

FINAL

**AMENDMENT 3 TO THE CONSOLIDATED
ATLANTIC HIGHLY MIGRATORY SPECIES
FISHERY MANAGEMENT PLAN**



Including:

A Final Environmental Impact Statement,
A Final Regulatory Impact Review,
A Final Regulatory Flexibility Analysis,
A Final Social Impact Analysis

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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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Atlantic Highly Migratory Species
Fishery Management Plan

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Amendment 3 to the Consolidated Atlantic Highly Migratory Species Fishery Management Plan

Actions: Implement management measures consistent with recent stock assessments for small coastal sharks (SCS) and shortfin mako sharks; establish a rebuilding plan for blacknose sharks; implement commercial quota limits consistent with stock assessment recommendations to end overfishing and rebuild overfished stocks; and, modify the Atlantic Highly Migratory Species (HMS) management unit to include smooth dogfish.

Type of Statement: Final Environmental Impact Statement; Final Regulatory Impact Review; Final Regulatory Flexibility Analysis; Final Social Impact Statement

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Abstract: The National Marine Fisheries Service (NMFS) is amending the 2006 Consolidated Atlantic HMS Fishery Management Plan (FMP) based on several stock assessments that were completed in 2007 and 2008. After considering comments received during scoping and on a Predraft document, NMFS released the Draft Environmental Impact Statement (DEIS) and proposed rule on July 24, 2009 (74 FR 36706 and 74 FR 36892). The DEIS and proposed rule considered measures to reduce fishing mortality and effort in order to rebuild overfished Atlantic shark species while ensuring that a limited shark fishery could be maintained. Additionally, NMFS proposed adding smooth dogfish under NMFS management due to growing concerns regarding the status of this unmanaged species. The Final Environmental Impact Statement (FEIS) describes a range of alternatives that could impact shark fishermen and dealers including modifying commercial quotas, modifying commercial gear restrictions, establishing a rebuilding plan for overfished stocks, establishing measures to prevent overfishing, modifying recreational measures, and establishing management measures for smooth dogfish.

EXECUTIVE SUMMARY

Atlantic HMS are managed under the dual authority of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act (Magnuson-Stevens Act) and the Atlantic Tunas Convention Act (ATCA). Under the Magnuson-Stevens Act, National Marine Fisheries Service (NMFS) must manage fisheries to maintain optimum yield (OY) on a continuing basis while preventing overfishing. Under ATCA, NMFS is authorized to promulgate regulations, as may be necessary and appropriate, to implement the recommendations from the International Commission for the Conservation of Atlantic Tunas (ICCAT). The measures established in this amendment and associated rulemaking are taken under the authority of the Magnuson-Stevens Act. Currently, Atlantic sharks, tunas, swordfish, and billfish are managed under the 2006 Consolidated Atlantic HMS FMP, and its amendments.

Based on the 2007 SCS Stock Assessment, NMFS determined that blacknose sharks are overfished with overfishing occurring. As a result, NMFS announced its intent to prepare an Environmental Impact Statement (EIS) on May 7, 2008 (73 FR 25665). In this notice, NMFS asked for comments on existing commercial and recreational shark management measures that would assist the Agency in determining options for conservation and management of Atlantic sharks consistent with relevant federal statutes. On July 2 (73 FR 37932) and September 13 (73 FR 53407), NMFS announced the availability of a scoping document and five scoping meetings that would be held from July through September 2008. During the scoping meetings, NMFS described the results of recent stock assessments, issues that need to be addressed concerning shark management, and options or alternatives that may be implemented to achieve objectives. NMFS also consulted with the five Atlantic Fishery Management Councils (New England, Mid-Atlantic, South Atlantic, Gulf of Mexico, and the Caribbean), the two Atlantic interstate Marine Fisheries Commissions (Atlantic States and Gulf States), and the HMS Advisory Panel (AP). The scoping comment period ended on November 14, 2008. A summary of the comments received during scoping (May 7, 2008 to November 14, 2008) can be found on the HMS website: http://www.nmfs.noaa.gov/sfa/hms/newslist/2009/02-12-09_Predraft_for_Amendment_3.pdf. A summary and the transcripts of the September 2008 AP meeting can also be found on the HMS website at <http://www.nmfs.noaa.gov/sfa/hms/>.

NMFS released a Predraft of Amendment 3 to the 2006 Consolidated HMS FMP and the summary of the scoping comments to the HMS AP in February 2009. NMFS requested that the HMS AP and consulting parties (New England, Mid-Atlantic, South 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 March 16, 2009. While some of the options considered in the Predraft changed in the Draft Amendment 3 to the 2006 Consolidated HMS FMP (hereafter referred to as Amendment 3), the overall list of issues to be addressed did not change. A summary and the transcripts of the February 2009 AP meeting can be found on the HMS website at <http://www.nmfs.noaa.gov/sfa/hms/>.

On July 24, 2009 (74 FR 36706 and 74 FR 36892), the Draft Environmental Impact Statement (DEIS) and proposed rule were released, which considered a range of alternative management measures from several different topics including small coastal sharks (SCS)

commercial quotas, commercial gear restrictions, pelagic shark effort controls, recreational measures for SCS and pelagic sharks, and smooth dogfish management measures. The public comment period closed on September 25, 2009. NMFS held nine public hearings and consulted with all five Atlantic Fishery Management Councils and the Gulf and Atlantic States Marine Fisheries Commissions. A summary of public comments received, both spoken and written, and NMFS' response to those comments is included as Appendix D of this document and will also be in the final rule implementing the regulations. Copies of all the written comments received can be found at <http://www.regulations.gov> (search for 0648-AW65).

For National Environmental Policy Act (NEPA) purposes, NMFS considered a full range of alternatives and carried forward those considered to be reasonable for full consideration in the FEIS. Consistent with the regulations published by the Council on Environmental Quality (CEQ), 40 C.F.R. 1501-1508 (CEQ Regulations), NMFS has identified its preferred alternatives. The alternatives in this document considered the comments received from the public and consulting parties during the scoping, Predraft, and DEIS stages. Table 1 below provides the list of the changes in the FEIS from the DEIS. A summary of the issues addressed and other alternatives considered are also included. A full description and analysis of the different alternatives can be found in Chapters 2 and 4 of this document. NMFS has identified preferred alternatives within each of the lettered topics, and believes that the preferred alternatives in this document should, consistent with the Magnuson-Stevens Act and other domestic laws, rebuild overfished Atlantic shark stocks, end overfishing of Atlantic sharks, balance the needs of the fishermen and communities with the needs of the resource and scientists, and maximize sustainable fishing opportunities.

The Amendment also implements a mechanism for establishing Annual Catch Limits (ACLs) and Accountability Measures (AMs). On January 16, 2009, NMFS published NSG1 providing guidance for implementing the ACL and AM requirements of the Magnuson-Stevens Act (74 FR 3178). Per the January 2009 final rule, ACLs and AMs apply to all fisheries "unless otherwise provided for under an international agreement in which the United States participates." While, SCS, large coastal sharks (LCS), and pelagic sharks are predominately managed through domestic management measures, in recent years ICCAT has issued a number of recommendations regarding sharks (*e.g.*, ICCAT recommendations 2004-10, 2005-05, 2007-06, 2008-07, 2009-07 for bigeye thresher shark (*Alopias superciliosus*)). Nevertheless, ACLs and AMs will apply, as required, to all Atlantic shark species managed by NMFS.

The CEQ regulations direct Federal agencies to the full extent possible to integrate the requirements of NEPA with other planning and environmental review procedures required by law or by agency practice so that all procedures run concurrently rather than consecutively. To that end, this document integrates the FEIS required by NEPA, with the fisheries planning and management requirements associated with proposed amendment to a FMP under the Magnuson-Stevens Act, the Final Regulatory Flexibility Analysis (FRFA) required under the Regulatory Flexibility Act (RFA), 5 U.S.C. §§601-603; and the Regulatory Impact Review (RIR) prepared in accordance with Executive order 12866, "Regulatory Planning and Review."

Table 1 The preferred alternatives at the draft and final stage of Amendment 3 to the Consolidated HMS FMP.

Commercial Measures	Preferred Alternatives in DEIS	Preferred Alternatives for FEIS
SCS Commercial Quotas	<p>Alt. A4</p> <ul style="list-style-type: none"> - <u>Small coastal sharks</u>: 56.9 mt - <u>Blacknose sharks</u>: 14.9 mt - No retention by incidental permit holders - Remove shark gillnet gear as authorized gear for sharks 	<p>Alt. A6</p> <ul style="list-style-type: none"> - <u>Small Coastal Sharks</u>: 221.6 mt - <u>Blacknose sharks</u>: 19.9 mt - Retention by incidental permit holders allowed - Do not prohibit gillnets as authorized gear for sharks
Commercial Gear Restrictions	Alt. B3 - Close the gillnet fishery to commercial shark fishing from South Carolina south, including the GOM and Caribbean Sea	Alt. B1 - No Action: Maintain current authorized gears for commercial shark fishing
Pelagic Shark Effort Controls	Alt. C5 - Take action at the international level to end overfishing of shortfin mako sharks	Alt. C5 - Same.
	Alt. C6 - Promote the release of shortfin mako sharks brought to fishing vessels alive	Alt. C6 - Same.
Recreational Measures	Preferred Alternatives in DEIS	Preferred Alternatives in FEIS
SCS Recreational Measures	Alt. D4 - Prohibit the retention of blacknose sharks in recreational fisheries	Alt. D1 - No Action: Maintain current recreational retention and size limits for blacknose sharks (54 inch size limit, 1 shark/person/vessel/trip)
Pelagic Sharks Recreational Measures	Alt. E3 - Take action at the international level to end overfishing of shortfin mako sharks	Alt. E3 - Same.
	Alt. E4 - Promote the release of shortfin mako sharks brought to fishing vessels alive	Alt E4 - Same.
Other Species	Preferred Alternatives in DEIS	Preferred Alternatives in FEIS
Smooth dogfish	<p>Alt F2 - Add smooth dogfish under NMFS Management and establish a federal permit requirement</p> <ul style="list-style-type: none"> - Establish a smooth dogfish quota equal to the maximum annual landings from 1998-2007 plus one standard deviation (645.8 mt dw) 	<ul style="list-style-type: none"> - Alt F2 and delay implementation until beginning of smooth dogfish fishing season in 2012 - provides time to work out details of permits and PRA requirements and for fishery to adjust to fins attached requirements. -Establish a smooth dogfish quota equal to the maximum annual landings from 1998-2007 plus two standard deviations (715.5 mt dw)

SCS Commercial Quotas

The 2007 stock assessment of SCS in the U.S. Atlantic and Gulf of Mexico consisted of assessments for blacknose sharks, finetooth sharks, bonnethead sharks, Atlantic sharpnose sharks, and the SCS complex. Results of the blacknose shark stock assessment determined that blacknose sharks are overfished ($SSF_{2005} / SSF_{MSY} = 0.48$) and overfishing is occurring ($F_{2005} / F_{MSY} = 3.77$). The assessment recommended a blacknose shark specific TAC and a corresponding rebuilding timeframe. Because a separate TAC was recommended for blacknose sharks, NMFS is creating a separate commercial quota for blacknose sharks in this amendment. One objective of this amendment is to establish a rebuilding plan for blacknose sharks by ensuring that fishing mortality levels for blacknose sharks are maintained at or below levels that would result in a 70 percent probability of rebuilding in the timeframe recommended by the assessment.

The 2007 blacknose shark stock assessment estimated that blacknose sharks would have a 70 percent probability of rebuilding by 2027 with a TAC of 19,200 individuals per year. To achieve this TAC, NMFS would need to reduce overall blacknose mortality by at least 78 percent across all fisheries that interact with blacknose sharks. With the exception of alternative A1, the No Action Alternative, NMFS considered several alternatives that would establish a separate blacknose shark quota, which would allow NMFS to better monitor the species, and a non-blacknose SCS quota, which would apply to finetooth, Atlantic sharpnose, and bonnethead sharks.

In the DEIS, alternatives A2 – A4 were based on the available SCS quota of 454 mt dw, the average blacknose shark landings of 61.5 mt dw from 2004 – 2007, and the need to reduce overall blacknose mortality in the shark fisheries by at least 78 percent. In the DEIS, NMFS preferred alternative A4, which would have set the non-blacknose SCS quota at 56.9 mt dw and the blacknose quota at 14.9 mt dw, which was the amount of blacknose sharks that would have been harvested while the non-blacknose SCS quota was harvested. The analyses indicated that the non-blacknose SCS quota would have been a 76 percent reduction from the average landings of non-blacknose SCS from 2004 through 2007. The blacknose quota of 14.9 mt dw would have been a 76 percent reduction from the average landings of blacknose sharks. Also, under alternative A4 in the DEIS, gillnet gear would have been prohibited and fishermen with incidental limited access permits (LAPs) would not have been authorized to retain blacknose sharks.

During the public comment period, NMFS received comments that indicated gillnet fishermen can target, or avoid catching, certain shark species; additional analyses of gillnet observer data determined that this may indeed be the case. Also, additional analyses of updated data during the DEIS comment period resulted in an increase in the blacknose average size, and a decrease in mortality rates, for blacknose sharks caught in gillnet gear. Using the same methodology, but using the updated data, the quotas considered in alternatives A2 – A4 have changed from those in the DEIS to the FEIS. In response to the findings from the update data and data analysis, NMFS has also considered a new alternative, alternative A6.

The revised alternatives A2 – A4, and the new alternative A6, would still establish a non-blacknose SCS quota for finetooth, Atlantic sharpnose, and bonnethead sharks. However, rather than subtracting the average blacknose shark landings from the SCS quota of 454 mt dw, as was done in the DEIS, the alternatives presented in the FEIS use a non-blacknose SCS quota of 221.6 mt dw, which is based on the average landings of those sharks from 2004 through 2008. This change in approach is due, in part, to be consistent with the 2007 SCS stock assessment that indicated that, while none of the three species of non-blacknose SCS are currently overfished, or undergoing overfishing, fishing mortality should not be increased.

The revisions made to alternatives A2 – A4 in the FEIS area as follows. Under alternative A2, the blacknose quota was based on the average landings of blacknose sharks of 55 mt dw from 2004 – 2008. With a 78 percent reduction, the blacknose quota would be set at 12.1 mt dw ($55 * .78 = 55 - 42.9 = 12.1$). Alternative A3 would set a non-blacknose SCS quota of 110.8 mt dw, a 50 percent reduction of non-blacknose SCS landings from 2004 – 2008. The blacknose shark quota would be set at 19.9 mt dw, the amount of blacknose sharks that would be harvested while the non-blacknose SCS quota is harvested. Also, under alternative A3, fishermen with incidental permits would be allowed to retain blacknose sharks when the fishing season is open. Under alternative A4 gillnets would be prohibited as an authorized gear in the Atlantic shark fishery. A non-blacknose SCS quota of 55.4 mt dw would be established, which is based on the higher blacknose shark mortality rate from non-gillnet gears used in the SCS fishery since gillnets would be prohibited under this alternative. A separate blacknose-specific quota of 15.9 mt dw would be established, which is again the amount of blacknose sharks that would be landed while the non-blacknose SCS quota was harvested. Under alternative A4, fishermen with an incidental LAP would not be authorized to retain any blacknose sharks.

The preferred alternative, alternative A6, is a new alternative that followed logically from updated data from the NMFS SEFSC, and comments received during the DEIS public comment period, which resulted in a re-evaluation of the proposed changes to the SCS fishery to rebuild blacknose sharks. NMFS believes that this new preferred alternative better reflects the intent of the previous preferred alternative, and remains a reasonable alternative capable of meeting the purpose and need of the action. It does not alter in any material manner management approaches fully analyzed in the DEIS. Alternative A6 would establish a new non-blacknose SCS quota of 212.6 mt dw, which would be equal to the average annual landings for the non-blacknose SCS fishery from 2004 through 2008, and an individual blacknose shark quota of 19.9 mt dw (43,872 lb dw), which would be a 64 percent reduction in blacknose shark landings relative to average landings from 2004 – 2008 of 55 mt dw. Under alternative A6, all currently authorized gears for shark fishing would be allowed in the fishery, regardless of geographic region and incidentally permitted fishermen would not be prohibited from retaining blacknose sharks. In addition, alternative A6 would implement a framework mechanism that would give NMFS the flexibility to increase or decrease either the blacknose or non-blacknose SCS quotas based on the ability of fishermen to avoid blacknose sharks and target non-blacknose SCS, and any subsequent change in status based on new stock assessments of these species of sharks.

Alternative A6 would result in long-term significantly beneficial ecological impacts to blacknose sharks by reducing mortality of this species below the commercial allowance of 7,094 blacknose sharks per year that is necessary for this stock to rebuild with a 70 percent probability by 2027 consistent with the rebuilding plan and the objectives of this amendment. Alternative

A6 maintains fishing effort and mortality in the non-blacknose SCS fishery to a level that is equal to the average landings for these species for the years 2004 through 2008. NMFS recognizes that there may be adverse social and economic impacts on the fishing community due to the reduced blacknose shark quota, however, in selecting the quota of 221.6 mt dw for the non-blacknose SCS fishery, NMFS is hoping to minimize those adverse socioeconomic impacts, since the bulk of the catch in the SCS fishery comes from the non-blacknose SCS species (i.e. finetooth, sharpnose, and bonnethead sharks) that have been determined to not be overfished or undergoing overfishing. This alternative was selected because it strikes a balance between meeting the rebuilding requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) by addressing the overfished status and overfishing of blacknose sharks while minimizing the socio-economic impacts to shark fishery participants.

Commercial Gear Restrictions

Because gillnets are the predominate gear used to harvest blacknose and other SCS species, NMFS considered a range of commercial gear alternatives from no action (maintain all currently authorized gears in the fishery) to prohibiting gillnet gear in all areas of the Atlantic including the Gulf of Mexico and the Caribbean Sea. In the DEIS the preferred alternative, alternative B3, would have closed the shark gillnet fishery to commercial shark fishing from South Carolina south, including the Gulf of Mexico and the Caribbean Sea. This alternative would have mitigated impacts to the smooth dogfish fishery participants who typically use gillnets from North Carolina north.

Current analysis of gillnet observer data indicates that gillnet fishermen are likely able to target certain species while avoiding others and that the mortality rate for blacknose sharks caught in gillnets was lower than previously believed. Therefore, NMFS has changed the preferred alternative from the DEIS to the FEIS to alternative B1, the No Action alternative, which would maintain all currently authorized gear types for the Atlantic shark fisheries. Since there would be no change to the gear restrictions under alternative B1, the ecological impacts associated with this alternative would be neutral. Because blacknose sharks can be rebuilt while continuing to allow gillnet gear, NMFS believes that more data are necessary to determine the extent to which gillnet fishermen can avoid certain species before eliminating the gear from the fishery. In addition, Alternatives B2 and B3 could have adverse ecological impacts for blacknose shark stocks compared to the preferred alternative, as discards of blacknose sharks would be higher if gillnets were prohibited, and many of the discards could be juveniles. Under alternatives B2 and B3, adverse social and economic impacts on the SCS commercial shark participants would likely be disproportionate to the ecological benefits to blacknose sharks under these two alternatives. If implemented, alternative B1, the No Action alternative, when combined with alternative A6 (the preferred alternative) would reduce blacknose shark mortality to levels consistent with the rebuilding plan for this species. NMFS further believes that allowing gillnet gear as an authorized gear for sharks is consistent with the 2008 Biological Opinion for the Atlantic shark fishery, which determined that the Atlantic shark fishery is not likely to jeopardize the continued existence of endangered green, leatherback, and Kemp's ridley sea turtles; the endangered smalltooth sawfish; or the threatened loggerhead sea turtle.

Pelagic Shark Commercial and Recreational Measures

In 2008, an updated stock assessment for shortfin mako sharks was conducted by the International Commission for the Conservation of Atlantic Tunas's (ICCAT) Standing Committee for Research and Statistics (SCRS). Based on the results of this stock assessment, NMFS determined that the North Atlantic shortfin mako sharks are not overfished but are approaching an overfished condition and are experiencing overfishing. The 2008 ICCAT stock assessment did not recommend a TAC or mortality reduction to prevent overfishing of shortfin mako sharks, making it difficult to set a quota or other limit to prevent overfishing. Since shortfin mako sharks have not been determined to be overfished, NMFS is not implementing a rebuilding plan for this species at this time. NMFS considered several alternatives for the commercial and recreational fisheries to end overfishing that could have a variety of impacts from no impact (No Action alternative) to significant impacts (e.g., placement of this species on the prohibited species list).

The preferred alternatives, C5 and C6, and E3 and E4, in the commercial and recreational fisheries, respectively, would take action at the international level through international fishery management organizations to establish management measures to end overfishing of shortfin mako sharks, and to promote the live release of shortfin mako sharks in the domestic commercial and recreational shark fisheries. The preferred alternatives would not change the current commercial and recreational regulations for shortfin mako sharks. In comparison to the cumulative fishing mortality of North Atlantic shortfin mako sharks caused by other nations, the United States contributes very little to shortfin mako shark mortality in the North Atlantic because there is no directed U.S. commercial fishery, and a limited recreational fishery. U.S. commercial harvest of Atlantic shortfin mako sharks has historically been approximately 9 percent of the recorded total international landings, based on 1997 through 2008 data. Because of the small U.S. contribution to North Atlantic shortfin mako shark mortality, domestic reductions of shortfin mako shark mortality alone would not end overfishing of the entire North Atlantic stock. Therefore, NMFS believes that ending overfishing and preventing an overfished status would be better accomplished through international efforts where other countries that have larger takes of shortfin mako sharks could also participate in shortfin mako shark mortality reductions. While this alternative could have short-term minor, adverse ecological impacts and neutral socioeconomic impacts for the portion of the shortfin mako shark stock that is fished by U.S. fishermen, any international management recommendations adopted by the United States to help protect shortfin mako sharks would be implemented domestically and could have beneficial ecological impacts on shortfin mako sharks and potentially negative socioeconomic impacts on U.S. fishermen in the long term. Promoting the release of shortfin mako sharks that are brought to the vessel alive could result in a reduction in shortfin mako shark mortality and thus, have long-term beneficial ecological impacts for this species. NMFS did not change the preferred alternatives from the DEIS to the FEIS stage.

SCS Recreational Measures

NMFS considered several alternative in the DEIS to reduce mortality of blacknose sharks in the recreational fishery from the No Action alternative, to prohibiting this species in the recreational fishery. Under the preferred alternative D1, the No Action alternative, NMFS would maintain the existing recreational size and retention limits for SCS. Alternative D1 is the

preferred alternative because blacknose sharks rarely reach a size greater than the current federal minimum size; therefore, the 54 inch FL size limit creates a *de facto* retention prohibition of blacknose sharks in federal waters. Recreational anglers are currently allowed one authorized shark greater than 54 inches (4.5 ft) FL per vessel per trip (including SCS). In addition, they are allowed one bonnethead shark and one Atlantic sharpnose shark per person per trip. The current recreational harvest of SCS combined from 2004-2007 was 536,886 fish (approximately 33,555 per year). The Atlantic sharpnose shark was the most abundant species caught at a rate of approximately 86,863 per year. The other average yearly harvest rates were approximately 35,165 for bonnethead sharks, 10,360 for blacknose sharks, and 1,834 for finetooth sharks. Because there would be no change to the current retention limits under alternative D1, there would be direct and indirect, neutral ecological impacts in the short- and long-term associated with this alternative for blacknose sharks. This includes neutral ecological impacts for Atlantic sharpnose, bonnethead, and finetooth sharks, as these species are currently not overfished and overfishing is not occurring. The selected alternative would also have neutral socioeconomic impacts on fishery participants as the current recreational regulations would remain unchanged.

In the DEIS, the preferred alternative was alternative D4, which would have prohibited blacknose sharks in the recreational fishery. However, after evaluating public comments from the DEIS, and because the 54 inch size limit in place under the No Action alternative affords adequate protection for blacknose sharks, thereby contributing to the rebuilding of the species, NMFS chose to prefer alternative D1 in the FEIS rather than the previously preferred alternative, alternative D4. Recreational landings of blacknose sharks often occur in state waters where the regulations for recreational catch are sometimes less strict than regulations in federal waters. Therefore, complementary size limits of 54 inches FL in state waters, which would effectively prohibit the retention of blacknose sharks, would be important in achieving the mortality reduction required to attain the TAC recommended by the 2007 SCS Stock Assessment. If overfishing continues to occur on the blacknose shark stock based on the next assessment, NMFS would ask states to implement measures consistent with federal regulations to help reduce mortality and meet rebuilding targets for blacknose sharks and, depending on the TAC provided in the stock assessment, may again consider prohibiting recreational retention of blacknose sharks.

Smooth Dogfish

NMFS currently manages sharks in four management units (small coastal sharks, pelagic sharks, large coastal sharks, and prohibited species). There are additional species of sharks that are HMS and that fall outside of the current management units. The management of these species remain under Secretarial authority should the Secretary determine the species is in need of conservation and management. One of these species, smooth dogfish, is not currently managed at the federal level. Although smooth dogfish were previously included in a fishery management unit (FMU) that included deepwater and other sharks in order to prevent finning, these species were removed from the FMU in the 2003 Amendment 1 to the Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks since they were protected from finning under the Shark Finning Prohibition Act (67 FR 6124, February 11, 2002). The Magnuson-Stevens Act is the primary statute giving fishery management authority to NMFS, on behalf of the Secretary of Commerce. The Magnuson-Stevens Act also provides authority for the Regional Fishery Management Councils to manage stocks and species within each Council's

geographic jurisdiction due to the Council's close cooperation with constituents, fishery experience and knowledge, and consensus building process. One exception to this management authority is for Atlantic HMS, which are managed solely under NMFS, on behalf of the Secretary of Commerce. As detailed below, NMFS has determined that smooth dogfish falls within the congressional directive regarding HMS and should be managed under the Secretary's authority. NMFS has also determined that smooth dogfish are in need of conservation and management under NMFS authority. However, limited data regarding landings, effort, or participants in the fishery complicates new regulations.

The preferred alternative, alternative F2, would implement federal management of smooth dogfish and establish a permit requirement for commercial and recreational retention of smooth dogfish in federal waters. Management measures, including the federal permit requirement and the quota, would not be implemented until the 2012 fishing season to allow NMFS time to perform outreach and education regarding the fins attached requirement and to allow time for implementation of the new federal permit. A federal permit requirement would allow NMFS to collect data regarding participants in the fishery. Placing smooth dogfish under NMFS management would require that fishermen fishing for smooth dogfish comply with current Atlantic HMS regulations in the Atlantic Ocean, Gulf of Mexico, and Caribbean Sea, including the requirement that sharks be offloaded with their fins naturally attached. Requiring that fins remain naturally attached is a major change from how the fishery currently operates but is one that NMFS feels is necessary for species identification, enforcement and consistency with other Atlantic shark regulations. This alternative would also provide NMFS the ability to select smooth dogfish vessels to carry an observer. This alternative would not require fishermen to attend the protected species release, disentanglement, and identification workshops. As NMFS gathers information about the fishery and the fishermen, NMFS may decide to require that smooth dogfish fishermen attend these workshops as is required in other HMS longline and gillnet fisheries. Over time, NMFS would likely implement logbook or other reporting requirements for smooth dogfish fishermen. NMFS would not do this, however, until the universe of fishermen is known and until NMFS can determine the appropriate mechanism of reporting without duplicating current reporting requirements. Dealers would be required to report smooth dogfish on HMS dealer reports or through the Standard Atlantic Fisheries Information System (SAFIS). The commercial permit would be an open access permit and recreational fishermen would need to obtain either an HMS Angling or Charter/Headboat permit.

Consistent with the Magnuson-Stevens Act, NMFS must implement an ACL for the smooth dogfish fishery. The landings component of the sector-ACL, or commercial quota, would be based on historic landings data spanning 1998-2007 (the last 10 years with complete landings data). The preferred quota alternative, alternative F2a4, would establish a smooth dogfish quota equal to the maximum annual landings from 1998-2007 plus two standard deviations (1,577,319 lb dw). The preferred quota alternative would allow the fishery to continue to operate even if sources of dogfish mortality that were previously unknown start to be reported. In the DEIS, NMFS preferred alternative F2a3 that would have set the quota equal to the maximum annual landings from 1998-2007 plus one standard deviation (1,423,727 lb dw). During the DEIS public comment period, multiple commenters stated that the proposed smooth dogfish quota was too low, and the SEFSC offered that two standard deviations, rather than one, above the maximum annual landings would better account for underreporting. Since the fishery

has not been previously managed, there have been no reporting requirements in the past. While the data from ACCSP used in this analysis likely included the vast majority of landings, the possibility exists of remaining unreported landings. Therefore, NMFS changed the preferred alternative from alternative F2a3 in the DEIS to alternative F2a4 in the FEIS. NMFS believes that this new preferred alternative reflects the intent of the previous preferred alternative, and remains within the range of considered alternatives. As stated in the purpose and need, the smooth dogfish management measures are designed to collect data while minimizing alterations to the fishery. To achieve this goal, it is important to ensure that the smooth dogfish quota is set at a level that allows current fishing practices to continue, to the extent practicable. Within the quota established under this preferred alternative, a set-aside quota was considered for activities that collect dogfish for research or for public display. The current set-aside for all shark species under NMFS' jurisdiction is 60 mt ww. The preferred set-aside quota would establish a separate smooth dogfish set-aside quota for the exempted fishing program.

The preferred alternative F2 would likely have short-term, direct, minor, beneficial ecological impacts on smooth dogfish if the requirement of a federal permit and/or the requirement to keep fins attached reduces the number of participants in the fishery. In the long-term, the ecological impacts could also be direct, minor and beneficial if fishing effort does not increase and landings data are collected to better characterize the fishery and the stock. If the fishery moves fishermen exclusively into state waters as a result of these measures, there is a potential for a variety of adverse or beneficial ecological impacts depending on the life history of the species and its migratory pattern. Requiring that fins remain naturally attached through offloading would have adverse socioeconomic impacts as fishermen and dealers adjust to this new requirement. However, in the long term, NMFS believes that the methods and techniques employed in other shark fisheries can be adopted in smooth dogfish fishery. The delay in implementation until 2012 should provide fishermen and dealers the opportunity to adjust their operations in order to comply with this requirement. The fees associated with the permit would be minimal, and are not expected to create any impediment to entering or remaining in the fishery.

NMFS is currently engaged in formal Section 7 consultation in accordance with the ESA, paragraph 7(a)(2), to determine the potential level of incremental effect that may arise as a result of the preferred management measures for smooth dogfish in the FEIS. NMFS has not yet issued a final BiOp for the smooth dogfish fishery. NMFS will review that BiOp once it is issued and supplement the analysis in this FEIS if the consultation reveals any new or significant effects with respect to the interaction between gillnet fishing for smooth dogfish and protected species that were not considered in the 2008 BiOp for Amendment 2 to the 2006 Consolidated HMS FMP. This FEIS incorporates by reference the 2008 BiOp for Amendment 2 to the 2006 Consolidated HMS FMP. A detailed discussion of the effects of such management relevant to the shark fishery is included in that document. NMFS does not anticipate any substantial change in impact to protected species since the measures proposed for smooth dogfish management are largely administrative, and thus unlikely to affect the manner and extent of fishing for smooth dogfish or redistribution of effort into other fisheries. NMFS assumes there is a correlation between fishing effort and protected species interactions. Since smooth dogfish management measures would establish a quota and permit requirement, fishing effort for smooth dogfish would be capped or slightly reduced with a corresponding diminishment of the possibility of

increased protected resource interactions. In addition, increased observer in the smooth dogfish fishery as a result of a federal permit requirement would better characterize protected resources interactions with the smooth dogfish fishery.

Under the preferred alternative (F2), the implementation of the management measures would be delayed until the beginning of the smooth dogfish fishing season in 2012 to allow time to consider and evaluate the information and requirements included in the final BiOp. If the assessment of effects in the BiOp provides new and meaningful information not considered in this FEIS, NMFS will supplement the FEIS, as appropriate, before implementing any management measures proposed in alternative F2. In the interim, NMFS will not impose any management authority or related conservation and management measures on the smooth dogfish fishery, and thus will not cause any effect on protected species related to such management. In other words, preferred alternative F2 would maintain the status quo with respect to the smooth dogfish fishery as it relates to protected species prior to receiving a final BiOp. While NMFS would finalize the rulemaking with measures for blacknose shark and shortfin mako sharks becoming effective 30 days after publication of the final rule in the Federal Register, the measures, if any, selected for management of smooth dogfish would be deferred to allow NMFS, in consultation with SERO PRD, to develop reasonable and prudent alternatives (RPAs) that could be implemented while avoiding adverse impacts to listed species, as necessary.

MASTER TABLE OF CONTENTS

Executive Summary **iii**

Master Table of Contents..... **xv**

Master List of Tables..... **xxi**

Master List of Figures **xxvii**

List of Commonly Used Abbreviations and Acronyms..... **xxix**

1.0 Introduction..... **1-1**

 1.1 Brief History of This Amendment 1-1

 1.2 Brief Management History 1-4

 1.3 Rebuilding and Preventing Overfishing of Atlantic Sharks 1-6

 1.3.1 The Mechanism for Establishing ACLs and AMs 1-6

 1.3.2 Stock Status and Status Determination Criteria 1-9

 1.3.3 National Standard 1 and Determining the Rebuilding Timeframe 1-11

 1.3.4 2007 Stock Assessment and Rebuilding Timeframe for Blacknose Sharks 1-13

 1.3.5 Smooth Dogfish 1-14

 1.3.6 2008 Stock Assessment for Shortfin Mako Sharks 1-16

 1.4 Purpose and Need 1-17

 1.4.1 Need 1-17

 1.4.2 Purpose and Objectives 1-18

 1.5 Other Considerations 1-19

2.0 Summary of the Alternatives **2-1**

 2.1 Commercial Measures 2-3

 2.1.1 SCS Commercial Quotas 2-3

 2.1.2 Commercial Gear Restrictions 2-8

 2.1.3 Pelagic Shark Effort Controls 2-9

 2.2 Recreational Measures 2-11

 2.2.1 Small Coastal Sharks 2-11

 2.2.2 Pelagic Sharks 2-13

 2.3 Smooth Dogfish 2-15

 2.4 Alternatives Considered But Not Further Analyzed 2-21

3.0 Description of Affected Environment **3-1**

 3.1 Introduction to Highly Migratory Species Management and Highly Migratory Species Fisheries 3-1

 3.1.1 History of Domestic Shark Management 3-2

 3.1.2 International Shark Management 3-5

 3.1.3 Existing State Regulations 3-5

 3.2 Status of the Stocks 3-13

 3.2.1 Atlantic Sharks 3-14

 3.3 Habitat Types and Distributions 3-21

 3.4 Fishery Data Update 3-21

 3.4.1 Bottom Longline 3-22

 3.4.2 Gillnet Fishery 3-35

 3.4.3 Pelagic Longline Fishery 3-45

 3.4.4 Recreational Handgear 3-57

 3.4.5 Fishery Data: Landings by Shark Species 3-61

3.5	HMS Permits and Tournaments.....	3-67
3.5.1	Upgrading and Safety Issues.....	3-70
3.5.2	HMS CHB Permits.....	3-70
3.5.3	HMS Angling Permits.....	3-71
3.5.4	Dealer Permits.....	3-72
3.5.5	Exempted Fishing Permits (EFPs), Display Permits, Chartering Permits, and Scientific Research Permits (SRPs).....	3-74
3.5.6	Atlantic HMS Tournaments.....	3-76
3.6	Economic Status of HMS Shark Fisheries.....	3-80
3.6.1	Commercial Fisheries.....	3-81
3.6.2	Recreational Fisheries.....	3-85
3.7	Community and Social Update.....	3-88
3.7.1	Overview of Current Information and Rationale.....	3-89
3.7.2	Methodology.....	3-90
3.7.3	Summary of Social Data and Information.....	3-92
3.8	International Trade and Fish Processing.....	3-92
3.8.1	Overview of International Trade for Atlantic HMS.....	3-92
3.8.2	U.S. Exports of HMS.....	3-93
3.8.3	U.S. Imports of Atlantic HMS.....	3-94
3.9	Bycatch, Incidental Catch, and Protected Species.....	3-95
3.9.1	Bycatch Reduction and the Magnuson-Stevens Act.....	3-96
3.9.2	Standardized Reporting of Bycatch.....	3-97
3.9.3	Bycatch Reduction in HMS Fisheries.....	3-104
3.10	Evaluation and Monitoring of Bycatch.....	3-104
3.10.1	Bycatch Mortality.....	3-105
3.10.2	HMS Fishing Gears with Protected Species.....	3-107
3.10.3	Measures to Address Protected Species Concerns.....	3-115
3.10.4	Bycatch of HMS in Other Fisheries.....	3-116
3.10.5	Evaluation of Other Bycatch Reduction Measures.....	3-118
3.11	Effectiveness of Existing Time/Area Closures in Reducing Bycatch.....	3-119
4.0	Environmental Consequences of Alternatives.....	4-1
4.1	Commercial Measures.....	4-4
4.1.1	SCS Commercial Quotas.....	4-4
4.1.2	Commercial Gear Restrictions.....	4-21
4.1.3	Pelagic Shark Effort Controls.....	4-26
4.2	Recreational Measures.....	4-41
4.2.1	Small Coastal Sharks.....	4-41
4.2.2	Pelagic Sharks.....	4-45
4.3	Smooth Dogfish.....	4-52
4.4	Impacts on Essential Fish Habitat.....	4-71
4.5	Impacts on Protected Resources.....	4-71
4.6	Environmental Justice.....	4-77
4.7	Coastal Zone Management Act.....	4-79
4.8	Cumulative Impacts.....	4-83
4.9	Past, Present, and Reasonably Foreseeable Actions.....	4-89
4.10	Cumulative Ecological Impacts.....	4-100

4.11	Cumulative Social and Economic Impacts	4-102
5.0	Mitigation and Unavoidable Impacts.....	5-1
5.1	Mitigation Measures	5-1
5.2	Unavoidable Adverse Impacts	5-3
5.2.1	Unavoidable Adverse Socioeconomic Impacts	5-3
5.2.2	Unavoidable Adverse Ecological Impacts	5-4
5.3	Irreversible and Irretrievable Commitment of Resources.....	5-4
6.0	Economic Evaluation	6-1
6.1	Number of Vessel and Dealer Permit Holders.....	6-1
6.2	Gross Revenue of the Commercial Shark Fishermen	6-2
6.3	Variable Costs and Net Revenues of Commercial Shark Fishermen	6-4
6.4	Expected Economic Impacts of the Alternatives	6-5
6.4.1	Commercial Measures	6-5
6.4.2	Recreational Measures	6-29
6.4.3	Smooth Dogfish	6-31
7.0	Regulatory Impact Review.....	7-1
7.1	Description of the Management Objectives.....	7-1
7.2	Description of the Fishery.....	7-2
7.3	Statement of the Problem.....	7-2
7.4	Description of Each Alternative.....	7-2
7.5	Economic Analysis of Expected Effects of Each Alternative Relative to the Baseline.....	7-3
7.6	Conclusions.....	7-15
8.0	Final Regulatory Flexibility Analysis.....	8-1
8.1	Statement of the Need for and Objectives of this Final Rule	8-1
8.2	A Summary of the Significant Issues Raised By the Public Comments in Response to the Initial Regulatory Flexibility Analysis, a Summary of the Assessment of the Agency of Such Issues, and a Statement of Any Changes Made in the Rule as a Result of Such Comments	8-1
8.3	Description and Estimate of the Number of Small Entities to Which the Final Rule Would Apply.....	8-4
8.4	Description of the Projected Reporting, Record-keeping, and Other Compliance Requirements of the Proposed Rule, Including an Estimate of the Classes of Small Entities Which Would Be Subject to the Requirements of the Report or Record	8-6
8.5	Description of the Steps the Agency Has Taken to Minimize the Significant Economic Impact on Small Entities Consistent with the Stated Objectives of Applicable Statutes, Including a Statement of the Factual, Policy, and Legal Reasons for Selecting the Alternative Adopted in the Final Rule and the Reason That Each one of the Other Significant Alternatives to the Rule Considered by the Agency Which Affect Small Entities Was Rejected	8-6
8.5.1	Commercial Measures	8-8
8.5.2	Recreational Measures	8-20
8.5.3	Smooth Dogfish	8-22
9.0	Community Profiles.....	9-1
9.1	Introduction.....	9-1
9.2	Methodology.....	9-2
9.2.1	Previous community profiles and assessments.....	9-2

9.3	Overview of the Shark Fishery	9-3
9.4	Summary of Fisheries Impacts.....	9-5
10.0	Other Considerations.....	10-1
10.1	National Standards.....	10-1
10.2	Consideration of Magnuson-Stevens Section 304(g) Measures	10-7
11.0	Life History Accounts and Essential Fish Habitat Descriptions	11-1
11.1	Habitat.....	11-1
11.2	Shark	11-2
11.2.1	Smooth Dogfish	11-2
11.2.2	Methodology for Determining Smooth Dogfish EFH	11-3
12.0	List of Preparers	12-1
12.1	List of Agencies, Organizations, and Persons Consulted and to Whom Copies of the EIS Will Be Sent.....	12-1
A.0	Appendix: Quotas and Retention Limit Calculations.....	A-1
A.1	Background.....	A-1
A.2	Alternative A2.....	A-5
A.3	Alternatives A3 and A4.....	A-10
A.4	Alternative A6.....	A-17
B.0	Appendix B.....	B-1
B.1	Southern Shrimp Alliance’s Scoping Comments Entitled “Elements of Blacknose Shark Assessment that Warrant Reconsideration”.....	B-1
B.2	Office of Sustainable Fisheries’ Request for SEFSC Assistance with Response to Southern Shrimp Alliance’s Comments Entitled “Elements of Blacknose Shark Assessment that Warrant Reconsideration”	B-9
B.3	SEFSC’s Response to Office of Sustainable Fisheries’ Request for SEFSC Assistance with Response to Southern Shrimp Alliance’s Comments and Additional Blacknose Shark Analyses.....	B-11
B.4	SEFSC’s Response to Southern Shrimp Alliance’s Comments Entitled “Elements of Blacknose Shark Assessment that Warrant Reconsideration”	B-13
B.5	Results of Sensitivity Analyses for Reduction in Blacknose Bycatch in Shrimp Trawls.....	B-23
C.0	Appendix C.....	C-1
C.1	Mid-Atlantic Fishery Management Council’s Request to Secretary Locke to Manage Smooth Dogfish.....	C-1
C.2	National Marine Fisheries Service’s Initial Response to the Mid-Atlantic Fishery Management Council’s Request.....	C-5
C.3	National Marine Fisheries Service’s Final Determination for Management of Smooth Dogfish.....	C-7
D.0	Appendix: Proposed Rule and Draft Environmental Impact Statement Comments and Responses.....	D-1
D.1	SCS Commercial Quotas.....	D-1
D.2	Commercial Gear Restrictions.....	D-14
D.3	Commercial Pelagic Shark Effort Controls.....	D-18
D.4	Recreational Measures for SCS.....	D-22
D.5	Recreational Measures for Pelagic Sharks.....	D-24
D.6	Smooth Dogfish.....	D-28

D.7	General Comments.....	D-45
D.8	Economic Comments.....	D-51
E.0	Appendix E.....	E-1
E.1	Letter to Thomas McIlwain, Chairman of the Gulf of Mexico Fishery Management Council Dated July 22, 2008.....	E-1
E.2	Letter to Rick Leard, Acting Executive Director of the Gulf of Mexico Fishery Management Council Dated July 22, 2008.....	E-5
E.3	Letter to Robert Shipp, Chairman of the Gulf of Mexico Fishery Management Council Dated October 14, 2009.....	E-9
E.4	Letter to Thomas McIlwain, Chairman of the Gulf of Mexico Fishery Management Council Dated July 24, 2009.....	E-11
E.5	Letter to Steve Bortone, Executive Director of the Gulf of Mexico Fishery Management Council Dated October 14, 200.....	E-15
E.6	Letter to Rick Leard, Deputy Executive Director of the Gulf of Mexico Fishery Management Council Dated July 24, 2009.....	E-17
E.7	Letter to George J. Geiger, Chairman of the South Atlantic Fishery Management Council Dated July 22, 2008.....	E-21
E.8	Letter to Bob Mahood, Executive Director of the South Atlantic Fishery Management Council Dated July 22, 2008.....	E-25
E.9	Letter to Charles Duane Harris, Chairman of the South Atlantic Fishery Management Council Dated September 4, 2009.....	E-29
E.10	Letter to Charles Duane Harris, Chairman of the South Atlantic Fishery Management Council Dated July 24, 2009.....	E-30
E.11	Letter to Bob Mahood, Executive Director of the South Atlantic Fishery Management Council Dated September 4, 2009.....	E-33
E.12	Letter to Bob Mahood, Executive Director of the South Atlantic Fishery Management Council Dated July 24, 2009.....	E-34

MASTER LIST OF TABLES

Table 1	The preferred alternatives at the draft and final stage of Amendment 3 to the Consolidated HMS FMP.....	v
Table 2.1	An overview of all the alternatives considered in draft Amendment 3 to the 2006 Consolidated HMS FMP.....	2-1
Table 2.2	Framework showing potential for quota changes for blacknose and non-blacknose SCS if fishermen are able to target specific species of sharks.....	2-7
Table 2.3	Framework showing potential for quota changes for blacknose and non-blacknose sharks if fishermen are not able to target specific species of sharks.	2-7
Table 2.4	Total Annual Landings by Year and Summary Data spanning 1998-2007.....	2-19
Table 3.1	State Rules and Regulations Pertaining to Sharks, as of January 1, 2010.....	3-8
Table 3.2	Common names of shark species included within the four species management units under Amendment 2 to the Consolidated HMS FMP.....	3-16
Table 3.3	Summary Table of Biomass and Fishing Mortality for Small Coastal Sharks (SCS) and Shortfin Mako Sharks.....	3-19
Table 3.4	Species composition of observed BLL catch during 2008 for BLL trips targeting sharks in the South Atlantic.....	3-29
Table 3.5	Species composition of observed BLL catch during 2008 for BLL trips targeting sharks in the Gulf of Mexico.....	3-30
Table 3.6	Total Number of Observed Sea Turtle Interactions by Species by Month for Years 1994-2008 in the Shark BLL Fishery.....	3-32
Table 3.7	Total number of Observed Sea Turtle Interactions by Year for Years 1994-2008 in the Shark BLL Fishery.....	3-32
Table 3.8	Total Strike Gillnet Shark Catch and Bycatch by Species in order of Decreasing Abundance for all Observed Trips, 2005-2006.....	3-40
Table 3.9	Total Shark Catch and bycatch by Species and Species Disposition in Order of Decreasing Abundance for all Observed Drift gillnet Sets 2008.....	3-41
Table 3.10	Total Sink gillnet Shark Catch and Bycatch by Species in order of Decreasing Abundance for all Observed Trips, 2008.....	3-42
Table 3.11	Total number of Observed Sea Turtle Interactions by Year from 2000-2008 in the Shark Gillnet Fishery.....	3-44
Table 3.12	Observed Interactions of Sea Turtles in the PLL Fishery and Directed Shark BLL and Gillnet Fishery by Year and Gear Type (LGH = Loggerhead, LTRB = Leatherback).....	3-44
Table 3.13	Average Number of Hooks per PLL Set, 1999-2008.....	3-46
Table 3.14	Observer Coverage of the PLL Fishery.....	3-48
Table 3.15	Reported Catch of Species Caught by U.S. Atlantic PLLs, in Number of Fish, for 2001-2008.....	3-49
Table 3.16	ICCAT Bycatch Table (LL, longline; GILL, gillnets; PS, purse-seine; BB, baitboat; HARP, harpoon; TRAP, traps).....	3-53
Table 3.17	Estimated International Landings of Pelagic Sharks for All Countries in the Atlantic: 2000-2008 (mt ww) ¹	3-56
Table 3.18	Estimates of Total Recreational Harvest of Atlantic Sharks: 1999-2008 (numbers of fish in thousands).....	3-59
Table 3.19	Recreational Harvest of Selected Atlantic Sharks by Species, in number of fish: 1999-2008.....	3-59

Table 3.20	Observed or reported number of Atlantic Sharks kept in the rod and reel fishery, Maine through Virginia, 2000 -2008.	3-60
Table 3.21	Observed or reported number of Atlantic Sharks released in the rod and reel fishery, Maine through Virginia, 2000 -2008.	3-61
Table 3.22	Commercial landings of small coastal sharks in lb dw: 1999-2008.	3-62
Table 3.23	Commercial landings of pelagic sharks in lb dw: 1999-2008.....	3-63
Table 3.24	The number of sharks and non-shark species that were discarded alive, discarded dead, and kept under the exempted fishing program during 2008, including exempted fishing permits, display permits, scientific research permits, and letters of acknowledgement.	3-64
Table 3.25	Catch history for the Small Coastal Shark complex (numbers of fish).	3-65
Table 3.26	Distribution of active Shark Directed and Incidental Permits and Other Permits Held by Shark Fishermen in Other Fisheries. Summarized by State as of November 5, 2009.....	3-68
Table 3.27	Atlantic HMS CHB Permits by State (Principle State on Registration) in 2009.....	3-71
Table 3.28	HMS Angling Permits by State (Principle State on Registration) in 2009.....	3-72
Table 3.29	Number of active shark dealer permits and other permits held by shark dealers by state as of November 6, 2009.....	3-73
Table 3.30	Number of Exempted Fishing Permits (EFPs), Display Permits, Scientific Research Permits (SRPs), Letters of Acknowledgement (LOAs) issued between 2003 and 2009.....	3-75
Table 3.31	Number of Registered HMS Tournaments by State between 2001 and 2008. ...	3-77
Table 3.32	Number and Percent of All HMS Tournaments Awarding Points or Prizes for a HMS, 2006-2008.....	3-78
Table 3.33	Registered Pelagic Shark Tournaments, 2008.	3-79
Table 3.34	Registered Large Coastal Shark (ridgeback and non-ridgeback) Tournaments, 2008.....	3-79
Table 3.35	Registered Small Coastal Shark Tournaments, 2008.....	3-80
Table 3.36	Inflation Price Indexes. The CPI-U is the standard Consumer Price Index for all urban consumers (1982-1984=100) produced by U.S. Department of Labor Bureau of Labor Statistics.....	3-81
Table 3.37	Average ex-vessel prices per lb (in U.S. dollars) for shark by area.....	3-82
Table 3.38	Estimates of the total ex-vessel annual revenues of Atlantic shark fisheries. ...	3-84
Table 3.39	The overall average wholesale price per lb of fresh HMS sold in Atlantic and Gulf of Mexico states as reported by the Fulton Fish Market.....	3-85
Table 3.40	Average Atlantic HMS charterboat rates for day trips.	3-86
Table 3.41	Amount and Value of U.S. Shark Product Exports From 1999-2008.	3-94
Table 3.42	U.S. Imports of Shark Products From All Ocean Areas Combined: 1999-2008.	3-95
Table 3.43	Summary of bycatch species in HMS fisheries, Marine Mammal Protection Act (MMPA) category, Endangered Species Act (ESA) requirements, data collection, and management measures by fishery/gear type.	3-106
Table 3.44	Estimated sea turtle interactions by species in the US Atlantic pelagic longline fishery, 1999-2008, and Incidental Take Levels (ITS).	3-116

Table 3.45	Estimates of bycatch (numbers of fish) of small coastal sharks in the U.S. south Atlantic and Gulf of Mexico shrimp trawl fisheries and bottom longline fishery relative to total catch.....	3-117
Table 3.46	Estimates of bycatch (numbers of fish) of blacknose sharks in the U.S. south Atlantic and Gulf of Mexico shrimp trawl fisheries and bottom longline fishery relative to total catch.....	3-117
Table 3.47	Total number of swordfish, bluefin tuna, yellowfin tuna, bigeye tuna, total BAYS (bigeye, albacore, yellowfin and skipjack tuna), reported landed or discarded in the U.S. Atlantic PLL fishery, 1997 – 2008, and percent change from 1997-99.	3-121
Table 4.1	Sources of blacknose shark mortality, 1999-2005.....	4-6
Table 4.2	Average commercial landings of SCS from 2004-2008 in mt dw (lb dw).	4-9
Table 4.3	Estimated landings and discards of blacknose sharks and non-blacknose SCS under alternative A3.....	4-10
Table 4.4	Estimated landings and discards of blacknose sharks and non-blacknose SCS under alternative A4.....	4-12
Table 4.5	Estimated landings and discards of blacknose sharks and non-blacknose SCS under Alternative A6.....	4-14
Table 4.6	Estimated Commercial Catches (mt) (ww) of Shortfin Mako Shark Reported to ICCAT (landings and discards) by Major Gear and Flag between 1997 and 2008 (NLD=No Landing Data).....	4-28
Table 4.7	Comparison of commercial size limits for shortfin mako sharks (SFM), and their estimated affect on shortfin mako shark live releases.	4-33
Table 4.8	Comparison of commercial size limits for shortfin mako sharks (SFM), and their estimated affect on shortfin mako shark dead discards.	4-33
Table 4.9	Estimates of commercial and recreational landings and dead discards for shortfin mako sharks in the U.S. Atlantic, Gulf of Mexico, and Caribbean. (Source: ICCAT 2009).....	4-36
Table 4.10	Estimates of shortfin mako shark landings (lb dw) reductions according to size restrictions in alternatives C4a and C4b.	4-40
Table 4.11	Percentage of shortfin mako sharks with FL measurements reported as landed to the LPS from 2004 to 2008 under the current size limit and size limits in alternatives E2a and E2b.....	4-47
Table 4.12	Total number of shortfin mako sharks reported to the LPS from 2004 to 2008.....	4-50
Table 4.13	Comparison of the impacts of analyzed alternatives.	4-84
Table 6.1	Number of Shark Limited Access Permits holder between 2004 and 2009.	6-1
Table 6.2	Number of CHB Permits by Year in 2009-2006.	6-2
Table 6.3	Number of shark dealer permits issued from 2004-2009. The actual number of permits per region may change as permit holders move or sell their businesses.	6-2
Table 6.4	Estimates of the total ex-vessel annual revenues of Atlantic Shark HMS fisheries. Sources: NMFS 2008; Cortés, 2003; Cortés and Neer, 2002, 2005; Cortés, pers.comm.	6-3
Table 6.5	Ex-vessel prices per pound dress weight for shark complexes from 2004-2007.....	6-4

Table 6.6	Ex-vessel prices per pound dress weight for proposed shark species quotas from 2004-2007.	6-4
Table 6.7	Median real ex-vessel prices for shark species groups from 2004-2007. Prices adjusted to December 2007 dollars using CPI-U.....	6-4
Table 6.8	Average ex-vessel prices and average annual gross revenues from 2004-2007 under the No Action alternative, A1. Shark fins are assumed to be 5 percent of the carcass weight.	6-6
Table 6.9	Average ex-vessel prices and average annual gross revenues from 2004-2007 under alternative A2. Shark fins are assumed to be 5 percent of the carcass weight.....	6-8
Table 6.10	Average ex-vessel prices and average annual gross revenues from 2004-2007 under alternative A3. Shark fins are assumed to be 5 percent of the carcass weight.....	6-10
Table 6.11	Average ex-vessel prices and average annual gross revenues for entire fishery from 2004-2007 under alternative A4. Shark fins are assumed to be 5 percent of the carcass weight.	6-13
Table 6.12	Lost average annual gross revenues (from 2004-2007) for vessels that fish for non-blacknose SCS and blacknose sharks with gillnet gear under alternative A4. Shark fins are assumed to be 5 percent of the carcass weight.	6-16
Table 6.13	Lost average annual gross revenues (from 2004-2007) for vessels that fish for LCS with gillnet gear under alternative A4. Shark fins are assumed to be 5 percent of the carcass weight.	6-18
Table 6.14	Average annual gross revenues (from 2004-2007) of vessels that land LCS but do not use gillnet gear under alternative A4. Shark fins are assumed to be 5 percent of the carcass weight.	6-19
Table 6.15	Lost average annual gross revenues (from 2004-2007) for vessels landings non-blacknose SCS, blacknose sharks, and LCS under alternative A5. Shark fins are assumed to be 5 percent of the carcass weight.	6-21
Table 6.16	Average ex-vessel prices and average annual gross revenues from 2004-2007 under alternative A6. Shark fins are assumed to be 5 percent of the carcass weight.....	6-23
Table 6.17	Estimates of shortfin mako shark landings (lb dw) reductions according to size restrictions in alternatives C4a and C4b.	6-29
Table 6.18	Total number of shortfin mako sharks reported to the LPS from 2004 to 2008.	6-31
Table 7.1	Net Economic Benefits and Costs of Alternatives.....	7-3
Table 12.1	Individuals that submitted written public comment for Draft Amendment 3 to the 2006 Consolidated HMS FMP.....	12-3
Table A.1	Number of blacknose sharks discarded alive, dead, and mortality rate for all gillnet gears based on 165 observed trips through the Gillnet Observer Program from 2005-2008.....	A-3
Table A.2	Percentages of shark species (individuals) caught in shark trips that directed on specific species based on 2005-2008 Shark Observer Program data.....	A-3
Table A.3	Average landings from 1999-2005 and available commerical landings for blacknose sharks based on a 78% reduction for all gear types.....	A-8

Table A.4	Average landings from 1999-2005 and available commercial landings for blacknose sharks based on a 78% reduction for all gears with no landings from gillnets.....	A-8
Table A.5	Retention limits, discards, and total mortality of blacknose sharks per year under different scenarios for alternative A2.....	A-9
Table A.6	Percent reductions in non-blacknose SCS quotas based on average landings from 2004-2008 under alternative A3.....	A-14
Table A.7	Percent reductions in non-blacknose SCS quotas based on average landings from 2004-2008 under alternative A4.....	A-14
Table A.8	Blacknose shark harvest and discards under alternative A3.....	A-15
Table A.9	Blacknose shark harvest and discards under alternative A4.....	A-16
Table A.10	Total blacknose mortality under different non-blacknose SCS quota reductions for alternative A3.....	A-17
Table A.11	Total blacknose mortality under different non-blacknose SCS quota reductions for alternative A4.....	A-17

MASTER LIST OF FIGURES

Figure 1.1	Generalized mechanism for establishing ABCs/ACLs under Amendment 3.....	1-9
Figure 2.1	Neonate blacknose shark interactions.....	2-23
Figure 2.2	Juvenile blacknose shark interactions.....	2-24
Figure 2.3	Neonate and juvenile blacknose interactions relative to the 20 fathom line.....	2-25
Figure 2.4	Observed BLL sets from 1994-2007 relative to the 20 fathom line.....	2-26
Figure 2.5	Observed BLL sets from 1994-2007 relative to the 50 fathom line.....	2-27
Figure 3.1	Illustration of the status determination and rebuilding terms.....	3-13
Figure 3.2	Observed sea turtle interactions in the shark BLL fishery from 1994-2008.....	3-33
Figure 3.3	Observed sawfish interactions in the shark BLL fishery from 1994-2008.....	3-34
Figure 3.4	Typical U.S. PLL Gear.....	3-45
Figure 3.5	Aggregate Distribution of Hooks Deployed by All ICCAT Parties 2000-2006.....	3-52
Figure 4.1	Interdorsal length measurement used for shortfin mako size limit analysis in alternatives C4a and C4b.....	4-31
Figure 11.1	Smooth dogfish observations from fisheries independent surveys.....	11-4
Figure 11.2	Smooth dogfish EFH designation based on fisheries independent surveys.....	11-5

List of Commonly Used Abbreviations and Acronyms

AA	Assistant Administrator for Fisheries
ABC	Allowable biological catch
ACCSP	Atlantic Coastal Cooperative Statistics Program
ACS	Angler consumer surplus
ACL	Annual Catch Limit
ACTs	Allowable catch targets
ALRS	Automated Landings Reporting System
ALS	Accumulative Landings System
ALWTRP	Atlantic Large Whale Take Reduction Plan
ALWTRT	Atlantic Large Whale Take Reduction Team
AMs	Accountability Measures
ANPR	Advanced Notice of Proposed Rulemaking
AOCTRP	Atlantic Offshore Cetacean Take Reduction Plan
AOCTRT	Atlantic Offshore Cetacean Take Reduction Team
AP	Advisory Panel
APA	Administrative Procedure Act
ASA	American Sportfishing Association
ASMFC	Atlantic States Marine Fisheries Commission
ATCA	Atlantic Tunas Convention Act
AVHRR	Advanced Very High Resolution Radiometer
B	Biomass
B_{MSST}	Biomass of the minimum stock size threshold
B_{MSY}	Biomass expected to yield maximum sustainable yield
B_{OY}	Biomass expected to yield optimum yield
BAYS	Bigeye, albacore, yellowfin, skipjack tunas
BDTRP	Bottlenose Dolphin Take Reduction Plan
BDTRT	Bottlenose Dolphin Take Reduction Team
BET	Bigeye tuna
BETYP	Bigeye Tuna Year Program
BFT	Bluefin tuna
BiOp	Biological Opinion
BLL	Bottom Longline
BSD	Bluefin Tuna Statistical Document
BTF	By the fish
BUM	Blue marlin
CAR	Caribbean Statistical Area
CBP	Customs and Border Protection
Census Bureau	U.S. Bureau of the Census

CFDBS	Commercial Fisheries Database System
CFMC	Caribbean Fishery Management Council
CFL	Curved fork length
CFR	Code of Federal Regulations
CHB	Charter/Headboat
CHRA	Cape Hatteras Special Research Area
CIAT	Spanish for IATTC
CIE	Center for Independent Experts
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CL	Carcass length
COASTSPAN	Cooperative Atlantic States Shark Pupping and Nursery Survey
COE	Certificate of Eligibility
COFI	Committee on Fisheries
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
CPI	Consumer Price Index
CPUE	Catch per unit effort
CSFOP	Commercial Shark Fishery Observer Program (run by University of Florida)
CSR	Center for Shark Research
CSTP	Cooperative Shark Tagging Program
CV	Coefficient of Variation
CZMA	Coastal Zone Management Act
DEA	Data Envelopment Analysis
DEIS	Draft Environmental Impact Statement
DPS	Distinct Population Segment
DRG	Dredge
DSGFOP	Directed Shark Gillnet Fishery Observer Program
dw	Dressed weight
EA	Environmental Assessment
EEZ	Exclusive Economic Zone
EFC	East Florida Coast closed area
EFH	Essential fish habitat
EFP	Exempted fishing permit
EIS	Environmental Impact Statement
EO	Executive Order
ERA	Ecological Risk Assessments
ESA	Endangered Species Act
F	Instantaneous fishing mortality
F _{MSY}	Instantaneous fishing mortality rate expected to yield maximum sustainable yield
F _{OY}	Fishing mortality rate expected to yield optimum yield

FAD	Fish aggregating device
FAO	Food and Agriculture Organization
FAS	Free Alongside Ship
FCZ	Fishery Conservation Zone
FEC	Florida East Coast Statistical Area
FEIS	Final Environmental Impact Statement
FL	Fork length
FMP	Fishery management plan
FMU	Fishery management unit
FR	Federal Register
FRFA	Final regulatory flexibility analysis
GDP	Gross Domestic Product
GIS	Geographic Information System
GLM	Generalized Linear Models
GOM	Gulf of Mexico
GSAFDF	Gulf and South Atlantic Fishery Development Foundation
GMFMC	Gulf of Mexico Fishery Management Council
GSMFC	Gulf States Marine Fisheries Commission
GulfFIN	Gulf of Mexico commercial Fishery Information Network
HACCP	Hazard Analysis Critical Control Point
HAPC	Habitat Area Of Particular Concern
HB	Hierarchical-Bayesian
HBS	Headboat Survey, Southeast
HMS	Highly migratory species: Atlantic sharks, tunas, swordfish, and billfish
HPTRP	Harbor Porpoise Take Reduction Plan
HPTRT	Harbor Porpoise Take Reduction Team
HTS	Harmonized Tariff Schedule
IATTC	Inter-American Tropical Tuna Commission
ICCAT	International Commission for the Conservation of Atlantic Tunas
IDL	Interdorsal length
IFQ	Individual Fishing Quota
ILAP	Initial limited access permit
IMARPE	Instituto del Mar del Peru
INP	Instituto Nacional de Pesca
IPOA	International Plan of Action
IRFA	Initial regulatory flexibility analysis
ITP	International Trade Permit
ITQ	Individual transferable quota
ITS	Incidental take statement

IUU	Illegal, Unregulated, and Unreported
kg	Kilogram
LAP	Limited access permit
LAPP	Limited access privilege program
LCS	Large coastal sharks
LJFL	Lower jaw fork length
LOA	Letter of Acknowledgment
LOF	List of Fisheries
LPS	Large Pelagic Survey
M	Mortality
MAB	Mid-Atlantic Bight Statistical Area
MAFMC	Mid-Atlantic Fishery Management Council
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MDMF	Massachusetts Division of Marine Fisheries
MFMT	Maximum fishing mortality threshold
MMPA	Marine Mammal Protection Act
MMS	Minerals Management Service
MPA	Marine protected area
MRFSS	Marine Recreational Fishing Statistics Survey
MSL	Mississippi Laboratories, SEFSC, NMFS
MSRA	Magnuson-Stevens Fishery Conservation and Management Reauthorization Act
MSST	Minimum stock size threshold
MSY	Maximum sustainable yield
mt	Metric tons
NAS	National Academy of Sciences
NCA	North Central Atlantic
NEC	Northeast Coastal Statistical Area
NED	Northeast Distant Statistical Area
NEFMC	New England Fishery Management Council
NEFSC	Northeast Fisheries Science Center, NMFS
NEPA	National Environmental Policy Act
NERO	Northeast Regional Office, NMFS
NFRDI	National Fisheries Research and Development Institute
NGO	Non-governmental organization
NMFS	National Marine Fisheries Service
nmi	Nautical mile
NOA	Notice of Availability
NOAA	National Oceanographic and Atmospheric Administration
NOI	Notice of Intent

NPOA	National Plan of Action
NRC	Natural Resources Consultants, Inc.
NS	National Standards
NS 1	National Standard 1 Guidelines
NWGB	National Working Group on Bycatch
NYB	New York Bight
OFL	Overfishing limit
OPR	Office of Protected Resources
OSF	Office of Sustainable Fisheries
OY	Optimum yield
PAT	Pop-up archival tag
PDF	Personal flotation device
PIFSC	Pacific Islands Fisheries Science Center
PLL	Pelagic longline
PLTRP	Pelagic Longline Take Reduction Plan
PLTRT	Pelagic Longline Take Reduction Team
PMP	Preliminary Fishery Management Plan
POP	Pelagic observer program
PPI	Producer price index
PRA	Paperwork Reduction Act
PRD	Protected Resources Division
PRM	Post-release mortality
PSA	Productivity and Susceptibility Analysis
PSAT	Pop-up satellite archival tag
RBS	Recreational Billfish Survey
RFA	Regulatory Flexibility Act
RIR	Regulatory Impact Review
RFMC	Regional Fishery Management Council
RFMO	Regional Fishery Management Organizations
RPAs	Reasonable and Prudent Alternatives
RPMs	Reasonable and Prudent Measures
RUM	Random utility model
S&T	NMFS' Science and Technology
SAB	South Atlantic Bight
SAFE Report	Stock Assessment and Fishery Evaluation Report
SAFMC	South Atlantic Fishery Management Council
SAI	Sailfish
SAR	Sargasso Sea
SARA	Species at Risk Act

SBR	Spawning Stock Biomass Ratio
SBRM	Standardized Bycatch Reporting Methodology
SCRS	Standing Committee for Research and Statistics
SCS	Small coastal sharks
SCUBA	Self contained underwater breathing apparatus
SD	Statistical document
SEAMAP	Southeast Area Monitoring and Assessment Program
Secretary	Secretary of Commerce
SEDAR	Southeast Data, Assessment, and Review
SEFSC	Southeast Fisheries Science Center, NMFS
SEIS	Supplemental Environmental Impact Statement
SEN	Seines
SERO	Southeast Regional Office, NMFS
SEW	Stock evaluation workshop
SFA	Sustainable Fisheries Act
SFL	Straight fork length
SFM	Shortfin mako
SK Program	Saltonstall-Kennedy Program
SPOT	Smart position or temperature transmitting
SRP	Scientific research permit
SSB	Spawning stock biomass
SSF	Spawning Stock Fecundity
SSN	Spawning Stock Number
SWFSC	Southwest Fisheries Science Center
T-NB	Truncated negative binomial
TAC	Total allowable catch
TAG	Tag-A-Giant
TAL	Total allowable landings
TCs	Terms and Conditions
TEDs	Turtle exclusion devices
TDRs	Temperature-depth recorders
TL	Total length
TRP	Take Reduction Plan
TUNS	Tuna North and Tuna South
TWL	Trawls
TXPWD	Texas Parks and Wildlife Department
UNK	Unknown
USFWS	United States Fish and Wildlife Service
USVI	U.S. Virgin Islands

VIMS	Virginia Institute of Marine Science
VMS	Vessel monitoring system
VTR	Vessel Trip Report, NMFS NER
WHM	White marlin
WPFMC	Western Pacific Fishery Management Council
WTP	Willingness to pay
ww	Whole weight
WWF	World Wildlife Fund
YFT	Yellowfin tuna
YOY	Young of the year
ZINB	Zero-inflated negative binomial
ZIP	Zero-inflated Poisson
ZMRG	Zero Mortality Rate Goal

