Monkfish Fishery Management Plan
Framework Adjustment 8

Incorporating Stock Assessment and Fishery Evaluation (SAFE) Report
For the 2012 Fishing Year
and the Environmental Assessment

Prepared by
New England Fishery Management Council
and Mid-Atlantic Fishery Management Council

in consultation with
NOAA Fisheries Service

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Executive Summary

The monkfish fishery is jointly managed by the New England Fishery Management Council (NEFMC) and the Mid-Atlantic Fishery Management Council (MAFMC), with the NEFMC having the administrative lead. The fishery extends from Maine to North Carolina out to the continental margin. The Councils manage the fishery as two stocks; with the Northern Fishery Management Area (NMA) covering the Gulf of Maine (GOM) and northern part of Georges Bank (GB), and the Southern Fishery Management Area (SMA) extending from the southern flank of GB through the Mid-Atlantic Bight to North Carolina (see Figure 1.1).

The monkfish fishery is primarily managed by possession limits in conjunction with a yearly allocation of days-at-sea (DAS) calculated to enable vessels participating in the fishery to catch, but not exceed, the target total allowable landings (TAL) and annual catch target (ACT) (landings plus discards) specified for the NMA and SMA for each fishing year (FY). Monkfish are often landed while fishing for species managed by the Northeast (NE) Multispecies (groundfish) Fishery Management Plan (FMP), particularly in the NFMA. During FY 2009, 73 percent of vessels issued limited access monkfish permits were also issued limited access groundfish permits. Such vessels are limited to landing a smaller incidental amount of monkfish unless the vessel declares into the directed monkfish fishery and fishes under both a monkfish and groundfish DAS on the same trip.

Monkfish are currently not overfished and not subject to overfishing (NEFSC 2013). The Monkfish Operational Assessment Review Panel concluded that both stock components are above their respective biomass thresholds and that fishing mortality is below $F_{threshold}$. In recent years, the monkfish fishery has failed to fully harvest the ACT specified for each year, particularly in the NFMA. This suggests that monkfish landings could be increased with little risk of overfishing monkfish. The NEFMC's Science and Statistical Committee (SSC) revised the estimates of OFL for both monkfish stocks, but recommended status quo ABC for both the northern (7,592mt) and southern (12,316mt) stocks for FY 2014-2016. These recommendations were based on the status of the stocks as not overfished, with no overfishing occurring, as well as retrospective patterns and uncertainties in age-based parameters in the assessment.

In April 2013, the Secretary of Commerce (Secretary) issued an Emergency Action (Action) to eliminate monkfish possession limits in the NFMA for the 2013 FY. The purpose of the Action was to mitigate the substantial adverse economic and social impacts associated with substantial reductions to several groundfish ACLs during FY 2013. The Environmental Assessment (EA) associated with the Action concluded that there would be negligible biological impacts and positive economic and social impacts resulting from the elimination of possession limits in the NFMA in FY 2013.

In this framework action, the Council's propose increasing the efficient utilization of the monkfish resource by revising existing monkfish trip limits and/or DAS allocations to fully harvest, but not exceed, catch levels based on the most recent scientific information available. Further, this action would modify the geographic boundaries restricting operations of vessels issued a limited access monkfish Category H permit to enable such vessels to fully utilize their monkfish DAS allocation, and would modify the existing monkfish DAS usage requirements.

Table 1.1. Management measures under consideration for proposed action in Framework 8.

Management Area	Alternative	Incidental Landing Limit (lb/DAS)	A,C daily landing limit (lb/DAS)	B,D (H – SFMA only) daily landing limit (lb/DAS)	DAS
NMA	1 - No Action	25% of landings onboard, not to exceed 300	1250	600	40
	2	25% of landings onboard, not to exceed 300	1250	600	64
	3	600 for A,C permit and 500 for B,D permit when fishing under a groundfish DAS (implied elimination of 25% landings threshold); no changes to other incidental limits	1250	600	40
SMA	1 - No Action	Status quo	550	450	28
	2	Status quo	610	500	32
	3	Status quo	550	450	51
	4	Status quo	610	500	28

Alternative	Monkfish DAS Usage Requirements	
1 - No Action	Vessels allocated both monkfish and groundfish DAS must use groundfish DAS in combination with monkfish DAS	Once a vessel's allocation of groundfish DAS is used up, a vessel may then use monkfish-only DAS
2	Vessels allocated both monkfish and groundfish DAS can use monkfish-only DAS at any time in the SMA	Once a vessel's allocation of groundfish DAS equals the remaining monkfish DAS, the vessel must use both monkfish and groundfish DAS in combination

Alternative	Permit Category H Fishery Boundary
1 - No Action	Vessels issued a monkfish Category H permit may only fish on a monkfish DAS south of 38°40' N Lat.
2	Vessels issued a monkfish Category H permit may fish on a monkfish DAS throughout the SMA

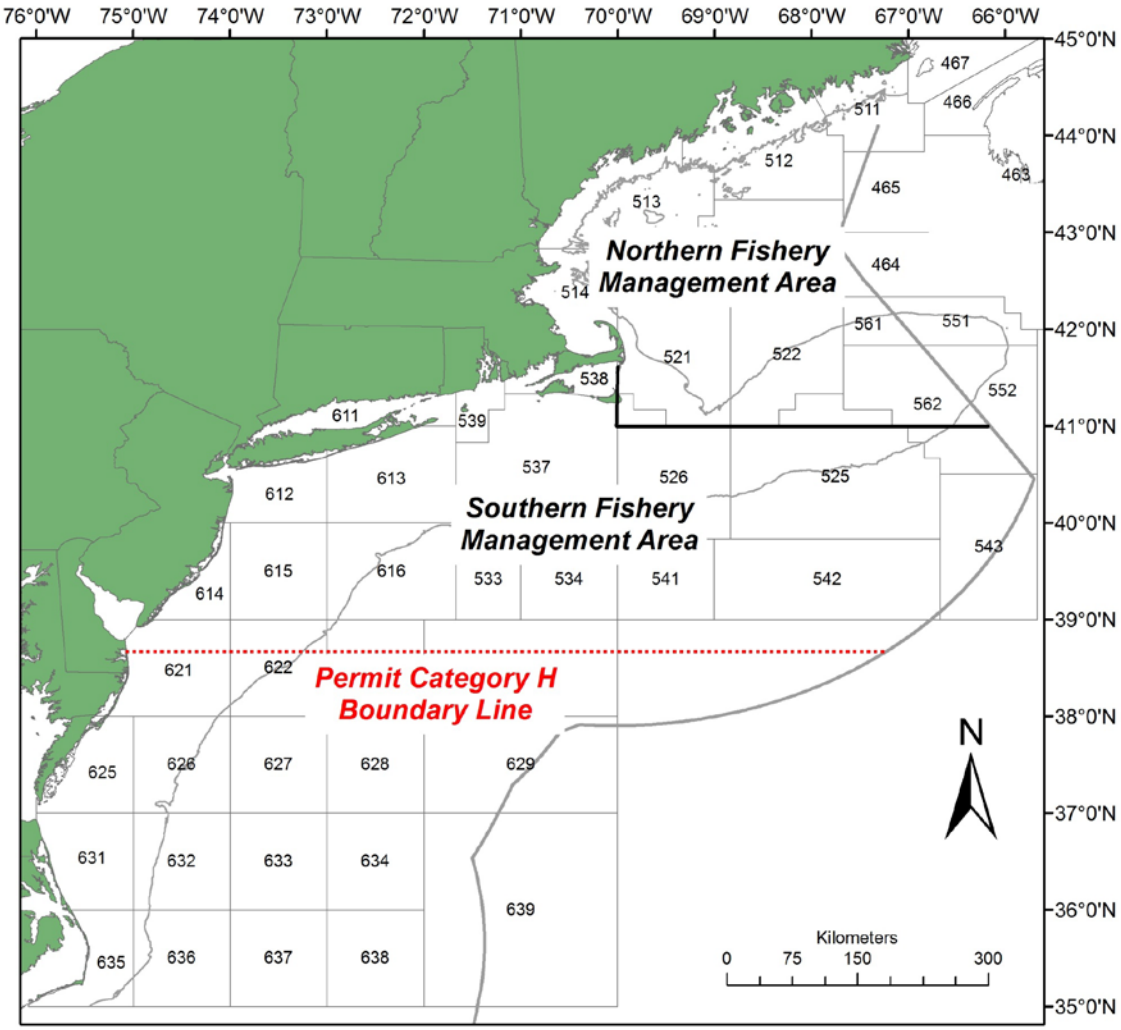

Figure 1.1. Monkfish fishery management areas and statistical areas.

1.0 Background, Purpose and Need

1.1 Background

1.1.1 History of the Fishery Management Plan

The Federal monkfish fishery is jointly managed under the Monkfish Fishery Management Plan (FMP) by the New England and Mid-Atlantic Fishery Management Councils (Councils). The initial Monkfish FMP was implemented in 1999, and has been amended several times, most recently in 2010 with Amendment 5 which approved by the Mid-Atlantic Fishery Management Council (MAFMC) in April 2010, and the New England Fishery Management Council (NEFMC) in June 2010. Amendment 6 is currently under development with the intent to consider catch shares management in the monkfish fishery. The documents pertaining to previous management actions are available on the NEFMC website, www.nefmc.org. A synoptic discussion, focusing on the science and management aspects of the FMP up to Framework 4 (2007) is also contained in an article "*The monkfish fishery and its management in the Northeastern USA*", (Haring and Maguire, ICES Journal of Marine Science, vol. 65, 2008) which is available on the Council website. Below is a summary of recent management actions beginning with Framework 4, which established the current landings targets and specifications.

For management purposes, the monkfish fishery is divided into two areas, the Northern and Southern Management Areas (NMA and SMA, respectively), Figure 1. While scientific evidence for two biological stocks is uncertain, and additional research, including archival tagging, is ongoing, fisheries in the two areas are clearly distinct. Stock assessments are done on the two areas separately to be able to support the management plan. The NMA monkfish fishery is closely integrated with the multispecies fishery, and is primarily a trawl fishery, while the SMA fishery is primarily a gillnet fishery targeting monkfish almost exclusively. These differences have resulted in some differences in management measures, such as trip limits and days-at-sea (DAS) allocations, between the two areas.

1.1.1.1 Monkfish Framework 4

The fishing year (FY) 2006 was Year 7 of the 10-year rebuilding plan implemented under the original FMP in 1999. The goal of the rebuilding plan was to achieve the biomass target reference points in 2009, as measured by the Northeast Fisheries Science Center (NEFSC) autumn trawl survey three-year average biomass indices. Following several years of increases in the biomass indices for both stocks, the indices lagged behind the rebuilding schedule, and in 2006 were both below their minimum biomass thresholds, indicating both stocks were overfished, and approximately 50% below their biomass index targets. As a result, the Councils revised the management program so that the goals of the 10-year rebuilding program can be met in 2009 with Framework 4, which they submitted to NMFS in February 2007.

In Framework 4, target total allowable catch levels (TTACs) were set at 5,000 mt and 5,100 mt for the NMA and SMA, respectively. These TTACs are the basis for calculating the monkfish trip limits and days-at-sea (DAS) allocations for vessels targeting monkfish. Framework 4 also established the requirement for vessels fishing in the NMA on a multispecies DAS, and exceeding the monkfish incidental catch limit, to declare a monkfish DAS, which could be done

by Vessel Monitoring Systems (VMS) any time prior to returning to port. Vessels in the SMA were already required to declare a monkfish DAS when exceeding the incidental limit. Framework 4 also reduced the monkfish incidental limit in the NMA from 400 lbs. per DAS (tail wt.) or 50% of the weight of fish on board, whichever is less, to 300 lbs. per DAS or 25% of the total weight of fish on board, whichever is less. The Councils had increased the incidental limit under Framework 2, when the northern stock appeared to be nearly rebuilt, but restored the original incidental limit because the stock status had returned to being overfished in 2006.

Framework 4 retained the 550 lbs. and 450 lbs. SMA monkfish trip limit (tail wt. per DAS) for permit categories ACG and BDH, respectively. Vessels were allocated 31 monkfish DAS, but vessels were limited to an allowance of 23 DAS in the SMA out of the total allocation. In the NMA, trip limits were set at 1,250 lbs. and 470 lbs. (tail wt. per DAS) for permit category AC and BD, respectively. Framework 4 established that the DAS allocations will remain in effect through FY 2009, with extension into FY 2010 in absence of any regulatory change, unless the TTAC was exceeded in an area during the 2007 fishing year. In that case, the TTAC overage backstop provision established in Framework 4 would have taken effect and could result in a recalculation of the DAS allocations based on catch and effort data from the 2007 fishing year to keep landings below the TTAC. The backstop provision would have made no adjustment if the TTAC overage was 10% or less, and would have closed the directed fishery in a management area if the overage exceeded 30%, resulting in zero monkfish DAS being allocated, and the application of monkfish incidental limits to all vessels. Other measures adopted under Framework 4 included a change in the northern boundary of the Category H fishery from 38°20'N Lat to 38°40'N Lat, and a change to the monkfish incidental limit on limited access scallop vessels fishing in the closed area access programs.

On April 27, 2007, NMFS published a temporary rule implementing interim measures, while deferring a decision on Framework 4 pending the results of a stock assessment scheduled for July (72 *Federal Register* 20952, April 27, 2007). The interim rule implemented the TTACs and most measures proposed in Framework 4, except the 23 DAS allowance for SMA vessels (retaining the 12 DAS from the prior year), and prohibited the use of carryover DAS. The 2007 Northeast Data Poor Stocks Working Group (DPWG) completed an assessment of monkfish which included estimates of absolute biomass and recommended revisions to existing biomass reference points from a survey index basis to an absolute biomass basis. Based on that assessment, both stocks are above the recommended biomass targets, and are, therefore, "rebuilt". The assessment report also emphasized the uncertainty in the model and results, and contained strong cautionary statements. As a result of the assessment, NMFS approved Framework 4 and published an interim final rule with an effectiveness date of October 22 (72 *Federal Register* 53942, September 21, 2007).

1.1.1.2 Monkfish Framework 5

As a result of the 2007 DPWG assessment, the Councils initiated Framework 5 primarily to adopt the recommended biomass reference points, as well as to address the concerns of the Regional Administrator about the effect of carryover DAS on the management program's ability to constrain landings to the TTAC. In addition, the Councils implemented revisions to other measures to ensure that the management program succeeds in keeping landings within the TTAC levels. Framework 5, which was implemented prior to the start of the 2008 fishing year (73 *Federal Register* 22831, April 28, 2008), reduced the number of unused DAS that could be carried over to the next fishing year from 10 to 4; revised the DAS accounting method for gillnet vessels such that all trips less than 15 hours would be counted as 15 hours, eliminating the provision that trips less than 3 hours would be counted as time used; and, revised the monkfish incidental catch allowance applicable to vessels in the Southern New England Regulated Mesh Area (SNE RMA) fishing with large mesh but not on a monkfish, scallop or multispecies DAS, from 5% of the total weight of fish on board (with no landings cap) to 5% of total weight of fish on board not to exceed 50 lbs. per day, up to 150 lbs. maximum, and also applied this revision to all vessels fishing under a Skate Bait Letter of Authorization (LOA) east of 74°00'W. In addition, Framework 5 modified the Monkfish LOA requirement for vessels fishing under the less restrictive measures for the NMA such that vessels using a VMS would no longer be required to obtain the LOA, but could make the declaration via the VMS.

1.1.1.3 Monkfish Framework 6

One of the elements of the FMP adopted in Framework 4 was a backstop provision that would have adjusted, and possibly closed the directed monkfish fishery in a management area if the landings in FY2009 exceeded the TTAC by more than 30 percent. With the adoption of new biological reference points and revised stock status as a result of the DPWG assessment, as well as the measures adopted in Framework 5 designed to reduce the likelihood of TTAC overages, the Councils concluded that the backstop provision was no longer necessary. They submitted the regulatory change in Framework 6 in April 2008, and the final rule become effective on October 10, 2008, approximately seven months before the start of FY2009 (73 *Federal Register* 52635, September 10, 2008). This was the only action taken in Framework 6.

1.1.1.4 Amendment 5

The Councils submitted Amendment 5 on September 23, 2010, with a target implementation date of May 1, 2010. The Councils developed Amendment 5 primarily to bring the Monkfish FMP into compliance with the requirements of the reauthorized Magnuson-Stevens Fishery Conservation and Management Act (MSA) which contained several new requirements at that time including the requirement that all fisheries adopt annual catch limits (ACLs) to prevent overfishing by either 2010 (if subject to overfishing) or 2011 (if not subject to overfishing), and also measures to ensure accountability. Since neither monkfish stock was currently subject to overfishing in 2010, the FMP was not required to have ACLs and accountability measures (AMs) in place until the start of the 2011 fishing year.

Amendment 5 was also developed to bring the Monkfish FMP into compliance with recently revised National Standard 1 (NS1) Guidelines (74 FR 3178; January 16, 2009) which not only established a process for setting ACLs and guidance for establishing AMs, it provided updated

guidelines for establishing reference points and control rules (i.e., maximum sustainable yield (MSY), optimum yield (OY), overfishing limits (OFL), acceptable biological catch (ABC), ACLs, and annual catch targets (ACTs)) and clarified the relationship between them. Amendment 5 established biological and management reference points to be consistent with NS1 guidelines utilizing the most recent scientific information available at the time it was developed, from the 2007 DPWG assessment.

Given the timing of SARC 50 (July 2010) and the Councils' final action on Amendment 5 in June 2010, Amendment 5 provided and recommended new biomass reference points, and recalculated the fishing mortality rate corresponding to the overfishing threshold, Fmax, and concluded that the stock status would not change, even under the new reference points. Furthermore, the Councils addressed two primary purposes regarding Amendment 5: To implement the MSRA mandated ACLs and AMs, and to set the specifications of DAS, trip limits and other management measures to replace those adopted in Framework 4 (unless modified by a future action). The Councils proposed modifications to the FMP to improve the Research Set Aside (RSA) Program, to minimize bycatch resulting from trip limit overages, and to allow the landing of monkfish heads.

1.1.1.5 Monkfish Framework 7

In 2011 Framework 7 proposed a reduction in the annual catch target (ACT) for the NMA below the proposed ACL. This change also required a revision to the specification of days at sea (DAS) and trip limits based on the ACT. The ACT for the NMA proposed in Amendment 5 was above the ACL based on SSC recommendations following SARC 50 and was updated as a result of revised scientific information and recommendations of the SSC. As a result, FW 7 addressed the inconsistency seen in Amendment 5, since NS1 Guidelines state that an ACT cannot exceed the ACL established for a stock.

1.1.1.6 Amendment 6

Amendment 6 is currently under development. The intent is to consider catch shares management in the monkfish fishery and changes to the current management system, including DAS leasing. Members of both the NEFMC and the MAFMC have discussed the catch share program extensively, and have recognized that there could be an individual transferrable quota (ITQ) or individual fishing quota (IFQ) or group allocation system incorporating monkfish into groundfish sectors, which can be area-based or catch-based.

1.1.1.7 2013 Emergency Action

On May 1, 2013, NMFS implemented an emergency rule that temporarily suspended existing monkfish possession limits for vessels issued both a Federal limited access Northeast multispecies permit and a limited access monkfish Category C or D permit that are fishing under a monkfish day-at-sea in the monkfish NMA. This emergency action was continued through the end of the 2013 fishing year, with the suspension of monkfish landing limits expanded to apply to Category C or D permits fishing exclusively on a groundfish DAS in the NMA. This action was necessary to help mitigate expected adverse economic and social harm resulting from substantial reductions to the 2013 annual catch limits for several stocks managed under the Northeast Multispecies Fishery Management Plan. The intent is to provide additional fishing

opportunities to vessels affected by reductions to groundfish catch limits, without resulting in overfishing monkfish within the Northern or Southern Fishery Management Areas.

1.1.2 Standardized Bycatch Reporting Methodology (SBRM) Omnibus Amendment (Amendment 3)

On September 15, 2011, upon the order of the U.S. Court of Appeals for the District of Columbia Circuit, the U.S. District Court for the District of Columbia, in the case of Oceana, Inc. v. Locke (Civil Action No. 08-318), vacated the Northeast Region Standardized Bycatch Reporting Methodology (SBRM) Omnibus Amendment and remanded the case to NMFS for further proceedings consistent with the D.C. Circuit Court's decision.

To comply with the ruling, NMFS announced on December 29, 2011 (76 FR 81844) that the Northeast Region SBRM Omnibus Amendment is vacated and all regulations implemented by the SBRM Omnibus Amendment final rule (73 FR 4736, January 28, 2008) are removed. This action removed the SBRM section at § 648.18 and removes SBRM-related items from the lists of measures that can be changed through the FMP framework adjustment and/or annual specification process for the Atlantic mackerel, squid, and butterfish; Atlantic surfclam and ocean quahog; Northeast multispecies, monkfish; summer flounder; scup; black sea bass; bluefish; Atlantic herring; spiny dogfish; deep-sea red crab; and tilefish fisheries. This action also makes changes to the regulations regarding observer service provider approval and responsibilities and observer certification. The SBRM Omnibus Amendment had authorized the development of an industry-funded observer program in any fishery, and the final rule modified regulatory language in these sections to apply broadly to any such program. This action revises that regulatory language to refer specifically to the industry-funded observer program in the scallop fishery, which existed prior to the adoption of the SBRM Omnibus Amendment.

NMFS and the New England and Mid-Atlantic Fishery Management Councils are developing a new omnibus amendment to bring Northeast fishery management plans into compliance with Magnuson-Stevens Act requirements for a standardized bycatch reporting methodology. A SBRM Fishery Management Action Team has been constituted and has begun development of the new amendment.

1.1.3 Essential Fish Habitat Omnibus Amendment (Amendment 4)

The Council initiated Phase 1 of the Essential Fish Habitat (EFH) Omnibus Amendment in 2004, which is Amendment 4 to the Monkfish FMP. The primary purpose of Phase 1 was to review EFH designations, consider Habitat Areas of Particular Concern (HAPC) alternatives, describe prey species, and evaluate non-fishing impacts. This action is an amendment to all FMPs in this region. The Council approved the DSEIS for Phase 1 at the February 2007 Council meeting, which then was submitted to NMFS in March 2007. The Council made final decisions on Phase 1 topics at their June 2007 meeting. Phase 2 of the EFH Amendment began in September 2007 to consider the effects of fishing gear on EFH and move to minimize, mitigate or avoid those impacts that are more than minimal and temporary in nature. Phase 2 will also reconsider measures in place to protect EFH in the Northeast region (under development).

An Omnibus EFH Amendment is likely to be implemented in foreseeable future. This amendment could affect monkfish via increased protection of benthic habitats used by the

species from the adverse effects of various regional fisheries. Amendment 4 is currently in development.

1.1.4 Other Fishery Management Plans Affecting the Monkfish Fishery

Approximately 97% of monkfish limited access vessels also hold limited access permits in either the Northeast Multispecies or Atlantic Sea Scallop fisheries. Both of those fisheries have undergone, and continue to undergo changes in their respective management programs which have direct and indirect effects on the monkfish fishery. In large part due to the success of the scallop FMP and the profitability of the fishery, scallop vessels that also have monkfish limited access permits elect to use their allocated effort to target scallops rather than monkfish, since they would be required to use a scallop DAS to target monkfish, and be prohibited from using a dredge on those trips. As a result, a substantial portion of the allocated monkfish effort (DAS) is not used. In contrast, while some multispecies stocks have responded positively to management (e.g., haddock and redfish) others remain overfished and in need of rebuilding. Consequently, the Multispecies FMP continues to constrain fishing effort and recently underwent major changes, most notably the adoption of catch shares through the allocation of quota to sectors.

1.1.4.1 Multispecies FMP

Groundfish stocks have been managed under the MSA beginning with the adoption of a management plan for cod, haddock, and yellowtail flounder in 1977, called the "FMP for Atlantic Groundfish". This plan relied on hard quotas (total allowable catches, or TACs), and proved unworkable. The quota system was rejected in 1982 with the adoption of the Interim Groundfish Plan, which relied on minimum fish sizes and codend mesh regulations for the Gulf of Maine and Georges Bank to control fishing mortality. The interim plan was replaced by the Northeast Multispecies FMP in 1986, which established biological targets in terms of maximum spawning potential and continued to rely on gear restrictions, including minimum mesh size to control fishing mortality. A more detailed discussion of the history of this management plan up to 1994 can be found in Amendment 5 to the Northeast (NE) Multispecies FMP (NEFMC 1994).

Amendment 5 was a major revision to the NE Multispecies FMP. Adopted in 1994, it implemented a moratorium on new permits (limited access), established effort controls in the form of days-at-sea, or DAS for some fleet sectors and adopted year-round closures to control mortality. Amendment 5 also increased the minimum mesh size, set limits on vessel upgrading, and implemented a mandatory landings reporting requirement. Amendment 7 (NEFMC 1996), adopted in 1996, expanded the DAS program and accelerated the reduction in fishing effort (i.e., DAS) first adopted in Amendment 5. Since the implementation of Amendment 7, there were a series of amendments and smaller changes (framework adjustments) that are detailed in Amendment 13 to the NE Multispecies FMP (NEFMC 2003).

Amendment 13 was developed over a four-year period to meet the MSA requirement to adopt rebuilding programs for stocks that are overfished and to end overfishing. Amendment 13 also brought the FMP into compliance with other provisions of the MSA. Subsequent to the implementation of Amendment 13, FW 40A provided opportunities to target healthy stocks, FW 40B improved the effectiveness of the effort control program, and FW 41 expanded the vessels

eligible to participate in a Special Access Program (SAP) that targets GB haddock FW 42 included measures to implement a biennial adjustment to the FMP, as well as a Georges Bank yellowtail flounder rebuilding strategy, several changes to the Category B (regular) DAS Program and two Special Access Programs, an extension of the DAS leasing program, and introduced the differential DAS system. FW 43 adopted haddock catch caps for the herring fishery and was implemented August 15, 2006; FW 46 modified the bycatch regulations for the herring fishery and adjusted the cap on the amount of haddock that could be caught by midwater trawl herring vessels.

Framework 47 (modified the Ruhle trawl definition and clarifies the regulations for charter/party vessels fishing in groundfish closed areas) and Amendment 17 (defines and facilitates the effective operation of state-operated permit banks by recognizing state-operated permit banks under provisions of the Multispecies FMP). These documents should be referenced for more detailed descriptions of the fishery and the current management measures.

Amendment 16 implemented major changes to the NE Multispecies FMP. Notably, it greatly expanded the sector program and implemented ACLs and AMs in compliance with 2006 revisions to the MSA. The amendment also included a host of mortality reduction measures for "common pool" (i.e. non-sector) vessels and the recreational component of the fishery. Amendment 16 became effective on May 1, 2010. In 2011, the NEFMC approved Amendment 17, which allowed for NOAA-sponsored state-operated permit banks to function within the structure of Amendment 16.

Framework 48 was implemented in May 2013, and continued to modify management measures and ensure that overfishing does not occur. That action eliminated dockside monitoring requirements, reduced minimum fish sizes for several stocks, adjusted the allocation of Georges Bank yellowtail flounder to the scallop fishery, established ACLs for several groundfish stocks caught in other fisheries, and revised existing AMs for other stocks. Framework 50 was also implemented in May 2013, and implemented a range of measures designed to achieve mortality targets and net benefits from the fishery, including setting catch levels for FYs 2013-2015, revising the rebuilding program for Southern New England/Mid-Atlantic winter flounder, and revised sector carry-over provisions.

Amendment 18 is in development and will assess potential effects on the human environment of alternative measures to address management and conservation measures for the Northeast multispecies fishery.

1.1.4.2 Atlantic Sea Scallops

The Council established the Scallop FMP in 1982. A number of Amendments and Framework Adjustments have been implemented since that time to adjust the original plan. Amendment 4 was implemented in 1994 and introduced major changes in scallop management, including a limited access program, a DAS reduction plan to reduce mortality and prevent recruitment overfishing, new gear regulations to improve size selection and reduce bycatch, and a VMS requirement to track a vessel's fishing effort. Amendment 4 also created the general category scallop permit for vessels that did not qualify for a limited access permit. Although originally

created for an incidental catch of scallops in other fisheries, and for small-scale directed fisheries, the general category fishery and fleet has evolved since its creation in 1994.

In 1998, the Council developed Amendment 7 to the Scallop FMP which established two new scallop closed areas (Hudson Canyon and VA/NC Areas) in the Mid-Atlantic to protect concentrations of small scallops until they reached a larger size and reduced DAS allocations. In 1999, Framework Adjustment 11 allowed the first scallop fishing within portions of the Georges Bank groundfish closed areas since 1994. Scallop resource surveys and experimental fishing activities had identified areas where scallop biomass was very high due to no fishing in the intervening years. These surveys and experimental fisheries provided more precise estimates of total biomass, as well as the distribution and amount of finfish bycatch, and allowed the Council to open the southern part of Closed Area II to scallop fishing. In 2000, Framework Adjustment 13 expanded the closed area access program.

In 2004, Amendment 10 introduced rotational area management and changed the way that the Atlantic Sea Scallop FMP allocates fishing effort for limited access scallop vessels. Instead of allocating an annual pool of DAS for limited vessels to fish in any area, vessels had to use a portion of their total DAS allocation in the controlled access areas defined by the plan, or exchange them with another vessel to fish in a different controlled access area. Vessels could fish their open area DAS in any area that was not designated a controlled access area. Subsequent actions have focused on controlling fishing mortality, and have made annual adjustments to the rotational area management program and DAS allocations, as well as other provisions, such as bycatch reduction measures, improved catch monitoring and habitat protections. Notably, Amendment 11, which became effective on June 1, 2008 was designed to control capacity and mortality in the general category scallop fishery. Since 1999, there has been considerable growth in fishing effort and landings by vessels with general category permits, primarily as a result of resource recovery and higher scallop prices. Among other provisions, Amendment 11 implemented a limited entry program for the previously open-access general category fishery. Vessels that qualified are under an ITQ program that has been allocated 5% of the total projected scallop catch.

Other scallop actions that could have affected the monkfish fishery include Amendment 15 (July 2011), Framework 21 (effective on June 28, 2010), and Framework 22 (2011). Frameworks 21 and 22 set specifications for 2010-2012. Amendment 15 brought the scallop FMP in compliance with the new requirements of the MSA (namely ACLs and AMs); permit stacking and leasing alternatives for limited access vessels were considered but not selected; overall, Amendment 15 considered measures to adjust several aspects of the overall program to make the scallop management plan more effective. Framework 21 set specifications and area access programs for FY 2010. Framework 22 was implemented in 2011 and proposed a specific ABC level as required by the MSA, 31,279 mt in 2011 and 33,234 mt in 2012, and 32,935 mt in 2013 (the values include estimated discard mortality). This action also includes specific measures to comply with reasonable and prudent measures developed by NMFS in a recent biological opinion on this fishery regarding impacts on sea turtles.

The most recent scallop actions include FW 23 with a final submission to NMFS of November 2011 and FW 24 with a final submission to NMFS January 2013. FW 23 developed measures to

minimize impacts on sea turtles through the requirement of a turtle deflector dredge starting in 2013 in the Mid-Atlantic in the summer and fall. FW 23 also has provisions to improve the effectiveness of the accountability measure adopted under Amendment 15 for the YT flounder sub-ACL, to consider specific changes to the general category NGOM management program to address potential inconsistencies, and to consider modifications to the vessel monitoring system to improve fleet operations. FW 24 set specifications to adjust the day-at-sea (DAS) allocations and an area rotation schedule for the 2013 fishing year, provided default measures for FY2014, and adjustments to yellowtail bycatch management measures. FW 24 proposed a specific ABC level as required by the MSA, 27,370 mt in 2013 and 30,353 mt in 2014 (the values include estimated discard mortality).

Framework 25 is the most current action being developed at this time and could potentially affect the monkfish fishery due to a change in gear modifications in the scallop fishery.

1.1.4.3 Skate FMP Amendment 3

The final rule for Amendment 3 to the Northeast Skate Complex FMP was published on June 16, 2010. This amendment establishes ACLs, AMs, seasonal bait fishery quotas, and skate wing, bait, and incidental skate possession limits to address the following issues:

- Overfished status of thorny skates
- Overfishing of thorny skate
- Implementation of ACLs and AMs, as mandated by the reauthorized MSA, and
- A baseline review process that has become obsolete and less meaningful.

The final action established an incidental skate possession limit of 500 lbs. of wing weight (1135 lbs. whole weight), established a 20,000 lbs. whole weight possession limit for vessels with a Skate Bait Letter of Authorization, reduced the skate wing possession limit to 5,000 lbs. wing weight (11,350 lbs. whole weight), and adopted a three-season annual quota system for the skate bait fishery. In-season AMs will reduce allowable skate trip landings to the incidental limit (500 lbs. of skate wing weight, 1135 lbs. whole weight) when landings approach 80-90% of allowable levels.

An annual monitoring report and a bi-annual specification process replaced the obsolete baseline review procedures. The report will describe the expected impacts of recent regulations and pending management alternatives in other fisheries that impact the skate resource. The first annual monitoring report was published in June 2010 and is available at http://www.nefmc.org/skates/annual_reviews/2010%20Annual%20Monitoring%20Report%20Final.pdf.

Framework 1 was published by NMFS May 17, 2011. This framework established the need to extend the length of the targeted skate wing fishery and to improve the economic benefits derived from the skate fishery. The facilitation measure for this action was to implement seasonal trip limits for the skate wing fishery to prolong the fishery because the Amendment 3 Fishery Management Plan for the Northeast Skate Complex were caught in less than 3 months (Amendment 3 implemented on July 16, 2010).

The 2012-2013 Northeast Skate Complex Specifications was proposed in March 2012. This action will set the annual catch limit specifications (ABC, ACL, ACT, and TALs) to maintain the skate fisheries while adequately minimizing the risk of overfishing the seven skate stocks. Additionally, two stocks (smooth and thorny skates) are currently overfished or the biomass is very close to the minimum threshold. Barndoor skate has been in a rebuilding program since 2003 but has not yet met the target. Annual catch limits (and associated in-season and post-season accountability measures) prevent fishing from increasing to unsustainable levels and enhance prospects for rebuilding of barndoor, smooth, and thorny skates (all landings of these species being prohibited). The proposed skate specifications also include an adjustment to the skate wing possession limits to be consistent with the updated ACL and with new estimates of daily landings rates under current fishery conditions (through July 2011). Lastly, because skates are primarily used as bait they are considered the largest component of at-sea transfers and are reported in VTRs, but not reported by shoreside dealers, and the at-sea transfers of skates are a significant component of total skate catch. Thus, it is proposed that these at-sea transfers on VTR reports will count against the skate bait TAL.

1.1.5 Actions to Minimize Interactions with Protected Species

Many of the factors that serve to mitigate the impacts of the monkfish fishery on protected species are currently being implemented in the Northeast Region under either the Atlantic Large Whale Take Reduction Plan (ALWTRP) or the Harbor Porpoise Take Reduction Plan (HPTRP). In addition, the Monkfish FMP has undergone repeated consultations pursuant to Section 7 of the Endangered Species Act (ESA) for each regulatory action. The most recent Biological Opinion (BO) addressing the impacts of the Monkfish FMP on protected species is dated December 16, 2013 (NMFS 2013).

A previous BO for the Monkfish FMP, dated June 14, 2001, concluded that continued authorization of the fishery was likely to jeopardize the continued existence of ESA-listed right whales as a result of entanglement in gillnet gear used in the fishery. A Reasonable and Prudent Alternative (RPA) was provided to remove the likelihood of jeopardy. The RPA included, in part, implementation of a Seasonal Area Management (SAM) program and a Dynamic Area Management (DAM) program to reduce the likelihood of right whale interactions with gillnet gear used in the monkfish fishery. The RPA measures were implemented as part of the Atlantic Large Whale Take Reduction Plan (ALWTRP). On October 5, 2007, NMFS published a final rule in the *Federal Register* (72 FR 57104) that made many changes to the ALWTRP affecting the use of fixed gillnet gear in the monkfish fishery, amongst others. These changes included elimination of the DAM program as of April 7, 2008, and elimination of the SAM program as of October 6, 2008. The changes to the ALWTRP, therefore, modified the monkfish fishery in a manner that causes an effect to listed species not considered in the June 14, 2001 Opinion for the fishery.

NMFS reinitiated formal consultation in accordance with the regulations at 50 CFR 402.16 to consider the effects of the continued authorization of the monkfish fishery on ESA-listed cetaceans and sea turtles. The resulting October 29, 2010, BO concluded that the continuation of the monkfish fishery is likely to adversely affect, but not jeopardize the continued existence of these species. An incidental state statement was prepared for the monkfish fishery. Reasonable and prudent measures (RPMs) were developed, including requirements to ensure handling

techniques minimize stress on sea turtles captured in the monkfish fishery; investigate gear modifications to minimize the bycatch of sea turtles; and improve monitoring of turtle encounters, takes, and mortality.

On February 9, 2012, NMFS reinitiated formal consultation to reconsider the effects of the continued authorization of several fisheries, including the monkfish fishery, on distinct population segments (DPSs) of Atlantic sturgeon listed as threatened or endangered under the ESA on February 6, 2012. An updated batched BO was issued for seven fisheries in the Northeast, including the monkfish fishery, on December 16, 2013 (NMFS 2013). The BO reviewed the current status of large marine mammals, sea turtles, and Atlantic sturgeon, the environmental baseline, and cumulative effects in the action area, including the effects of the continued operation of the Monkfish FMP and other FMPs over the next 10 years. The BO concluded that the continuation of these fisheries "may adversely affect, but is not likely to jeopardize, the continued existence of" North Atlantic right whales, humpback whales, fin whales, sei whales, the Northwest Atlantic DPS of loggerhead sea turtles, leatherback turtles, Kemp's ridley turtles, green sea turtles, any of the five DPSs of Atlantic sturgeon, or the Gulf of Maine (GOM) DPS for Atlantic salmon. This BO also concluded that these fisheries will not adversely affect hawksbill sea turtles, shortnose sturgeon, smalltooth sawfish DPS, *Acroporid* corals, Johnson's seagrass, sperm whales, blue whales, designated critical habitat for right whales in the Northwest Atlantic, or designated critical habitat for GOM DPS Atlantic salmon (NMFS 2013). An incidental take statement was developed for the seven combined fisheries as summarized below.

For Northwest Atlantic DPS of loggerhead sea turtles , NMFS anticipates the following incidental takes:

- Gillnet gear: Annual take of up to 269 individuals over a five-year average, of which up to 167 per year may be lethal;
- Bottom trawl gear: Annual take of up to 213 individuals over a four-year average, of which up to 71 per year may be lethal; and
- Trap/pot gear: Annual take of up one individual, which may be lethal or non-lethal.

For leatherback sea turtles, NMFS anticipates the following takes:

- Gillnet gear: Annual observed take of up to four individuals, of which up to three per year may be lethal;
- Bottom trawl gear: Annual observed take of up to four individuals, of which up to two per year may be lethal; and
- Trap/pot gear: Annual observed take of up to four individuals, which may be lethal or non-lethal.

For Kemp's ridley sea turtles, NMFS anticipates an annual observed take of up to four individuals in gillnet gear, of which up to three per year may be lethal; and the annual observed take of up to three individuals in bottom trawl gear, of which up to two per year may be lethal. For green sea turtles, NMFS anticipates the annual observed take of up to four individuals in gillnet gear, of which up to three per year may be lethal, and the annual observed take of up to three individuals in bottom trawl gear, of which up to two per year may be lethal.

NMFS anticipates the following incidental take for Atlantic sturgeon:

- GOM DPS: Annual take of up to 137 individuals over a five-year average in gillnet gear, of which up to 17 adult equivalents per year may be lethal; and an annual take of up to 148 individuals over a five-year average in bottom trawl gear, of which up to 5 adult equivalents per year may be lethal.
- New York Bight DPS: Annual take of up to 632 individuals over a five-year average in gillnet gear, of which up to 79 adult equivalents per year may be lethal; and an annual take of up to 685 individuals over a 302 five-year average in bottom trawl gear, of which up to 21 adult equivalents per year may be lethal.
- Chesapeake Bay DPS: Annual take of up to 162 individuals over a five-year average in gillnet gear, of which up to 21 adult equivalents per year may be lethal; and the annual take of up to 175 individuals over a five-year average in bottom trawl gear, of which up to 6 adult equivalents per year may be lethal.
- Carolina DPS: Annual take of up to 25 individuals over a five-year average in gillnet gear, of which up to four adult equivalents per year may be lethal; and an annual take of up to 27 individuals over a five-year average in bottom trawl gear, of which up to one adult equivalent per year may be lethal.
- South Atlantic DPS: Annual take of up to 273 individuals over a five-year average in gillnet gear, of which up to 34 adult equivalents per year may be lethal; and an annual take of up to 296 individuals over a five-year average in bottom trawl gear, of which up to 9 adult equivalents per year may be lethal.

For the GOM DPS of Atlantic salmon, NMFS anticipates an observed take of up to five individuals over a five-year average in gillnet gear, of which up two to takes may be lethal; and an observed take of up to five individuals over a five-year average in bottom trawl gear, of which up to three takes may be lethal.

RPMs were established for all seven fisheries as a means of minimizing interactions with protected species and to generate the information necessary in the future to continue to minimize incidental takes. The following RPMs are non-discretionary and must be implemented by NMFS, consistent with the terms and conditions specified in the BO.

1. NMFS must work to ensure that any sea turtles, Atlantic sturgeon, and Atlantic salmon incidentally taken in gears used in these fisheries (e.g., gillnet, bottom trawl, trap/pot, and hook and line gear) are handled in a way as to minimize stress to the animal and increase its survival rate.

2. NMFS must continue to investigate and implement, within a reasonable time frame following the completion of ongoing and future research, modifications to gears used in these fisheries to reduce incidental takes of sea turtles, Atlantic sturgeon, and Atlantic salmon and the severity of the interactions that occur.

3. NMFS must continue to review available data to determine whether there are areas or conditions within the action area where sea turtle, Atlantic sturgeon, and Atlantic salmon interactions with fishing gears used in these fisheries are more likely to occur.

4. NMFS must ensure that monitoring and reporting of any sea turtles, Atlantic sturgeon, and Atlantic salmon encountered in fishing gear utilized in the seven fisheries: (1) detects any adverse effects such as serious injury or mortality; (2) detects whether the anticipated level of take has occurred or been exceeded; and (3) collects necessary data from individual encounters (e.g., photos, species identification, date and geographic location).

As described below, the regulatory measures of the ALWTRP and the HPTRP must be adhered to by any vessel fishing for monkfish with gillnet gear.

1.1.5.1 Harbor Porpoise Take Reduction Plan

NMFS published the rule implementing the Harbor Porpoise Take Reduction Plan (HPTRP) on December 1, 1998. The HPTRP includes measures for gear modifications and area closures, based on area, time of year, and gillnet mesh size. In general, the Gulf of Maine component of the HPTRP includes time and area closures, some of which are complete closures; others are closures to gillnet fishing unless pingers (acoustic deterrent devices) are used in the prescribed manner. The Mid-Atlantic component includes time and area closures in which gillnet fishing is prohibited regardless of the gear specifications. Based on an increase in harbor porpoise takes in the overall sink gillnet fishery in recent years, the Harbor Porpoise Take Reduction Team has developed options to reduce takes, and NMFS published a proposed rule on July 21, 2009 (74 *Federal Register* 36058) with four alternatives, including no action. The comment period ended on August 20, 2009.

NMFS published the final rule for the HPTRP on February 19, 2010 (75 *Federal Register* 7383). The changes contained in the new rule address the two primary causes of a recent increase harbor porpoise bycatch in gillnets: increased bycatch in places where measures to prevent it are not currently required, and gaps in compliance with current management measures, such as improper use of pingers. To address these problems, the measures expand when and where "pingers" are required on gillnets off New England, add new seasonal management measures off New Jersey, and define areas off New England that will close to gillnetters ("consequence closures") if harbor porpoise bycatch exceeds the target rate for each area for two consecutive seasons. In the Mid-Atlantic, a new management area is being created off the coast of New Jersey, encompassing waters where high bycatch has been observed recently. The area will be closed to gillnetting from February 1 to March 15, and gear modified to reduce the risk of bycatch will be required to fish there between January 1 and April 30 every year when gillnet fishing is allowed.

On October 1, 2012, the Coastal Gulf of Maine Consequence Closure Area, which spans the coast from Massachusetts to Maine, would be closed to sink gillnets from October 1 through November 30, but then shifted the closure to February 1 through October 1, 2013 (NOAA Northeast Region Bulletin, September 30, 2013) for this year only. This seasonal closure (October-November) will remain in effect until bycatch levels achieve the zero mortality rate goal (ZMRG) established for harbor porpoises or until the HPTRT and NMFS develop and implement new measures. This closure area is being triggered because the average target bycatch rate was exceeded in the first management season by such a margin that, even if the bycatch rate

for the second management season was reduced to zero, the average would still exceed the target rate and trigger the closure. The effects of this closure to the fishing industry were evaluated as part of the Environmental Assessment of the modifications to the HPTRP.

On August 26, 2013 NMFS published a proposed rule to amend the regulations implementing the HPTRP. This proposed rule would revise the Plan by eliminating the consequence closure strategy enacted in 2010 based on deliberations by the Harbor Porpoise Take Reduction Team. This action is necessary to prevent the improper triggering of consequence closure areas based on target harbor porpoise rates that no longer accurately reflect actual bycatch in New England sink gillnets due to fishery-wide changes in fishing practices. For more information on the HPTRP including time and area closures visit: www.nero.noaa.gov/hptrp.

1.1.5.2 Atlantic Large Whale Take Reduction Plan

The ALWTRP contains a series of regulatory measures designed to reduce the likelihood of fishing gear entanglements of right, humpback, and fin whales, and acknowledges benefits to minke whales in the North Atlantic. The main tools of the plan include a combination of broad gear modifications and time/area closures (which are being supplemented by progressive gear research), expanded disentanglement efforts, extensive outreach efforts in key areas, and an expanded right whale surveillance program to supplement the Mandatory Ship Reporting System.

Key regulatory changes implemented in 2002 included: 1) New gear modifications; 2) implementation of a Dynamic Area Management system (DAM) of short-term closures to protect unexpected concentrations of right whales in the Gulf of Maine; and 3) establishment of a Seasonal Area Management system (SAM) of additional gear modifications to protect known seasonal concentrations of right whales in the southern Gulf of Maine and Georges Bank.

On June 21, 2005, NMFS published a proposed rule (70 *Federal Register* 35894) for changes to the ALWTRP, and published a final rule on October 5, 2007 (72 *Federal Register* 57104). The new ALWTRP measures expand the gear mitigation measures by: (a) Including additional trap/pot and net fisheries (*i.e.*, gillnet, driftnet) to those already regulated by the ALWTRP, (b) redefining the areas and seasons within which the measures would apply, (c) changing the buoy line requirements, (d) expanding and modifying the weak link requirements for trap/pot and net gear, and (e) requiring (within a specified timeframe) the use of sinking and/or neutrally buoyant groundline in place of floating line for all fisheries regulated by the ALWTRP on a year-round or seasonal basis.

In October 2007, NMFS issued a final rule implementing broad-based gear modifications largely to replace the Seasonal and Dynamic Area Management programs. This broad-based gear modification strategy includes expanded weak link and sinking groundline requirements, additional gear marking requirements, changes in management area boundaries, seasonal restrictions for gear modifications, expanded exempted areas, and regulatory language changes for the purposes of clarification and consistency.

On July 16, 2013 NMFS provided a proposed rule to amend the regulations implementing the Atlantic Large Whale Take Reduction Plan (Plan). This proposed rule revises the management

measures for reducing the incidental mortality and serious injury to the North Atlantic right whale (Eubalaena glacialis), humpback whale (Megaptera novaeangliae), and fin whale (Balaenoptera physalus) in commercial trap/pot and gillnet fisheries to meet the goals of the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA).

For further information on the ALWTRP regulations, please visit www.nero.noaa.gov/whaletrp.

1.1.5.3 Atlantic Trawl Gear Take Reduction Strategy (ATGTRS)

In September 2006, the NMFS convened the Atlantic Trawl Gear Take Reduction Team (ATGTRT) under the Marine Mammal Protection Act (MMPA). The ATGTRT was convened to address incidental mortality and serious injury of long-finned pilot whales (*Globicephala melas*), short-finned pilot whales (*Globicephala macrorhynchus*), common dolphins (*Delphinus delphis*), and Atlantic white-sided dolphins (*Lagenorhynchus acutus*) in several trawl gear fisheries operating in the Atlantic Ocean. These marine mammal species are known to interact with the Mid-Atlantic Mid-Water Trawl, the Mid-Atlantic Bottom Trawl, Northeast Mid-Water Trawl and the Northeast Bottom Trawl fisheries.

Because none of the marine mammal stocks of concern to the ATGTRT are classified as a "strategic stock" nor do they currently interact with a Category I fishery it was determined that development of a take reduction plan (TRP) was currently not necessary.

In lieu of a TRP, the ATGTRT agreed to develop an Atlantic Trawl Gear Take Reduction Strategy (ATGTRS). The ATGTRS identifies informational and research tasks as well as education and outreach needs the ATGTRT believes are necessary to provide the basis for achieving the ultimate MMPA goal of achieving the zero mortality rate goal (ZMRG). The ATGTRS also identifies several potential voluntary measures that can be adopted by certain trawl fishing sectors to potentially reduce the incidental capture of marine mammals. These voluntary measures are as follows:

- Reducing the numbers of turns made by the fishing vessel and tow times while fishing at night; and
- Increasing radio communications between vessels about the presence and/or incidental capture of a marine mammal to alert other fishermen of the potential for additional interactions in the area.

1.1.5.4 Final Rule to minimize monkfish gillnet interaction with sea turtles

On December 3, 2002, the agency published a final rule (67 *Federal Register* 71895) establishing seasonally adjusted gear restrictions by closing portions of the mid-Atlantic EEZ waters to fishing with large-mesh (>8") to protect migrating sea turtles, following an interim final rule published March 21 of that year. The basis of this rule was that sea turtles migrate northward as water temperatures warm. At the time the interim and final rules were published, there was no evidence that the primary fishery involved – monkfish – was being prosecuted in state waters. In 2002, when most monkfish fishermen were not permitted under the FMP to fish in the EEZ and the rest were faced with the sea turtle closures, the proportion of North Carolina monkfish landings from state waters increased five-fold to 92%, posing an unforeseen risk to migrating sea turtles since they were not protected in state waters. In response, NMFS published a final rule on April 26, 2006 (71 *Federal Register* 24776) that included modifications to the

large-mesh gillnet restrictions. Specifically, the new final rule revises the gillnet restrictions to apply to gillnets having 7-inch stretched mesh or greater, versus the 8-inch stretched mesh defined in the 2002 final rule, but did not apply this new rule in state waters as considered in the proposed rule. State waters, and Federal waters north of Chincoteague, VA remain unaffected by the large-mesh gillnet restrictions.

1.2 Purpose and Need

The need for this action is to revise existing management measures to achieve, but not exceed, catch limits specified based on the most recent stock assessment and more effectively harvest optimum yield (OY), as required by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

The primary purpose of this action is to establish new specifications for the monkfish fishery. This includes DAS and trip limits for the monkfish fishery. These specifications were most recently established in Amendment 5 (for the SMA) and Framework 7 (for the NMA) in 2011, and this action is needed to update these allotments consistent with the most recent scientific advice (and to control catch to remain below the ABC). No action is currently being taken to change the catch limits in the fishery based on the advice of the NEFMC's SSC to maintain existing ABCs following the 2013 monkfish assessment update.

A second purpose for this action is to provide flexibility for permit category H fishermen, who currently fish in a small area below the 38°40'N Latitude line. This action is needed because earlier northerly migration of monkfish out of the area, earlier arrival of sea turtles in the area and sea turtle closures constrain their ability to fully use their allocated monkfish DAS.

The third purpose for this action is to provide flexibility to SMA vessels by modifying the DAS usage requirements. This action is needed because the existing requirement for monkfish Category C or D permits to use monkfish DAS in conjunction with any available groundfish DAS before any monkfish-only DAS could be used restricts the seasonal targeting of monkfish at the start of the fishing year.

1.3 Goals and Objectives

The original FMP specified the following management objectives:

1. To end and prevent overfishing; rebuilding and maintaining a healthy spawning stock;
2. To optimize yield and maximize economic benefits to the various fishing sectors;
3. To prevent increased fishing on immature fish;
4. To allow the traditional incidental catch of monkfish to occur.

The goals and objectives for this framework supplement the basic FMP objectives. As discussed in the Purpose and Need Section above, this framework is intended to address identified needs consistent with these FMP objectives.

2.0 Alternatives under Consideration

The alternatives under consideration for proposed action in Framework 8 include modifications to the DAS and trip limit allocations in both the NMA and SMA, as well as modifications to the DAS usage requirements and permit Category H fishery boundary. The DAS and trip limit alternatives are based on OFL, ABC/ACL, ACT and TAL values derived in the most recent stock assessment (NMFS, 2013) and recommendations from the SSC (September 2013). The SSC recommended updating the OFLs for both stocks based on the Operational Assessment and set the values at 17,805 mt for the NMA and 23,204 mt for the SMA. The SSC recommended status quo levels for the ABC/ACL for both stocks based on results from the assessment, including increasing survey trends and persistent retrospective patterns. The ABC/ACL values remain at 7,592 mt for the NMA and 12,316 mt for the SMA. The ACT and TAL values for both stocks remain at status quo levels of 6,567 mt and 5,854 mt, respectively for the NMA, and 11,513 mt and 8,925 mt, respectively for the SMA.

2.1 Northern Fishery Management Area (NMA) DAS Allocation and Trip Limit Alternatives

This section describes the range of alternatives, including no action, for the NMA (see Table 2.1). The NMA DAS and trip limit alternatives are based on the OFL, ABC/ACL, ACT and TAL values resulting from the most recent monkfish stock assessment (NMFS, 2013) and SSC recommendations (September 2013). Alternative 1 is no action and would maintain current trip limit and DAS allocations. Alternative 2 would maintain status quo possession limits and adjust the allocation of DAS in the NMA to a level at which projected landings approximate the FY 2014 directed fishery allocation of the NFMA TAL. Alternative 3 would increase incidental landings limits for permit categories A, B, C and D when fishing under a groundfish DAS, and maintain the status quo allocation of DAS in the NMA at 40 DAS.

Table 2.1. NMA specification alternatives under consideration.

Management Area	Alternative	Incidental Landing Limit (lb)	A,C daily landing limit (lb)	B,D daily landing limit (lb)	DAS
NMA	1 - No Action	25% of landings onboard, not to exceed 300	1250	600	40
	2	25% of landings onboard, not to exceed 300	1250	600	64
	3	600 for A,C permit and 500 for B,D permit when fishing under a groundfish DAS (implied elimination of 25% landings threshold); status quo for others	1250	600	40

2.1.1 NMA Alternative 1 – No Action

For the purpose of this action, the No Action alternative is defined as those measures currently in effect, and which would remain in effect if no further action were taken. Possession limits for permit categories A, C and B, D would remain at 1,250 lb/DAS and 600 lb/DAS, respectively. Incidental landing limits would remain at 25% of landings onboard, not to exceed 300 pounds, and DAS would remain at 40 (Table 2.1).

Rationale:
The no action option provides a reasonable buffer between ACT and the ABC with an ACT of 6,567 mt, approximately 86.5% ABC. Currently, this action is not likely to result in an overage of the total annual catch target. However, catch observed in fishing years 2011-2012 did not achieve OY (the ACT). Since the SSC did not recommend changing the ABC/ACL or ACT for the NMA, the No Action Alternative would continue existing measures implemented since 2011.

2.1.2 NMA Alternative 2 – Modified NMA DAS Allocations

Alternative 2 maintains the status quo possession limits of 1,250 lb/DAS (permit categories A and C) and 600 lb/DAS (permit categories B and D), but adjusts the allocation of DAS in the NMA to a level at which projected landings approximate the FY 2014 directed fishery allocation of the TAL. DAS would increase from 40 to 64 DAS. Incidental landing limits would remain at 25% of landings onboard, not to exceed 300 lb (Table 2.1).

Rationale:
Because the NMA TAL was not achieved in FYs 2011-2012, this alternative increases DAS allocations as the primary means of increasing landings in the directed fishery. This alternative could provide incentive for vessels fishing on groundfish DAS to declare a monkfish DAS and enable higher retention of monkfish. This may reduce monkfish discards that are above the incidental limit while fishing on a groundfish DAS alone.

2.1.3 NMA Alternative 3 – Modified NMA Incidental Trip Limits

Alternative 3 considers the incidental limit for monkfish when a vessel is on a groundfish DAS, but not on a monkfish DAS while in the NMA. The original FMP set the incidental trip limit at 25% (tail weight) of the total weight of fish on board, not to exceed 300 lb/DAS. This action would increase the monkfish incidental landings limit while on a groundfish DAS, but not a monkfish DAS in the NMA to 600 lb/DAS for permit categories A and C, and 500 lb/DAS for permit categories B and D. This action would maintain the status quo NMA DAS allocations at 40 DAS (Table 2.1).

Rationale:
In the NMA, incidental landings of monkfish by limited access monkfish vessels were approximately three times higher than landings on directed trips for permit categories A, C and B, D (Hermson, 2013). Accordingly, currently monkfish harvest in the NMA is more constrained by incidental trip limits rather than DAS. Increasing the incidental landings limit may provide more opportunity to harvest monkfish and achieve OY.

2.2 Southern Fishery Management Area (SMA) DAS and Trip Limit Alternatives

This section describes the range of alternatives, including no action, for the SMA (see Table 2.2). Alternative 1 is no action and would maintain existing trip limits and DAS allocations. Alternative 2 would modify possession limits to account for tail-weight conversion corrections and adjust the allocation of DAS in the SFMA to 32. Alternative 3 would maintain current possession limits, but adjust the allocation of DAS in the SFMA to a level at which projected landings approximate the FY 2014 directed fishery allocation of the SFMA TAL. Alternative 4 would maintain current DAS allocations, but adjust possession limits to account for tail-weight conversion corrections.

Table 2.2. SMA specification alternatives under consideration.

Management Area	Alternative	Incidental Landing Limit (lb)	A,C daily landing limit (lb)	B,D,H daily landing limit (lb)	DAS
SMA	1 -No Action	Status quo	550	450	28
	2	Status quo	610	500	32
	3	Status quo	550	450	51
	4	Status quo	610	500	28

2.2.1 SMA Alternative 1 – No Action

For the purpose of this action, the No Action alternative is defined as those measures currently in effect, and which would remain in effect if no further action were taken. Possession limits for permit categories A, C and B, D would remain at 550 lb/DAS and 450 lb/DAS, respectively. Incidental landing limits would remain at status quo limits, and DAS would remain at 28 (Table 2.2).

Rationale:
Maintaing existing trip limits and DAS allocations provides consistency to the fishery that would help to minimize market fluctuation and changes to existing business plans. Existing measures not likely to result in an overage of the total annual catch target. However, catch observed in fishing years 2011-2012 did not achieve OY (the ACT).

2.2.2 SMA Alternative 2 – Modified SMA Trip Limits (Whole-Weight Conversion) and DAS Allocations

Alternative 2 modifies monkfish possession limits to account for the tail-whole weight conversion correction adopted in Amendment 5 and accordingly increases the limits to 610 lb/DAS and 500 lb/DAS for permit categories A,C and B, D, H, respectively. In addition to increasing the possession limits, this action would adjust the SMFA DAS allocations to 32 (Table 2.2).

Rationale:
Amendment 5 corrected the tail-to-whole fish weight conversion ratio to address the fact that whole monkfish were landed already gutted instead of intact. The effect of this correction was

that possession limits, which are specified in tail weights, declined by about 14% on vessels that land whole, gutted fish, which comprise a significant number of SMA gillnet vessels. This action also adjusts DAS allocations because the TAL was not achieved in FY 2011-2012.

2.2.3 SMA Alternative 3 – Modified SMA DAS Allocations

Alternative 3 maintains current possession limits of 550 lb/DAS for permit categories A, C and 450 lb/DAS for permit categories B, D, H, but adjusts the allocation of DAS in the SMA to a level at which projected landings approximate the FY 2014 directed fishery allocation of the SFMA TAL. DAS would increase from 28 to 51 DAS (Table 2.2).

Rationale:
Because the SMA TAL was not achieved in FYs 2011-2012, this alternative increases DAS allocations as the primary means of increasing landings in the directed fishery. By maintaining existing trip limits, this alternative attempts to maintain the same daily volume of landings and, therefore, existing market prices, while increasing opportunities to land more monkfish throughout the FY.

2.2.4 SMA Alternative 4 – Modified SMA Possession Limits

Alternative 4 maintains current DAS allocations of 28 DAS, but adjusts the possession limits in the SMA to account for the tail-whole weight conversion correction adopted in Amendment 5 and accordingly increases the limits to 610 lb/DAS and 500 lb/DAS for permit categories A,C and B, D, H, respectively (Table 2.2).

Rationale:
The rationale for Alternative 4 is the same as Alternative 2 for increasing the possession limits. The rationale for maintaining status quo DAS was to provide an alternative that incorporated the tail-to-whole fish conversion correction and maintain current fishing operations in SMA.

2.3 SMA Monkfish DAS Usage Requirements

This section describes alternatives for DAS usage in the monkfish and groundfish fisheries in the SMA. Alternative 1 is no action. Alternative 2 modifies the DAS usage requirements.

2.3.1 SMA DAS Usage Alternative 1 – No Action

Under the No Action alternative, vessels allocated both monkfish and groundfish DAS in the SMA must use groundfish DAS in combination with their monkfish DAS. Once a vessel's allocation of groundfish DAS is used up, a vessel may then use monkfish-only DAS.

Rationale:
Existing regulations require the use of groundfish and monkfish DAS in combination until all groundfish DAS are used.

2.3.2 SMA DAS Usage Alternative 2 – Modified Monkfish DAS Usage Requirements

Under Alternative 2, vessels allocated both monkfish and groundfish DAS in the SMA can use monkfish-only DAS (in excess of allocated groundfish DAS at the start of the FY) at any time throughout the FY. Once a vessel's allocation of groundfish DAS equals the remaining monkfish DAS (i.e., once a vessel's monkfish-only DAS have been used), the vessel must use both monkfish and groundfish DAS in combination. This alternative would not revise existing regulations regarding the leasing of groundfish DAS. If groundfish DAS are leased from another vessel, those DAS are automatically linked with available monkfish-only DAS and must be used in combination.

Rationale:
This alternative addresses concerns expressed by SMA monkfish vessels, that existing requirements to use groundfish DAS in combination with monkfish DAS before they could use available monkfish-only DAS prevented them from efficiently utilizing their monkfish and groundfish DAS allocations. By allowing monkfish-only DAS to be used at any time throughout the FY, vessels can more effectively target monkfish earlier in the FY, and preserve using their monkfish-groundfish combination DAS until groundfish are more readily available in the SMA later in the FY. This could increase vessel returns and improve economic efficiency for Category C and D vessels.

2.4 Permit Category H Fishery Boundary

This section describes alternatives for the region that permit Category H vessels may use monkfish DAS. Alternative 1 is no action. Alternative 2 modifies the fishing region available to permit Category H.

2.4.1 Permit Category H Alternative 1 – No Action

Under the no action alternative, vessels issued a monkfish category H permit may only fish on a monkfish DAS south of 38°40' N Lat.

Rationale:
Permit Category H vessels were historically restricted to fishing south of 38°20'N to restrict the amount of catch that could be harvested by the permit class due to not qualifying for limited access permits in the initial FMP. Framework 4 (2007) to the FMP adjusted the permit Category H fishing boundary to south of 38°40'N to account for the constraints imposed on the fishery by closures to protect sea turtles.

2.4.2 Permit Category H Alternative 2 – Modified Permit Category H Fishery Boundary

This action would allow vessel issues a monkfish Category H permit to fish a monkfish DAS throughout the SMA.

Rationale:
Existing regulations designed to reduce bycatch and mortality of turtles and harbor porpoises under the Endangered Species Act severely limit where monkfish Category H vessels can target monkfish in the SMA. To ensure that such vessels can maximize opportunities to harvest available monkfish, this alternative would enable such vessels to fish throughout the SMA. This would increase fishing opportunities for such vessels.

3.0 Affected Environment (SAFE Report for 2012)

3.1 Biological Environment and Stock Status

3.1.1 Monkfish Life History

Information about monkfish life history is incomplete, although ongoing cooperative research projects continue to improve the understanding of the species biology and population dynamics. In a recent paper by Richards, et al., 2008, "Population Biology of Monkfish *Lophius americanus*" (see References), using data from resource surveys spanning the period 1948-2007, the authors noted that "monkfish exhibited seasonal onshore-offshore shifts in distribution, migrated out of the southern Mid-Atlantic Bight (MAB) in mid-spring, and re-appeared there in autumn". This observation is reflected in the seasonal pattern of fishing activity, particularly in the SMA. The authors also observed that "sex ratios at length for fish 40-65 cm long were skewed toward males in the southern Mid-Atlantic Bight (MAB), but approximated unity elsewhere, suggesting that a portion of the population resides outside sampled areas. Growth was linear at 9.9 cm per year, and did not differ by region or sex. Maximum observed size was 138 cm for females and 85 cm for males. Length at 50% maturity for males was 35.6 cm (4.1 yrs. old) in the north and 37.9 cm (4.3 yrs. old) in the south; for females, 38.8 cm (4.6 yrs. old) in the north and 43.8 cm (4.9 yrs. old) in the south. Ripe females were found in shallow (<50 m.) and deep (>200 m) water in the south, and in shallow (<50 m) in the north."

3.1.2 Stock Status

NMFS conducted a monkfish 2013 assessment, with a terminal year of the assessment being 2011. Long-term assessments of total biomass at Fmax were recommended in SAW 50 assessment (2010) and utilized for management purposes in 2012 and updated in the current assessment. The current 2013 assessment indicates that monkfish are not overfished in the NMA or the SMA, however there are high levels of uncertainty regarding BRPs due to weaknesses in the input data.

The 2013 assessment also emphasized a high degree of uncertainty. The 2013 assessment states: "The assessment results continue to be uncertain due to cumulative effects of under-reported landings, unknown discards during the 1980's, uncertainty in survey indices, and incomplete understanding of key biological parameters such as age and growth, longevity, natural mortality and stock structure contributing to retrospective patterns primarily in the northern management area."

	North	South	Comment
$F_{threshold}$	0.44	0.37	F_{MSY} proxy based on F_{max}
$F_{current}$ (2011)	0.08	0.11	Overfishing Not Occuring
B_{target}	*46,074 mt*	*71,667 mt*	B_{msy} proxy
$B_{threshold}$	*23,037 mt*	*35,834 mt*	$0.5*B_{target}$
$B_{current}$ (2011)	60,500 mt	111,100 mt	Not Overfished

Table 1 Monkfish reference points and status (2013).

3.1.3 Bycatch of non-target species in the fishery

The analysis done in Amendment 3 and is utilized in the 2012-2013 Skate Specifications is the most recent evaluations of non-target species bycatch in the directed monkfish fishery. This analysis is still applicable since the fishery has essentially remained the same in terms of the spatial and temporal distribution of fishing effort. Sink gillnets are used to target skates, monkfish, and other species mostly in four areas: inshore Gulf of Maine, along outer Cape Cod, the Southern New England continental shelf, and along the coast of northern NJ. Discard rates were mostly lower than those for trawls, 0.12-0.46 (Table 2). Discards were highest off of Southern New England and discard rates were higher since 2010 when Amendment 3 was implemented. This increase in skate complex and barndoor skate discard rates is more related to the observed increases in barndoor and winter skate biomass than it is related to Amendment 3 measures. Except for an area along the SW corner of the Western Gulf of Maine area and Platts Bank, discards of thorny skate by vessels using gillnets are rare. Smooth skate are rarely caught because gillnets are seldom used in the deeper portions of the Gulf of Maine.

		1989-2009				2010-2011			
		Skate complex	Barndoor skate	Smooth skate	Thorny skate	Skate complex	Barndoor skate	Smooth skate	Thorny skate
Large mesh trawl (Fleets 6,8)	No. observed tows	N=79700 tows				N=29006 tows			
	Mean	1.084	0.028	0.006	0.012	1.194	0.054	0.010	0.020
	Median	0.215	0.031	0.016	0.026	0.115	0.025	0.009	0.016
	90th percentile	2.313	0.236	0.108	0.163	2.185	0.226	0.062	0.132
Sink gillnets (Fleets 21,24)	No. observed tows	N=8132				N=2344			
	Mean	0.118	0.016	0.010	0.006	0.459	0.091	0.010	0.009
	Median	0.037	0.029	0.000	0.028	0.062	0.054	0.000	0.025
	90th percentile	0.249	0.215	0.051	0.135	0.941	0.547	0.043	0.149

Table 2 Skate discard rates on observed tows for vessels using large mesh trawl, and gillnets. *Source: Sea Sampling Observer Program data and 2012-2013 Skate Specifications (March 2012).*

The most current analysis concluded that thorny skates and dogfish are the predominant species discarded in the NMA monkfish fisheries, while winter skates, as well as dogfish are discarded in the SMA. It has also been noticed that since barndoor skates have recovered that they are being discarded more in the SMA. The status of three of these species is updated and summarized below:

- **Winter skate** – not overfished, overfishing is occurring,
- **Thorny skate –** overfished, overfishing is occurring,
- **Spiny dogfish** –not overfished, and overfishing is not occurring (rebuilt in 2010)

3.1.4 Marine Mammals and Protected Species

There are numerous protected species that inhabit the environment within the Monkfish FMP management unit. These species are afforded protection under the Endangered Species Act of 1973 (ESA; i.e., for those designated as threatened or endangered) and/or the Marine Mammal Protection Act of 1972 (MMPA), and are under NMFS' jurisdiction. Thirteen of these species

are classified as endangered or threatened under the ESA, while the remainder are protected by the provisions of the MMPA. Actions taken to minimize the interaction of the fishery with protected species are described in Sections XXX of this document.

A status review for Atlantic sturgeon was completed in 2007. NMFS has concluded that the U.S. Atlantic sturgeon spawning populations comprise five Distinct Population Segments (DPSs) (ASSRT, 2007). The Gulf of Maine DPS of Atlantic sturgeon is proposed to be listed as threatened, and the New York Bight, Chesapeake Bay, Carolina, and South Atlantic DPSs of Atlantic sturgeon are proposed as endangered. On October 6, 2010 (75 FR 61872 and 75 FR 61904), NMFS proposed listing five populations of Atlantic sturgeon along the U.S. East Coast as either threatened or endangered species. On June 10, 2011 NOAA Fisheries Service proposed protective regulations for the Gulf of Maine Distinct Population Segment (DPS) of Atlantic Sturgeon. Formerly on February 6, 2012 NMFS made a final determination to list the Gulf of Maine (GOM) Distinct Population Segment (DPS) of Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) as a threatened species under the Endangered Species Act (ESA), and the New York Bight (NYB) and Chesapeake Bay (CB) DPSs of Atlantic sturgeon as endangered species under the ESA. The impact of the final action is being reflected in this document under NEPA provision.

On May 20, 2013 a Section 7 Consultation - Draft Biological Opinion was submitted to NOAA for approval. Due to changes in the ALWTRP, which eliminated the DAM program as of April 7, 2008, and the SAM program as of October 6, 2008, and new information about the monkfish fishery's effects on sea turtle takes, formal consultation was reinitiated on April 2, 2008 to reconsider the effects of the continued operation of the monkfish fishery on ESA-listed cetaceans and sea turtles. That consultation was completed on October 29, 2010, and concluded that the continued operation of the monkfish fishery was not likely to jeopardize the existence of any ESA-listed species.

Candidate species receive no substantive or procedural protection under the ESA; however, NMFS recommends that project proponents consider implementing conservation actions to limit the potential for adverse effects on candidate species from any proposed project. NMFS has initiated review of recent stock assessments, bycatch information, and other information for these candidate and proposed species. The results of those efforts are needed to accurately characterize recent interactions between fisheries and the candidate/proposed species in the context of stock sizes. Any conservation measures deemed appropriate for these species will follow the information reviews. Please note that once a species is proposed for listing the conference provisions of the ESA apply (see 50 CFR 402.10). The impact of the proposed action is being considered in this document under NEPA provisions because proposed listing indicates bycatch may be a threat to the species.

3.1.4.1 Species Present in the Area

Species	Status
North Atlantic right whale (*Eubalaena glacialis*)	Endangered
Humpback whale (*Megaptera novaeangliae*)	Endangered
Fin whale (*Balaenoptera physalus*)	Endangered
Sei whale (*Balaenoptera borealis*)	Endangered
Blue whale (*Balaenoptera musculus*)	Endangered
Sperm whale (*Physeter macrocephalus*	Endangered
Minke whale (*Balaenoptera acutorostrata*)	Protected
Risso's dolphin (*Grampus griseus*)	Protected
Pilot whale (*Globicephala spp.*)	Protected
Atlantic white-sided dolphin (*Lagenorhynchus acutus*)	Protected
Common dolphin (*Delphinus delphis*)	Protected
Bottlenose dolphin (*Tursiops truncatus*)[a]	Protected
Harbor porpoise (*Phocoena phocoena*)	Protected
Spotted dolphin (*Stenella frontalis*)	Protected
Striped dolphin (*Stenella coeruleoalba*)*	Protected
Northern bottlenose whale (*Hyperoodon ampullatus*)*	Protected
Beaked whale (*Ziphius and Mesoplodon spp.*)*	Protected
Pygmy or dwarf sperm whale (*Kogia spp.*)*	Protected
False killer whale (*Pseudorca crassidens*)*	Protected
Melonheaded whale (*Peponocephala electra*)*	Protected
Rough-toothed dolphin (*Steno bredanensis*)*	Protected
White-beaked dolphin (*Lagenorhynchus albirostris*)*	Protected

Pinnipeds

Species	Status
Harbor seal (*Phoca vitulina*)	Protected
Gray seal (*Halichoerus grypus*)	Protected
Hooded seal (*Cystophora cristata*)	Protected
Harp seal (*Phoca groenlandicus*)	Protected

Sea Turtles

Species	Status
Leatherback sea turtle (*Dermochelys coriacea*)	Endangered
Kemp's ridley sea turtle (*Lepidochelys kempii*)	Endangered
Green sea turtle (*Chelonia mydas*)[b]	Endangered
Hawksbill sea turtle (*Eretmochelys imbricata*)	Endangered
Loggerhead sea turtle (*Caretta caretta*)	Threatened

Fish

Species	Status
Shortnose sturgeon (*Acipenser brevirostrum*)	Endangered
Atlantic salmon (*Salmo salar*)[c]	Endangered
Cusk (*Brosme brosme*)	Candidate
Atlantic sturgeon (*Acipenser oxyrinchus*)	Proposed

Atlantic Bluefin Tuna (*Thunnus thynnus*)	Candidate

Note:

a Bottlenose dolphin (*Tursiops truncatus*), Western North Atlantic coastal stock is listed as depleted.

b Green turtles in U.S. waters are listed as threatened except for the Florida breeding population which is listed as endangered. Due to the inability to distinguish between these populations away from the nesting beach, green turtles are considered endangered wherever they occur in U.S. waters.

c Gulf of Maine distinct population segment (DPS)

* Non ESA-listed species protected by the MMPA that utilize this environment and have no documented interaction with the type of gear used by the monkfish fishery.

3.1.4.2 Species Not Likely to be Affected

Interactions between gear and a given species occur when fishing gear overlaps both spatially and trophically with the species' niche. Spatial interactions are more "passive" and involve unintentional interactions with fishing gear. Trophic interactions are more "active" and occur when protected species attempt to consume prey caught in fishing gear and become entangled in the process. Spatial and trophic interactions can occur with various types of fishing gear used by the monkfish fishery through the year. Large and small cetaceans and sea turtles are more prevalent within the operations area during the spring and summer, relatively abundant during the fall, and some are still present in winter. The potential for entanglements to occur is assumed to be higher in areas where more gear is set and in areas with higher concentrations of protected species.

NMFS has determined that the action being considered in the EA (i.e., approval of the Framework 8) is not likely to adversely affect shortnose sturgeon, the Gulf of Maine DPS of Atlantic salmon, hawksbill sea turtles, blue whales, or sperm whales, all of which are listed as endangered species under the ESA. NOAA Fisheries has also determined that the action being considered is not expected to adversely affect critical habitat that has been designated for North Atlantic right whales and the Gulf of Maine DPS of Atlantic salmon, which occur within the action are. Shortnose sturgeon and salmon belonging to the Gulf of Maine DPS of Atlantic salmon occur within the general geographical areas fished by the monkfish fishery, but they are unlikely to occur in the area where the fishery would operate given their numbers and distribution. Therefore, none of these species are likely to be affected by the monkfish fishery. The following discussion provides the rationale for these determinations. Additional non-ESA listed species that may occur in the operations area that are not known to interact with the specific gear types that would be used by the monkfish fishery will not be discussed in this assessment.

North Atlantic right whales Critical Habitat

Critical habitat for right whales has been designated for Cape Cod Bay, Great South Channel, and coastal Florida and Georgia (outside of the action area for this Opinion). Cape Cod Bay and Great South Channel were designated critical habitat for right whales due to their importance as spring/summer foraging grounds for this species. Although the physical and biological processes shaping acceptable right whale habitat are poorly understood, there is no evidence to suggest that operation of the monkfish fishery adversely affects the value of critical habitat designated for the right whale.

Atlantic Salmon Critical Habitat

Coincident with the June 19, 2009 endangered listing, NMFS designated critical habitat for the GOM DPS of Atlantic salmon (74 FR 29300; June 19, 2009). Designation of critical habitat is focused on the known primary constituent elements (PCEs) within the occupied areas of a listed species that are deemed essential to the conservation of the species. Within the GOM DPS, the PCEs for Atlantic salmon are 1) sites for spawning and rearing and 2) sites for migration (excluding marine migration; although successful marine migration is essential to Atlantic salmon, NMFS was not able to identify the essential features of marine migration and feeding habitat or their specific locations at the time critical habitat was designated. Because there is no history or likelihood of future monkfish fishing activity to occur within estuaries corresponding to the GOM DPS of Atlantic Salmon, the associated fishing activities are not expected to alter attributes of Atlantic salmon critical habitat.

Shortnose sturgeon are benthic fish that mainly occupy the deep channel sections of large rivers. They can be found in rivers along the western Atlantic coast from St. Johns River, Florida (although the species is possibly extirpated from this system), to the Saint John River in New Brunswick, Canada. The species is anadromous in the southern portion of its range (i.e., south of Chesapeake Bay), while some northern populations are amphidromous (NMFS 1998). Since the monkfish fishery would not operate in or near the rivers where concentrations of shortnose sturgeon are most likely found, it is highly unlikely that the monkfish fishery would affect shortnose sturgeon.

The wild populations of Atlantic salmon whose freshwater range occurs in the watersheds from the Androscoggin River northward along the Maine coast to the Dennys River are listed as endangered under the ESA. Juvenile salmon in New England rivers typically migrate to sea in May after a two to three year period of development in freshwater streams, and remain at sea for two winters before returning to their U.S. natal rivers to spawn (Reddin 2006). Results from a 2001-2003 post-smolt trawl survey in the nearshore waters of the Gulf of Maine indicate that Atlantic salmon post-smolts are prevalent in the upper water column throughout this area in mid to late May (Lacroix and Knox 2005). Therefore, commercial fisheries deploying small mesh active gear (pelagic trawls and purse seines within 10-m of the surface) in nearshore waters of the Gulf of Maine may have the potential to incidentally take smolts. However, it is highly unlikely that the action being considered in this assessment will affect the Gulf of Maine DPS of Atlantic salmon given that operation of the monkfish fishery does not occur in or near the rivers where concentrations of Atlantic salmon are likely to be found and monkfish gear operates in the ocean at or near the bottom rather than near the surface. Thus, this species will not be considered further in this EA.

The hawksbill turtle is uncommon in the waters of the continental U.S. Hawksbills prefer coral reefs, such as those found in the Caribbean and Central America. Hawksbills feed primarily on a wide variety of sponges, but also consume bryozoans, coelenterates, and mollusks. The Culebra Archipelago of Puerto Rico contains especially important foraging habitat for hawksbills. Nesting areas in the western North Atlantic include Puerto Rico and the Virgin Islands. There are accounts of hawksbills in south Florida and individuals have been sighted along the east coast as far north as Massachusetts; however, east coast sightings north of Florida are rare

(NMFS 2009a). Since operation of the monkfish fishery would not occur in waters that are typically used by hawksbill sea turtles, it is highly unlikely that its operations would affect this turtle species.

Blue whales do not regularly occur in waters of the U.S. EEZ (Waring et al. 2002). In the North Atlantic, blue whales are most frequently sighted in the St. Lawrence from April to January (Sears 2002). No blue whales were observed during the Cetacean and Turtle Assessment Program (CeTAP) surveys of the mid- and north Atlantic areas of the outer continental shelf (CeTAP 1982). Calving for the species occurs in low latitude waters outside of the area where the monkfish fishery would operate. Blue whales feed on euphausiids (krill) that are too small to be captured in fishing gear. There have been no observed fishery-related mortalities or serious injuries to blue whales during 1996-2000 (Waring et al., 2002). Given that the species is unlikely to occur in areas where the monkfish fishery would operate, and would not affect the availability of blue whale prey or areas where calving and nursing of young occurs, the proposed action would not be likely to adversely affect blue whales.

Unlike blue whales, sperm whales do regularly occur in waters of the EEZ. However, the distribution of the sperm whales in the EEZ occurs on the continental shelf edge, over the continental slope, and into mid-ocean regions (Waring et al. 2007). Typically, sperm whale distribution is concentrated east-northeast of Cape Hatteras in winter and shifts northward in spring when whales are found throughout the Mid-Atlantic Bight (Waring et al. 2007). In summer, distribution extends further northward to areas east and north of Georges Bank and the Northeast Channel region, as well as the continental shelf south of New England. Distribution moves south of New England in fall, back to the Mid-Atlantic Bight (Waring et al. 2007).

In contrast, the monkfish fishery would operate in continental shelf waters. The average depth over which sperm whale sightings occurred during the CeTAP surveys was 1,792 m (CeTAP 1982). Female sperm whales and young males almost always inhabit open ocean, deep water habitat with bottom depths greater than 1,000 m and at latitudes less than 40° N (Whitehead 2002). Sperm whales feed on large squid and fish that inhabit the deeper ocean regions (Perrin et al. 2002). There has been no observed fishery-related mortalities or serious injuries to sperm whales during 2001-2005 (Waring et al., 2007). Given that sperm whales are unlikely to occur in areas (based on water depth) where the monkfish fishery would operate, and would not affect the availability of sperm whale prey or areas where calving and nursing of young occurs, the Proposed Action would not be likely to adversely affect sperm whales.

Although large whales and marine turtles may be potentially affected through interactions with fishing gear, NMFS has determined that the continued authorization of the monkfish fishery would not have any adverse effects on the availability of prey for these species. Right whales and sei whales feed on copepods (Horwood 2002, Kenney 2002). The monkfish fishery will not affect the availability of copepods for foraging right and sei whales because copepods are very small organisms that will pass through monkfish fishing gear rather than being captured in it. Humpback whales and fin whales also feed on krill as well as small schooling fish (e.g., sand lance, herring, mackerel) (Aguilar 2002, Clapham 2002). Monkfish fishing gear operates on or very near the bottom. Fish species caught in monkfish gear are species that live in benthic habitat (on or very near the bottom) such as flounders versus schooling fish such as herring and

mackerel that occur within the water column. Therefore, the continued authorization of the monkfish fishery will not affect the availability of prey for foraging humpback or fin whales. Moreover, none of the turtle species are known to feed upon groundfish.

3.1.4.3 Species Potentially Affected

It is expected that the sea turtle, cetacean, and pinniped species discussed below have the potential to be affected by the operation of the monkfish fishery. Background information on the range-wide status of sea turtle and marine mammal species that occur in the area and are known or suspected of interacting with fishing gear (demersal gear including trawls, gillnets, and longline types) can be found in a number of published documents. These include sea turtle status reviews and biological reports (NMFS and USFWS 1995; Marine Turtle Expert Working Group (TEWG) 1998, 2000; NMFS and USFWS 2007a, 2007b; Leatherback TEWG 2007), recovery plans for ESA-listed cetaceans and sea turtles (NMFS 1991, 2005; NMFS and USFWS 1991a, 1991b; NMFS and USFWS 1992), the marine mammal stock assessment reports (e.g., Waring et al. 2006; 2007), and other publications (e.g., Clapham et al. 1999, Perry et al. 1999, Best et al. 2001, Perrin et al. 2002).

Loggerhead, leatherback, Kemp's ridley, and green sea turtles occur seasonally in southern New England and Mid-Atlantic continental shelf waters north of Cape Hatteras, North Carolina. In general, turtles move up the coast from southern wintering areas as water temperatures warm in the spring (James et al. 2005, Morreale and Standora 2005, Braun-McNeill and Epperly 2004, Morreale and Standora 1998, Musick and Limpus 1997, Shoop and Kenney 1992, Keinath et al. 1987). The trend is reversed in the fall as water temperatures cool. By December, turtles have passed Cape Hatteras, returning to more southern waters for the winter (James et al. 2005, Morreale and Standora 2005, Braun-McNeill and Epperly 2004, Morreale and Standora 1998, Musick and Limpus 1997, Shoop and Kenney 1992, Keinath et al. 1987). Hard-shelled species are typically observed as far north as Cape Cod whereas the more cold-tolerant leatherbacks are observed in more northern Gulf of Maine waters in the summer and fall (Shoop and Kenney 1992, STSSN database http://www.sefsc.noaa.gov/seaturtleSTSSN.jsp).

In general, sea turtles are a long-lived species and reach sexual maturity relatively late (NMFS SEFSC 2001; NMFS and USFWS 2007a, 2007b, 2007c, 2007d). Sea turtles are injured and killed by numerous human activities (NRC 1990; NMFS and USFWS 2007a, 2007b, 2007c, 2007d). Nest count data are a valuable source of information for each turtle species since the number of nests laid reflects the reproductive output of the nesting group each year. A decline in the annual nest counts has been measured or suggested for four of five western Atlantic loggerhead nesting groups through 2004 (NMFS and USFWS 2007a); however, data collected since 2004 suggests nest counts have stabilized or increased (TEWG 2009). Nest counts for Kemp's ridley sea turtles as well as leatherback and green sea turtles in the Atlantic demonstrate increased nesting by these species (NMFS and USFWS 2007b, 2007c, 2007d).

Sea turtles are known to be captured in gillnet and trawl gear; gear types that are used in the monkfish fishery. The following table, Table 3, provides recent information on observed turtle interactions with the monkfish fishery for the period 2003 – Dec. 2008. Gillnet gear is the most prevalent gear used in the SMA monkfish fishery.

Year	Month	Species	Statistical Area	Gear Type
2003	August	Unknown	537	Sink gillnet
2003	August	Unknown	537	Sink gillnet
2003	August	Unknown	537	Sink gillnet
2004	May	Loggerhead	621	Sink gillnet
2004	June	Loggerhead	612	Sink gillnet
2004	October	Leatherback	615	Sink gillnet
2004	November	Leatherback	613	Sink gillnet
2006	December	Leatherback	537	Sink gillnet

Table 3 Turtle Interactions in Gillnet Gear Targeting Monkfish, 2003-Dec. 2006.
Source: NEFSC Observer Data

The loggerhead sea turtle is listed as threatened throughout its worldwide range. On July 12, 2007, NMFS and USFWS (Services) received a petition from Center for Biological Diversity and Turtle Island Restoration Network to list the ''North Pacific populations of loggerhead sea turtle'' as an endangered species under the ESA. In addition, on November 15, 2007, the Services received a petition from Center for Biological Diversity and Oceana to list the ''Western North Atlantic populations of loggerhead sea turtle'' as an endangered species under the ESA. NMFS published notices in the *Federal Register,* concluding that the petitions presented substantial scientific information indicating that the petitioned actions may be warranted (72 FR 64585, November 16, 2007; 73 FR 11849; March 5, 2008). In 2008, a Biological Review Team (BRT) was established to assess the global population structure to determine whether DPSs exist and, if so, the status of each DPS. The BRT identified nine loggerhead DPSs, distributed globally (Conant et al. 2009). On March 16, 2010, the Services announced 12-month findings on the petitions to list the North Pacific populations and the Northwest Atlantic populations of the loggerhead sea turtle as DPSs with endangered status and published a proposed rule to designate nine loggerhead DPSs worldwide, seven as endangered (North Pacific Ocean DPS, South Pacific Ocean DPS, Northwest Atlantic Ocean DPS, Northeast Atlantic Ocean DPS, Mediterranean Sea DPS, North Indian Ocean DPS, and Southeast Indo-Pacific Ocean DPS) and two as threatened (Southwest Indian Ocean DPS and South Atlantic Ocean DPS). On March 22, 2011, the timeline for the final determination was extended for six months until September 16, 2011 (76 FR 15932)." On December 27, 2010 NMFS provided a notification that the agency will not identify additional fisheries to observe for the 2011 AD, pursuant to its authority under the ESA. NMFS is not identifying additional fisheries at this time given lack of resources to implement new or expand existing observer programs to focus on sea turtles (50 CFR 222.402(a)(4)). Fisheries identified in the 2010 AD remain on the AD and are therefore required to carry observers, upon NMFS' request, until 2014.

It should be noted that the status review document prepared by the BRT is not a listing decision. NMFS and the USFWS must next evaluate the report and determine what, if any, action is appropriate under the ESA. Possible decisions by the agencies include: No change in listing status; a change in listing status for the species as currently defined (single species range wide); identification of DPS; and proposing to list some or all of them as either threatened or endangered. The agencies will prepare proposed determinations and publish those in the *Federal Register* and solicit public comment. The agencies will then review the comments and prepare a

final determination. Typically a listing action becomes effective 30 days after publication of the final rule in the *Federal Register*. Only after that final listing decision is announced in the *Federal Register* would DPSs be applied, if deemed necessary and warranted, and a new listing be in effect.

3.1.4.3.1 Large Cetaceans

The most recent Marine Mammal Stock Assessment Report (SAR) (Waring et al. 2009) reviewed the current population trend for each of these large cetacean species within U.S. EEZ waters, as well as providing information on the estimated annual human-caused mortality and serious injury, and a description of the commercial fisheries that interact with each stock in the U.S. Atlantic. Information from the SAR is summarized below.

The western North Atlantic baleen whale species (North Atlantic right, humpback, fin, sei, and minke) follow a general annual pattern of migration from high latitude summer foraging grounds, including the Gulf and Maine and Georges Bank, and low latitude winter calving grounds (Perry et al. 1999, Kenney 2002). However, this is an oversimplification of species movements, and the complete winter distribution of most species is unclear (Perry et al. 1999, Waring et al. 2009). Studies of some of the large baleen whales (right, humpback, and fin) have demonstrated the presence of each species in higher latitude waters even in the winter (Swingle et al. 1993, Wiley et al. 1995, Perry et al. 1999, Brown et al. 2002).

For North Atlantic right whales, the available information suggests that the population is increasing at a rate of 1.8 percent per year between 1990 and 2003, and the total number of North Atlantic right whales is estimated to be at least 323 animals in 2003 (Waring et al. 2009). The minimum rate of annual human-caused mortality and serious injury to right whales averaged 3.8 per year during 2002 to 2006 (Waring et al. 2009). Of these, an average of 1.4 per year resulted from fishery interactions. Recent mortalities included six female right whales, including three that were pregnant at the time of death (Waring et al. 2009).

The North Atlantic population of humpback whales is estimated to be 11,570, although the estimate is considered to be low (Waring et al. 2009). The best estimate for the Gulf of Maine stock of humpback whales is 847 whales (Waring et al. 2009). The population trend was considered positive for the Gulf of Maine population, but there are insufficient data to estimate the trend for the larger North Atlantic population. Based on data available for selected areas and time periods, the minimum population estimates for other western north Atlantic whale stocks are 2,269 fin whales, 207 sei whales, 4,804 sperm whales, and 3,312 minke whales (Waring et al. 2009). No recent estimates are available for blue whale abundance. Insufficient data exist to determine trends for any other large whale species.

Gillnet gear is known to pose a risk of entanglement causing injury and death to large cetaceans. Right whale, humpback whale, and minke whale entanglements in gillnet gear have been documented (Johnson et al. 2005; Waring et al. 2009). However, it is often not possible to attribute the gear to a specific fishery. Bottom trawl gear is also known to pose a risk of entanglement causing injury or death to large whales. The draft 2011 marine mammal stock assessment report (SAR) documents the mortality of two Minke whales from fisheries observers in 2008.

The ALWTRP was revised with publication of a new final rule (72 FR 57104, October 5, 2007) that is intended to continue to address entanglement risk of large whales (right, humpback, fin, and and acknowledges benefits to minke whales) in commercial fishing gear and to reduce the risk of death and serious injury from entanglements that do occur. On June 14, 2011 NOAA announced that they will prepare an Environmental Impact Statement (EIS) to amend the ALWTRP and have proposed conservation measures intended to reduce the risk of serious injury and mortality of large whales due to entanglements in vertical lines (in progress). This proposed rule revises the management measures for reducing the incidental mortality and serious injury to the North Atlantic right whale (*Eubalaena glacialis*), humpback whale (*Megaptera novaeangliae*), and fin whale (*Balaenoptera physalus*) in commercial trap/pot and gillnet fisheries to meet the goals of the Marine Mammal Protection Act (MMPA) and the Endangered Species Act (ESA). The measures identified in the Plan are also intended to benefit minke whales (*Balaenoptera acutorostrata*), which are not strategic, but are known to be taken incidentally in commercial fisheries.

3.1.4.3.2 Small Cetaceans

Numerous small cetacean species (dolphins; pilot whales; and harbor porpoise) occur within [the area from Cape Hatteras through the Gulf of Maine], that are known to interact with monkfish fishing gear. Seasonal abundance and distribution of each species in Mid-Atlantic, Georges Bank, and/or Gulf of Maine, Georges Bank, and southern New England/Mid-Atlantic waters varies with respect to life history characteristics. Some species primarily occupy continental shelf waters (e.g., white sided dolphins, harbor porpoise), while others are found primarily in continental shelf edge and slope waters (e.g., Risso's dolphin), and still others occupy all three habitats (e.g., common dolphin, spotted dolphin). Information on the western North Atlantic stocks of each species is summarized in Waring et al. (2009). Small cetaceans are known to interact with gillnet and trawl gear (Waring *et al*. 2009).

With respect to harbor porpoise specifically, the most recent Stock Assessment Reports show that the number of harbor porpoise takes is increasing, moving closer to the Potential Biological Removal level calculated for this species (706 animals/year from 2011) rather than declining toward the long-term Zero Mortality Rate Goal (ZMRG), which is 10 percent of PBR (approximately 75 animals). Observer information collected from January 2005 to June 2006 has indicated an increase in porpoise bycatch throughout the geographic area covered by the Harbor Porpoise Take Reduction Plan (HPTRP) in both the Gulf of Maine and Mid-Atlantic regions and in monkfish gear specifically (NMFS, Discussion Paper on Planned Amendments to the Harbor Porpoise TRP 2007). From the observer program data (2006-2010), the summary of the average incidental mortality of Gulf of Maine/Bay of Fundy harbor porpoise mortality in US waters is 796 animals (gear observed: Northeast sink gillnet, Mid-Atlantic gillnet, and Northeast bottom trawl) (http://www.nmfs.noaa.gov/pr/pdfs/sars/ao2012_harborporpoise_gulfofmaine-bayoffundy.pdf). The Harbor Porpoise Take Reduction Team developed options to reduce takes, and NMFS published a proposed rule on July 21, 2009 (74 *Federal Register* 36058) with four alternatives including no action. The comment period on this rule ended on August 20, 2009 and the final rule was published on February 19, 2010 (75 *Federal Register* 7383). As a result, the HPTRP that was amended on 19 February 2010 (75 FR 7383), which expanded management

areas and seasons in which pingers are required, as well as to increased efforts to monitor and enforce the plan. In addition, the New England portion of the HPTRP now includes consequence closure areas as a management measure strategy.

The following changes were implemented in the 2010 amendments to the HPTRP:

New England

- Expand the size of the Massachusetts Bay Management Area, as well as pinger use to include November;
- Establish the Stellwagen Bank Management Area and require pingers from November 1 through May 31;
- Establish the Southern New England Management Area where pingers are required from December 1 through May 31; and
- Establish the Cape Cod South Expansion Consequence Closure Area and Coastal Gulf of Maine Consequence Closure Area. These areas would be closed to gillnetting for two to three months if harbor porpoise bycatch levels are too high.

Mid-Atlantic

- Establish the Mudhole South Management Area, with a seasonal closure and gear modifications for large and small mesh gear;
- Modify the northern boundary of the waters off New Jersey Management Area to intersect with the southern shoreline of Long Island, NY at 72° 30' W longitude; and
- Modify tie-down spacing requirement for large mesh gillnets in all Mid-Atlantic management areas (waters off New Jersey, Mudhole North and South, and Southern Mid-Atlantic Management Areas).

As discussed in section 2.1.5.1 on October 1, 2012, the Coastal Gulf of Maine Consequence Closure Area, which spans the coast from Massachusetts to Maine, would be closed to sink gillnets from October 1 through November 30, but then shifted the closure to February 1 through March 31, 2013 (NOAA Northeast Region Bulletin, January 18, 2013) for this year only. This seasonal closure (October-November) will remain in effect until bycatch levels achieve the zero mortality rate goal (ZMRG) established for harbor porpoises or until the HPTRT and NMFS develop and implement new measures. Consequentially, on August 26, 2013 NMFS published a proposed rule to amend the regulations implementing the HPTRP. This proposed rule would revise the Plan by eliminating the consequence closure strategy enacted in 2010 based on deliberations by the Harbor Porpoise Take Reduction Team. This action is necessary due to the New England sink gillnets fishery-wide changes in fishing practices. For more information on the HPTRP including time and area closures visit: www.nero.noaa.gov/hptrp.

The Atlantic Trawl Gear Take Reduction Team (ATGTRT) was organized in 2006 to implement a plan to address the incidental mortality and serious injury of long-finned pilot whales, short-finned pilot whales, common dolphins, and Atlantic white-sided dolphins in several trawl gear fisheries. In lieu of a TRP, the ATGTRT agreed to develop an Atlantic Trawl Gear Take Reduction Strategy (ATGTRS). The ATGTRS identifies informational and research tasks as well as education and outreach needs the ATGTRT believes are necessary to provide the basis for achieving the ultimate MMPA goal of achieving ZMRG. The ATGTRS also identifies several

potential voluntary measures that can be adopted by certain trawl fishing sectors to potentially reduce the incidental capture of marine mammals. These voluntary measures are as follows:

- Reducing the numbers of turns made by the fishing vessel and tow times while fishing at night; and
- Increasing radio communications between vessels about the presence and/or incidental capture of a marine mammal to alert other fishermen of the potential for additional interactions in the area.

In August 2012, ALWTRP organized a monitoring strategy incorporates a variety of measures that will assist in evaluating levels of compliance and overall effectiveness of the take reduction plan:

• Biological, oceanographic, and fishing gear analyses – population growth trends, large whale serious injury and mortality determinations, observed entanglement events over time, entangling gear identification, and oceanic conditions/trends related to large whales;

• Fishing industry practices and compliance indicators – utilizing observer data, quantifying enforcement efforts, gear characterization efforts;

• Education/outreach measures – distribution of outreach guides and other information, issuing permit holder letters, ALWTRP website maintenance, trade-show participation, industry outreach meetings, ALWTRP trainings, direct communications, and publication of an annual compliance and effectiveness report.

For more information go to:
http://www.nero.noaa.gov/whaletrp/reports/5a_ALWTRP%20Monitoring%20Strategy.pdf

3.1.4.3.3 Pinnipeds

Of the four species of seals expected to occur in the area, harbor seals have the most extensive distribution with sightings occurring as far south as 30° N (Katona et al. 1993, Waring et al. 2009). Gray seals are the second most common seal species in U.S. EEZ waters, occurring primarily off New England (Katona et al. 1993; Waring et al. 2009). Pupping for both species occurs in both U.S. and Canadian waters of the western north Atlantic with the majority of harbor seal pupping likely occurring in U.S. waters and the majority of gray seal pupping in Canadian waters, although there are at least three gray seal pupping colonies in U.S. waters as well. Harp and hooded seals are less commonly observed in U.S. EEZ waters. Both species form aggregations for pupping and breeding off eastern Canada in the late winter/early spring, and then travel to more northern latitudes for molting and summer feeding (Waring et al. 2009). Both species have a seasonal presence in U.S. waters from Maine to New Jersey, based on sightings, stranding, and fishery bycatch (Waring et al. 2009). All four species of seals are known to interact with gillnet and/or trawl gear (Waring et al. 2009).

Although harbor seals may be more likely to occur in the operations area between fall and spring, harbor and gray seals are year-round residents; therefore, interactions could occur year-round. The uncommon occurrences of hooded and harp seals in the operations area are more

likely to occur during the winter and spring, allowing for an increased potential for interactions during the winter.

3.1.4.3.4 Atlantic Sturgeon DPSs

Atlantic sturgeon is an anadromous species that spawns in relatively low salinity, river environments, but spends most of its life in the marine and estuarine environments from Labrador, Canada to the Saint Johns River, Florida (Holland and Yelverton 1973, Dovel and Berggen 1983, Waldman et al. 1996, Kynard and Horgan 2002, Dadswell 2006, ASSRT 2007). Tracking and tagging studies have shown that subadult and adult Atlantic sturgeon that originate from different rivers mix within the marine environment, utilizing ocean and estuarine waters for life functions such as foraging and overwintering (Stein et al. 2004a, Dadswell 2006, ASSRT 2007, Laney et al. 2007, Dunton et al. 2010). Fishery-dependent data as well as fishery-independent data demonstrate that Atlantic sturgeon use relatively shallow inshore areas of the continental shelf; primarily waters less than 50 m (Stein et al. 2004b, ASMFC 2007, Dunton et al. 2010). The data also suggest regional differences in Atlantic sturgeon depth distribution with sturgeon observed in waters primarily less than 20 m in the Mid-Atlantic Bight and in deeper waters in the Gulf of Maine (Stein et al. 2004b, ASMFC 2007, Dunton et al. 2010). Information on population sizes for each Atlantic sturgeon DPS is very limited. Based on the best available information, NMFS has concluded that bycatch, vessel strikes, water quality and water availability, dams, lack of regulatory mechanisms for protecting the fish, and dredging are the most significant threats to Atlantic sturgeon.

Atlantic sturgeon are known to be captured in sink gillnet, drift gillnet, and otter trawl gear (Stein et al. 2004a, ASMFC TC 2007). Of these gear types, sink gillnet gear poses the greatest known risk of mortality for bycaught sturgeon (ASMFC TC 2007). Sturgeon deaths were rarely reported in the otter trawl observer dataset (ASMFC TC 2007). However, the level of mortality after release from the gear is unknown (Stein et al. 2004a). In a review of the Northeast Fishery Observer Program (NEFOP) database for the years 2001-2006, observed bycatch of Atlantic sturgeon was used to calculate bycatch rates that were then applied to commercial fishing effort to estimate overall bycatch of Atlantic sturgeon in commercial fisheries. This review indicated sturgeon bycatch occurred in statistical areas abutting the coast from Massachusetts (statistical area 514) to North Carolina (statistical area 635) (ASMFC TC 2007). Based on the available data, participants in an ASMFC bycatch workshop concluded that sturgeon encounters tended to occur in waters less than 50 m throughout the year, although seasonal patterns exist (ASMFC TC 2007). The ASMFC analysis determined that an average of 650 Atlantic sturgeon mortalities occurred per year (during the 2001 to 2006 timeframe) in sink gillnet fisheries. Stein et al (2004a), based on a review of the NMFS Observer Database from 1989-2000, found clinal variation in the bycatch rate of sturgeon in sink gillnet gear with lowest rates occurring off of Maine and highest rates off of North Carolina for all months of the year."

In an updated analysis, the Northeast Fishery Science Center (NEFSC) was able to use data from the NEFOP database to provide updated estimates for the 2008 through May of 2013. Data were limited by observer coverage to waters outside the coastal boundary (fzone>0) and north of Cape Hatteras, NC. Sturgeon included in the data set were those identified by Federal observers as Atlantic sturgeon, as well as those categorized as unknown sturgeon. The frequency of encounters on observed trips were expanded by total landings recorded in vessel trip reports

(VTR) rather than dealer data, since the dealer data does not include information on mesh sizes. Originally the data were to be evaluated by year, month, 3-digit statistical area, gear type and mesh size. Unfortunately the level of observer coverage did not support that degree of partitioning in the data. Therefore, data were combined into division (identified as the first 2 digits in area codes), quarter, gear type (otter trawl, fish and sink gillnet) and mesh categories. Mesh sizes were categorized for otter trawl as small (<5.5") or large (greater than or equal to 5.5") and small (<5.5"), large (between 5.5" and 8") and extra large (>8") in sink gillnets.

Monkfish are primarily harvested using large mesh bottom otter trawl gear and extra large mesh sink gillnet gear. The majority of the monkfish trawl fishery occurs in conjunction with the Northeast multispecies fishery in the Northern Fishery Management Area (NMA), which is comprised mostly of the Gulf of Maine and Georges Bank. Conversely, the monkfish fishery is primarily a gillnet fishery in the Southern Fishery Management Area (SMA), which is comprised mainly of Southern New England and the Mid-Atlantic regions. (See Section 4.5.1.2 of Amendment 5 for information on landings and revenue by gear type and management area.)

Although based upon 1999 and 2001 VTR data, Figures 69 and 70 in Amendment 2 to the Monkfish FMP graphically display how directed monkfish otter trawl and gillnet effort are distributed. Given that monkfish regulations have not changed dramatically since the implementation of the FMP in November 1999, it is unlikely that this effort pattern has changed. However, it should be noted that directed monkfish trawl effort has declined in the SMA in recent years (see Section 4.5.1.2 of Amendment 5). As indicated in Figure 69 of Amendment 2, the majority of monkfish otter trawl effort in the Southern New England region occurs in Northeast statistical area 537, and tends to occur in deeper waters further offshore. Conversely, directed monkfish gillnet effort in the Southern New England region occurs primarily in the in the inshore waters of NE statistical areas 537, 612, 613, 614, and 621. Given that nearly all observed takes of Atlantic sturgeon in large mesh otter trawl gear during the 2008-May 2013 time period occurred in NE statistical areas 612 and 621 (Table 4), it is highly unlikely that these vessels were targeting monkfish. Observed takes associated with extra large mesh sink gillnet gear during this time period were distributed across several inshore statistical areas across Southern New England and the Mid-Atlantic regions (Table 5). Thus, it is highly likely that the majority of these observed takes occurred in sink gillnet gear targeting monkfish. As a result, the analysis contained in the Addendum to Amendment 5 focused on the impacts to Atlantic sturgeon associated with extra large sink gillnet gear in the SMA since recent NEFOP data indicate that no interactions have occurred between the gear used in the monkfish fishery and Atlantic sturgeon in the NMA in recent years.

Large Mesh Otter Trawl

	Month												
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**Total**
Area													
513	1												1
514		1	1		1	1				2	2		8
521													0
537						2	1				1		4
539	1												1
611				1	2	1							4
612		1		10	56	11	6		34	4		2	124
613				1			2						3
614				1									1
615													0
621					1	2			1	2	8	2	16
622													0
625												10	10
626													0
631	1	2											3
635	2											2	4
Total	5	4	1	13	60	17	9	0	35	8	11	16	**179**

Table 4 Sturgeon encounters in observed large mesh otter trawl trips, 2008-May 2013, based upon NEFOP Data.

Extra Large Sink Gillnet

	Month												
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**Total**
Area													
513							1						1
514	2	1			5	5	3				7	3	26
521	1					2	2				3		8
537	1	1	1	1	6	2				1	3	2	18
539				4	7								11
611													0
612	8	2		1	5						3	10	29
613		1			4	1					8	2	16
614					1						2		3
615	2				2	2					4	18	28
621													0
622	1												1
625			2	6	14						1	1	24
626			1	4	12								17
631		7	2									2	11
635			8	47									55
Total = 248	**15**	**12**	**14**	**63**	**56**	**12**	**6**	**0**	**0**	**1**	**31**	**38**	**248**

Table 5 Sturgeon encounters in observed extra large sink gillnet trips, 2008-May 2013, based upon NEFOP Data.

The information presented in Table 6 shows that the number of estimated annual takes (total encounters) of Atlantic sturgeon in extra large mesh sink gillnet gear range from 20 to 70 sturgeon annually, with an average of 43 individuals (2008-2012). As such, these data indicate that monkfish gillnet gear is likely to interact with Atlantic sturgeon during the time period covered by this action; fishing years 2014 through 2016. Based upon this information, it appears that nearly half of Atlantic sturgeon die as a result of an encounter with extra-large mesh sink gillnet gear, most likely due to the length of time this gear is soaked and the bagging effect associated with this type of gear, the latter of which would make it unlikely that a sturgeon could free itself once entangled. However, in recent years, the percentage of takes resulting in death has declined. This could be in part due to incomplete observer data for 2013, or other factors affecting fishing behavior such as weather, water temperature or abundance of bycatch species such as skate and dogfish.

Year	Total Encounters	Dead Encounters	%Dead
2008	20	14	70%
2009	70	23	33%
2010	50	33	66%
2011	37	16	43%
2012	39	21	54%
May 2013	32	12	38%
Total	248	119	48

Table 6 2008 –May 2013 Estimated Atlantic Sturgeon Encounters in Extra Large Mesh Gillnet Gear based upon NEFOP Data.

Comprehensive information on current abundance of Atlantic sturgeon is lacking for all of the spawning rivers (ASSRT 2007). Based on data through 1998, an estimate of 863 spawning adults per year was developed for the Hudson River (Kahnle et al. 2007), and an estimate of 343 spawning adults per year is available for the Altamaha River, GA, based on data collected in 2004-2005 (Schueller and Peterson 2006). Data collected from the Hudson River and Altamaha River studies cannot be used to estimate the total number of adults in either subpopulation, since mature Atlantic sturgeon may not spawn every year, and it is unclear to what extent mature fish in a non-spawning condition occur on the spawning grounds. Nevertheless, since the Hudson and Altamaha Rivers are presumed to have the healthiest Atlantic sturgeon subpopulations within the United States, other U.S. subpopulations are predicted to have fewer spawning adults than either the Hudson or the Altamaha (ASSRT 2007). It is also important to note that the estimates above represent only a fraction of the total population size as spawning adults comprise only a portion of the total population (e.g., this estimate does not include subadults and early life stages).

As noted in above, there are no total population size estimates for any of the five Atlantic sturgeon DPSs at this time. However, there are two estimates of spawning adults per year for two river systems (e.g., 870 spawning adults per year for the Hudson River, and 343 spawning adults per year for the Altamaha River). These estimates represent only a fraction of the total population size as Atlantic sturgeon do not appear to spawn every year and additionally, these estimates do not include sub-adults or early life stages. Between 2008 and 2012, an average of 21 Atlantic sturgeon mortalities occurred in all extra large mesh sink gillnet gear. This includes mortalities in all areas. The terminal year of 2013 was excluded from this average due to incomplete data. Based on the available information, it is not possible at this time to attribute these mortalities to the DPSs from which these fish originated. However, given the migratory nature of sub-adult and adult Atlantic sturgeon, it is expected that these mortalities represent takes from multiple DPSs. This conclusion is supported by preliminary genetic mixed stock analyses undertaken by Dr. Isaac Wirgin from New York University and Dr. Tim King from the U.S. Geological Survey. These additional data support the conclusion from the earlier bycatch estimate that the monkfish fishery may interact with Atlantic sturgeon from now until the time a final listing determination is made for the species. Thus, while the operations of this fishery over the five months between May 1 and early October 2013 will most likely result in adverse impacts to Atlantic sturgeon, the magnitude of that interaction during this short timeframe of interest is

not likely to result in jeopardy to the species, thereby obviating the need for a conference as required under Section 7(a)(4) of the ESA.

3.2 Physical and Biological Environment

The Northeast U.S. Shelf Ecosystem has been described as including the area from the Gulf of Maine south to Cape Hatteras, extending from the coast seaward to the edge of the continental shelf, including the slope sea offshore to the Gulf Stream (Sherman et al. 1996). The continental slope includes the area east of the shelf, out to a depth of 2000 m. Four distinct sub-regions comprise the NOAA Fisheries Northeast Region: the Gulf of Maine, Georges Bank, the Mid-Atlantic Bight, and the continental slope. Occasionally another sub-region, Southern New England, is described; however, we incorporated discussions of any distinctive features of this area into the sections describing Georges Bank and the Mid-Atlantic Bight.

The Gulf of Maine is an enclosed coastal sea, characterized by relatively cold waters and deep basins, with a patchwork of various sediment types. Georges Bank is a relatively shallow coastal plateau that slopes gently from north to south and has steep submarine canyons on its eastern and southeastern edge. It is characterized by highly productive, well-mixed waters and strong currents. The Mid-Atlantic Bight is comprised of the sandy, relatively flat, gently sloping continental shelf from southern New England to Cape Hatteras, NC. The continental slope begins at the continental shelf break and continues eastward with increasing depth until it becomes the continental rise. It is fairly homogenous, with exceptions at the shelf break, some of the canyons, the Hudson Shelf Valley, and in areas of glacially rafted hard bottom.

Pertinent physical and biological characteristics of each of these sub-regions are described in the Physical and Biological Environment section of Amendment 5 (Section 4.2), along with a short description of the physical features of coastal environments. Monkfish habitats are described in Section 4.4.1 of Amendment 5 and summarized below. Information on the affected physical and biological environments included in Amendment 5 was extracted from Stevenson et al. (2004).

3.3 Fishing Effects on EFH

A detailed discussion of monkfish fishing on EFH is contained in the Affected Environment Section of Amendment 5. Since monkfish EFH has been determined to not be vulnerable to any fishing gear (Stevenson, et al. 2004, NEFMC 2004), the discussion focuses on gears used in the directed monkfish fishery (trawls and gillnets) that potentially could impact EFH of other fisheries. The discussion in Amendment 5 cites several important peer-reviewed studies in describing the potential biological and physical effects of fishing on various substrates (mud, sand, gravel and rocky substrates). With regard to the gears used in the monkfish fishery, the discussion focuses on trawling, since gillnets are stationary or static, and have been determined to not have an adverse effect on EFH (NEFMC, 2004). Since vessels are prohibited from using a dredge while on a monkfish DAS, discussion of the effects of dredges is not pertinent. Generally, trawling reduces habitat complexity and productivity by removing or altering physical (boulders, sand waves or cobble piles) and biological (structure forming invertebrates) habitat components and mixing sediments (ICES 2000). These impacts are more discernable with repeated trawl use and in low energy environments (NRC 2002).

3.4 Essential Fish Habitat

Section 4.4 of Amendment 5 contains a detailed description of monkfish EFH, EFH of other species vulnerable to bottom trawl gear, the effect of the monkfish fishery on EFH (monkfish and other species, all life stages), and measures to minimize adverse effects of the monkfish fishery on EFH. The document describes habitat protection measures taken in the monkfish FMP, as well as the Atlantic Sea Scallop and NE Multispecies FMPs (namely habitat closed areas).

In summary, the discussion notes that monkfish EFH has been determined to only be minimally vulnerable to bottom-tending mobile gear (bottom trawls and dredges) and bottom gillnets. Therefore, the effects of the monkfish fishery and other fisheries on monkfish EFH do not require any management action. However, the monkfish trawl fishery does have more than a minimal and temporary impact on EFH for a number of other demersal species in the region. Adverse impacts that were more than minimal and not temporary in nature were identified for the following species and life stages, based on an evaluation of species life history and habitat requirements and the spatial distributions and impacts of bottom otter trawls in the region (Stevenson et al., 2004):

> *Species and life stages with EFH more than minimally vulnerable to otter trawl gear (42):*
> American plaice (Juvenile (J), Adult (A)), Atlantic cod (J, A), Atlantic halibut (J, A), haddock (J, A), pollock (A), ocean pout (E, J, A), red hake (J, A), redfish (J, A), white hake (J), silver hake (J), winter flounder (A), witch flounder (J, A), yellowtail flounder (J, A), black sea bass (J, A), scup (J), tilefish (J, A), barndoor skate (J, A), clearnose skate (J, A), little skate (J, A), rosette skate (J, A), smooth skate (J, A), thorny skate (J, A), and winter skate (J, A).

There are no species or life stages for which EFH is more than minimally vulnerable to bottom gillnets (Stevenson *et al*., 2004). The following table identifies the species, life stages and geographic area of their EFH, for those species whose EFH is vulnerable to bottom trawling:

Species	Life Stage	Geographic Area of EFH	Depth (meters)	EFH Description
American plaice	juvenile	GOME and estuaries from Passamaquoddy Bay to Saco Bay, ME and from Mass. Bay to Cape Cod Bay, MA	45 - 150	Bottom habitats with fine grained sediments or a substrate of sand or gravel
American plaice	adult	GOME and estuaries from Passamaquoddy Bay to Saco Bay, ME and from Mass. Bay to Cape Cod Bay, MA	45 - 175	Bottom habitats with fine grained sediments or a substrate of sand or gravel
Atlantic cod	juvenile	GOME, GB, eastern portion of continental shelf off southern NE and following estuaries: Passamaquoddy Bay to Saco Bay; Mass. Bay, Boston Harbor, Cape Cod Bay, Buzzards Bay	25 - 75	Bottom habitats with a substrate of cobble or gravel
Atlantic cod	adult	GOME, GB, eastern portion of continental shelf off southern NE and following estuaries: Passamaquoddy Bay to Saco Bay; Mass. Bay, Boston Harbor, Cape Cod Bay, Buzzards Bay	10 - 150	Bottom habitats with a substrate of rocks, pebbles, or gravel

Species	Life Stage	Geographic Area of EFH	Depth (meters)	EFH Description
Atlantic halibut	juvenile	GOME, GB	20 - 60	Bottom habitats with a substrate of sand, gravel, or clay
Atlantic halibut	adult	GOME, GB	100 - 700	Bottom habitats with a substrate of sand, gravel, or clay
Atlantic herring	eggs	GOME, GB and following estuaries: Englishman/Machias Bay, Casco Bay, and Cape Cod Bay	20 – 80	Bottom habitats attached to gravel, sand, cobble or shell fragments, also on macrophytes
Atlantic sea scallop	juvenile	GOME, GB, southern NE and middle Atlantic south to Virginia-North Carolina border and following estuaries: Passamaquoddy Bay to Sheepscot R.; Casco Bay, Great Bay, Mass Bay, and Cape Cod Bay	18 - 110	Bottom habitats with a substrate of cobble, shells, and silt
Atlantic sea scallop	adult	GOME, GB, southern NE and middle Atlantic south to Virginia-North Carolina border and following estuaries: Passamaquoddy Bay to Sheepscot R.; Casco Bay, Great Bay, Mass Bay, and Cape Cod Bay	18 - 110	Bottom habitats with a substrate of cobble, shells, coarse/gravelly sand, and sand
Haddock	juvenile	GB, GOME, middle Atlantic south to Delaware Bay	35 - 100	Bottom habitats with a substrate of pebble and gravel
Haddock	adult	GB and eastern side of Nantucket Shoals, throughout GOME, *additional area of Nantucket Shoals, and Great South Channel	40 - 150	Bottom habitats with a substrate of broken ground, pebbles, smooth hard sand, and smooth areas between rocky patches
Monkfish	juvenile	Outer continental shelf in the middle Atlantic, mid-shelf off southern NE, all areas of GOME	25 - 200	Bottom habitats with substrates of a sandshell mix, algae covered rocks, hard sand, pebbly gravel, or mud
Monkfish	adult	Outer continental shelf in the middle Atlantic, mid-shelf off southern NE, outer perimeter of GB, all areas of GOME	25 - 200	Bottom habitats with substrates of a sandshell mix, algae covered rocks, hard sand, pebbly gravel, or mud
Ocean pout	eggs	GOME, GB, southern NE, and middle Atlantic south to Delaware Bay, and the following estuaries: Passamaquoddy Bay to Saco Bay, Massachusetts and Cape Cod Bay	<50	Bottom habitats, generally in hard bottom sheltered nests, holes, or crevices
Ocean pout	juvenile	GOME, GB, southern NE, middle Atlantic south to Delaware Bay and the following estuaries: Passamaquoddy Bay to Saco Bay; Mass. Bay, and Cape Cod Bay	< 50	Bottom habitats in close proximity to hard bottom nesting areas

Species	Life Stage	Geographic Area of EFH	Depth (meters)	EFH Description
Ocean pout	adult	GOME, GB, southern NE, middle Atlantic south to Delaware Bay and the following estuaries: Passamaquoddy Bay to Saco Bay; Mass. Bay, Boston Harbor, and Cape Cod Bay	< 80	Bottom habitats, often smooth bottom near rocks or algae
Offshore hake	juvenile	Outer continental shelf of GB and southern NE south to Cape Hatteras, NC	170 - 350	Bottom habitats
Offshore hake	adult	Outer continental shelf of GB and southern NE south to Cape Hatteras, NC	150 - 380	Bottom habitats
Pollock	juvenile	GOME, GB, and the following estuaries: Passamaquoddy Bay to Saco Bay; Great Bay to Waquoit Bay; Long Island Sound, Great South Bay	0 – 250	Bottom habitats with aquatic vegetation or a substrate of sand, mud, or rocks
Pollock	adult	GOME, GB, southern NE, and middle Atlantic south to New Jersey and the following estuaries: Passamaquoddy Bay, Damariscotta R., Mass Bay, Cape Cod Bay, Long Island Sound	15 – 365	Hard bottom habitats including artificial reefs
Red hake	juvenile	GOME, GB, continental shelf off southern NE, and middle Atlantic south to Cape Hatteras and the following estuaries: Passamaquoddy Bay to Saco Bay; Great Bay, Mass. Bay to Cape Cod Bay; Buzzards Bay to Conn. R.; Hudson R./ Raritan Bay, and Chesapeake Bay	< 100	Bottom habitats with substrate of shell fragments, including areas with an abundance of live scallops
Red hake	adult	GOME, GB, continental shelf off southern NE, and middle Atlantic south to Cape Hatteras and the following estuaries: Passamaquoddy Bay to Saco Bay; Great Bay, Mass. Bay to Cape Cod Bay; Buzzards Bay to Conn. R.; Hudson R./ Raritan Bay, Delaware Bay, and Chesapeake Bay	10 - 130	Bottom habitats in depressions with a substrate of sand and mud
Redfish	juvenile	GOME, southern edge of GB	25 - 400	Bottom habitats with a substrate of silt, mud, or hard bottom
Redfish	adult	GOME, southern edge of GB	50 - 350	Bottom habitats with a substrate of silt, mud, or hard bottom
Silver hake	juvenile	GOME, GB, continental shelf off southern NE, middle Atlantic south to Cape Hatteras and the following estuaries: Passamaquoddy Bay to Casco Bay, Mass. Bay to Cape Cod Bay	20 – 270	Bottom habitats of all substrate types
Winter flounder	adult	GB, inshore areas of GOME, southern NE, middle Atlantic south to Delaware Bay and the following estuaries: Passamaquoddy Bay to Chincoteague Bay	1 - 100	Bottom habitats including estuaries with substrates of mud, sand and gravel
Witch flounder	juvenile	GOME, outer continental shelf from GB south to Cape Hatteras	50 - 450 to 1500	Bottom habitats with fine grained substrate
Witch flounder	adult	GOME, outer continental shelf from GB south to Chesapeake Bay	25 - 300	Bottom habitats with fine grained substrate

Species	Life Stage	Geographic Area of EFH	Depth (meters)	EFH Description
Yellowtail flounder	adult	GB, GOME, southern NE continental shelf south to Delaware Bay and the following estuaries: Sheepscot R., Casco Bay, Mass. Bay to Cape Cod Bay	20 - 50	Bottom habitats with substrate of sand or sand and mud
Black sea bass	juvenile	Demersal waters over continental shelf from GOME to Cape Hatteras, NC, also includes estuaries from Buzzards Bay to Long Island Sound; Gardiners Bay, Barnegat Bay to Chesapeake Bay; Tangier/ Pocomoke Sound, and James River	1 - 38	Rough bottom, shellfish and eelgrass beds, manmade structures in sandy-shelly areas, offshore clam beds, and shell patches may be used during wintering
Black sea bass	adult	Demersal waters over continental shelf from GOME to Cape Hatteras, NC, also includes estuaries: Buzzards Bay, Narragansett Bay, Gardiners Bay, Great South Bay, Barnegat Bay to Chesapeake Bay; Tangier/ Pocomoke Sound, and James River	20 - 50	Structured habitats (natural and manmade), sand and shell substrates preferred
Scup	juvenile	Continental shelf from GOME to Cape Hatteras, NC includes the following estuaries: Mass. Bay, Cape Cod Bay to Long Island Sound; Gardiners Bay to Delaware Inland Bays; and Chesapeake Bay	(0 - 38)	Demersal waters north of Cape Hatteras and inshore on various sands, mud, mussel, and eelgrass bed type substrates
Tilefish	juvenile	US/Canadian boundary to VA/NC boundary (shelf break, submarine canyon walls, and flanks: GB to Cape Hatteras)	76 - 365	Rough bottom, small burrows, and sheltered areas; substrate rocky, stiff clay, human debris
Tilefish	adult	US/Canadian boundary to VA/NC boundary (shelf break, submarine canyon walls, and flanks: GB to Cape Hatteras)	76 - 365	Rough bottom, small burrows, and sheltered areas; substrate rocky, stiff clay, human debris
Barndoor skate	juvenile	Eastern GOME, GB, Southern NE, Mid-Atlantic Bight to Hudson Canyon	l0 - 750, mostly < 150	Bottom habitats with mud, gravel, and sand substrates
Barndoor skate	adult	Eastern GOME, GB, Southern NE, Mid-Atlantic Bight to Hudson Canyon	l0 - 750, mostly < 150	Bottom habitats with mud, gravel, and sand substrates
Clearnose skate	juvenile	GOME, along shelf to Cape Hatteras, NC; includes the estuaries from Hudson River/Raritan Bay south to the Chesapeake Bay mainstem	0 – 500, mostly < 111	Bottom habitats with substrate of soft bottom along continental shelf and rocky or gravelly bottom
Clearnose skate	adult	GOME, along shelf to Cape Hatteras, NC; includes the estuaries from Hudson River/Raritan Bay south to the Chesapeake Bay mainstem	0 – 500, mostly < 111	Bottom habitats with substrate of soft bottom along continental shelf and rocky or gravelly bottom
Little skate	juvenile	GB through Mid-Atlantic Bight to Cape Hatteras, NC; includes the estuaries from Buzzards Bay south to the Chesapeake Bay mainstem	0 - 137, mostly 73 - 91	Bottom habitats with sandy or gravelly substrate or mud

Species	Life Stage	Geographic Area of EFH	Depth (meters)	EFH Description
Little skate	adult	GB through Mid-Atlantic Bight to Cape Hatteras, NC; includes the estuaries from Buzzards Bay south to the Chesapeake Bay mainstem	0 - 137, mostly 73 - 91	Bottom habitats with sandy or gravelly substrate or mud
Rosette skate	juvenile	Nantucket shoals and southern edge of GB to Cape Hatteras, NC	33 - 530, mostly 74 - 274	Bottom habitats with soft substrate, including sand/mud bottoms, mud with echinoid and ophiuroid fragments, and shell and pteropod ooze
Rosette skate	adult	Nantucket shoals and southern edge of GB to Cape Hatteras, NC	33 - 530, mostly 74 - 274	Bottom habitats with soft substrate, including sand/mud bottoms, mud with echinoid and ophiuroid fragments, and shell and pteropod ooze
Smooth skate	juvenile	Offshore banks of GOME	31 – 874, mostly 110 - 457	Bottom habitats with a substrate of soft mud (silt and clay), sand, broken shells, gravel and pebbles
Smooth skate	adult	Offshore banks of GOME	31 – 874, mostly 110 - 457	Bottom habitats with a substrate of soft mud (silt and clay), sand, broken shells, gravel and pebbles
Thorny skate	juvenile	GOME and GB	18 - 2000, mostly 111 - 366	Bottom habitats with a substrate of sand, gravel, broken shell, pebbles, and soft mud
Thorny skate	adult	GOME and GB	18 - 2000, mostly 111 - 366	Bottom habitats with a substrate of sand, gravel, broken shell, pebbles, and soft mud
Winter skate	juvenile	Cape Cod Bay, GB, southern NE shelf through Mid-Atlantic Bight to North Carolina; includes the estuaries from Buzzards Bay south to the Chesapeake Bay mainstem	0 - 371, mostly < 111	Bottom habitats with substrate of sand and gravel or mud
Winter skate	adult	Cape Cod Bay, GB southern NE shelf through Mid-Atlantic Bight to North Carolina; includes the estuaries from Buzzards Bay south to the Chesapeake Bay mainstem	0 - 371, mostly < 111	Bottom habitats with substrate of sand and gravel or mud
White hake	juvenile	GOME, southern edge of GB, southern NE to middle Atlantic and the following estuaries: Passamaquoddy Bay to Great Bay; Mass. Bay to Cape Cod Bay	5 - 225	Pelagic stage - pelagic waters; demersal stage - bottom habitat with seagrass beds or substrate of mud or fine grained sand

Table 7 EFH descriptions for all benthic life stages of federally-managed species in the U.S. Northeast Shelf Ecosystem with EFH vulnerable to bottom tending gear (see Stevenson et al. 2004).

3.5 Human Environment, Vessels, Ports and Communities

This section updates information provided in the annual SAFE Report for the Monkfish FMP, adding data for FY2012.

3.5.1 Vessels and Fishery Sectors

The following sections show the distribution of effort and landings by permit category, area and gear type.

3.5.1.1 Permits

In 2012, there were 675 monkfish limited access permits, of which 296 were Category C permits holding limited access permits in either a Multispecies (55%) or Scallop (54%) fisheries, and 296 were Category D permits, primarily (98%) holding limited access Multispecies permits (Table 8). Overall, 69% of monkfish limited access permit holders also hold multispecies limited access permits. Vessels in all monkfish permit categories also hold limited access permits in a number of New England and Mid-Atlantic fisheries. The number and percent of monkfish vessels has decreased slightly from the 2009 SAFE Report (see Section 4.5, Monkfish FMP Framework Adjustmnet 7). Since Amendment 2, there are an additional seven Category H limited access permits issued for vessels fishing off the North Carolina/Virginia coast.

MONKFISH PERMIT CATEGORY	NUMBER OF MONKFISH PERMITS	NUMBER OF MONKFISH VESSELS ALSO ISSUED A LIMITED ACCESS PERMIT FOR:										
		BLACK SEA BASS	SUMMER FLOUNDER	HERRING	LAGC IFQ SCALLOP	LOBSTER	MULTI-SPECIES	OCEAN QUAHOG	RED CRAB	SCALLOP	SCUP	SQUID/ MACKEREL/ BUTTERFISH
A	22	14	10	1	5	15	2				14	5
B	44	21	8		3	22	3				13	6
C	296	111	230	19	154	244	163			161	120	104
D	296	114	185	24	128	267	290			17	140	100
F	9	9	9	4	3	9	9			1	9	9
H	8	2	1		1							2
TOTAL	675	271	443	48	294	557	467	0	0	179	296	226

MONKFISH PERMIT CATEGORY	NUMBER OF MONKFISH PERMITS	PERCENT OF MONKFISH VESSELS ALSO ISSUED A LIMITED ACCESS PERMIT FOR:										
		BLACK SEA BASS	SUMMER FLOUNDER	HERRING	LAGC IFQ SCALLOP	LOBSTER	MULTI-SPECIES	OCEAN QUAHOG	RED CRAB	SCALLOP	SCUP	SQUID/ MACKEREL/ BUTTERFISH
A	22	64%	45%	5%	23%	68%	9%	0%	0%	0%	64%	23%
B	44	48%	18%	0%	7%	50%	7%	0%	0%	0%	30%	14%
C	296	38%	78%	6%	52%	82%	55%	0%	0%	54%	41%	35%
D	296	39%	63%	8%	43%	90%	98%	0%	0%	6%	47%	34%
F	9	100%	100%	44%	33%	100%	100%	0%	0%	11%	100%	100%
H	8	25%	13%	0%	13%	0%	0%	0%	0%	0%	0%	25%
TOTAL	675	40%	66%	7%	44%	83%	69%	0%	0%	27%	44%	33%

Table 8 Number and Percent of monkfish limited access vessels also issued a limited access permit in other fisheries in 2012, by permit category.

The FMP also provides an open-access permit (Category E) for vessels that did not qualify for a limited access permit so those vessels can land monkfish caught incidentally in other fisheries. Table 9 shows that the number of category E permits increased rapidly during the first few years of the FMP, but has declined steadily since 2005, from 2,379 permits to 1,763 permits in 2012.

Fishing Year	Number of permits
1999	1,466
2000	1,882
2001	1,991
2002	2,142
2003	2,120
2004	2,256
2005	2,379
2006	2,310
2007	2,265
2008	2,163
2009	2,066
2010	1,998
2011	1,827
2012	1,763
TOTAL	**4,651**

Table 9 Monkfish open-access (Category E) permits issued each year since implementation of the FMP since 1999.
Source: NMFS-NERO Analysis and Program Support Division, vessel permit database, accessed July, 2013.

3.5.1.2 Landings and Revenues

Table 10 shows monthly landings for FY2012 by area and gear, as well as total monthly landings since FY2002. Table 11 shows annual landings by management area FY1999-FY2012. Landings in both areas combined have declined each year since FY2005, with the peak fishing year in FY2003, and were at the lowest level since the inception of the FMP in 1999 (Figure 2). Monkfish landings increased between FY2002 and FY2003, principally due to the increase trip limits in the SMA but declined in FY2004 as trip limits and DAS allocations were reduced in that area. In FY2005 total landings increased by 1,272 mt, or about 7% due to an increase in SMA landings as a result of increased trip limits and DAS allocations, and in spite of a decline of 20% in NMA landings from the previous year. NMA landings have declined each year since FY2001, although trip limits were only established in FY2007, and in FY2008 were about 24% of what they were at the peak. The NMA is below the target TAL for FY2011 (67%) and FY2012 (63%); the SMA is also below the target TAL for FY2011 (58%) and FY2012 (65%).

	MAY - 2012	JUN - 2012	JUL - 2012	AUG - 2012	SEP - 2012	OCT - 2012	NOV - 2012	DEC - 2012	JAN - 2013	FEB - 2013	MAR - 2013	APR - 2013	MAY 2012 - APR 2013		2012*		2011*		Fishing Year* Landings
															May-Apr FY'12 as a % of Target TAL	Target TAL	May-Apr FY '11 as a % of Target TAL	Target TAL	
													Metric Tons	Percent of Area		Metric Tons		Metric Tons	Metric Tons
NORTHERN	208	277	309	304	374	407	305	339	346	315	317	418	3,920	43%	67%	5,854	63%	5,854	
OTTER TRAWL	188	200	190	205	329	358	279	327	332	314	312	412	3,449	38%	59%		53%		
GILLNET	18	74	102	84	34	32	16	7	3	1	3	5	379	4%	6%		9%		
HOOK	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	0%		0%		
OTHER GEARS	1	2	17	16	10	17	11	4	11	0	1	1	92	1%	2%		1%		
SOUTHERN	1,366	988	193	90	65	265	242	467	387	215	337	570	5,184	57%	58%	8,925	65%	8,925	
OTTER TRAWL	29	9	12	26	11	31	79	206	97	109	217	159	984	11%	11%		15%		
GILLNET	1,240	856	119	9	20	214	125	222	280	96	96	369	3,645	40%	41%		45%		
HOOK	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	0%		0%		
OTHER GEARS	98	124	62	55	33	20	37	39	10	10	24	41	554	6%	6%		5%		
ALL AREAS	1,574	1,266	502	394	439	672	547	806	733	530	654	988	9,104	100%					
OTTER TRAWL	217	209	202	230	341	390	358	533	429	423	529	571	4,433	49%					
GILLNET	1,258	930	221	93	55	245	141	229	282	97	100	374	4,025	44%					
HOOK	0	0	0	0	0	0	0	0	0	0	0	0	0	0%					
OTHER GEARS	99	126	80	71	43	37	48	43	21	11	25	43	646	7%					
LANDINGS - ALL AREAS																			
Fishing Year 2012	1,574	1,266	502	394	439	672	547	806	733	530	654	988	9,104						9,104
Fishing Year 2011	1,044	1,066	542	338	385	530	809	982	867	1,000	929	1,008	9,499						9,499
Fishing Year 2010	928	839	422	306	282	350	561	643	716	712	730	830	7,318						7,318
Fishing Year 2009	1,253	1,182	647	396	331	479	554	418	753	696	644	795	8,148						8,148
Fishing Year 2008	1,641	1,359	674	537	539	665	808	812	1,084	703	634	824	10,279						10,279
Fishing Year 2007	1,413	1,206	917	776	695	934	1,163	1,314	1,088	897	737	1,090	12,230						12,230
Fishing Year 2006	1,314	1,490	1,181	909	880	1,104	1,140	1,130	967	671	951	848	12,586						12,586
Fishing Year 2005	2,040	3,040	1,862	1,487	1,343	1,100	1,616	1,413	1,523	1,143	1,309	1,313	19,189						19,189
Fishing Year 2004	1,806	1,979	1,581	1,380	1,304	1,243	1,803	1,681	1,264	1,173	1,235	1,478	17,927						17,927
Fishing Year 2003	2,681	3,199	1,913	1,746	1,420	2,253	2,823	1,907	1,976	2,386	2,172	1,797	26,273						26,273
Fishing Year 2002	1,574	2,093	1,489	1,382	1,524	1,643	1,937	2,203	2,015	1,762	2,631	1,553	21,807						21,807

1. The target TAL for each management area is equal to the ACT minus an assumed discard rate of 11% for the northern area and 22% for the southern area. The assumed discard rates are from the SARC 50 (data through 2009).

2. The three digit statistical areas defined below are for statistical and management purposes and may not be consistent with stock area delineation used for biological assessment (see the attached statistical chart).

Monkfish Stock Areas: Northern: 464-465, 467, 511-515, 521-522, 561-562
Southern: 525-526, 533-534, 537-539, 541-543, 611-639

3. Landings in live weight.
4. Gear data are based on vessel trip reports.
* Fishing Year is May 1 through April 30.

Table 10 Monkfish landings by area, gear and month for FY2012 (converted to live weight).

Year	NFMA (metric tons)	SFMA (metric tons)
1999	9,720	14,311
2000	11,859	7,960
2001	14,853	11,069
2002	14,491	7,478
2003	14,155	12,198
2004	11,750	6,193
2005	9,533	9,656
2006	6,677	5,909
2007	5,050	7,180
2008	3,528	6,751
2009	3,344	4,800
2010	2,834	4,484
2011	3,699	5,801
2012	3,920	5,184

Table 11 NMA and SMA monkfish landings, FY1999-2012 (see Figure 2).
Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout and vessel trip report databases.

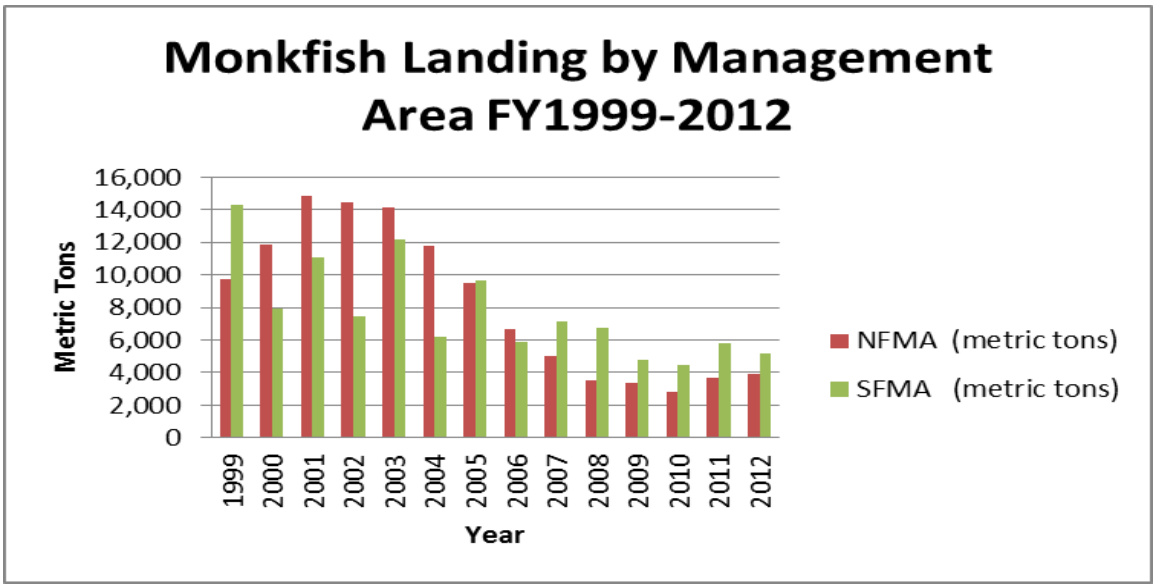

Figure 1 NMA and SMA monkfish landings, FY1999-2012 (see Table 11).
Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout and vessel trip report database.

Table 12 shows monthly landings by gear from the dealer reports for FY2012, both as reported (landed weight) and converted to live weight. The lower landed weights reflect the fact that monkfish are landed as tails only, and as whole, gutted fish. The lower ratio of landed weight to live weight for otter trawls (0.35), compared to gillnets (0.80), is the result of a greater proportion of tails being landed by otter trawls, while gillnet vessels land mostly whole fish. Readers should note that Table 12 includes all landings in the dealer database, while other tables

reporting landed weights are filtered by permit category, and, therefore, may not include some dealer landings for which there is no permit number associated. It is also important to recognize that there was no data for hook gear in FY2012 from November through February in both live weight and landed weight.

Live Weight for FY 2012

Month	Otter Trawl	Scallop Dredge	Gillnet	Hook	Other	Total Pounds
May	534,378	92,917	2,343,810	7,243	367,273	3,345,621
June	356,874	111,385	1,828,446	4,421	378,126	2,679,252
July	328,336	90,368	404,560	3,603	261,156	1,088,023
August	350,815	73,510	165,126	3,599	263,330	856,380
September	475,218	69,163	109,040	544	302,699	956,664
October	584,165	55,088	484,952	211	352,600	1,477,016
November	543,917	68,620	254,923		323,227	1,190,687
December	850,601	28,706	519,343		366,125	1,764,775
January	746,393	13,136	586,099		272,893	1,618,521
February	713,356	7,223	194,050		244,118	1,158,747
March	921,864	30,487	213,344	46	252,894	1,418,635
April	998,743	52,068	761,972	20	352,349	2,165,152
TOTAL	**7,404,660**	**692,671**	**7,865,665**	**19,687**	**3,736,790**	**19,719,473**

Landed Weight for FY2012

Month	Otter Trawl	Scallop Dredge	Gillnet	Hook	Other	Total Pounds
May	241,350	31,079	1,926,915	5,855	172,372	2,377,571
June	114,129	34,308	1,486,037	2,175	153,367	1,790,016
July	102,720	28,275	277,706	1,278	95,831	505,810
August	110,965	23,602	78,359	1,264	82,925	297,115
September	158,519	22,651	56,968	180	94,605	332,923
October	206,192	20,483	399,127	126	119,476	745,404
November	187,966	25,055	194,190		115,513	522,724
December	296,797	10,766	432,778		131,536	871,877
January	264,552	4,121	518,004		93,452	880,129
February	241,806	2,176	165,836		82,948	492,766
March	309,617	9,233	170,150	14	78,453	567,467
April	346,751	15,963	625,224	6	123,011	1,110,955
TOTAL	**2,581,364**	**227,712**	**6,331,294**	**10,898**	**1,343,489**	**10,494,757**

Table 12 FY2012 monkfish landings from dealer reports, showing live weight (top) and landed weights (bottom).

Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout database, accessed August, 2013.

Note: does not include landings in the dealer database for which there is no permit number associated, while other tables reporting landed weights are not filtered by permit category, and, therefore, include all dealer landings.

Table 13, which is based on fishing year and landed weights, and indicates a decreasing trend in revenues and landings also seen in Figure 3. Figure 3 correlates with Table 13 and shows the long-term trend in landings and revenues based on a fishing year. While landings have declined since the pre-FMP peak in 1997, nominal revenues have declined to a lesser degree by since that time. According to Table 13 it is evident the monkfish market fluctuates annually with 23,423 lbs of monkfish landed in 2000 grossing $46,123, while in 2001 there was 30,520 lbs of monkfish landed grossing $42,354.

Fishing Year (May 1 - April 30)	Landings* (1,000 lbs. landed wt.)	Revenues* ($1,000)
1995	18,416	$24,759
1996	20,733	$26,188
1997	21,774	$30,127
1998	24,156	$34,682
1999	26,077	$48,714
2000	23,423	$46,123
2001	30,520	$42,354
2002	25,312	$35,256
2003	29,321	$37,471
2004	18,377	$30,945
2005	22,818	$42,640
2006	14,751	$28,559
2007	14,223	$29,145
2008	11,714	$23,307
2009	9,652	$18,599
2010	8,725	$20,252
2011	11,456	$28,886
2012	10,332	$22,025

Table 13 Fishing Year landings (in landed weights) and revenues, and revenue per landed weight (1995-2012).

Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout database, accessed August, 2013.

** CT data may include landings from vessels without a 2006-2012 Monkfish permit.*

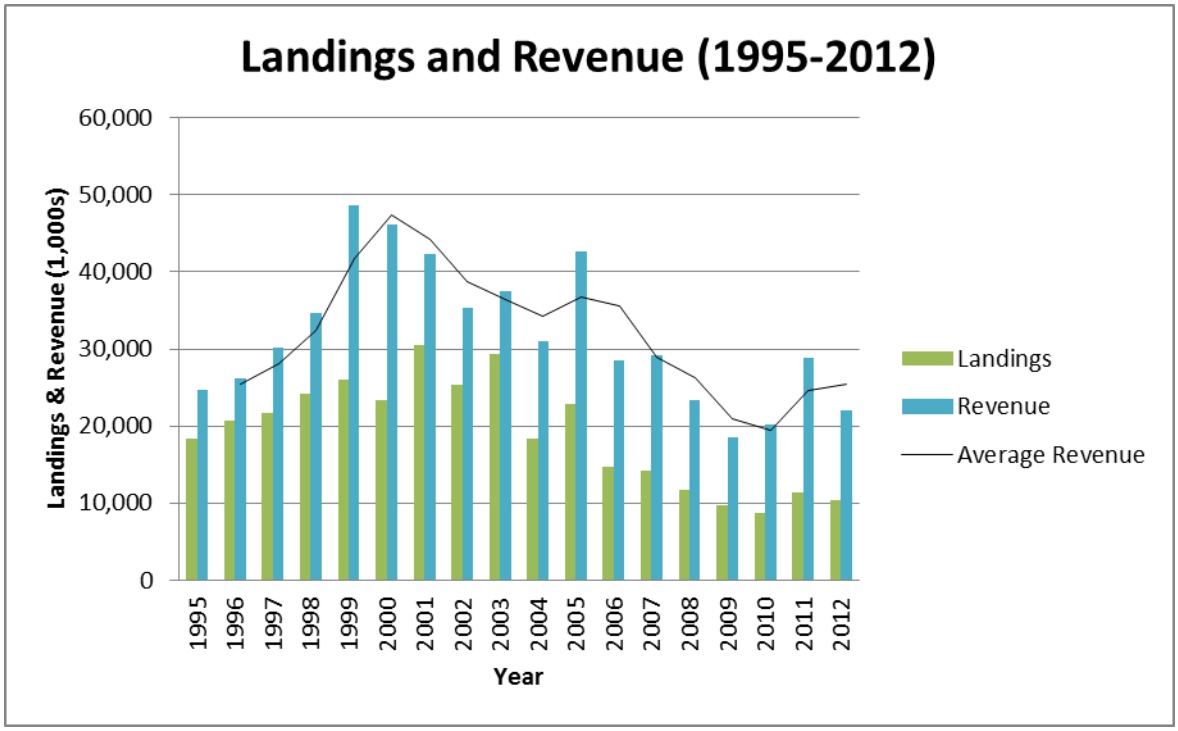

Figure 2 Monkfish Landings and Revenue, 1995-2012.

Source: NMFS-NERO Analysis and Program Support Division

Figure 4 illustrates the seasonal pattern of monkfish landings in FY2012; not only in terms of seasonality, but also in terms of the predominant gear. The predominant gear is in gillnet landing approximately 2.3 million lbs in May and otter trawl landing approximately 998,000 lbs in April. A small proportion of landings occur during the winter months, but a much larger proportion during the spring/early summer months when fish are migrating from deeper water, and showing less of a winter effect.

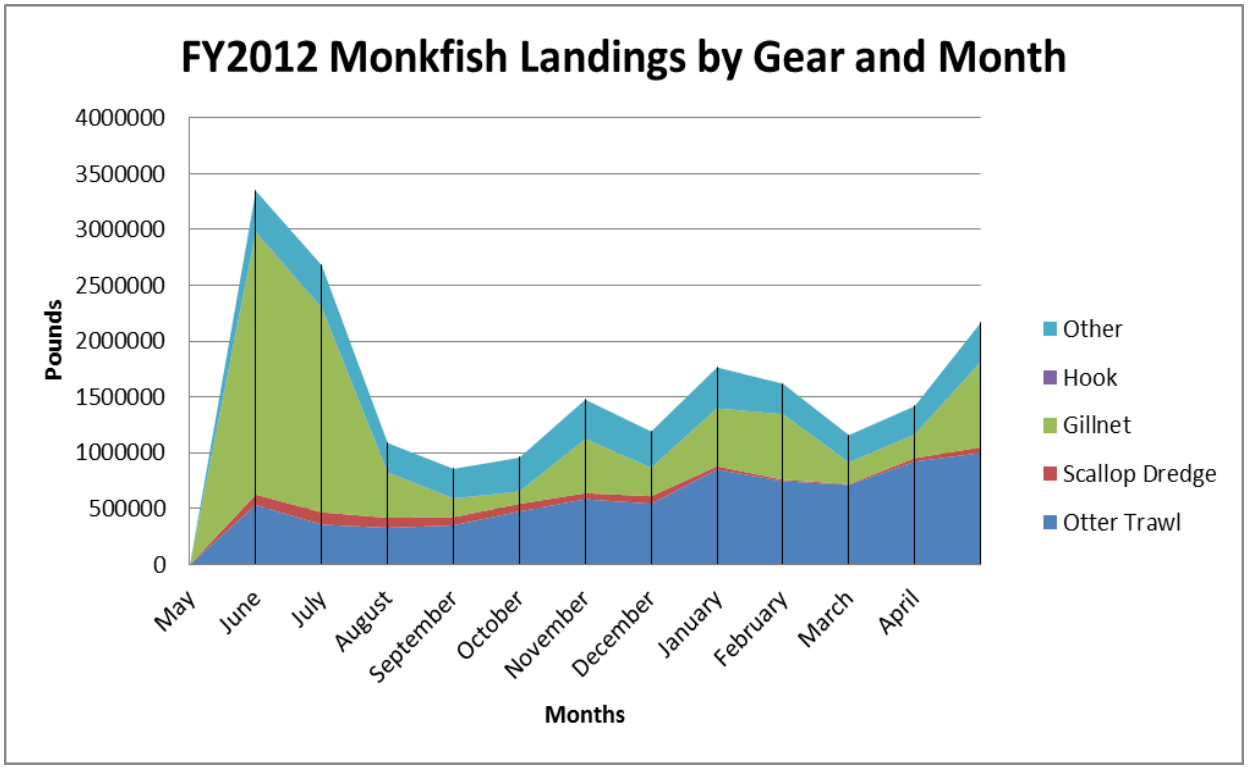

Figure 3 Monkfish Landings by Gear and Month (FY2012) in pounds (lbs).
Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout database, accessed August, 2013.

While Massachusetts continues to account for the greatest proportion of all monkfish landings, all states have seen an overall decline in monkfish landings (Table 14) in recent years. The state with the largest decline has been Maine, New Hampshire and North Carolina, which used to be among the top two or three. New Hampshire continues to show a marked decline after rising in importance through the early years of the FMP. Landings in Maine and New Hampshire are nearly entirely from the northern stock component, and the recent decline in those states' landings is reflective of the overall decline in landings from the northern stock component.

STATE	Thousands of Pounds of Monkfish						
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
CT*	294	315	298	410	420	565	945
MA	7,265	6,137	4,842	4,182	3,811	4,964	4,303
MD	106	158	132	48	83	98	60
ME	987	526	303	178	115	257	345
NC	99	56	55	30	24	7	2
NH	442	200	157	125	86	74	38
NJ	2,523	3,021	2,670	1,637	1,418	1,676	1,389
NY	739	1,150	842	807	766	1,058	1,183
RI	1,833	2,099	1,890	1,733	1,598	2,116	1,500
VA	463	560	524	501	404	638	566
TOTAL	**14,751**	**14,223**	**11,714**	**9,652**	**8,725**	**11,455**	**10,332**

Table 14 Total Monkfish Landings (landed weight), 2006-2012, by State
Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout database, accessed August, 2013.
** CT data may include landings from vessels without a 2006-2012 Monkfish permit*

Table 15 and Table 16, below, show monkfish landings and revenues as a percentage of total landings and revenues by permit categories for FY2006 – 2012. For years prior to 2001, data is based on vessels that held a monkfish permit in 2001. For later years, the data is based on vessels that held a permit in those years. Data for Connecticut is shown separately because there may have been landings by vessels that did not have a Federal permit in 2001 – 2004 due to the way that state's landings are reported to NMFS.

Category A and B vessels continue to show a proportionally higher dependence on monkfish than Category C and D vessels, which also hold limited access permits in either scallops or multispecies. Category C vessels, of which 52% also hold scallop limited access permits, have seen their dependence on monkfish revenues decline steadily as revenues from scallops have increased. In FY2012, these vessels obtained only 2.4% of their total revenues from monkfish compared to approximately 13% prior to the implementation of the FMP and the rebound in the scallop resource (FY1995).

Monkfish Permit Category	1,000 pounds, landed weight						
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
A	631	932	992	731	775	951	934
% of Total A Landings	9.8%	8.3%	8.7%	9.1%	10.1%	7.3%	14.8%
B	1,204	1,627	1,555	1,118	1,209	1,579	1,428
% of Total B Landings	37.4%	43.1%	46.8%	27.4%	27.3%	28.3%	29.1%
C	5,569	4,948	3,785	3,272	2,951	3,800	3,262
% of Total C Landings	6.1%	5.2%	3.8%	3.3%	3.0%	3.9%	3.9%
D	5,831	5,348	4,496	3,736	3,182	4,303	3,534
% of Total D Landings	8.0%	7.2%	5.7%	4.3%	4.6%	4.7%	4.2%
H	242	202	228	217	142	295	231
% of Total H Landings	19.4%	20.0%	18.3%	21.8%	12.3%	29.3%	26.2%
E (Open Access)	979	905	603	422	280	340	418
% of Total E Landings	0.3%	0.3%	0.2%	0.1%	0.1%	0.1%	0.1%
F			1.59		23	98	123
% of Total F Landings			0.2%		0.7%	0.8%	0.7%
CT	294	262	53	156	166	90	402
% of Total CT Landings	2.8%	3.1%	1.9%	4.1%	3.5%	3.4%	7.9%
TOTAL MONK LANDED	14,751	14,223	11,714	9,652	8,725	11,456	10,332

Table 15 Monkfish Landings, 2006-2012, as a Percentage of Total Landings by Permit Category.
Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout database, accessed August, 2013.
** CT data may include landings from vessels without a 2006-2012 Monkfish permit.*
If necessary, Category F landings have been allocated to prior permit categories to protect confidentiality.

Monkfish Permit Category	$1,000, nominal (not discounted)						
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
A	$1,006	$1,296	$1,405	$995	$1,344	$1,905	$1,634
% of Total A Revenues	36.7%	40.6%	36.2%	35.1%	27.7%	31.8%	35.5%
B	$1,787	$2,277	$2,088	$1,564	$2,187	$3,211	$2,588
% of Total B Revenues	41.8%	45.3%	50.7%	36.6%	38.5%	40.2%	35.7%
C	$11,774	$12,247	$8,973	$7,667	$8,233	$11,125	$7,856
% of Total C Revenues	4.6%	4.8%	3.7%	3.2%	2.6%	3.0%	2.4%
D	$11,239	$10,338	$8,840	$6,846	$7,003	$10,642	$7,428
% of Total D Revenues	12.2%	11.6%	9.6%	8.0%	8.0%	9.4%	7.4%
H	$338	$242	$251	$228	$181	$512	$401
% of Total H Revenues	38.1%	29.7%	28.4%	33.7%	22.8%	47.5%	62.7%
E (Open Access)	$2,082	$2,320	$1,604	$1,040	$824	$1,049	$1,140
% of Total E Revenues	0.7%	0.7%	0.5%	0.3%	0.2%	0.2%	0.3%
F			$4		$73	$247	$237
% of Total F Revenues			1.3%		2.5%	2.6%	1.7%
CT	$333	$425	$141	$259	$407	$194	$740
% of Total CT Revenues	0.9%	1.1%	3.4%	3.1%	2.8%	4.1%	7.9%
TOTAL MONK REVENUE	$28,559	$29,145	$23,307	$18,599	$20,252	$28,886	$22,025

Table 16 Monkfish Revenues, 2006-2012, as a Percentage of Total Revenues by Permit Category.
Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout database, accessed August, 2013.
** CT data may include landings from vessels without a 2006-2012 Monkfish permit.*
If necessary, Category F landings have been allocated to prior permit categories to protect confidentiality.

When viewed by vessel length category (Table 17 and Table 18), a decreased reliance on monkfish is evident for all size classes since peaking in 1999-2001, especially in most recent years. However, since FY 2009 the landings and revenues increased slightly in FY 2011 in some areas.

Vessel Length Category	1,000 pounds, landed weight						
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
0-29 Feet	1	2	7	3	1	1	0
% of Total 0-29 Landings	0.1%	0.4%	1.4%	0.6%	0.2%	0.1%	0.1%
30-49 Feet	7,557	8,302	7,157	5,873	5,112	6,736	5,647
% of Total 30-49 Landings	14.4%	15.0%	11.7%	9.1%	8.0%	10.5%	9.8%
50-69 Feet	2,235	2,073	1,656	1,428	1,407	1,836	1,439
% of Total 50-69 Landings	3.8%	3.5%	2.6%	1.9%	2.0%	2.4%	1.5%
70-89 Feet	4,261	3,085	2,516	1,933	1,842	2,515	2,540
% of Total 70-89 Landings	2.2%	1.6%	1.3%	1.1%	1.0%	1.2%	1.4%
90+ Feet	403	498	324	259	197	278	304
% of Total 90+ Landings	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.2%
CT	294	262	53	156	166	90	402
% of Total CT Landings	2.8%	3.1%	1.9%	4.1%	3.5%	3.4%	7.9%
TOTAL MONK LANDED	14,751	14,223	11,714	9,652	8,725	11,456	10,332

Table 17 Monkfish Landings, 2006-2012, as a Percentage of Total Landings by Vessel Length.
Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout database, accessed August, 2013.
** CT data may include landings from vessels without a 2006-2012 Monkfish permit.*

Vessel Length Category	$1,000, nominal (not discounted)						
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
0-29 Feet	$2	$6	$18	$8	$2	$2	$1
% of Total 0-29 Revenues	0.1%	0.4%	1.5%	0.8%	0.2%	0.1%	0.1%
30-49 Feet	$12,074	$12,403	$11,015	$8,782	$9,189	$13,694	$10,498
% of Total 30-49 Revenues	14.1%	14.1%	12.0%	10.7%	10.4%	13.3%	11.7%
50-69 Feet	$5,094	$5,403	$4,004	$3,454	$3,831	$5,385	$3,305
% of Total 50-69 Revenues	5.3%	5.7%	4.1%	3.8%	3.6%	4.2%	2.9%
70-89 Feet	$10,032	$9,403	$7,237	$5,423	$6,187	$8,675	$6,710
% of Total 70-89 Revenues	2.7%	2.4%	2.1%	1.5%	1.4%	1.6%	1.4%
90+ Feet	$1,024	$1,505	$891	$672	$634	$937	$770
% of Total 90+ Revenues	1.0%	1.4%	0.8%	0.6%	0.5%	0.6%	0.6%
CT	$333	$425	$141	$259	$407	$194	$740
% of Total CT Revenues	0.9%	1.1%	3.4%	3.1%	2.8%	4.1%	7.9%
TOTAL MONK REVENUE	$28,559	$29,145	$23,307	$18,599	$20,252	$28,886	$22,025

Table 18 Monkfish Revenues, 2006-2012, as a Percentage of Total Revenues by Vessel Length
Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout database, accessed August, 2013.
** CT data may include landings from vessels without a 2006-2012 Monkfish permit.*

When viewed in aggregate, vessels that hold a monkfish permit are not significantly reliant on monkfish, as monkfish has accounted for less than 10% of total revenues since FY 2006, Table 19 and Table 20, and approximately 2.5%-4.1% in FY2006-2009. While prior to FY2004 the proportion of monkfish remained relatively constant (4-5% of landings, 7-11% of revenues, see FW 7 to the Monkfish FMP), it has declined in recent years. The proportion of most other species remained relatively constant, although the proportion of scallop landings and revenues has increased, reflecting continued improvements in the scallop fishery in recent years.

Species Category	1,000 pounds, landed weight						
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Dogfish	4,503	3,020	4,356	9,059	10,558	13,572	17,881
Dogfish % of Total Landings	0.9%	0.6%	0.8%	1.7%	2.1%	2.4%	3.4%
Fluke	10,353	7,263	7,966	9,836	13,735	12,280	11,680
Fluke % of Total Landings	2.0%	1.4%	1.4%	1.8%	2.8%	2.2%	2.2%
Monkfish	14,751	14,223	11,714	9,652	8,725	11,456	10,332
Monkfish % of Total Landings	2.9%	2.7%	2.1%	1.8%	1.8%	2.0%	2.0%
Multispecies	48,648	59,073	66,641	64,434	57,665	61,768	49,027
Multispecies % of Total Landings	9.4%	11.4%	11.8%	11.8%	11.6%	10.8%	9.4%
Scallops	59,365	59,026	51,593	54,739	55,230	57,651	51,866
Scallops % of Total Landings	11.5%	11.3%	9.1%	10.0%	11.1%	10.1%	9.9%
Skates	15,858	21,006	20,135	20,124	12,630	15,575	15,984
Skates % of Total Landings	3.1%	4.0%	3.6%	3.7%	2.5%	2.7%	3.1%
Other	361,855	356,853	402,589	379,632	337,797	398,307	365,549
Other % of Total Landings	70.2%	68.6%	71.3%	69.3%	68.1%	69.8%	70.0%
TOTAL LBS. LANDED	515,333	520,464	564,995	547,476	496,340	570,609	522,320

Table 19 Landings of Monkfish and Other Species, 2006-2012, as a Percent of Total Landings.
Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout database, accessed August, 2013.
** CT data may include landings from vessels without a 2006-2012 Monkfish permit.*

Species Category	$1,000, nominal (not discounted)						
	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Dogfish	$ 1,178	$ 899	$ 1,378	$ 2,527	$ 2,887	$ 3,432	$ 4,186
Dogfish % of Total Revenues	0.2%	0.1%	0.2%	0.4%	0.4%	0.4%	0.5%
Fluke	$ 22,279	$ 17,578	$ 15,333	$ 18,626	$ 23,810	$ 25,697	$ 26,361
Fluke % of Total Revenues	3.2%	2.4%	2.3%	2.9%	3.0%	2.7%	3.1%
Monkfish	$ 28,559	$ 29,145	$ 23,307	$ 18,599	$ 20,252	$ 28,886	$ 22,025
Monkfish % of Total Revenues	4.1%	4.1%	3.5%	2.9%	2.5%	3.1%	2.6%
Multispecies	$ 74,460	$ 81,539	$ 82,539	$ 77,225	$ 81,408	$ 89,444	$ 71,759
Multispecies % of Total Revenues	10.7%	11.4%	12.6%	12.0%	10.2%	9.5%	8.5%
Scallops	$ 379,709	$ 389,638	$ 353,138	$ 358,771	$ 476,234	$ 573,828	$ 519,893
Scallops % of Total Revenues	54.5%	54.2%	53.7%	55.6%	59.9%	61.1%	61.5%
Skates	$ 5,460	$ 6,507	$ 5,458	$ 5,660	$ 4,749	$ 4,411	$ 4,403
Skates % of Total Revenues	0.8%	0.9%	0.8%	0.9%	0.6%	0.5%	0.5%
Other	$ 185,154	$ 192,953	$ 176,521	$ 163,566	$ 185,728	$ 213,016	$ 197,137
Other % of Total Revenues	26.6%	26.9%	26.8%	25.4%	23.4%	22.7%	23.3%
TOTAL REVENUE	$696,799	$718,260	$657,674	$644,975	$795,068	$938,713	$845,764

Table 20 Revenues of Monkfish and Other Species, 2006-2012, as a Percent of Total Revenues.
Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout database, accessed August, 2013.
** CT data may include landings from vessels without a 2006-2012 Monkfish permit.*

3.5.1.3 Days-at-Sea (DAS)

Starting in Year 2 of the FMP (May, 2000 –April, 2001) limited access monkfish vessels (Categories A, B, C, and D) were allocated 40 monkfish DAS. By definition, Category A and B vessels do not qualify for limited access multispecies or scallop permits, and Category C and D vessels must use either a multispecies or scallop DAS while on a monkfish DAS. Beginning in FY2005 seven vessels qualified for a permit Category H fishery under the provisions adopted in Amendment 2, for vessels fishing exclusively in the southernmost area of the fishery.

Until Framework 4 which took effect in FY2007, vessels were not required to use a monkfish DAS in the NMA, as there was no monkfish trip limit when a limited access vessel was on a multispecies DAS. Therefore, DAS usage was well below the total DAS allocated, and primarily reflected monkfish fishing activity in the SMA. Starting in FY2007, vessels in both areas were required to use a monkfish DAS when exceeding the applicable incidental limit. The effect of this requirement shows the total DAS has remained reasonably the same from FY2009-2012, with FY 2011 showing some slight increases. DAS used by permit category since 2009 is shown in Figure 5.

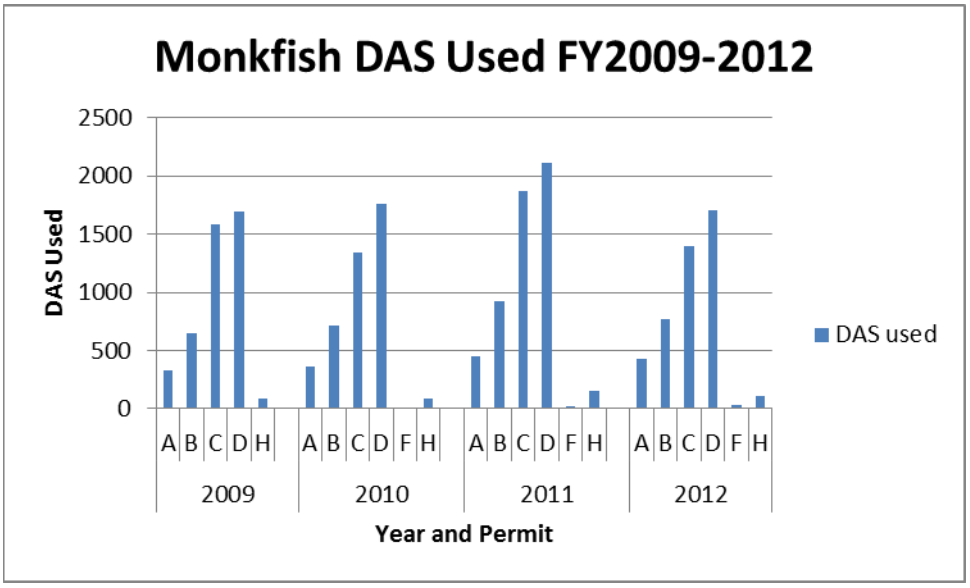

Figure 4 DAS used by permit category, FY2009-2012.
Source: NMFS Vessel Permits and Allocation Management System (AMS) databases, accessed August, 2013.

As shown in Table 21, only about 15.1% of the limited access vessels used at least one monkfish DAS in FY2012, and the total DAS used was only about 15.4% of the total allocated. This represents a substantial amount of latent effort in the fishery, however, even among active vessels (those that used at least one monkfish DAS), not all allocated DAS are used. Only about 47% of allocated DAS were used by active vessels. Part of this latent effort can be explained by the fact that nearly one-half of the permit category C vessels, 161 vessels, are limited access scallop vessels who choose not to use a scallop DAS to target monkfish under the monkfish DAS usage requirements because of the greater profitability of using scallop DAS to target scallops (Table 22 and Table 8).

A second reason for the unused DAS, even among active vessels, appears to be the result of the low monkfish DAS usage rate by vessels fishing in the NMA. For active vessels, (i.e., those that used at least one DAS) in FY2012, the DAS usage rate is distinctly different between the two management areas. Of the 81 active vessels in the NMA most were not constrained by the allocation of 31 DAS, plus 4 carryover DAS, and the average number of DAS used in the NMA was 14 DAS (Figure 6 and Table 22). In contrast, among the 175 active vessels in the SMA the average number of DAS used was 18.8 of their 27 available DAS, (23 plus 4 carryover) (Figure 7and Table 22). The usage rate declined in the SMA from an average of 23.2 DAS the previous year. All vessels fishing only in the SMA had 4 carryover DAS, regardless of DAS usage in the

prior year, since their full allocation was 31 DAS, with a restriction that only 23 could be used in the SMA. The usage rate for the NMA remained the same from the previous year, and has steadily increased since FY2009, which was an average of 8 DAS.

Permit Category	All Vessels			Active Vessels*		
	Total Number of Permits	DAS Allocated	DAS Used	Number of Active Vessels	DAS Allocated	DAS Used
A	22	946	429	20	859	429
B	44	1,905	773	34	1,472	773
C	296	12,796	1,393	68	2,941	1,393
D	296	12,771	1,705	89	3,852	1,705
F	9	90	38	5	50	38
H	8	346	110	8	346	110
TOTAL	**675**	**28,854**	**4,448**	**224**	**9,520**	**4,448**

Table 21 Monkfish DAS usage, FY2012

Source: NMFS Vessel Permits and Allocation Management System (AMS) databases, accessed August, 2013.

** Active = vessels that used >0 monkfish DAS*

Permit Category A active vessel NMA DAS used not included due to confidentiality.

Permit Category	Area	Number of Active Vessels	Monkfish	Monkfish/ Multispecies	Monkfish/ Scallop	DAS Used	Average DAS Usage
A	NMA	4	4	0	0	4	1.0
B	NMA	5	23	0	0	23	4.6
C	NMA	37	0	686	0	686	18.5
D	NMA	35	0	451	0	451	12.9
Total		**81**	**27**	**1,137**	**0**	**1,164**	**14**
A	SMA	20	425	0	0	425	21.3
B	SMA	34	750	0	0	750	22.1
C	SMA	42	0	707	0	707	16.8
D	SMA	66	0	1,254	0	1,254	19.0
F	SMA	5	0	38	0	38	7.6
H	SMA	8	0	110	0	110	13.8
Total		**175**	**1,175**	**2,109**	**0**	**3,284**	**18.8**

Table 22 Monkfish-only, Monkfish/Multispecies and Monkfish/Scallop DAS Usage by active vessels by area, FY2012.

Source: NMFS Vessel Permits and Allocation Management System (AMS) databases, accessed August, 2013.

** Active = vessels that used >0 monkfish DAS*

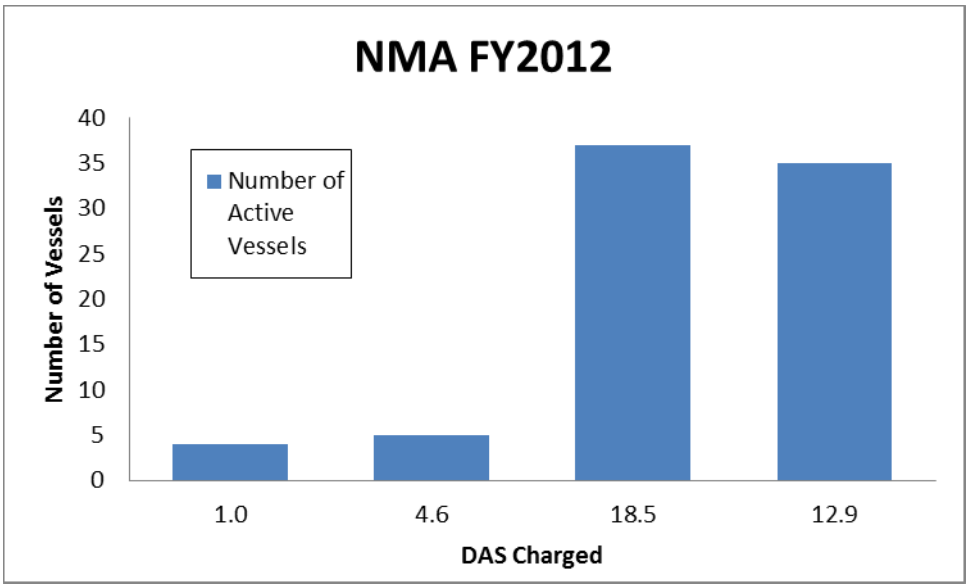

Figure 5 FY2012 NMA monkfish DAS usage frequency distribution.

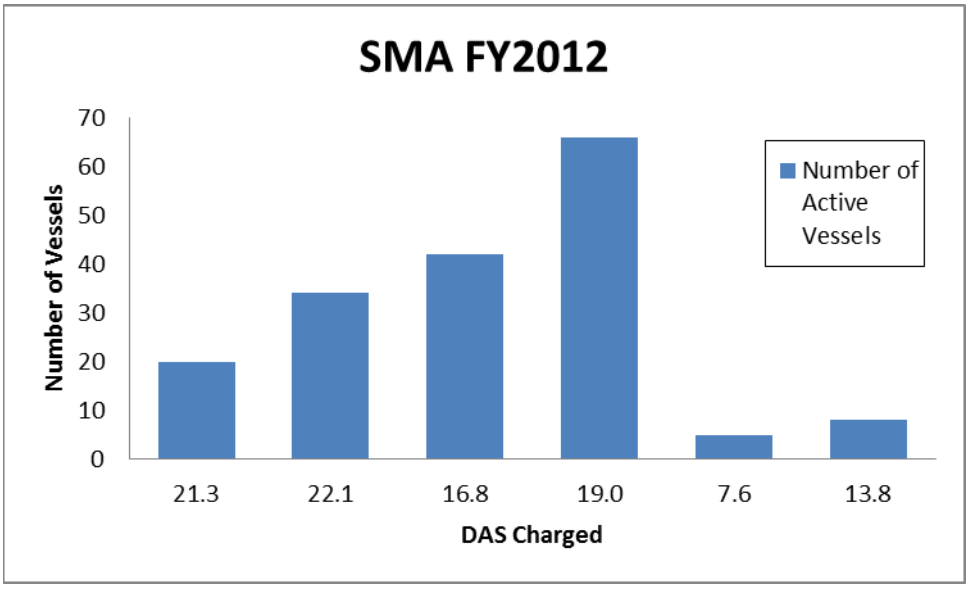

Figure 6 FY2012 SMA monkfish DAS usage frequency distribution.

3.5.2 Ports and communities

This section updates information contained in the EA for Amendment 5. The Monkfish FMP references Amendments 5 and 7 to the Northeast Multispecies FMP and Amendment 4 to the Sea Scallop FMP for social and cultural information about monkfish ports, including port profiles. Because of the nature of the monkfish fishery, there is significant overlap between the vessels and communities involved with the monkfish fishery and those involved with the multispecies (groundfish) and scallop fisheries. Many of the same boats that target monkfish or catch them incidentally also target groundfish or scallops. Only about six percent of the limited access monkfish permit holders do not also hold limited access permits in either the multispecies or

scallop fisheries. For the purposes of this SAFE Report, "primary monkfish ports" are defined as those averaging more than $1,000,000 in monkfish revenues from 1994-1997 (based on the dealer weighout data presented in Table 45 of the Monkfish FMP). "Secondary monkfish ports" are defined as those averaging more than $50,000 in monkfish revenues from 1994-1997 (based on the dealer weighout data presented in the Monkfish FMP).

Primary monkfish ports include:
- Portland, ME
- Boston, MA
- Gloucester, MA
- New Bedford, MA
- Long Beach/Barnegat Light, NJ, and
- Point Judith, RI.

Secondary monkfish ports include:
- Rockland, ME
- Port Clyde, ME
- South Bristol, ME
- Ocean City, MD
- Chatham, MA
- Provincetown, MA
- Scituate, MA
- Plymouth, MA
- Westport, MA
- Portsmouth, NH
- Point Pleasant, NJ
- Cape May, NJ
- Greenport, NY
- Montauk, NY
- Hampton Bay, NY
- Newport, RI
- Hampton, VA, and
- Newport News, VA.

Table 23 shows the distribution of monkfish permit holders by homeport and monkfish permit category for the six primary, 18 secondary, and "other" monkfish ports for FY2006 and FY2012 (intervening years are shown in this table in the 2012 SAFE Report in Appendix XXX). Table 24 shows monkfish landings for five of the six major ports (as reported by NMFS in their regular "Northeast Preliminary Fisheries Statistics" Report, not including Long Beach/Barnegat Light, NJ) and states, broken down by management area from which landings were reported, as well as by gear type. Virtually all of the monkfish landed in Portland, Gloucester and Boston come from the NMA, while the proportion of NMA landings in New Bedford has declined from previous years there was an increase from 42% to 58% fromFY2011 to FY2012. Nearly all of Pt. Judith's landings are from the SMA.

Portland and Boston's landings are almost entirely from otter trawls. Otter trawls make up about 63% New Bedford landings, with the remainder split nearly even between gillnets and "other gear" (scallop dredge). New Hampshire, New York and New Jersey landings are predominately (>79%) caught by gillnet gear, while Rhode Island and Connecticut landings are about 60% and 77% respectively (gillnets). This is similar to the distribution by gear for each port in previous fishing years, as reported in earlier SAFE reports, except that in FY2003 New Bedford monkfish landings by scallop dredge (included in "other gear" in the table) were 18% of the port's monkfish landings, while in FY2004 those declined to 12% and in FY2005 to 9%, before returning to 2003 levels in FY2006 and increasing to current levels beginning in FY2007.

Port landings and revenue data based on May-April fishing year is presented in Table 25 and Table 26, for primary and secondary ports (as identified in the original FMP), respectively, for FY2010-FY2012 (see Appendix XXX for FY2006-2009). Data is based on the vessel's homeport, but for FY2012, on the vessel's principal port of landing as indicated on the permit application. Vessels homeported in New Bedford recorded the highest monkfish landings and revenues from 1995-1999, and, although its share has declined in recent years, it remained the top port in 2012. In FY2010, the port of Boston, MA, emerged as the homeport with the highest landings, but declined below New Bedford in 2011 and 2012. Portland, ME, which averaged nearly 1.8 million pounds from 1995-2003 has declined steadily, and since 2009 has remained between 400-500 lbs with 494 lbs being landed in FY 2012.

There has been an overall decline in landings and revenues from FY2006-FY2012 period that is reflected in the port data. In nearly all cases, the revenues from monkfish as a percentage of total revenues by port also declined, which is especially seen in Portsmouth, NH and Boston, MA, However, Port Clyde, ME has had an increase from 3.8% in Fy2006 to 18.9% in FY 2012 (Table 27). While some of these effects could be due to increases in revenues from other fisheries (such as scallops in New Bedford), in most cases it can be attributable to declines in monkfish landings.

HOMEPORT		FY 2006 by Category								FY 2012 by Category							
		A	B	C	D	E	F	H	TOTAL	A	B	C	D	E	F	H	TOTAL
PRIMARY PORTS		7	16	208	173	381	X	X	785	9	19	198	134	311	X	X	672
Portland	ME	X	X	12	22	22	X	X	56	X	X	10	18	14	X	X	42
Boston	MA	X	X	32	29	65	X	X	127	X	X	27	12	31	X	X	71
Gloucester	MA	X	X	23	41	128	X	X	192	X	X	27	38	127	X	X	192
New Bedford	MA	X	X	111	46	90	X	X	250	X	X	112	43	73	X	X	230
Barnegat Light	NJ	X	15	11	17	27	X	X	73	6	19	9	4	23	X	X	61
Point Judith	RI	X	X	19	18	49	X	X	87	X	X	13	19	43	X	X	76
SECONDARY PORTS		X	10	61	76	515	X	X	664	X	9	47	82	416	7	X	564
Rockland	ME	X	X	X	X	7	X	X	8	X	X	X	X	X	X	X	5
Port Clyde	ME	X	X	4	4	X	X	X	11	X	X	X	4	X	X	X	6
South Bristol	ME	X	X	X	6	5	X	X	13	X	X	X	X	5	X	X	9
Ocean City	MD	X	X	X	X	26	X	X	26	X	X	X	X	21	X	X	22
Chatham	MA	X	X	X	15	58	X	X	73	X	X	X	17	55	X	X	72
Provincetown	MA	X	X	X	X	11	X	X	14	X	X	X	X	10	X	X	13
Scituate	MA	X	X	X	5	25	X	X	31	X	X	X	7	20	X	X	29
Plymouth	MA	X	X	X	X	19	X	X	23	X	X	X	X	11	X	X	12
Westport	MA	X	X	X	X	17	X	X	19	X	X	X	X	9	X	X	14
Portsmouth	NH	X	X	X	9	38	X	X	49	X	X	X	5	16	X	X	23
Point Pleasant	NJ	X	X	X	6	49	X	X	58	X	X	X	7	46	X	X	58
Cape May	NJ	X	X	25	7	123	X	X	156	X	X	25	12	99	X	X	138
Greenport	NY	X	X	X	X	6	X	X	7	X	X	X	X	X	X	X	4
Montauk	NY	X	4	7	8	77	X	X	96	X	4	X	9	80	6	X	101
Hampton Bay	NY	X	X	X	X	12	X	X	15	X	X	X	X	9	X	X	11
Newport	RI	X	X	7	7	15	X	X	31	X	X	X	7	12	X	X	22
Hampton	VA	X	X	X	X	10	X	X	12	X	X	X	X	5	X	X	6
Newport News	VA	X	X	8	X	14	X	X	22	X	X	7	X	11	X	X	19
OTHER PORTS		6	13	79	108	1,402	1	7	1,616	10	16	51	80	1,030	1	8	1,196
TOTAL		**14**	**39**	**348**	**357**	**2,298**	**2**	**7**	**3,065**	**22**	**44**	**296**	**296**	**1,757**	**9**	**8**	**2,432**

Table 23 Monkfish permits by port, FY2006 & 2012

Note – Ports where there are fewer than three permits are marked "X" for confidentiality reasons.

Source: NMFS-NERO Analysis and Program Support Division, vessel permits database, accessed August, 2013.

PORT/ STATE	MAY - APRIL FY'12	STOCK AREAS				GEAR TYPES							
		NORTHERN		SOUTHERN		OTTER TRAWL		GILLNET		HOOK		OTHER GEARS	
	Metric Tons	Metric Tons	Percent	Metric Tons	Percent	Metric Tons	Percent	Metric Tons	Percent	Metric Tons	Percent	Metric Tons	Percent
Portland, ME	387	387	100%	0	0%	347	90%	38	10%	0	0%	3	1%
Gloucester, MA	1,247	1,242	100%	6	0%	1,049	84%	195	16%	0	0%	3	0%
Boston, MA	740	732	99%	8	1%	739	100%	0	0%	0	0%	0	0%
New Bedford, MA	2,202	1,276	58%	925	42%	1,394	63%	424	19%	0	0%	383	17%
Point Judith, RI	687	7	1%	679	99%	430	63%	241	35%	0	0%	15	2%
MAINE	489	489	100%	0	0%	443	91%	43	9%	0	0%	3	1%
NEW HAMPSHIRE	57	57	100%	0	0%	6	11%	51	89%	0	0%	0	0%
MASSACHUSETTS	4,663	3,352	72%	1,311	28%	3,214	69%	1,059	23%	0	0%	390	8%
RHODE ISLAND	1,155	10	1%	1,145	99%	434	38%	688	60%	0	0%	33	3%
CONNECTICUT	606	6	1%	600	99%	79	13%	469	77%	0	0%	59	10%
NEW YORK	796	2	0%	794	100%	96	12%	695	87%	0	0%	5	1%
NEW JERSEY	918	0	0%	918	100%	50	5%	729	79%	0	0%	139	15%
OTHER NORTHEAST	420	3	1%	416	99%	110	26%	291	69%	0	0%	18	4%
TOTAL	**9,104**	**3,920**	**43%**	**5,184**	**57%**	**4,433**	**49%**	**4,025**	**44%**	**0**	**0%**	**646**	**7%**

1. The three digit statistical areas defined below are for statistical and management purposes and may not be consistent with stock area delineation used for biological assessment (see the attached statistical chart).

   Monkfish stock areas: Northern: 464-465, 467, 511-515, 521-522, 561-562
   Southern: 525-526, 533-534, 537-539, 541-543, 611-639

2. Landings in live weight.
3. Gear data are based on vessel trip reports.

Table 24 Preliminary FY2012 monkfish landings by primary port (excluding Barnegat Light, NJ) and State, by gear.

HOME PORT	Monkfish Landings and Revenue			
		FY2010	FY2011	FY2012
Portland, ME	1,000 Lbs.	398.4	469.6	494.6
	$1,000	$1,461.1	$1,816.0	$1,448.8
Boston, MA	1,000 Lbs.	987.1	1,194.6	1,015.9
	$1,000	$2,661.0	$3,359.5	$2,527.0
Gloucester, MA	1,000 Lbs.	527.5	859.2	923.7
	$1,000	$1,599.3	$2,407.4	$2,064.7
New Bedford, MA	1,000 Lbs.	888.3	1,275.0	1,180.8
	$1,000	$2,667.0	$4,214.8	$2,933.8
Long Beach/Barnegat Light, NJ	1,000 Lbs.	905.1	1,059.3	912.4
	$1,000	$2,010.7	$2,483.5	$1,797.9
Point Judith, RI	1,000 Lbs.	308.2	437.5	297.3
	$1,000	$999.7	$1,571.8	$714.8

Table 25 Monkfish landing and revenues for monkfish primary ports, by homeport in FY2010-2012.

Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout database, accessed August, 2013.

** CT data may include landings from vessels without a 2006-2012 Monkfish permit.*

Pounds are in landed weight.

HOME PORT	Monkfish Landings and Revenue			
		FY2010	FY2011	FY2012
Rockland, ME	1,000 Lbs.	0.0	0.0	0.0
	$1,000	$0.0	$0.0	$0.0
Port Clyde, ME	1,000 Lbs.	20.4	42.8	38.4
	$1,000	$59.7	$144.0	$101.9
South Bristol, ME	1,000 Lbs.	67.9	95.8	68.4
	$1,000	$229.7	$330.8	$181.1
Ocean City, MD	1,000 Lbs.	0.8	0.5	1.3
	$1,000	$2.2	$1.7	$3.7
Chatham, MA	1,000 Lbs.	449.7	577.3	438.0
	$1,000	$725.3	$1,211.4	$729.0
Provincetown, MA	1,000 Lbs.	1.8	0.9	0.3
	$1,000	$5.8	$3.5	$0.8
Scituate, MA	1,000 Lbs.	87.6	102.2	81.4
	$1,000	$163.5	$228.0	$181.6
Plymouth, MA	1,000 Lbs.	30.6	23.4	36.5
	$1,000	$56.8	$39.6	$71.2
Westport, MA	1,000 Lbs.	152.1	297.9	136.9
	$1,000	$238.3	$539.2	$199.1
Portsmouth, NH	1,000 Lbs.	29.1	74.0	71.4
	$1,000	$67.3	$165.8	$143.1
Point Pleasant, NJ	1,000 Lbs.	77.9	118.2	83.8
	$1,000	$172.6	$274.5	$181.5
Cape May, NJ	1,000 Lbs.	63.1	72.2	104.5
	$1,000	$131.6	$182.8	$221.7
Greenport, NY	1,000 Lbs.	10.0	19.3	17.3
	$1,000	$31.3	$71.2	$44.3
Montauk, NY	1,000 Lbs.	420.7	623.6	713.5
	$1,000	$671.8	$1,216.7	$1,392.3
Hampton Bays, NY	1,000 Lbs.	72.0	102.7	121.5
	$1,000	$222.3	$244.1	$251.5
Newport, RI	1,000 Lbs.	408.1	522.4	337.6
	$1,000	$670.9	$1,040.6	$587.1
Hampton, VA	1,000 Lbs.	2.7	2.9	4.2
	$1,000	$5.9	$7.2	$11.8
Newport News, VA	1,000 Lbs.	7.0	2.9	7.1
	$1,000	$16.9	$7.5	$14.7

Table 26 Monkfish landing and revenues for monkfish secondary ports, by homeport in FY2010-2012.

Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout database, accessed August, 2013.

** CT data may include landings from vessels without a 2006-2012 Monkfish permit.*

Pounds are in landed weight.

HOME PORT		Number of Vessels (FY2012)	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012
1	Westport, MA	15	8.9%	8.7%	13.4%	23.7%	28.0%	37.1%	13.1%
2	Port Clyde, ME	18	3.8%	7.5%	3.3%	4.4%	12.9%	20.5%	18.9%
3	Plymouth, MA	10	13.6%	4.9%	0.0%	0.0%	0.0%	0.0%	0.0%
4	South Bristol, ME	10	0.9%	0.0%	0.0%	0.0%	0.0%	5.6%	2.1%
5	Portsmouth, NH	38	16.5%	8.7%	9.5%	6.8%	4.5%	4.9%	3.7%
6	Scituate, MA	33	6.5%	7.2%	9.1%	5.5%	7.2%	7.1%	3.4%
7	Boston, MA	41	24.1%	18.6%	14.7%	14.2%	12.5%	14.0%	12.1%
8	Portland, ME	76	19.2%	14.0%	9.2%	4.9%	3.9%	6.5%	6.6%
9	Rockland, ME	11	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
10	Long Beach/Barnegat Light, NJ	69	11.2%	12.8%	11.6%	8.3%	7.1%	7.7%	7.4%
11	Gloucester, MA	219	11.1%	10.5%	7.5%	6.5%	7.4%	8.0%	6.7%
12	Point Judith, RI	126	5.2%	8.4%	7.4%	6.8%	6.4%	8.2%	4.0%
13	Newport, RI	39	3.4%	6.6%	6.3%	7.7%	7.5%	8.9%	4.7%
14	Chatham, MA	101	14.6%	11.2%	9.7%	8.8%	9.6%	13.3%	9.3%
15	Point Pleasant, NJ	128	3.3%	3.3%	3.5%	2.9%	2.5%	2.6%	1.8%
16	New Bedford, MA	403	2.6%	2.8%	2.5%	1.8%	1.4%	1.6%	1.2%
17	Hampton Bays, NY	52	8.4%	14.9%	7.4%	11.1%	11.6%	11.6%	8.9%
18	Ocean City, MD	61	1.4%	1.9%	1.2%	0.9%	1.7%	2.7%	2.9%
19	Provincetown, MA	24	2.4%	2.1%	0.8%	0.6%	0.4%	0.4%	0.1%
20	Montauk, NY	101	3.4%	5.7%	4.9%	4.5%	4.3%	5.7%	7.8%
21	Cape May, NJ	190	0.8%	0.7%	0.3%	0.2%	0.2%	0.2%	0.2%
22	Greenport, NY	3	0.4%	1.4%	0.2%	4.1%	0.7%	0.1%	1.5%
23	Hampton, VA	46	0.3%	0.6%	0.3%	0.3%	0.5%	0.4%	0.7%
24	Newport News, VA	80	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.2%

Table 27 Monkfish Revenues, FY 2006-2012, as a Percentage of Total Revenues by Port.
Source: NMFS-NERO Analysis and Program Support Division, cfders dealer weighout database, accessed August, 2013.

4.0 Environmental Consequences of the Alternatives

4.1 Biological Impacts of Alternatives on Monkfish, Non-target Species and Protected Species

4.1.1 Impact of DAS and Trip Limits Alternatives

4.1.1.1 NMA DAS and trip limit options

4.1.1.2 SMA DAS and trip limit options

4.2 Habitat Impacts

4.3 Economic Impacts

4.3.1 Impact of DAS and Trip Limits Specifications Alternatives

4.3.1.1 NMA DAS and trip limit options

4.3.1.2 SMA DAS and trip limit options

4.4 Social Impacts Assessment (SIA)

4.4.1 Impact of DAS and Trip Limits Specifications Alternatives

4.4.1.1 Specifications Alternative 1 - No action

4.4.1.2 Specifications Alternative XXX

4.4.1.3 Specifications Alternative XXX

4.5 Cumulative Effects Analysis

4.5.1 Introduction

4.5.2 Past, Present and Reasonably Foreseeable Future Actions

4.5.3 Baseline Conditions for Resources and Human Communities

4.5.4 Summary Effects of Framework 8 Actions

4.5.5 Cumulative Effects Summary

5.0 Consistency with Applicable Laws

5.1 Magnuson-Stevens Act (MSA)

5.1.1 National Standards

Section 301 of the Magnuson-Stevens Act requires that FMPs contain conservation and management measures that are consistent with the ten National Standards (NS). The following section summarizes, in the context of the National Standards, the analyses and discussion of the proposed action that appear in various sections of this framework adjustment document.

(1) Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.

Conservation and management measures shall be based upon the best scientific information available.

To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

(2) Conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

(3) Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.

(4) Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

(5) Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

(6) Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirements of paragraph (2), in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

(7) Conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

(8) Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.

5.1.2 Required Provisions

Section 303 of the MSFCMA contains fifteen additional required provisions for FMPs, which are discussed below. Any FMP prepared by any Council, or by the Secretary, with respect to any fishery, shall:

(1) contain the conservation and management measures, applicable to foreign fishing and fishing by vessels of the United States, which are-- (A) necessary and appropriate for the conservation and management of the fishery to prevent overfishing and rebuild overfished stocks, and to protect, restore, and promote the long-term health and stability of the fishery; (B) described in this subsection or subsection (b), or both; and (C) consistent with the National Standards, the other provisions of this Act, regulations implementing recommendations by international organizations in which the United States participates (including but not limited to closed areas, quotas, and size limits), and any other applicable law;

(2) contain a description of the fishery, including, but not limited to, the number of vessels involved, the type and quantity of fishing gear used, the species of fish involved and their location, the cost likely to be incurred in management, actual and potential revenues from the fishery, any recreational interest in the fishery, and the nature and extent of foreign fishing and Indian treaty fishing rights, if any;

(3) assess and specify the present and probable future condition of, and the maximum sustainable yield and optimum yield from, the fishery, and include a summary of the information utilized in making such specification;

(4) assess and specify-- (A) the capacity and the extent to which fishing vessels of the United States, on an annual basis, will harvest the optimum yield specified under paragraph (3); (B) the portion of such optimum yield which, on an annual basis, will not be harvested by fishing vessels of the United States and can be made available for foreign fishing; and (C) the capacity and extent to which United States fish processors, on an annual basis, will process that portion of such optimum yield that will be harvested by fishing vessels of the United

States;

(5) specify the pertinent data which shall be submitted to the Secretary with respect to commercial, recreational, charter fishing, and fish processing in the fishery, including, but not limited to, information regarding the type and quantity of fishing gear used, catch by species in numbers of fish or weight thereof, areas in which fishing was engaged in, time of fishing, number of hauls, economic information necessary to meet the requirements of this Act, and the estimated processing capacity of, and the actual processing capacity utilized by, United States fish processors;

(6) consider and provide for temporary adjustments, after consultation with the Coast Guard and persons utilizing the fishery, regarding access to the fishery for vessels otherwise prevented from harvesting because of weather or other ocean conditions affecting the safe conduct of the fishery; except that the adjustment shall not adversely affect conservation efforts in other fisheries or discriminate among participants in the affected fishery;

(7) describe and identify essential fish habitat for the fishery based on the guidelines established by the Secretary under section 305(b)(1)(A), minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat;

(8) in the case of a fishery management plan that, after January 1, 1991, is submitted to the Secretary for review under section 304(a) (including any plan for which an amendment is submitted to the Secretary for such review) or is prepared by the Secretary, assess and specify the nature and extent of scientific data which is needed for effective implementation of the plan;

(9) include a fishery impact statement for the plan or amendment (in the case of a plan or amendment thereto submitted to or prepared by the Secretary after October 1, 1990) which shall assess, specify, and analyze the likely effects, if any, including the cumulative conservation, economic, and social impacts, of the conservation and management measures on, and possible mitigation measures for—(A) participants in the fisheries and fishing communities affected by the plan or amendment; (B) participants in the fisheries conducted in adjacent areas under the authority of another Council, after consultation with such Council and representatives of those participants; and (C) the safety of human life at sea, including whether and to what extent such measures may affect the safety of participants in the fishery

(10) specify objective and measurable criteria for identifying when the fishery to which the plan applies is overfished (with an analysis of how the criteria were determined and the relationship of the criteria to the reproductive potential of stocks of fish in that fishery) and, in the case of a fishery which the Council or the Secretary has determined is approaching an

overfished condition or is overfished, contain conservation and management measures to prevent overfishing or end overfishing and rebuild the fishery;

(11) establish a standardized reporting methodology to assess the amount and type of bycatch occurring in the fishery, and include conservation and management measures that, to the extent practicable and in the following priority-- (A) minimize bycatch; and (B) minimize the mortality of bycatch which cannot be avoided;

(12) assess the type and amount of fish caught and released alive during recreational fishing under catch and release fishery management programs and the mortality of such fish, and include conservation and management measures that, to the extent practicable, minimize mortality and ensure the extended survival of such fish;

(13) include a description of the commercial, recreational, and charter fishing sectors which participate in the fishery, including its economic impact, and, to the extent practicable, quantify trends in landings of the managed fishery resource by the commercial, recreational, and charter fishing sectors;

(14) to the extent that rebuilding plans or other conservation and management measures which reduce the overall harvest in a fishery are necessary, allocate, taking into consideration the economic impact of the harvest restrictions or recovery benefits on the fishery participants in each sector, any harvest restrictions or recovery benefits fairly and equitably among the commercial, recreational, and charter fishing sectors in the fishery;

(15) establish a mechanism for specifying annual catch limits in the plan (including a multiyear plan), implementing regulations, or annual specifications, at a level such that overfishing does not occur in the fishery, including measures to ensure accountability.

5.1.3 EFH Assessment

5.2 National Environmental Policy Act (NEPA)

5.2.1 Finding of No Significant Impact (FONSI Statement)

NOAA has provided guidance for the determination of significance under NEPA in Section 6.01(b) of NOAA Administrative Order NAO 216-6, May 20, 1999, as well as in NMFS Instruction 3-124-1, July 22, 2005. NOAA Administrative Order 216-6 contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality regulations at 40 CFR 1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity". The analysis of significance of this action is, therefore, based on both the NAO 216-6 criteria and CEQ's context and intensity criteria. Each criterion listed in the sixteen questions below is relevant in making a finding of no

significant impact, and have been considered individually, as well as in combination with the others. The sixteen criteria to be considered are addressed below:

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

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

3. *Can the proposed action be reasonably expected to allow substantial damage to the ocean and coastal habitats and/or EFH as defined under the Magnuson-Stevens Fishery Conservation and Management Act and identified in FMPs?*

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

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

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)?*

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

8. *Are the effects on the quality of human environment likely to be highly controversial?*

9. *Can the proposed action reasonably 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?*

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

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

12. *Is the proposed 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 historic resources?*

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

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

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

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

FONSI Statement

NMFS, Northeast Regional Administrator **Date**

5.3 Regulatory Impact Review and Initial Regulatory Flexibility Analysis (EO 12866 and IRFA)

5.3.1 Determination of significance under E.O. 12866

National Marine Fisheries Service guidelines provide criteria to be used to evaluate whether a proposed action is significant. A "significant regulatory action" means any regulatory action that is likely to result in a rule that may:

1. *Have an annual effect on the economy of $100 million or more, or adversely effect 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.*

3. *Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof.*

4. *Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.*

5.3.2 Initial Regulatory Flexibility Analysis (IRFA)

The following sections contain analyses of the effect of the proposed action on small entities in accordance with Section 603(b) of the Regulatory Flexibility Act.

5.3.2.1 Reasons for Considering the Action

5.3.2.2 Objectives and legal basis for the action

5.3.2.3 Description and number of small entities to which the rule applies

5.3.2.4 Reporting, recordkeeping and other compliance requirements

5.3.2.5 Duplication, overlap or conflict with other Federal rules

5.3.2.6 Economic impacts on small entities resulting from the proposed action

5.3.2.6.1 Biological and Management Reference Points (BRP) Alternatives

5.3.2.6.2 Northern Management Area ACT

5.3.2.6.3 Northern Management Area DAS and Trip Limits Alternatives

Vessels Fishing only in NMA

Vessels Fishing in Both NMA and SMA

5.3.3 Endangered Species Act (ESA)

5.4 Marine Mammal Protection Act (MMPA)

5.5 Paperwork Reduction Act (PRA)

5.6 Coastal Zone Management Act (CZMA)

5.7 Information Quality Act (IQA)

Utility

Integrity

Objectivity

5.8 Executive Order 13132 (Federalism)

5.9 Executive Order 13158 (Marine Protected Areas)

5.10 Administrative Procedures Act (APA)

6.0 References