw. This alternative establishes a smoothhound quota two standard deviations above the maximum annual landings reported over the last ten years which is the method used to calculate the smoothhound shark quota that was finalized in Amendment 3. This quota would result in potential annual revenues in the entire fishery of $3,016,460 (3,835,784 lb of meat, 460,294 lb of fins) assuming an ex-vessels price of $1.72 lb for fins and $0.58 for fins based on 2013 HMS dealer data. Seventy six percent of all landings in the smoothhound shark fishery come from sink gillnets and there are approximately 82 vessels that use sink gillnet gear to fish for smoothhound sharks. Assuming an average of 82 sink gillnet vessels fishing for smoothhound sharks, the quota proposed in this alternative would result in individual vessel annual revenues of $36,786. This is an average across all directed and incidental sink gillnet vessels and this individual annual vessel revenue may fluctuate based on the degree to which fishermen direct on smoothhound sharks.

Consistent with the intent of Amendment 3, the preferred alternative B3 would set the quota above current landings levels to allow the fishery to continue throughout the year, rather than be closed for part of the year. This would allow NMFS to collect year-round fishery data that could be used in future smoothhound shark stock assessments. Because landings in the smoothhound fishery are likely underreported, it is unclear at this time whether the increase in reported landings is due to existing smoothhound shark fishermen reporting in anticipation of future management or increased effort. Under this alternative, NMFS anticipates the fishery would operate as it currently does. Alternative B3 accounts for recent trends in the fishery and the best available landings data as recalculated and reported by ACCSP reflects recent behavior in the fishery, and provides an appropriate buffer to account for underreporting in the fishery. Alternative B3 provides for more stability in the fishery due to a quota that does not change from year to year as in alternative B2. Additionally, providing a maximum cap on the fishery would allow fishermen, dealers, and processors to make better business decisions based on a more predictable yield (assuming that the fishery is fished to near-full capacity each year).

Alternative B4 would implement a smoothhound shark quota(s) consistent with the results of the 2014 smoothhound shark stock assessment if the results become available before publication of the final rule for this action. For the entire smoothhound shark complex, there are four possible outcomes: 1) one or more of the stocks is found to be overfished but not experiencing overfishing, 2) one or more of the stocks is found to be experiencing overfishing but not yet overfished, 3) one or more of the stocks is found to be overfished and experiencing overfishing, or 4) all stocks are found to not be overfished or experiencing overfishing (healthy). A smoothhound shark quota that is based on the results of a stock assessment would provide

short and long-term ecological benefits and the resulting sustainable fishery will ensure long-term socioeconomic benefits for the smoothhound shark fishermen. Unless the stock assessment indicates that current fishing levels are unsustainable, short-term negative socioeconomic impacts are unlikely to result from this alternative. However, the stock assessment is not yet available and NMFS is unsure if it will be available before the final rule for this action publishes. Therefore, NMFS does not prefer this alternative at this time.

Biological Opinion Implementation

In order to implement the Terms and Conditions of the 2012 Shark BiOp in the smoothhound shark fishery, NMFS considered 4 alternatives. The No Action alternative, which would not implement Term and Condition 4 of the 2012 Shark BiOp, C2 which would require smoothhound shark fishermen to conduct net checks at least every 2 hours, C3 which would require smoothhound shark fishermen to limit their gillnet soak time to 24 hours and those smoothhound shark fishermen that also have a Atlantic shark limited access permit to check their nets at least every 2 hours, and finally, C4 which would require smoothhound and Atlantic shark fishermen using sink gillnet to soak their nets no longer than 24 hours and those fishermen using drift gillnets to check their nets at least every 2 hours.

Alternative C1 would not implement the BiOp term and condition that would require all smoothhound shark permit holders to either check their gillnet gear at least every 2.0 hours or limit their soak time to no more than 24 hours. This alternative would likely result in short and long-term neutral direct socioeconomic impacts. Under Alternative C1, smoothhound shark fishermen would continue to fish as they do now and so this alternative would not have economic impacts that differ from the status quo. Similarly, this alternative would likely result in neutral short and long-term indirect socioeconomic impacts since supporting businesses including dealers and bait, tackle, and ice suppliers would not be impacted.

Alternative C2 would require smoothhound shark fishermen using gillnet gear to conduct net checks at least every 2.0 hours to check for and remove any protected species, and would likely result in short and long-term direct moderate adverse socioeconomic impacts. Some smoothhound shark gillnet fishermen fish multiple nets at one time or deploy their net(s), leave the vicinity, and return at some later time. Alternative C2 would require these fishermen to check each gillnet at least once every 2 hours, making fishing with multiple nets or leaving nets unattended difficult. This would likely lead to a reduction in effort and landing levels, resulting in lower ex-vessel revenues. Quantifying the loss of income is difficult without information characterizing the fishery including the number of nets fished. However, limiting the amount of fishing effort in this manner is likely to reduce total landings of smoothhound sharks or, in order to keep landing levels high, extend the length of trips. Landings of incidentally caught fish species could be reduced as well, although under preferred sub-Alternative A2-1c, smoothhound shark fishermen that wish to remove smooth dogfish fins at sea could not retain other species. This alternative would not have a large impact on supporting businesses such as dealers or bait, tackle, and ice suppliers since these businesses do not solely rely on the smoothhound shark fishery. The smoothhound shark fishery is small relative to other fisheries. Thus, Alternative C2 would likely result in short and long-term indirect neutral socioeconomic impacts. Alternative

C2 would impact the approximately 31 vessel that annually direct on smoothhound sharks with gillnet gear (annual average from 2003-2013, Table 3.1).

Alternative C3 would establish a gillnet soak time limit of 24 hours for smoothhound shark permit holders. Under this alternative, fishermen holding both an Atlantic shark limited access permit and a smoothhound shark permit must abide by the 24 hour soak time restriction and conduct net checks at least every 2 hours. This alternative would likely result in short and long-term direct minor adverse socioeconomic impacts to those smoothhound permitted fishermen that also have an Atlantic shark limited access permit and therefore would be required to check their nets at least every 2 hours. Currently, smoothhound shark gillnet fishermen sometimes fish multiple nets or leave nets unattended for short periods of time. Rarely are these nets soaked for more than 24 hours, thus, this alternative would not impact smoothhound shark gillnet fishermen that do not have an Atlantic shark limited access permit. Adverse socioeconomic impacts resulting from this alternative would likely occur to the subset of smoothhound shark fishermen that also hold an Atlantic shark limited access permit. These smoothhound shark fishermen would be at a disadvantage to other smoothhound shark fishermen that do not have an Atlantic shark limited access permit because they would be required to check their gillnets at least every 2 hours which is a large change in the way the smoothhound shark fishery currently operates. Dropping the Atlantic shark permit to avoid the net check requirement is unlikely to be feasible since Atlantic shark permits are limited access and cannot be easily obtained. Additionally, pelagic longline fishermen are required to have an incidental or directed shark permit when targeting swordfish or tunas, even if they are not fishing for sharks, due to the likelihood of incidental shark catch. In practical terms, this could result in smoothhound shark gillnet fishermen abiding by the 2 hour net check requirement even if they do not fish for Atlantic sharks and only hold a Atlantic shark limited access permit to fish for swordfish or tunas (note that gillnets cannot be used to target swordfish or tunas, but some vessels may switch gears between trips). For this subset of fishermen, basing gillnet requirements on permit types could introduce fishing inefficiencies when compared to other smoothhound fishermen, likely resulting in adverse socioeconomic impacts to these fishermen. It is unlikely that this alternative would have a large impact on supporting businesses such as dealers or bait, tackle, and ice suppliers since these businesses do not solely rely on the smoothhound shark fishery. The smoothhound shark fishery is small relative to other fisheries. It is difficult to determine the number of fishermen that would be adversely affected since NMFS does not yet know which vessels will obtain a smoothhound shark fishing permit, however, it is likely that this number will be approximately equal to 170 which is the average annual number of vessel that retain smoothhound sharks (Section 3.4).

Alternative C4, the preferred alternative, would establish a soak time limit of 24 hours for fishermen using sink gillnet gear and a 2 hour net check requirement for fishermen using drift gillnet gear in the Atlantic shark and smoothhound shark fisheries. Drift gillnets would be defined as those that are unattached to the ocean bottom with a float line at the surface and sink gillnet gear would be defined as those with a weight line that sinks to the ocean bottom, has a submerged float line, and is designed to be fished on or near the bottom. Alternative C4 would likely result in neutral short and long-term direct socioeconomic impacts. Smoothhound shark fishermen, who typically use sink gillnets, would be required to limit soak times to 24 hours and as discussed above, this requirement is unlikely to significantly alter smoothhound shark fishing

practices. Drift gillnet fishermen, who are more likely to target Atlantic sharks rather than smoothhound sharks, would be required to check their nets at least every 2 hours, as is currently required. Thus, this alternative is unlikely to have any socioeconomic impacts to Atlantic shark and smoothhound shark fishermen since it would not change current fishing practices. Similarly, this alternative would likely result in neutral short and long-term indirect socioeconomic impacts since supporting businesses including dealers and bait, tackle, and ice suppliers should not be impacted. Alternative C4 would impact the approximately 31 vessel that annually direct on smoothhound sharks with gillnet gear (annual average from 2003-2013, Table 3.1). Since Alternative C4 would have minimal economic impact but is still consistent with the 2012 Shark BiOp, NMFS prefers this alternative at this time.

Atlantic Shark Gillnet Vessel Monitoring System Requirements

NMFS also considered two alternatives to streamline the current VMS requirements for Atlantic shark fishermen with gillnet gear on board. NMFS considered two alternatives, the No Action alternative that would maintain the current requirement to have VMS on board when fishing for Atlantic sharks with gillnet regardless of where the vessel is fishing and alternative D2 that would only require VMS on board for Atlantic shark fishermen using gillnet gear in an area specified by the ALWTRP requirements at 50 CFR 229.32.

Alternative D1 would maintain the current requirement of requiring Atlantic shark permit holders fishing with gillnet gear to have VMS on board from November 15- April 15, regardless of where the vessel is fishing. These VMS requirements were put in place as an enforcement tool for complying with the ALWTRP requirements set forth in 50 CFR 229.32. Per 50 CFR 229.32 (h)(2)(i) Atlantic shark gillnet fishermen are only required to have VMS if they are fishing in the Southeast U.S. Monitoring Area. Purchasing and installing a VMS unit costs fishermen around $3,500 and monthly data transmission charges cost, on average, approximately $44.00. Because these monthly costs are currently incurred whenever a shark gillnet fishermen is fishing from November 15- April 15, these costs can affect the fishermen's annual revenues. Although the affected fishermen already have VMS installed, they continue to pay for transmission and maintenance costs, and could need to buy a new unit if theirs fails. It is possible that a NMFS VMS reimbursement program could defray part of the purchase cost, but is not certain. Thus, it is likely that this alternative could have short and long-term direct minor adverse socioeconomic impacts to fishermen due to the cost of purchasing and maintaining a VMS unit. While the retention of sharks in federal waters requires one of two limited access commercial shark permits, these permits do not specify gear type, including gillnets. For this reason, NMFS does not know the exact number of affected shark gillnet fishermen. As of July 11, 2013, there are 216 directed shark and 261 incidental shark permit holders. Logbook records indicate that there are usually about 10 Atlantic shark directed permit holders that use gillnet gear in any year. However, the universe of directed permit holders using gillnet gear can change from year to year and could include anyone who holds an Atlantic shark directed permit.

Alternative D2, the preferred alternative, would change the gillnet VMS requirements and would require federal directed shark permit holders with gillnet gear on board to use VMS only in the vicinity of the Southeast U.S. Monitoring Area, pursuant to ALWTRP requirements, and would have short and long-term direct minor beneficial socioeconomic impacts. Atlantic

shark gillnet fishermen fishing in the vicinity of the Southeast U.S Monitoring Area would still incur the installation costs of the VMS, but data transmission would be limited to those times when the vessel is in this area. Furthermore, shark gillnet fishermen outside of this area that do not fish in the vicinity of the Southeast U.S Monitoring Area would not need to install a VMS unit or, if they already have one, maintain the VMS unit or replace a malfunctioning one. Thus, the socioeconomic impacts from this alternative, while still adverse, are of a lesser degree than those under Alternative D1, the No Action alternative. This alternative would likely result in neutral short and long-term indirect socioeconomic impacts since supporting businesses including dealers and bait, tackle, and ice suppliers would not be impacted. While the retention of sharks in federal waters requires one of two limited access commercial shark permits, these permits do not specific gear type, including gillnets. For this reason, NMFS does not know the exact number of shark gillnet fishermen that would be affected by this alternative. As of July 11, 2013, there are 216 directed shark and 261 incidental shark permit holders. Logbook records indicate that there are usually about 10 Atlantic shark directed permit holders that use gillnet gear in any year. However, the universe of directed permit holders using gillnet gear can change from year to year and could include anyone who holds an Atlantic shark directed permit. Since this alternative is more in line with the requirements of the ALWTRP and because it would reduce socioeconomic impacts while still maintaining beneficial ecological impacts for protected whale species, NMFS prefers this alternative at this time.

9.0 COMMUNITY PROFILES

Section 102(2)(a) of the National Environmental Policy Act requires Federal agencies to consider the interactions of natural and human environments by using "a systematic, interdisciplinary approach which will ensure the integrated use of the natural and social sciences in planning and decision-making." Federal agencies should address the aesthetic, historic, cultural, economic, social, or health effects which may be direct, indirect, or cumulative. The Magnuson-Stevens Act also requires, among other matters, consideration of social impacts. Consideration of the social impacts associated with fishery management measures is a growing concern as fisheries experience variable participation and/or declines in stocks.

Profiles for HMS fishing communities were included in Chapter 9 of the 2006 Consolidated HMS FMP and updated in Chapter 6 of the 2012 Stock Assessment and Fishery Evaluation Report. The states most likely to be impacted by this action due to the importance of the smoothhound shark fishery are those in North Carolina, Virginia, New Jersey, and New York. The specific communities that would be impacted in these stares are difficult to determine. NMFS knows which states are the most likely to be impacted from state-by-state landings reports, but NMFS does not have more precise geographic information. Once permitting, reporting, and observer requirements are in place, NMFS will learn more about which specific communities would be impacted.

Regardless, none of the communities would be greatly impacted by the preferred alternative in this action because the smoothhound shark fishery is not a high revenue fishery across the entire geographic range. Measures considered in draft Amendment 9 could introduce some inefficiencies in the fishery, but should not greatly impact smooth dogfish landings or effort. For example, in 2011, the most recent year when landings exceed the Amendment 3

quota, total smooth dogfish landings were 2,078,251 lb dw (ACCSP data) resulting in revenues across the entire sink gillnet fishery of $1,634,337 (2,078,551 lb of meat, 249,390 lb of fins).

10.0 OTHER CONSIDERATIONS

10.1 MAGNUSON-STEVENS ACT: NATIONAL STANDARDS

NMFS has determined that this proposed action is consistent with the Magnuson-Stevens Act and other applicable laws, subject to further consideration after public comment. The analyses in this document are consistent with the Magnuson-Stevens Act National Standards (NS) (see 50 C.F.R. Part 600, Subpart D for National Standard Guidelines).

NS1 requires NMFS to prevent overfishing while achieving on a continuing basis Optimum Yield (OY), from each fishery for the U.S. fishing industry. The preferred alternatives in this document are consistent, to the greatest extent practicable, with ongoing management efforts to rebuild, manage, and conserve target species in accordance with NS1, NS Guideline 1 and 16 U.S.C. § 1854(e)(4). The preferred quota alternative for smoothhound sharks would cap effort at a level that, in lieu of a formal stock assessment, is considered reasonable based on the fishery-independent abundance trends.

NS2 requires that conservation and management measures be based on the best scientific information available. The preferred alternatives in this document are consistent with NS2 guidelines. The smoothhound shark fishery-independent abundance trends as well as available landings data through logbooks, VTR, and ACCSP provide the best scientific information available at this time. Consistent with NS2, the analysis for the 2012 Shark BiOp was based on the latest shark stock assessments and other available shark fishery information. The preferred VMS alternative would only require Atlantic shark gillnet fishermen to use VMS in the ALWTRP specified area and the analysis of the effects of gillnet gear on Atlantic large whales is based on the best available scientific information.

NS3 requires that, to the extent practicable, an individual stock of fish be managed as a unit throughout its range and interrelated stocks of fish be managed as a unit or in close coordination. The smoothhound shark range extends beyond U.S. waters. The preferred alternatives for smoothhound sharks and the Atlantic shark fishermen using gillnet gear are consistent with NS3 because they would apply to these species throughout their range in U.S. federal waters from Maine to Texas, including the Gulf of Mexico and the Caribbean Sea. These alternatives would also apply to federally permitted vessels fishing for Atlantic sharks on the high seas. Federal permit requirements and quotas would apply to all shark fishermen wanting to retain smoothhound sharks.

NS4 requires that conservation and management measures do not discriminate between residents of different states. Furthermore, if it becomes necessary to allocate or assign fishing privileges among various U.S. fishermen, such allocation should be fair and equitable to all fishermen; be reasonably calculated to promote conservation; and should be carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges. The smooth dogfish-specific provisions of the SCA pertains to smoothhound sharks from Maine to Florida, and thus the preferred alternatives would be applicable to smooth

dogfish fishermen in these states and establishes measures for fishermen outside those states consistent with the rest of the SCA. The preferred smoothhound quota alternative is consistent with NS4 because it would apply to all of the open access smoothhound permit holders in the entire U.S. EEZ. Similarly the preferred alternatives that implement the 2012 Shark BiOp as well as the VMS requirements are consistent with NS4 because these measures would apply to all smoothhound permit holders and Atlantic shark permit holders using gillnet gear.

NS5 requires that conservation and management measures should, where practicable consider efficiency in the utilization of fishery resources with the exception that no such measure has economic allocations as its sole purpose. The preferred alternatives in draft Amendment 9 are consistent with NS 5 because the preferred alternatives that implement the smooth dogfish-specific provisions of the SCA maintain the current processing efficiencies in the smooth dogfish fishery while maintaining a sustainable fishery for this species.

NS 6 states that conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches. The preferred alternatives in this document are consistent with this NS because the preferred alternatives (A2, B3, C4, and D2) implements measures that consider the variations among, and contingencies in, fisheries, fishery resources, and catches. The preferred measures relate to either fishing effort/retention restrictions, including the SCA alternatives, or quotas, as is in the case of the commercial smoothhound shark fisheries. When preferring these management measures, NMFS analyzed the data considering variations among the fisheries, fishery resources, and catches. Measures are already in place to ensure quotas are not exceeded in the presence of variations in the fishery and catches; however, quotas could change in the future if warranted by new stock assessments. Timely reporting of catch data and the requirement to close the fishery after 80 percent of the quota utilized would allow for these measures to adjust to variations and contingencies, consistent with NS 6.

NS 7 states that conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication. The preferred alternatives in this document (A2, B3, C4 and D2) are consistent with this NS because they would not implement new requirements that would not be costly for fishermen. As a part of draft Amendment 9, NMFS will be implementing the smoothhound federal permit that was finalized in Amendment 3. A minimal fee would be required upon applying for the permit, but it is likely that this would not introduce a significant barrier to the fishery. Consistent with NS 7, the preferred alternatives were analyzed to avoid unnecessary duplication.

NS 8 states that conservation and management measures shall, consistent with the conservation requirements of the Magnuson-Stevens Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to provide for the sustained participation of such communities, and to the extent practicable, minimize adverse economic impacts on such communities. The preferred alternatives in this document are consistent with this NS. The preferred alternatives that implement the smooth dogfish-specific provisions of the SCA taking into account the importance of the smooth dogfish fisheries to fishermen in the Atlantic States by allowing a small exception to the fins attached requirement which allows this fishery to maintain current processing efficiencies. The other preferred alternatives, including the smoothhound quotas and

BiOp and VMS requirements take into account the fishery resources to communities. Specifically, the smoothhound quota would be set at a level that would allow the fishery to continue at current levels.

NS 9 states that conservation and management measures shall, to the extent practicable, minimize bycatch, and to the extent that bycatch cannot be avoided, minimize the mortality of such bycatch. The preferred alternatives in this document are consistent with this NS. The preferred alternatives for the smooth dogfish-specific provisions of the SCA ensure that bycatch is accounted for by limiting the smooth dogfish fins-attached exception so as not to impact other incidentally caught shark species. The preferred alternatives that would implement the 2012 Shark BiOp are consistent with NS 9 and would ensure that the Atlantic shark fisheries are fully implementing the Reasonable and Prudent Measures and minimizing bycatch of sea turtles, sawfish, and Atlantic sturgeon. For incidentally-caught non-protected resources, no impacts are expected to result from the 2012 Shark BiOp changes to net check and soak time restrictions. In the 2002 rulemaking that implemented the net checks (July 9, 2002, 67 FR 45393), NMFS stated that the net checks would be unlikely to impact the bycatch of species that are not protected resources. This statement was made because the net checks do not require fishermen to remove or disentangle any animals except protected species during the net checks. In the 2012 BiOp, the requirement to use either net checks or the 24 hour set limitation was determined to ensure that any incidentally taken ESA-listed species are detected and released in a timely manner, reducing the likelihood of mortality. Thus, this change is unlikely to impact non-protected resource bycatch, consistent with NS9

In addition, the VMS preferred alternatives would bring the VMS requirements for Atlantic shark fishermen using gillnet gear in line with the current requirements of the ALWTRP thereby minimizing interactions with Atlantic large whales.

NS 10 states that conservation and management measures shall, to the extent practicable, promote the safety of human life at sea. The preferred alternatives in the document are consistent with this NS because no impact to safety of life at sea is anticipated to result from these preferred alternatives (A2, B3, C4 and D2). The management measures in the preferred alternatives would not require fishermen to travel greater distances, fish in bad weather, or otherwise fish in an unsafe manner.

10.2 CONSIDERATION OF MAGNUSON-STEVENS ACT SECTION 304(G) MEASURES

Section 304(g) of the Magnuson-Stevens Act sets forth requirements specific to the preparation and implementation of an FMP or FMP amendment for HMS. See 16 U.S.C. 1854(g) for full text. The summary of the requirements of Section 304(g) and an explanation of how we are consistent with these requirements are below. The impacts of the preferred alternatives and how it meets these requirements are described in more detail in Chapters 2 and 4 of the document.

1. *Consult with and consider the views of affected Councils, Commissioners, and advisory groups*

During the development of the smoothhound shark management measures contained in Amendment 3, NMFS consulted with and considered the views of affected Councils, Commissioners, and advisory groups. A Predraft of Amendment 3 to the 2006 Consolidated HMS FMP (Amendment 3) was developed and released to consulting parties and HMS Advisory panel (AP) members in February 2009. NMFS presented the Predraft to the HMS AP members at the February 2009 AP meeting to discuss and receive comments. Written comments received on the issues and options presentation, during the scoping meetings, and at the HMS AP meeting were considered in the preparation of the DEIS for Amendment 3 (July 24, 2009, 74 FR 36892). Comments received on the DEIS from public submissions, public hearings, the HMS AP September 2009 meeting, and presentations to the five Atlantic Regional Fishery Management Councils were used in the preparation of this document.

Since publication of the final Amendment 3 EIS and rule, NMFS has continued to consult with these groups. Between July and October 2010, HMS Management Division staff performed four site visits; one in each of the top four smooth dogfish fishing states of North Carolina, Virginia, New York, and New Jersey. In addition to meeting with affected constituents, these outreach trips also allowed to staff to consult directly with members of the Mid-Atlantic Fishery Management Council which has jurisdiction in the primary area of the commercial smooth dogfish fishery.

As NMFS prepared to consider these actions, the Advisory Panel was once again consulted on September 11, 2013 during the Fall 2013 HMS Advisory Panel meeting. During that consultation, implementation of the smooth dogfish-specific provisions of the SCA was discussed.

On April 28, 2011, we made the determination that scalloped hammerhead sharks were overfished and experiencing overfishing (76 FR 23794). Following this determination, on October 7, 2011, we published a notice announcing our intent to prepare a proposal for Amendment 5 to the 2006 Consolidated HMS FMP with an EIS in accordance with the requirements of the NEPA (76 FR 62331). We also made the stock status determinations based on the results of the SEDAR 21 process in the October 7, 2011 notice of intent. Determinations in the October 2011 notice included that sandbar sharks are still overfished but no longer experiencing overfishing, and that dusky sharks are still overfished and still experiencing overfishing (i.e., their stock status has not changed). The October 2011 notice also acknowledged that there are two stocks of blacknose sharks, the Atlantic blacknose shark and the Gulf of Mexico blacknose shark. The Atlantic blacknose shark stock is overfished and experiencing overfishing, and the Gulf of Mexico blacknose shark stock status is unknown.

We released a Predraft of Amendment 5 to the 2006 Consolidated HMS FMP, which summarized and incorporated comments received during scoping, to the HMS Advisory Panel on March 14, 2012, and made it available to the public on the internet for broader public comment. The Predraft included the outcome of stock assessments for sandbar, dusky, scalloped hammerhead, Atlantic blacknose, and Gulf of Mexico blacknose sharks as well as potential management measures for these species/stocks. We requested that the HMS Advisory Panel and consulting parties (Atlantic, Gulf, and Caribbean Fishery Management Councils, Marine Fisheries Commissions, U.S. Coast Guard, and other State and Federal Agency representatives)

submit comments on the Predraft by April 13, 2012. Public comments on the Predraft were also accepted and collected.

Following review of the Predraft comments received, we published a Federal Register notice on May 29, 2012 (77 FR 31562) considering the addition of Gulf of Mexico blacktip sharks to Amendment 5. This addition was proposed because Gulf of Mexico blacktip sharks were undergoing a stock assessment as part of the SEDAR 29 process, and that process would be completed before this amendment was finalized. Therefore, we believed that the addition of Gulf of Mexico blacktip sharks to this amendment would facilitate administrative efficiency by optimizing our resources, and would allow us to address new scientific information in the timeliest manner. We also expected that this addition would provide better clarity to and understanding by the public regarding any possible impacts of the rulemaking on shark fisheries by combining potential management measures resulting from recent shark stock assessments into one rulemaking. Public comments on this addition to Amendment 5 were accepted until June 21, 2012. As described in Chapter 1, based on the results of a SEDAR 29 stock assessment for Gulf of Mexico blacktip sharks, the stock is not overfished and is not experiencing overfishing.

The Notice of Availability of the DEIS for Amendment 5 and the proposed rule published in the Federal Register on December 7, 2012 (77 FR 73029), and November 26, 2012 (77 FR 70552), respectively. Written comments received on the issues and options presentation, during the scoping meetings on the Predraft and at the HMS Advisory Panel meeting were considered at all stages when preparing the DEIS and proposed rule. During the public comment period for this proposed rule, we held eight public hearings, two public webinars/conference calls, one meeting and consultation with the HMS Advisory Panel on January 8, 2012, and, if invited, separate Regional Fishery Management Council briefings during the Council's regular meetings. All comments received, including those from the public, the Regional Fishery Management Councils, and the HMS Advisory Panel, were considered at all stages while preparing this document.

2. Establish an advisory panel for each FMP

As part of the 2006 Consolidated HMS FMP, we combined the Atlantic Billfish and HMS Advisory Panels into one panel. This combined HMS Advisory Panel provides representation from the commercial and recreational fishing industry, academia, non-governmental organizations, state representatives, representatives from the Regional Fishery Management Councils, and the Atlantic and Gulf States Marine Fisheries Commissions. This amendment will not change the HMS Advisory Panel.

3. Evaluate the likely effects, if any, of conservation and management measures on participants in the affected fisheries and minimize, to the extent practicable, any disadvantage to U. S. fishermen in relation to foreign competitors.

Throughout this document, we have described the effects of the management measures and any impacts on U.S. fishermen. The preferred quota alternatives in this document are necessary to meet Magnuson-Stevens Act mandates which in the long-term are not expected to disadvantage U.S. fishermen in relation to foreign competitors.

4. *With respect to HMS for which the United States is authorized to harvest an allocation, quota, or fishing mortality level under a relevant international fishery agreement, provide fishing vessels with a reasonable opportunity to harvest such allocation, quota, or at such fishing mortality level.*

There is currently no international agreement on smoothhound sharks or LCS quotas, allocations, or fishing mortality levels. Therefore, this requirement is not applicable for these species.

5. *Review on a continuing basis, and revise as appropriate, the conservation and management measures included in the FMP.*

We continue to review the need for any revisions to the existing regulations for Atlantic HMS fisheries.

6. *Diligently pursue, through international entities, comparable international fishery management measures with respect to HMS.*

We continue to work with international entities to implement comparable international fishery management measures where applicable. To the extent that some of the management measures in this amendment are exportable, we will work to provide foreign nations with the techniques and scientific knowledge to implement similar management measures.

7. *Ensure that conservation and management measures under this subsection:*
   a. *Promote international conservation of the affected fishery;*
   b. *Take into consideration traditional fishing patterns of fishing vessels of the United States and the operating requirements of the fisheries;*
   c. *Are fair and equitable in allocating fishing privileges among United States fishermen and do not have economic allocation as the sole purpose; and*
   d. *Promote, to the extent practicable, implementation of scientific research programs that include the tagging and release of Atlantic HMS.*

All of the objectives of this document indicate how we promote the international conservation of the affected fisheries in order to obtain optimum yield while maintaining traditional fisheries and fishing gear and minimizing economic impacts on U.S. fishermen. The management measures in the preferred alternative suite in this document are expected to meet these goals. More specifically:

a. As detailed in Item 4 above, there is currently no international agreement on smoothhound sharks or LCS quotas, allocations, or fishing mortality levels. We will continue to work with the international community to promote conservation in fisheries that span international jurisdiction.
b. The preferred alternatives take traditional fishing patterns into account when establishing quotas and, at this time, regional quotas are not preferred.
c. As noted in Item b above, regional quotas are not preferred at this time.
d. We have a number of Atlantic HMS scientific research programs in place including tagging and release projects. The preferred alternative suite would not directly

implement or establish any new scientific programs; however, these actions would not impact existing programs either.

10.3 PAPERWORK REDUCTION ACT

The federal commercial smoothhound shark permit requirement analyzed in Amendment 3 to the 2006 Consolidated HMS FMP will become effective upon the effective date of this rule. NMFS submitted a PRA change request to The Office of Management and Budget (OMB) to add this permit to the existing HMS permit PRA package (OMB control number 0648-0327). OMB subsequently accepted the change request to add the federal commercial smoothhound shark permit to the HMS permit PRA package.

On November 15, 2013, NMFS published a final rule (78 FR 68757) that modifies declaration requirements for Atlantic shark fishermen using VMS. The final rule implements requirements for operators of vessels that have been issued Atlantic HMS permits and are required to use their VMS units to provide hourly position reports 24 hours a day, 7 days a week (24/7). The final rule implements requirements allowing the operators of such vessels to make declarations out of the fishery when not retaining or fishing for Atlantic HMS for specified periods of time that encompass two or more trips. These changes alter the burden estimates under the existing HMS VMS PRA package (OMB control number 0648-0372).

10.4 E. O. 13132

This action does not contain regulatory provisions with federalism implications sufficient to warrant preparation of a Federalism Assessment under E.O. 13132.

11.0 LIST OF PREPARERS

This Environmental Assessment, Regulatory Impact Review, and Initial Regulatory Flexibility Analysis were prepared by LeAnn Hogan, Steve Durkee, Jennifer Cudney, Alexis Jackson, Karyl Brewster-Geisz, and Margo Schulze-Haugen from the HMS Management Division, Office of Sustainable Fisheries. Please contact the HMS Management Division for a complete copy of current regulations for the Atlantic HMS commercial and recreational fisheries.

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12.0 LIST OF AGENCIES/PERSONS CONSULTED

Discussions relevant to the formulation of the preferred alternatives and the analyses for this document involved input from several NMFS components and constituent groups, including: NMFS General Counsel for Enforcement and Fisheries and Protected Resources Sections, NMFS Southeast Fisheries Science Center, NMFS Office for Law Enforcement, NMFS Office of Science and Technology, and the members of the HMS Advisory Panel (which includes representatives from the commercial and recreational fishing industries, environmental and academic organizations, state representatives, and fishery management councils). NMFS also considered the numerous comments received at Advisory Panel meetings from individual fishermen and interested parties regarding these issues.

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DRAFT FINDING OF NO SIGNIFICANT IMPACT

Draft Finding of No Significant Impact for Proposed Amendment 9 to the 2006 Consolidated Atlantic Highly Migratory Species Fishery Management Plan to implement the 2010 Shark Conservation Act provisions and other regulations in the Atlantic smoothhound fishery

The Highly Migratory Species (HMS) Management Division of the Office of Sustainable Fisheries submits the attached Environmental Assessment (EA) for Atlantic HMS fisheries for Secretarial review under the procedures of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). This EA considers the establishment of an effective date for previously-adopted shark management measures finalized in Amendment 3 (June 1, 2010, 75 FR 30484) and the 2011 HMS trawl rule (August 10, 2011; 76 FR 49368); proposes to increase the previously-adopted commercial quota for smoothhound sharks based on updated scientific information and data; proposes to implement limited exception from certain provisions of the SCA that specifically apply to smooth dogfish; proposes to implement Term and Condition 4 of the 2012 Shark BiOp, which required either net checks or soak time restrictions in the Atlantic shark gillnet fisheries; and proposes to reduce the vessel monitoring system (VMS) requirements for shark gillnet fishermen, and was developed as an integrated document that includes a Regulatory Impact Review and Initial Regulatory Flexibility Analysis. The responses in the Finding of No Significant Impact statement are supported by the analyses in the EA as well as in the other National Environmental Policy Act (NEPA) documents referenced. Copies of the EA/Regulatory Impact Review/Initial Regulatory Flexibility Analysis are available at the following address:

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National Marine Fisheries Service
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or

http://www.nmfs.noaa.gov/sfa/hms

This action considers the implementation of the smooth dogfish provisions of the 2010 Shark Conservation Act which includes a limited allowance for the removal of smooth dogfish fins while at sea, and reexamines the smoothhound annual quota consistent with the original intent of Amendment 3 to the 2006 Consolidated HMS FMP (i.e., collect data regarding the fishery while minimizing changes, to the extent practicable). The preferred alternatives are:

- Alternative A2: Implement the smooth dogfish-specific provisions of the Shark Conservation Act of 2010 to establish an allowance for the removal of smooth dogfish fins while at sea, considering eight sub-alternatives

- Sub -Alternative A2-1c: Smooth dogfish must make up at 75 percent of the retained catch - preferred alternative

- Sub -Alternative A2-2a: Require any state commercial fishing permit that allows smooth dogfish retention in conjunction with the federal smoothhound permit

- Sub-Alternative A2-3b: Apply exception for smooth dogfish along the Atlantic Coast but not to Florida's coast in the Gulf of Mexico

- Alternative B3: Establish a smoothhound shark quota that is equal to the maximum annual landings from 2004-2013 plus two standard deviations (1,739.9 mt)

- Alternative C4: Establish a soak time limit of 24 hours for sink gillnet gear and a 2 hour net check requirement for drift gillnet gear in the Atlantic shark and smoothhound shark fisheries

- Alternative D2: Require federal directed shark permit holders with gillnet gear on board to use VMS only in the Southeast U.S. Monitoring Area, pursuant to Atlantic Large Whale Take Reduction Plan requirements

The National Oceanic and Atmospheric Administration Administrative Order 216-6 (NAO 216-6) (May 20, 1999) contains criteria for determining the significance of the impacts of an action. In addition, the Council on Environmental Quality regulations at 40 C.F.R. § 1508.27 state that the significance of an action should be analyzed both in terms of context and intensity. Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on the NAO 216-6 criteria and CEQs context and intensity criteria. These include:

1. Can the action be reasonably expected to jeopardize the sustainability of any target species that may be affected by the action?

No. The action is not expected to jeopardize the sustainability of smoothhound sharks (which includes smooth dogfish, Florida smoothhound, and Gulf smoothhound (genus *Mustelus*)). As detailed in Section 3.3, although not conclusive, fishery-independent surveys do not indicate that current fishing pressure is too high, despite varying levels of exploitation over the past several years. Thus, maintaining current fishing pressure is unlikely to jeopardize the sustainability of the stock. This action implements the Saving Clause of the SCA, which provides a limited exception for smooth dogfish from the fins attached requirement. However, these measures would likely result in neutral impacts to smooth dogfish since fishermen are currently not required to land smooth dogfish with all fins naturally attached. Although a formal stock assessment has not been conducted for the species, directed fishing has occurred since the mid-1990s with no evident decline in catch rates or levels. Additionally, this action, in conjunction with the measures in Amendment 3 would introduce new management measures and restrictions including a cap on landings, on a fishery that is currently unregulated in federal waters. While

the proposed smoothhound shark quotas could result in minor adverse ecological impacts because landings would be capped at a level higher than initially proposed in Amendment 3, the increase in quota is based on recent landings data and would allow the fishery to continue at its current level and would not unnecessarily limit fishermen while NMFS seeks to gather data on this fishery. In addition, a smoothhound shark stock assessment is scheduled for 2014 and any adjustments to the management measures, including the quota, would be made based on the results of that assessment. Additional environmental analyses and regulatory action may be considered if warranted by the stock assessment outcomes, depending on the magnitude of any resultant changes in management approaches that may result Draft Amendment 9 also considers implementing a quota based on this stock assessment if it is available before publication of the final rule. For these reasons, this action is not expected to jeopardize the sustainability of smoothhound sharks.

2. Can the action be reasonably expected to jeopardize the sustainability of any non-target species?

No. The action is not expected to jeopardize the sustainability of any non-target fish species because overall fishing effort is not expected to significantly increase and non-target species catches would still be limited within the applicable, previously analyzed total allowable catches for regulated species which were established consistent with NMFS' obligations to end overfishing and rebuild overfished stocks. This action addresses the landing condition of smooth dogfish based on the smooth dogfish-specific provisions of the SCA, reexamines the smoothhound shark quota that was established in Amendment 3, implements measures from the 2012 Shark BiOp, and modifies VMS requirements for Atlantic shark fishermen using gillnet gear consistent with the ALWTRP requirements. This action is not likely to increase effort in the fishery and, therefore, is unlikely to increase impacts on non-target species. When considering each of the alternatives in this action, NMFS explicitly considers the impact on non-target shark species. The measures that implement the requirements of the 2012 Shark BiOp and the ALMTRP would help to mitigate or reduce interactions with protected resources, thus this action would not jeopardize the sustainability of any non-target species.

3. Can the action be reasonably expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat (EFH) as defined under the Magnuson-Stevens Act and identified in FMPs?

No. EFH designation for smoothhound sharks was analyzed and is detailed in Chapter 11 of Amendment 3. In Amendment 1 to the 2006 Consolidated HMS FMP and Amendment 3, NMFS reviewed the various gear types with the potential to affect EFH and, based on the best information available at this time, NMFS has determined that fishing is not likely to adversely affect EFH for smoothhound sharks. Thus, there is no evidence to suggest that implementing any of the preferred alternatives in this rulemaking would adversely affect EFH to the extent that adverse effects could be identified on the habitat or fisheries.

4. Can the action be reasonably expected to have a substantial adverse impact on public health and safety?

No. The proposed implementation of a limited exception to allow the removal of smooth dogfish fins at-sea, a reexamination of the smoothhound quota, and measures to comply with the 2012 Shark BiOp and ALWTRP are not likely to have substantial adverse impacts on public health and safety. Because the actions are not expected to change current fishery practices and behaviors, no effects to public health and safety are anticipated from their implementation.

5. Can the action reasonably be expected to adversely affect endangered or threatened species, marine mammals, or critical habitat of these species?

No. There would not be any additional negative ecological impacts to endangered or threatened species, marine mammals or the critical habitat of these species beyond those impacts currently analyzed in the Biological Opinion for the Atlantic shark and smoothhound shark fisheries. The 2012 Shark BiOp issued under the ESA concluded that the continued operation of the Atlantic shark and smoothhound shark fisheries is unlikely to jeopardize the continued existence of Atlantic sturgeon, smalltooth sawfish or any species of ESA-listed sea turtle. This action would not significantly increase fishing effort rates, levels, or locations. Rather, this action considers implementation of a limited exception to the fins attached requirement and reexamines the smoothhound quota established in Amendment 3. Neither of these actions would significantly increase effort beyond status quo because the new proposed quota was based on updated landings information and, therefore, is not expected to have any adverse impacts on protected resources. In addition, proposed management measures are not expected to alter interactions with protected species. Thus, these alternatives are expected to have neutral ecological impacts on the environment and protected resources. Additionally, this action implements one of the Terms and Conditions of the 2012 Shark BiOp which would ensure that the Atlantic shark and smoothhound shark fisheries are fully compliant with the requirements of the BiOp. Draft Amendment 9 also proposes to modify current VMS requirements consistent with the Atlantic Large Whale Take Reduction Plan (ALWTRP). Both of these measures would mitigate or reduce interactions with protected resources.

6. Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g. benthic productivity, predator-prey relationships, etc.)?

No. The implementation of limited exception to the fins attached requirement in the SCA and a reexamination of the smoothhound quota established in Amendment 3 are not expected to have a substantial impact on biodiversity and ecosystem function within the affected area, because the proposed action is not expected to significantly increase fishing effort or change fishing practices, and/or interactions with non-target and endangered or threatened species. Similarly, this action proposes measures to comply with the 2012 Shark BiOp and ALWTRP which would mitigate or reduce interactions with protected resources. Thus, the proposed action as a whole is not likely to have substantial adverse impacts biodiversity and ecosystem function.

7. Are significant social or economic impacts interrelated with significant natural or physical environmental effects?

No. There are no anticipated significant natural or physical environmental effects associated with the proposed action and no significant social or economic impacts interrelated with natural or physical environmental effects that would result from the action. The ecological impacts of implementing the exception to the fins attached requirement would likely be neutral and the ecological impacts of the proposed quota would be minor, adverse due to landings being capped at a higher level. The measures to implement the 2012 Shark BiOp and the VMS requirements consistent with the ALWTRP would likely be beneficial because they would mitigate and reduce interaction with protected species. The minor adverse ecological impacts of the proposed quota are not expected to be significant. The proposed quotas would likely result in beneficial socioeconomic impacts because it would allow the fishery to continue at its current level however, these impacts are not expected to be significant since the proposed action is not expected to significantly increase overall fishing effort.

8. To what degree are the effects on the quality of the human environment expected to be highly controversial?

The effects of this action on the human environment are not expected to be highly controversial. Based upon public comment prior to publication of this proposed rule and public comment on other, smoothhound-related rules, interest in the implementation of the 2010 Shark Conservation Act is high. However, the term "controversial" does not refer to the mere existence of opposition to, or interest in a proposed action; rather "controversial" refers to cases where a substantial dispute exists as to the size, nature, or effect of the major federal action. Such substantial dispute does not exist here. As such, controversy resulting from the legislation does not impact NMFS' finding of no significant impact.

9. Can the action be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?

No. This action would not result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers or ecologically critical areas because fishing effort would occur in open areas of the ocean. In addition, there is no park land, prime farmlands, wetlands, or wild and scenic rivers within the action area so there would be no impacts to these areas.

10. Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

No. Effects on the human environment would be similar to those effects analyzed in similar shark actions since 1999, some of which have been considered in the Final Environmental Impact Statement (FEIS) prepared for the 2006 Consolidated HMS FMP as well as the EISs for the Amendments to the 2006 Consolidated HMS FMP. None of the previous actions resulted in highly uncertain effects or unique or unknown risks. This action would implement a congressionally-mandated exception to allow smooth dogfish fins to be removed at sea and would reexamine the annual smoothhound quota established in Amendment 3 as well as

implement the requirements of the 2012 Shark BiOp, required under the ESA and the ALWTRP all of which do not involve unique or unknown risks.

11. Is the action related to other actions with individually insignificant, but cumulatively significant impacts?

No. NMFS does not anticipate there to be any significant cumulative ecological, economic, and social impacts. The proposed actions would consider how to implement the smooth dogfish-specific fin removal exception in the SCA, reexamine the smoothhound quota established in Amendment 3, and implement measures to comply with the BiOp and ALWTRP. The management measures are not expected to significantly increase fishing effort, or cause significant ecological, economic, or social impacts. The alternatives analyzed in this EA would continue to prevent overfishing without jeopardizing the sustainability of the smoothhound shark stock, or the stock of any incidentally encountered non-target species. Under this action, NMFS anticipates that fishermen using gillnet gear for sharks would have no adverse impacts on ESA-listed species beyond those analyzed in the 2012 Shark BiOp which concluded that the continued operation of the Atlantic shark and smoothhound fisheries are not likely to jeopardize the continued existence of any ESA-listed species.

12. Is the action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.

No. The proposed actions would occur in the inshore and offshore waters of the Atlantic ocean and would not occur in any areas listed or eligible for listing in the National Register of Historic Places, and would not cause loss or destruction of significant scientific, cultural, or historical resources because there are no significant scientific, cultural, or historic resources within the action area.

13. Can the action reasonably be expected to result in the introduction or spread of a non-indigenous species?

No. The proposed action is not expected to result in any significant change in fishery patterns or behaviors previously analyzed in the 2006 Consolidated HMS FMP. Most vessels in the smoothhound shark fishery are small vessels with limited range and hold capacity and do not travel between ecologically different bodies of water or exchange ballast water. Thus, they do not contribute to the introduction or spread of non-indigenous species.

14. Is the action likely to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

No. Draft Amendment 9 is primarily in response to legislation that is directly applicable to the smooth dogfish fishery. Therefore, this action does not set a precedent or represent a formal policy direction. The portion of draft Amendment 9 that reexamines the smoothhound quota using updated landings data is an attempt to remain consistent with the stated intent of Amendment 3 to minimize changes to the smoothhound shark fishery while collecting data to

fully characterize this previously unmanaged fishery. Therefore, it is not establishing a new precedent, but rather following an existing one that does not have significant impacts.

15. Can the action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

No. The action would be consistent with the Magnuson-Stevens Act and the HMS regulations at 50 CFR § 635. NMFS has preliminarily determined that this action would be implemented in a manner consistent with the enforceable policies of those coastal states on the Atlantic (including the GOM and Caribbean) that have approved coastal zone management programs. Letters will be sent to the relevant states asking for their concurrence when the proposed rule is filed with the Federal Register. The proposed action would not be expected to violate any Federal, state, or local law or requirement imposed for the protection of the environment.

16. Can the action reasonably be expected to result in cumulative adverse effects that could have substantial effect on the target species or non-target species?

No. The action is not expected to result in cumulative adverse effects that could have a substantial effect on target species or non-target species. The proposed actions would not result in a significant increase in fishing effort in the Atlantic shark and smoothhound fisheries and therefore, would not have substantial effect on the target species. With regards to non-target species, NMFS anticipates that fishermen in the smoothhound and Atlantic shark fisheries would not have adverse impacts to ESA-listed species beyond those impacts analyzed in the 2012 Shark BiOp, which concluded that these fisheries would not jeopardize any ESA-listed species.

DETERMINATION

In view of the information presented in this document and the analysis contained in the attached EA that was prepared to address the landing condition of smooth dogfish as required in the SCA, reexamine the smoothhound shark quota that was established in Amendment 3 based on updated landings data, implement the Terms and Conditions of the 2012 Shark BiOp, and modify the VMS measures consistent with the ALWTRP requirements , it is hereby determined that this action would not significantly impact the quality of the human environment as described above and in the EA. In addition, all impacts to potentially affected areas, including national, regional, and local, have been addressed to reach the conclusion of no significant impact. Accordingly, preparation of an EIS for this action is not necessary.

_____-DRAFT-_____ _____

Alan Risenhoover Date

Director, Office of Sustainable Fisheries, NOAA