Monkfish Fishery Management Plan
Framework Adjustment 5

Incorporating
Stock Assessment and Fishery Evaluation (SAFE) Report
for the 2006 Fishing Year
and the
Environmental Assessment and
Regulatory Impact Review

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

in consultation with
National Marine Fisheries Service

Submitted 1/16/2008
Revised 2/13/08

TABLE OF ACRONYMS

A	Adult life stage
A13	Amendment 13 to the Multispecies FMP
ALWTRP	Atlantic Large Whale Take Reduction Plan
APA	Administrative Procedures Act
ASMFC	Atlantic States Marine Fisheries Commission
CA I	Closed Area I under the Multispecies FMP
CA II	Closed Area II under the Multispecies FMP
DAM	Dynamic Area Management
DAS	days-at-sea
DMF	Division of Marine Fisheries (Massachusetts)
DMR	Department of Marine Resources (Maine)
DSEIS	Draft Supplemental Environmental Impact Statement
E	Egg life stage
EA	Environmental Assessment
EEZ	exclusive economic zone
EFH	essential fish habitat
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FMP	fishery management plan
FVTR	Fishing vessel trip report
FW	Framework
FW 13	Framework 13 to the Scallop FMP
FY	fishing year
GB	Georges Bank
GOM	Gulf of Maine
GRT	gross registered tons/tonnage
HAPC	habitat area of particular concern
HCA	Habitat Closed Area
HPTRP	Harbor Porpoise Take Reduction Plan
IFQ	individual fishing quota
IWC	International Whaling Commission
J	Juvenile life stage
LOA	letter of authorization
MA	Mid-Atlantic
MAFMC	Mid-Atlantic Fishery Management Council
MMC	Monkfish Monitoring Committee
MMPA	Marine Mammal Protection Act
MPA	marine protected area
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
MSMC	Multispecies Monitoring Committee
MSY	maximum sustainable yield
NAAA	Northwest Atlantic Analysis Area
NEFMC	New England Fishery Management Council

NEFSC	Northeast Fisheries Science Center
NEPA	National Environmental Policy Act
NERO	Northeast Regional Office
NFMA	Northern Fishery Management Area
NLCA	Nantucket Lightship Closed Area
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OY	optimum yield
PBR	Potential Biological Removal
PRA	Paperwork Reduction Act
PREE	Preliminary Regulatory Economic Evaluation
RFA	Regulatory Flexibility Act
RMA	Regulated Mesh Area
RPA	Reasonable and Prudent Alternatives
SAFE	Stock Assessment and Fishery Evaluation
SARC	Stock Assessment Review Committee
SAW	Stock Assessment Workshop
SBNMS	Stellwagen Bank National Marine Sanctuary
SEIS	Supplemental Environmental Impact Statement
SFA	Sustainable Fisheries Act
SFMA	Southern Fishery Management Area
SIA	Social Impact Assessment
SMAST	U. Mass. Dartmouth School of Marine Science and Technology
SNE	southern New England
SNE/MA	southern New England-Mid-Atlantic
SSB	spawning stock biomass
TAC	total allowable catch
TED	turtle excluder device
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VMS	vessel monitoring system
VPA	virtual population analysis
VTR	vessel trip report
YPR	yield per recruit

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1.0 Introduction

1.1 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 (NFMA) covering the Gulf of Maine and northern part of Georges Bank, and the Southern Fishery Management Area (SFMA) extending from the southern flank of Georges Bank through the Mid-Atlantic Bight to North Carolina (see Figure 1).

The Councils initiated a rebuilding plan for monkfish in 1999 with the adoption of the Monkfish FMP. The original FMP was modified and amended to include an annual measure of the status of the stocks and adjustment to management measures as needed to maintain a 10-year rebuilding schedule, principally with the implementation of Framework Adjustment 2 in 2003. Following several years of increases in the biomass index for both stocks, by the fall of 2006, the indices had returned to levels below the minimum biomass threshold and approximately 50% below their annual biomass index targets (i.e., both stocks were "overfished"). As a result, the Councils proposed, in Framework 4 to revise the management program so that the goals of the 10-year rebuilding program could be met within the 10-year rebuilding schedule, by 2009.

The National Marine Fisheries Service (NMFS) deferred implementing Framework 4 and called for a stock assessment for July 2007. The Northeast Data Poor Stocks Working Group (DPWG) completed and accepted the new assessment which recommended revising the biomass reference points used to determine stock status. Under the revised reference points, both monkfish stocks would be considered "rebuilt". In addition, the assessment estimated current fishing mortality as being below the threshold reference points, and, therefore, "overfishing is not occurring". The assessment report emphasizes, however, that in addition to the fact that this assessment was the first to use a new analytical model, there is a high degree of uncertainty in the analyses due to the dependence on assumptions about natural mortality, growth rates and other model inputs. NMFS approved Framework 4 on September 21 with an effectiveness date of October 22, 2007.

This framework adjustment, if approved, would implement the revised biomass reference points and make other modifications to the regulations to ensure that the management program succeeds in keeping landings within the target allowable catch limits (TACs). These modifications include:

- a reduction in the number of allocated but unused days-at-sea a vessel can carry forward to the following year (carryover DAS) from 10 to 4 DAS;
- application of a minimum charge of 15 hours on all monkfish gillnet trips (eliminating the 3-hour window rule)
- placing a cap on the monkfish incidental catch limit on vessels fishing in the SFMA with regulated large mesh and not on a monkfish, multispecies or scallop DAS. The cap would be 50 lbs. per day to a maximum of 150 lbs. and would apply on vessels fishing

east of 72°30'W, as well as on vessels fishing under a skate bait Letter of Authorization east of 74°00'W; and,

- removing the requirement that vessels fishing in the NFMA obtain a Letter of Authorization if the vessel is using an electronic vessels monitoring system (VMS).

This document also contains the Stock Assessment and Fishery Evaluation (SAFE) Report for the 2006 fishing year.

The Environmental Assessment (EA) in this document presents the analysis of impacts of the adjustments to the monkfish fishery management measures proposed by the Councils and other alternatives considered, including taking no action.

In terms of compliance with other applicable laws, the proposed actions in this framework are consistent with the National Standards and other required provisions of the Sustainable Fisheries Act, and are deemed to be not significant under the National Environmental Policy Act and Executive Order 12866 (Regulatory Impact Review), based on the respective evaluation criteria. The proposed actions are consistent with the Marine Mammal Protection Act, and do not alter existing protections for marine mammals inhabiting the management area of the monkfish fishery. The Councils have concluded that the proposed action is not likely to result in jeopardy to any Endangered Species Act (ESA) listed species under NMFS jurisdiction, or alter or modify any critical habitat. The Councils are seeking concurrence from affected states that the proposed actions are consistent with the coastal zone management programs of coastal states from Maine to North Carolina, in compliance with the Coastal Zone Management Act. A complete discussion of the consistency of the proposed action with all applicable laws and executive orders is provided in Section 6.0.

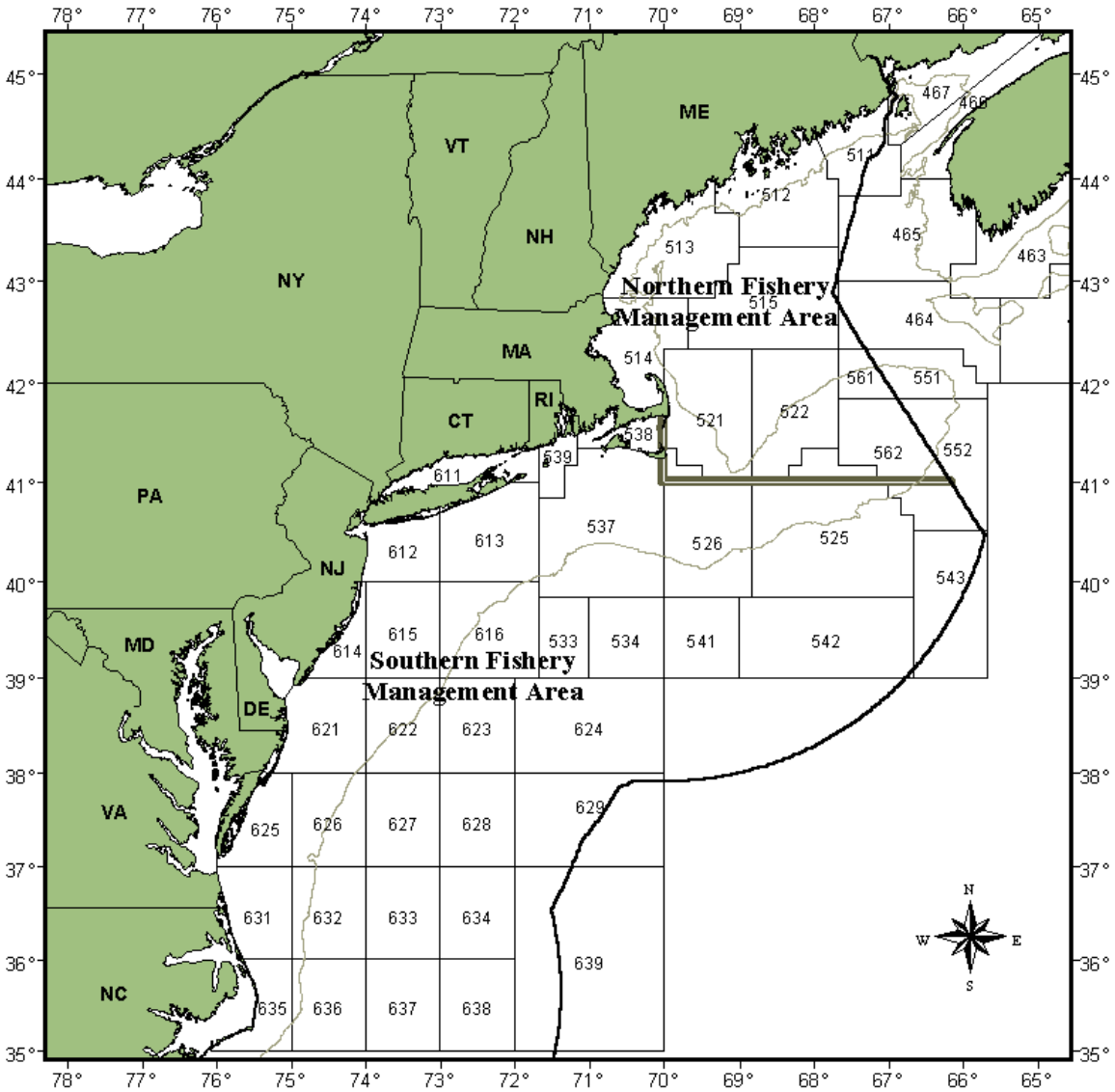


Figure 1 Monkfish management areas and three-digit statistical areas

1.2 Background

1.2.1 Actions under the Monkfish FMP

1.2.1.1 Framework 2 – annual adjustment procedure

Framework 2, which became effective on May 1, 2003 (68 FR 22325, April 28, 2003), implemented a target total allowable catch (TAC) setting method that is based upon the relationship between the 3-year running average of the National Marine Fisheries Service's (NMFS) fall trawl survey biomass index (3-year average biomass index) and established annual biomass index targets (annual index target). The annual index targets are based on 10 equal increments between the 1999 biomass index (the start of the rebuilding program) and the biomass target (B_{target}), which is to be achieved by 2009 according the rebuilding plan established in the FMP. According to this target TAC setting method, annual target TACs are set based on the ratio of the observed biomass index to the annual index target applied to the monkfish landings for the previous fishing year.

Framework 2 also adopted a simulation method for calculating SFMA trip limits and DAS restrictions based on the target TAC and the observed monkfish catch by vessels fishing in that area. To estimate landings in the SFMA by permit categories AC and BD, the distribution of reported landings from fishing vessel trip reports (FVTR's) in the previous year in the SFMA is modified under a series of proposed daily landing limits. Total landings are recalculated based upon each new distribution. To estimate the landings under a given daily limit, all trips with a daily average below the simulated limit are assumed to have remained static, while all trips with a daily landings average greater than the simulated new limit have their average daily landings scaled down to the proposed limit. For example, to estimate the landings under a 700 lb. tail weight per DAS limit, all trips with a daily average for a given trip below 700 lbs. are assumed unchanged, while all trips with a daily average greater than 700 lbs. have that average scaled down to 700 lbs.

Framework 2 removed the original FMP provisions that would have resulted in default measures for Year 4 of the rebuilding program eliminating the directed fishery. The original FMP called for ending the directed monkfish fishery in Year 4 of the rebuilding plan, that is, no monkfish DAS would be allocated, and all vessels would be operating under an incidental catch limit. That provision was replaced in Framework 2 by measures that would allow for annual adjustment to DAS and trip limits in the SFMA, and continuation of the directed fishery with no trip limit while on a multispecies DAS in the NFMA. The framework replaced that provision with a set of rules stating that if the SFMA TAC needed to be reduced below 8,000 mt, the trip limits on directed monkfish trips would be fixed at 550 and 450 lbs. (tail weight) per monkfish DAS for permit categories AC and BD, respectively, and any further effort reductions would be taken from the DAS available to vessels for fishing in the SFMA.

The number of days at sea spent on a trip was calculated by subtracting the date sailed from the date landed on the FVTR and rounding any fractional days up to the next integer. In FY2004 the DAS allocation was 28 DAS plus any carryover. In this analysis, landings were assumed to be at

a constant rate per day. The landings at any DAS level for each vessel were calculated by either including all landings if the vessel used fewer days than the proposed DAS level, or reducing the landings by an amount proportionate to the days exceeding the DAS level. For example, if a vessel landed 1,000 pounds in 30 days of fishing, the calculated landings for 15 days would be 500 pounds. The resulting range of estimated landings was fit with a loglinear function. This empirical function was then used to solve for the target DAS limit that would result in the desired target TAC.

1.2.1.2 Amendment 2 to the Monkfish FMP

The Councils adopted Amendment 2 to the Monkfish FMP in 2005 (70 *Federal Register* 21927, April 28, 2005). Amendment 2 contained a number of measures that the Councils developed to address essential fish habitat (EFH) and bycatch issues, as well as several issues raised during the public scoping process. Amendment 2 did not modify the stock rebuilding program adopted in Framework 2, nor did it modify the effort control program except for the effect of the Research DAS set-aside program. This program reduced each permitted vessel's DAS allocation by 0.7 DAS to create a pool of 500 DAS that can be used to help defray the costs of cooperative monkfish research projects. Therefore, the actual number of baseline DAS (unless modified by the annual adjustment procedure) is 39.3 DAS, rather than the 40 DAS established by the FMP.

Amendment 2 also created three new permit categories. Category F permits are issued in any year a vessel enrolls in the Offshore Fishery Program. Such vessels are allocated monkfish DAS based on the number of DAS available to limited access monkfish vessels fishing in the SFMA multiplied by the ratio of the applicable trip limit over 1,600 lb. (tail weight) per DAS. Category G and H permits are issued for vessels that qualified under Amendment 2 for a limited access permit allowing such vessels to fish only south of 38°20'. Categories G and H vessels are given the same trip limits and DAS as Category A and B vessels, respectively.

1.2.1.3 Monkfish Framework 3/Multispecies Framework 42

In response to updated multispecies stock assessment information, the NEFMC developed Framework 42 primarily to substantially reduce fishing mortality on several species in the multispecies rebuilding plan adopted through Multispecies Amendment 13, including modifications to the Multispecies B-regular DAS program (adopted as a pilot program in Amendment 13). One of the changes to the B-regular DAS program adopted in Framework 42 was the removal of the ability to use a monkfish DAS under the B-regular DAS Program, and the application of the monkfish incidental catch limit on Monkfish Permit Category C and D vessels fishing under this program, hence, the joint Multispecies Framework 42/Monkfish Framework 3. The purpose of this action was to reduce fishing effort on monkfish, and to prevent an increase in effort directed on monkfish as other multispecies fishing opportunities were being curtailed by prohibiting the targeting of monkfish under the B-regular DAS Program.

A second provision of Framework 42 that has an impact on some monkfish vessels is the requirement for vessels to use an electronic vessels monitoring system (VMS) when fishing on a multispecies DAS. Since monkfish Category C and D vessels that also have a multispecies limited access permit must use a multispecies DAS when fishing on a monkfish DAS, those vessels are required to use a VMS. This requirement affects how vessels can fish under the 3-hour rule, being addressed by this Framework action, because it reduces the amount of steaming

time that is counted against the DAS clock. There are other concerns with this VMS requirement that the Councils are considering addressing separate from this framework adjustment.

The NEFMC submitted Framework 42 on April 21, 2006. The NEFMC had announced in November 2005 that it would not be able to submit the framework in time for the measures to be implemented for the start of the fishing year on May 1, 2006. The National Marine Fisheries Service (NMFS), therefore, implemented the measures proposed in Framework 42 under the emergency action authority provided in the Magnuson-Stevens Act. In accordance with that authority, the emergency rules are effective for 180 days, renewable for an additional 180 days if warranted. Since Framework 42/3 was not implemented by then end of the initial 180-day period, NMFS announced on October 6, 2006 that the emergency rules would be extended for an additional period, or until Framework 42/3 is approved and implemented. On October 23, NMFS published the Final Rule implementing Framework 42/3 (71 *Federal Register* 62156) with an effectiveness date of November 22, 2006, superseding the emergency rules.

1.2.1.4 Monkfish Framework 4

The fishing year 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 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 the minimum biomass threshold 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 (TACs) were set at 5,000 mt and 5,100 mt for the NFMA and SFMA, respectively. These TACs 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 NFMA on a multispecies DAS, and exceeding the monkfish incidental catch limit, to call in a monkfish DAS, which could be done by VMS any time prior to returning to port. Vessels in the SFMA were already required to call in a monkfish DAS when exceeding the incidental limit. Framework 4 also reduced the monkfish incidental limit in the NFMA 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. SFMA 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 SFMA out of the total allocation. In the NFMA, 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 2009 unless the target TAC is exceeded in an area during the 2007 fishing year. In that case, the proposed TAC overage backstop provision would take effect and could result in a recalculation of the trip limits and DAS allocations that are expected to keep landings below the

target TAC based on catch and effort data from the 2007 fishing year. The backstop provision would make no adjustment if the TAC overage was 10% or less, and would close the directed fishery in a management area if the overage exceeded 30%, resulting in zero DAS and the application of monkfish incidental limits to all vessels.

Other measures adopted under Framework 4 include 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 target TACs and most measures proposed in Framework 4, except the 23 DAS allowance for SFMA vessels (retaining the 12 DAS from the prior year), and prohibited the use of carryover DAS. The 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 a number of 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).

1.2.2 Other actions affecting the monkfish fishery

1.2.2.1 Other FMP actions

Both Multispecies and Sea Scallop fisheries have undergone a series of major actions since 1994 to reduce fishing effort and rebuild overfished stocks. Multispecies Amendment 13, and Frameworks 40A, 40B, and 41 produced in substantial reductions in overall multispecies effort, including effort on those multispecies vessels targeting monkfish. While some multispecies stocks, such as haddock, redfish and witch flounder have responded positively, other stocks, particularly cod and yellowtail flounder remain species of concern, in need of additional conservation restrictions.

The scallop resource has responded positively to management measures adopted over the past decade. In particular, Amendment 10 to the Scallop FMP introduced rotational area management and adopted several measures to minimize impacts of the fishery on EFH. Subsequent framework adjustments (Framework 16 implemented in November 2004 and Framework 18 implemented in June 2006) have modified the management program to improve administration, increase yield-per-recruit, promote safety and minimize bycatch, as well as set the rotational management program measures through the 2007 fishing year. 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 (and would be required to use a scallop DAS to target monkfish) elect to use their allocated effort to target scallops rather than monkfish. As a result, a substantial portion of the allocated monkfish effort is not used. Cumulatively, these actions, in both multispecies and scallop fisheries have likely had a positive effect on reducing effort in the monkfish fishery.

The Council initiated Scallop Framework 19 early in 2007 and recently approved final measures in October 2007. Pending approval, this action will set specifications for the next two scallop fishing years and is expected to be implemented in March 2008. The action will close the Hudson Canyon area as a new rotational closure to protect small scallops that have settled in that area so they can be harvested at a later date to maximize yield. Overall open area DAS will be 35 for full-time vessels in 2008 and 42 in 2009, below allocated levels in recent years that have been just over 50 DAS. While scallop catch per unit of effort may be lower in the near future and overall allocations may be less, scallop prices are still above historic levels so effort is not expected to shift to directed monkfish effort. In addition, total bottom time and DAS used are expected to be lower under this action compared to recent years, having less impact on non-target species. Other measures are included such as a quarterly hard TAC for the general category fishery until the individual fishing quota can be implemented under Amendment 11. If Amendment 11 is approved, the total level of effort from the general category fishery will now be limited; it is no longer an open access fishery and total removals are limited under a hard-TAC during a transition to an IFQ program, which will limit total catch to 5% of the total projected scallop catch.

1.2.2.2 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), with the most recent Biological Opinion dated April 14, 2003. The conclusion in that Opinion states that the monkfish fishery is not likely to jeopardize the continued existence of Northern right whales, provided that the fishery is complying with the ALWTRP. A previous Biological Opinion for the Monkfish FMP, dated June 14, 2001, concluded that the continued implementation of the monkfish fishery was likely to jeopardize the continued existence of Northern right whales as a result of mortality from entanglements in gillnet gear. NMFS implemented a set of Reasonable and Prudent Alternatives (RPAs) to remedy the jeopardy finding. These RPAs were implemented as revisions to the ALWTRP. 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.

1.2.2.2.1 Harbor Porpoise Take Reduction Plan

NMFS published the rule implementing the Harbor Porpoise Take Reduction Plan 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.

1.2.2.2.2 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, fin, and 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.

1.2.2.2.3 Atlantic Trawl Gear Take Reduction Team

The first meeting of the Atlantic Trawl Gear Take Reduction Team (ATGTRT) was held in September 2006. The ATGTRT was convened by NMFS as part of a settlement agreement between the Center for Biological Diversity and NMFS to address the incidental mortality and serious injury of long-finned pilot whales, short-finned pilot whales, common dolphins, and white-sided dolphins in several trawl gear fisheries operating in the Atlantic Ocean. Incidental takes of pilot whales, common dolphins and white-sided dolphins have occurred in fisheries operating under the Atlantic Mackerel, Squid, and Butterfish FMP, as well as in mid-water and bottom trawl fisheries in the Northeast.

The Western North Atlantic stocks of pilot whales, common dolphins, and white-sided dolphins were designated as non-strategic in the 2005 Marine Mammal Stock Assessment Report. Therefore, the charge to the ATGTRT is to develop a take reduction plan within 11 months that, once implemented, will achieve the long-term goal of the Marine Mammal Protection Act of reducing serious injury and mortality of affected stocks to a level approaching a zero mortality rate goal (ZMRG) (which is 10% of the Potential Biological Removal (PBR) of each stock).

1.2.2.2.4 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 that year. The basis of this rule was that sea turtles migrate northward as water temperatures warmed. 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.

1.2.2.3 2006 Magnuson-Stevens Act (MSRA) Reauthorization

The Magnuson-Stevens Act was reauthorized through 2013 by the Magnuson-Stevens Reauthorization Act of 2006, which was signed into law on January 12, 2007. The MSRA establishes requirements for annual catch limits (ACLs) and accountability measures (AMs), with a firm deadline for ending overfishing by 2011. The MSRA also establishes guidelines and requirements for the development and implementation of limited access privilege programs (LAPPs); establishes a national registry for recreational fishermen; requires NMFS to revise and update agency procedures to comply with NEPA; strengthens the role of the Councils' Scientific and Statistical Committees; strengthens enforcement of fishing laws; and provides a stronger emphasis on ecosystem based management. NMFS is currently in the process of developing guidelines and implementing regulations for these and other provisions of the MSRA, and has established a website aimed at keeping the public informed about this process: http://www.nmfs.noaa.gov/msa2007.

1.2.2.4 Standard Bycatch Reporting Methodology (SBRM) Omnibus Amendment

The establishment of a Standardized Bycatch Reporting Methodology (SBRM) is required pursuant to section 303(a)(11) of the Magnuson-Stevens Act. In 2004, several conservation organizations challenged the approval of two major amendments to Northeast Region FMPs; Amendment 13 to the Northeast Multispecies FMP and Amendment 10 to the Atlantic Sea Scallop FMP. In ruling on these suits, the U.S. District Court for the District of Columbia found that the FMPs did not clearly establish an SBRM as required under the Magnuson-Stevens Act and remanded the amendments back to the agency to fully develop and establish the required SBRM. In particular, the Court found that the amendments (1) failed to fully evaluate reporting methodologies to assess bycatch, (2) did not mandate an SBRM, and (3) failed to respond to potentially important scientific evidence.

In response, NMFS and the New England and Mid-Atlantic Fishery Management Councils undertook development of a remedy that would address all Northeast Region FMPs. In January 2006, development began on the Northeast Region Omnibus SBRM Amendment. This amendment covers 13 FMPs, 39 managed species, and 14 types of fishing gear. The purpose of the amendment is to: Explain the methods and processes by which bycatch is currently monitored and assessed for Northeast Region fisheries; determine whether these methods and processes need to be modified and/or supplemented; establish standards of precision for bycatch estimation for all Northeast Region fisheries; and document the SBRM established for all fisheries managed through the FMPs of the Northeast Region. The amendment also responds to the "potentially important scientific evidence" cited by the Court in the two decisions referenced

above. The measures contained in this amendment include: Bycatch reporting and monitoring mechanisms; analytical techniques and allocation of at-sea fisheries observers; an SBRM performance standard; a review and reporting process; framework adjustment and annual specifications provisions; a prioritization process; and provisions for industry-funded observers and observer set-aside programs.

In accordance with the provisions of the Magnuson-Stevens Act, on July 26, 2007, NMFS published a notice of availability (NOA) in the Federal Register announcing a 60-day period for the public to review and provide written comments on the SBRM Amendment and its accompanying draft environmental assessment. The comment period on this NOA ended on September 24, 2007. On August 21, 2007, NMFS published a proposed rule in the Federal Register, and solicited public comments for a 30-day period ending September 20, 2007. Through a subsequent action, the public comment period on the proposed rule was extended through September 24, 2007. The SBRM Amendment was approved on October 22, 2007, and a final rule was published on January 28, 2008, with an effective date of February 27, 2008 (73 *Federal Regiser* 4736).

2.0 Purpose and Need

2.1 Need to take action

The primary need to take this action at this time is that the DPWG recommended revising the biological reference points to be consistent with the most recent, and best scientific information available. This action is also needed to address the concerns expressed by the Regional Administrator in her September 17, 2007 letter to the Councils approving Framework 4, regarding the DAS carryover provision in the FMP. In this letter, the Regional administrator noted the impact of this additional effort on monkfish landings, and strongly recommended that the Councils revised the DAS carryover provision in the next monkfish action. This action is also needed to address public comments regarding a perceived loophole with the existing FMP provision that allows gillnet vessels that make trips of less than three hours in duration to land monkfish, and concerns about the incidental catch allowance on large-mesh vessels fishing in the SFMA and not on a monkfish, scallop or multispecies DAS . Finally, this action is needed to reduce the administrative burden on vessels resulting from the requirement to obtain a Monkfish NFMA Letter of Authorization (LOA) in light of the ability to declare the management area fished through VMS, and the VMS requirements now applicable to many monkfish vessels,

2.2 Purpose of Action

The main purpose of this action is, therefore, to adopt revised biological reference points as recommended by the DPWG. Another purpose of this action is to modify the DAS carryover provision to address recommendations of the Regional Administrator. In addition, the purpose of this action is to modify the gillnet 3-hour rule and the incidental catch allowance on large-mesh vessels not fishing on a DAS to address issues raised in public comment and Monkfish Committee discussions. Both of these measures are expected to improve the management of the fishery and contribute to keeping landings within the target TACs. Another purpose of this action is to eliminate the LOA requirement on vessels fishing with a VMS in the NFMA to reduce the administrative burden on these vessels.

3.0 Alternatives including no-action

The following describes the alternatives under consideration by the Councils, including taking no action.

3.1 Biological Reference Points (BRP) Alternatives

The Councils, Committee, Advisory Panel (AP) and PDT recommend Alternative 1.

3.1.1 BRP Alternative 1 (proposed action)

Under this alternative, the biomass minimum threshold and target would be those recommended by the DPWG, as shown in the following Table 1.

	B_{2006} (mt)	B_{target} (mt)	$B_{threshold}$ (mt)
NFMA	118,700	92,200	65,200
SFMA	135,500	122,500	96,400
B_{target} = average of total biomass 1980 – 2006			
$B_{threshold}$ = lowest value of total biomass 1980 – 2006			

Table 1 Biomass target and threshold reference points (BRP Alternative 1), and 2006 biomass estimates based on the DPWG assessment.

3.1.2 BRP Alternative 2 (no action)

The current biomass targets are based on the median of the 3-year moving average of the NEFSC fall survey biomass indices during 1965-1981. The biomass threshold is equal to ½ the biomass target. The most recent values are shown in the following table.

	B_{2006} (kg/tow, 3-yr. ave)	B_{target} (kg/tow)	$B_{threshold}$ (kg/tow)
NFMA	1.1	2.60	1.3
SFMA	0.87	1.84	0.92
B_{target} = median, 3-year moving average of the NEFSC fall survey biomass indices, 1965-1981			
$B_{threshold}$ = ½ B_{target}			

Table 2 Current biomass target and reference points (BRP Alternative 2, no action), and 2006 3-year running average of the NEFSC fall survey biomass indices.

3.2 DAS Carryover Alternatives

Under the initial Monkfish FMP, which allocated 40 monkfish DAS, vessels were allowed to carryover 10 unused monkfish DAS, consistent with the carryover provisions of the Multispecies FMP, which at that time allocated 88 multispecies DAS to Fleet Category vessels. In Framework 4, the Councils considered modifying or eliminating the DAS carryover provision in the FMP, to reduce the potential dilution of the effort control program. The AP and the Monkfish Committee recommended taking no action (retaining the 10 carryover DAS), noting that as DAS are reduced, the economic need for carryover DAS is more urgent. The PDT had recommended a reduction in carryover DAS to 4, which was modified by the Committee to 6 DAS under Alternative 1. The Committee also rejected the alternative that eliminated the carryover DAS, on

the basis that the provision of some carryover DAS is intended to promote safety by providing a contingency for unforeseen events (weather, breakdowns) for vessels that have retained some DAS for use at the end of the fishing year.

The Councils recommended no action in Framework 4. On September 17, 2007, the Regional Administrator approved Framework 4, but strongly recommended that the Councils revise the monkfish DAS provision in the next monkfish action. The RA expressed concern about the ability to manage the fishery within the target TAC levels established in Framework 4, when vessels have a carryover allowance equal to 32% of the total annual DAS allocation, and 43% of the SFMA allowance.

While reviewing the Framework 4 document in preparation for the October 3 Monkfish Committee meeting the staff found a discrepancy in the language describing the proposed action, which required clarification. The text describing the DAS carryover provisions in Section 3.6 of Framework 4 states the following:

> *Carryover DAS are based on the higher allocated DAS in either area, not on the baseline of 40 DAS set in the original FMP. In other words, if the maximum DAS allocated in either area is 31, for example, and a vessel fishes 30 DAS total (counting DAS used in both areas) then a vessel would have one carryover DAS, not 10 DAS under Alternative 3 (40 baseline minus 30 used), or 6 under Alternative 1 (40 baseline minus 30 used to a maximum of 6).*

The description of Alternative 3, the no action alternative, however, says:

> *…vessels would continue to be able to carryover up to 10 unused monkfish DAS, out of the baseline allocation of 40, regardless of the DAS allocated under the options being considered…*

The proposed and final rules for Framework 4 are based on the first language, and, therefore, that would be the no action alternative in this framework. So that the Committees' intent can be clarified, staff included an alternative in the Committee's discussion document that would reflect the second paragraph. During the discussion, Committee members considered that this approach would be more liberal than the current language to which the RA expressed strong concerns, and would not likely be approved, regardless of the original intent, and did not approve carrying that alternative forward for consideration in this document.

A majority of the AP supports Alternative 1 because in their view the elimination of the 3-hour loophole would reduce landings and the need to cut back further on the carryover DAS. One AP member supported no action. The PDT did not reach consensus on a recommendation. Most of the PDT members recommend Alternative 2, and a minority recommended Alternative 1. The Committee recommends Alternative 1. The Councils recommend Alternative 2 (4 DAS) because it wants to be able to control the fishery within the existing targets, and the carryover DAS, when not used as intended represent an opening for effort to exceed that which is appropriate to the target TAC as allocated. This is especially the case in the SFMA, where currently allowable

DAS are only 23 out of the total allocation of 31 DAS, which means vessels will always have unused DAS to carryover, as long as the NFMA DAS allocations exceed the SFMA allowance.

3.2.1 DAS Carryover Alternative 1

Under this alternative, vessels would be able to carryover up to **6** unused DAS based on the higher allocation of DAS in the two areas, currently 31 DAS (if a vessel fishes 30 DAS, it would only be able to carryover 1 DAS, not 6, as it would if the rule were based on a baseline of 40 DAS). The maximum carryover allowance under this alternative is 19% of the total annual allocation of monkfish DAS, and 26% of the DAS allowed in the SFMA. This alternative was also Alternative 1 in Framework 4, not adopted by the Councils.

3.2.2 DAS Carryover Alternative 2 (proposed action)

Under this alternative, vessels would be able to carryover up to **4** unused DAS based on the higher allocation of DAS in the two areas, currently 31 DAS (if a vessel fishes 30 DAS, it would only be able to carryover 1 DAS, not 4, as it would if the rule were based on a baseline of 40 DAS). The maximum carryover allowance under this alternative is 13% of the total annual allocation of monkfish DAS, and 17% of the DAS allowed in the SFMA. This alternative was recommended by the PDT in Framework 4, but was not recommended by the Councils.

3.2.3 DAS Carryover Alternative 3 – no action

Under this alternative, vessels would continue to be able to carryover up to **10** unused monkfish DAS, based on the higher allocation of DAS in the two management areas, currently 31 (if a vessel fishes 30 DAS, it would only be able to carryover 1 DAS, not 10, as it would if the rule were based on a baseline of 40 DAS). The maximum carryover allowance under this alternative is 30% of the total annual allocation of monkfish DAS, and 43% of the DAS allowed in the SFMA.

3.3 Gillnet 3-hour Rule Alternatives

Monkfish gillnet vessels that run 3 hours or less on their DAS clock are only charged for time used, and if they go over 3 hours, they are charged 15 hours, or time used beyond 15 hours. Based on reports and public comment that when the monkfish are close enough to shore some gillnet vessels are making trips of less than three hours (to avoid the automatic 15-hour rule) and landing a day's worth of monkfish under the trip limit. In some cases, these vessels are reportedly landing multiple trips in one calendar day. This problem is exacerbated by the required use of VMS on Category C and D permits with a multispecies permit, because the DAS clock does not start until the vessel crosses the demarcation line, rather than when the vessel leaves port. Some vessels allegedly steam considerable distances inshore of the demarcation line, and then cross the line in the immediate vicinity of their gear to minimize the DAS clocked by the VMS.

All but one PDT member recommend Alternative 1, while one member supports Alternative 2. The Regional Administrator, in her October 22 letter to the Committee Chairman, commented that from an enforcement perspective, Alternative 2 is preferable, but noted it does not effectively address the purpose of the measure because vessels could still avoid the 15-hour charge. The RA recommended a variation that would eliminate the 3-hour exemption for VMS vessels and reducing it for non-VMS vessels. At the October 23rd meeting, the AP supported

Alternative 1, and commented that if a vessel needs to return to port within three hours but with fish on board, the vessel should contact enforcement and be charged 15 hours. The AP also noted that since the practice of landing within three hours has been going on in some areas since the inception of the plan, the reduction in landings should be translated into a recalculation of DAS allocations and trip limits. Considering these recommendations and other comments, the Committee revised the draft version of Alternative 3 (as described in Alternative 3, Option A, below), which it recommended to the Councils. At the November New England Council meeting, in response concerns about the enforceability of Alternative 3, the NEFMC revised the alternative, and eliminated the language pertaining to contacting enforcement, which became Alternative 3 Option B. The Councils recommend adoption of Alternative 3 Option B.

3.3.1 Gillnet 3-hour Rule Alternative 1

Under this alternative, vessels that return to port within 3 hours of starting a trip would be prohibited from landing monkfish.

3.3.2 Gillnet 3-hour Rule Alternative 2

Under this alternative, vessels that return to port within 3 hours of starting a trip would be allowed to land monkfish (one DAS trip limit), but could only do so once per calendar day.

3.3.3 Gillnet 3-hour Rule Alternative 3

3.3.3.1 Gillnet 3-hour Rule Alternative 3 Option A

Under this alternative all gillnet monkfish trips less than 15 hours would be counted as 15 hours. Vessels returning to port under three hours without landings should contact enforcement prior to the close of the next business day to get their DAS corrected to time used.

3.3.3.2 Gillnet 3-hour Rule Alternative 3 Option B (proposed action)

Under this alternative all gillnet monkfish trips less than 15 hours would be counted as 15 hours.

3.3.4 Gillnet 3-hour Rule Alternative 4 – no action

Under this alternative, vessels that return to port within 3 hours of starting a trip would be allowed to land monkfish, and could make multiple 3-hour trips in any calendar day or 24-hour period.

3.4 Large-mesh Incidental Limit Alternatives

In the original FMP, vessels not on a monkfish, multispecies or scallop DAS, and fishing with mesh that complied with the area-based large mesh regulations, were provided with a 5% monkfish incidental catch limit. In the Mid-Atlantic RMA, the applicable large mesh rule was the summer flounder mesh size, while in all areas east of 72°30'W, "large mesh" referred to multispecies regulated mesh. In Amendment 2, the Councils adopted a 450 lb. cap on vessels fishing under the 5% incidental limit west of 72°30'W. The rationale for the cap was that this was the trip limit (on a per-DAS basis) applicable in some years to vessels in the directed monkfish fishery in the SFMA, and it would not be equitable to allow an incidental limit that is greater than the directed trip limit.

In response to reports that vessels fishing for bait skate in the SNE RMA, using mesh larger than the multispecies minimum size, are targeting monkfish under the 5% rule, the Council is considering modifying the rule to preserve the "incidental catch" aspect of this allowance but removing the incentive to target monkfish while not under a DAS. At the October 3 meeting, the Committee had defined Large-Mesh Incidental Catch Limit Alternative 1 as placing a 450 lb. tail weight limit on vessels fishing in the Southern New England Regulated Mesh Area, with large mesh and not on a monkfish, scallop or multispecies DAS. The PDT supported Alternative 1. The AP also supported Alternative 1 but expressed concern with size of the limit because it is equivalent to the limit for limited access monkfish vessels, and stated a preference for a lower limit consistent with the incidental limit in other fisheries, which is 50 lbs. per day to a maximum of 150 lbs. The Committee subsequently adopted the recommendation of the AP and revised Alternative 1 to include the lower cap.

In preparing the NEFMC meeting draft of this document, incorporating the Committee's recommendations, the staff realized that the recommended alternative raises another issue, that is, that the lower recommended limit of 50 lbs. creates an inconsistency between the MA RMA and the SNE RMA. This issue may not be problematic, since vessels fishing for fluke in the MA RMA are under restrictive fluke trip limits where the 5% rule would keep monkfish catches below the 450 lb. limit. Reportedly, those vessels also target other species on those trips, potentially increasing the "total amount of fish on board", but they are using small mesh, under which rule they are also limited to 50 lbs. This is in contrast to vessels in the skate fishery which are fishing exclusively with large mesh, but have no limit on the amount of skate they can land. In order to accommodate the possibility that further deliberation of this issue may result in a reconsideration of the Committee's recommendation, the staff included both caps, with the 450 lb. cap being Alternative 1, Option A, and the 50 lb. cap being Alternative 1 Option B.

In considering recommending Alternative 1 Option B, the NEFMC also recognized that vessels fishing under a skate bait LOA in the area between 72°30'W and 74°00' (the western boundary of the SNE RMA) would still be under the 450 lb. cap. The NEFMC clarified its intent, by adding language that would apply the lower cap to vessels fishing under a Skate Bait LOA throughout the SNE RMA. This is the alternative recommended by the Councils.

3.4.1 Large-mesh Incidental Limit Alternative 1

Under this alternative, vessels fishing with large mesh in the SNE Regulated Mesh Area as defined in the multispecies regulations, but not on a monkfish, scallop or multispecies DAS would be allowed to retain monkfish equal to 5% of the total weight of fish on board, but would have a cap on the total amount of monkfish, under one of the options below.

3.4.1.1 Large-Mesh Incidental Limit, Alternative 1 Option A

Under this alternative, vessels fishing with large mesh in the SNE Regulated Mesh Area as defined in the multispecies regulations, but not on a monkfish, scallop or multispecies DAS would be allowed to retain monkfish equal to 5% of the total weight of fish on board, not to exceed 450 pounds (tail weight).

3.4.1.2 Large-Mesh Incidental Limit, Alternative 1 Option B (proposed action)

Under this alternative, vessels fishing with large mesh as defined in the multispecies regulations in the SNE Regulated Mesh Area east of 72°30'W, but not on a monkfish, scallop or multispecies DAS, or vessels fishing under a Skate Bait Letter of Authorization in the SNE Regulated Mesh Area east of 74°00'W, would be allowed to retain monkfish equal to 5% of the total weight of fish on board, not to exceed 50 pounds (tail weight) per day, to a maximum of 150 lbs.. This is the recommendation of the Monkfish Committee and Advisory Panel.

3.4.2 Large-mesh Incidental Limit Alternative 2 – no action

Under this alternative, vessels fishing with large mesh in the SNE Regulated Mesh Area as defined in the multispecies regulations, but not on a monkfish, scallop or multispecies DAS would be allowed to retain monkfish equal to 5% of the total weight of fish on board, with no maximum limit.

3.5 Letter of Authorization (LOA) Alternatives

The revised VMS screens and IVR DAS call-in protocol enable vessels to declare the management area that they are fishing in when declaring a monkfish DAS. As a result, several industry members have proposed to the NMFS Regional Office that the LOA requirement is unnecessary and should be eliminated. The Councils are considering this proposal, and are seeking comment from affected enforcement and NMFS staff, in addition to public comment on this matter.

Most PDT members recommend Alternative 1, but have some reservations about potential efforts shifts and the reliance on the VMS for area declaration. At least one member recommends Alternative 2 for the reasons the others have reservations in their support of Alternative 1. The AP supported LOA Alternative 1 for vessels with a VMS, but agreed that the LOA requirement be retained for vessels that are not using a VMS. Under LOA Alternative 1, the requirement to obtain a letter of authorization (LOA) to fish in the NFMA would be eliminated. This position is consistent with the suggestion of the Regional Administrator in an October 22 correspondence. The Councils and Committee recommend Alternative 1 with the clarification recommended by the AP.

3.5.1 LOA Alternative 1 (proposed action)

Under this alternative, the requirement to obtain a letter of authorization (LOA) to fish in the NFMA would be eliminated for vessels using a VMS, but would be retained for non-VMS vessels.

3.5.2 LOA Alternative 2 – no action

Under this alternative, vessels fishing in the NMFA must so declare, for a period of at least 7 days, by obtaining the Letter of Authorization from the Regional Adminiatrator. Otherwise, the vessel will be presumed to be fishing in the SFMA, under the more restrictive trip limits and/or incidental catch limits in that area.

4.0 Affected Environment (2006 SAFE Report)

A map showing the area covered by the monkfish FMP, including the NFMA and SFMA boundary and three-digit statistical areas is provided in Figure 1 for reference. The Council prepares annually a Stock Assessment and Fishery Evaluation (SAFE) Report that contains

updated information on the resource status and human environment. Since this Affected Environment section of the NEPA document contains the same information that is provided in the SAFE Report, it will serve as the SAFE Report for the 2006 fishing year. The 2006 fishing year is the most recent year for which complete information is available.

4.1 Biological Environment

This section supplements and updates the biological environment described in the FSEIS for Amendment 2.

4.1.1 Monkfish stock status

4.1.1.1 Stock Assessment (SAW 40)

The Northeast Fisheries Science Center (NEFSC) held a monkfish stock assessment in the fall of 2004 (SAW 40). The data used in the 2004 assessment included NEFSC research survey data, data from the 2001 and 2004 Cooperative Monkfish Surveys, commercial fishery data from vessel trip reports, dealer landings records, and observer data. In summary, the Stock Assessment Review Committee concluded:

> *Based on existing reference points, the resource is not overfished in either stock management area (north or south). Fishing mortality rates (F) estimated from NEFSC and Cooperative survey data are currently not sufficiently reliable for evaluation of F with respect to the reference points.*

With respect to recruitment, the report noted evidence of increased recruitment in the NFMA during the 1990s, particularly for the 1999 year class. Conversely, the SAW 40 report noted that in the SFMA, recruitment appears to have fluctuated without trend during the 1990s. However, there are some indications that the 2002 year class in the SFMA may be above average.

In regards to estimates of stock biomass, the SAW 40 report noted that the 3-year moving average (2001-2003) of the survey index was above $B_{threshold}$ in the NFMA and equivalent to $B_{threshold}$ in the SFMA. Due to the timing of data availability, the assessment was not able to use 2004 cooperative survey trawl efficiency analysis to calculate swept area biomass estimates. These estimates were finalized in 2006, however, as part of NEFSC's Cooperative Survey Review.

4.1.1.2 2006 Fall Survey Results

The FMP currently uses the NMFS fall bottom trawl survey to determine monkfish stock status (biomass) relative to management reference points. To smooth out year-to-year variability in the survey, a three-year running average is used to evaluate the stock against the MSY proxy target, and minimum biomass reference points. In 2007, the NEFSC recalculated survey indices using a new algorithm with a higher degree of precision that accommodated the higher measurement precision obtained by the Fisheries Scientific Computing System (FSCS). As a result of the recalculation, the values of the Biomass threshold and targets were modified slightly. The previous and updated indices and reference point values are shown in Table 3 and Table 4, respectively. As shown in both tables, the northern and southern stock components are below the

minimum biomass threshold, and are, therefore, overfished. This is a change of status from 2004 when both stocks were not overfished.

kg/tow	2000	2001	2002	2003	2004	2005	2006	3-yr. Ave.	Bthreshold	Btarget
NFMA	2.495	2.048	2.103	1.925	0.638	1.078	1.066	0.927	1.25	2.5
SFMA	0.477	0.708	1.253	0.828	0.742	0.765	0.807	0.771	0.92	1.85

Table 3 2000 – 2006 NMFS autumn bottom trawl survey indices of monkfish abundance and biomass reference points (pre-recalculation).

kg/tow	2000	2001	2002	2003	2004	2005	2006	3-yr. Ave.	Bthreshold	Btarget
NFMA	2.495	2.070	2.320	2.723	0.626	1.623	1.042	1.097	1.302	2.604
SFMA	0.477	0.712	1.315	0.827	0.969	0.804	0.834	0.869	0.924	1.848

Table 4 2000 – 2006 NMFS autumn bottom trawl survey indices of monkfish abundance and biomass reference points after 2007 recalculation.

Framework 2, adopted in 2003, established a method for evaluating on an annual basis the rebuilding progress of the fishery. That method compares the three-year running average of the biomass index to annual biomass targets which are ten equal increments between the 1999 observed value (at the start of the 10-year rebuilding program) and the 2009 target (Btarget). The relationship of the observed 3-year average to the annual target value is applied to the previous year's landings to set target TACs for the upcoming year. The annual targets and the 1999-2006 observed values (pre-recalculation) are shown in Figure 2 and Figure 3 for the NFMA and SFMA, respectively. The biomass indices remained below the minimum biomass threshold in 2006. While the values of the reference points and the observed indices changed slightly with the 2007 recalculation, the effect in terms of stock status is unchanged. The status based on pre-recalculation data is shown in Figure 4 and Figure 5, for NFMA and SFMA, respectively. The fall survey time series biomass and abundance indices for northern and southern areas are shown in Figure 6 and Figure 7, respectively.

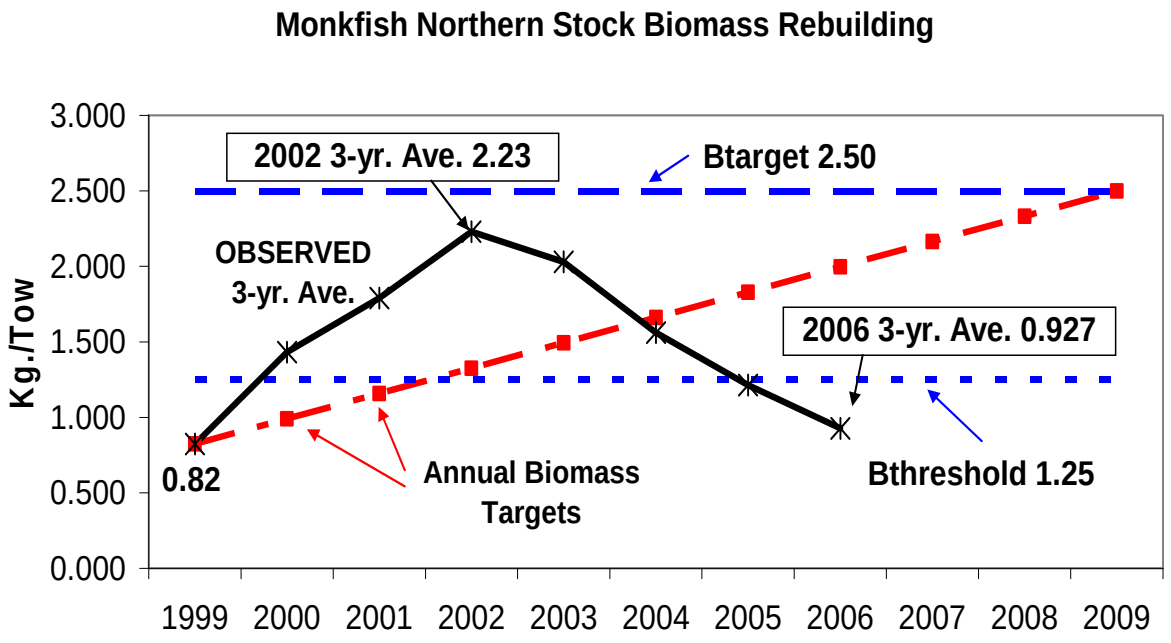


Figure 2 - NFMA biomass index (2006 three-year running average) relative to annual rebuilding targets.

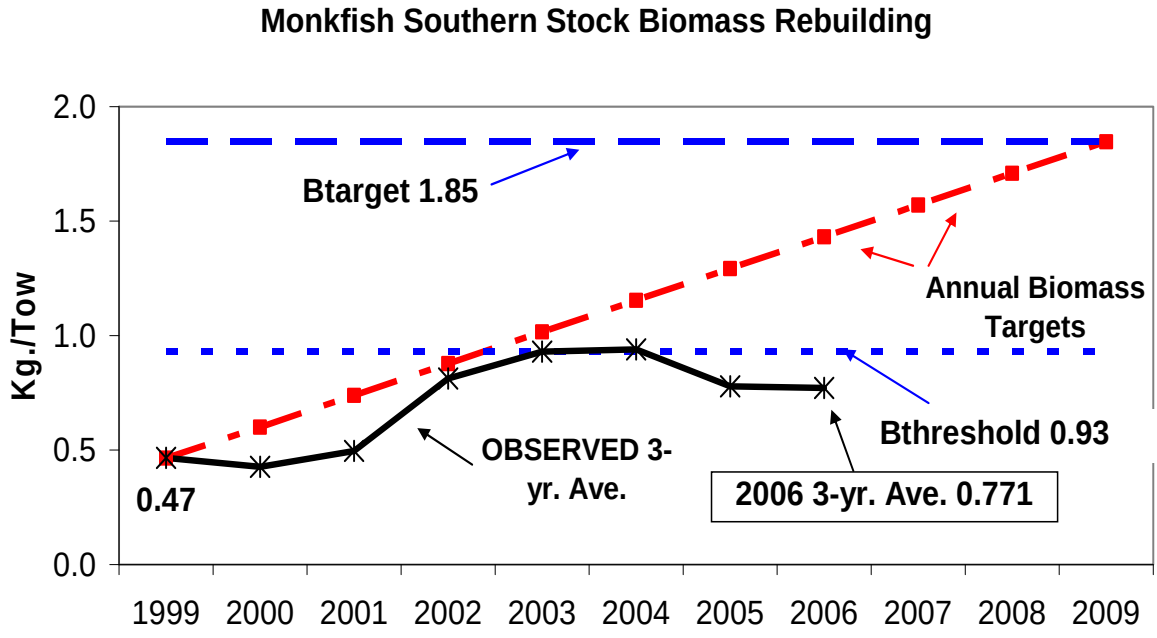


Figure 3 - SFMA biomass index (2006 three-year running average) relative to annual rebuilding targets.

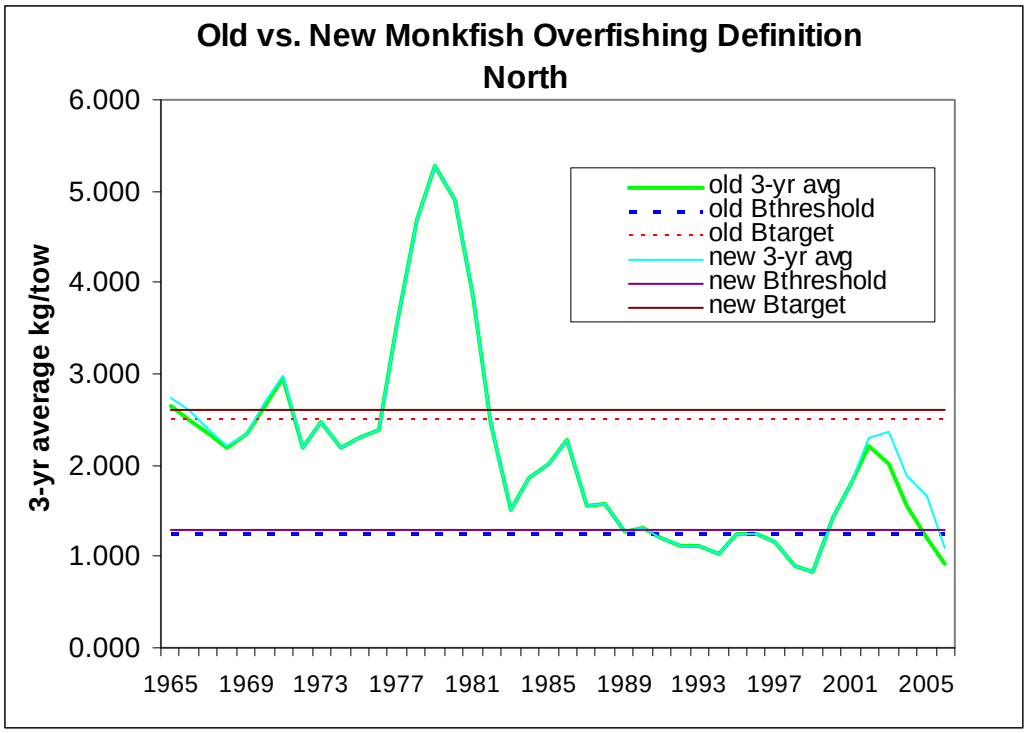


Figure 4 Comparison of observed indices and reference points using original and recalculated survey index values for the Northern area

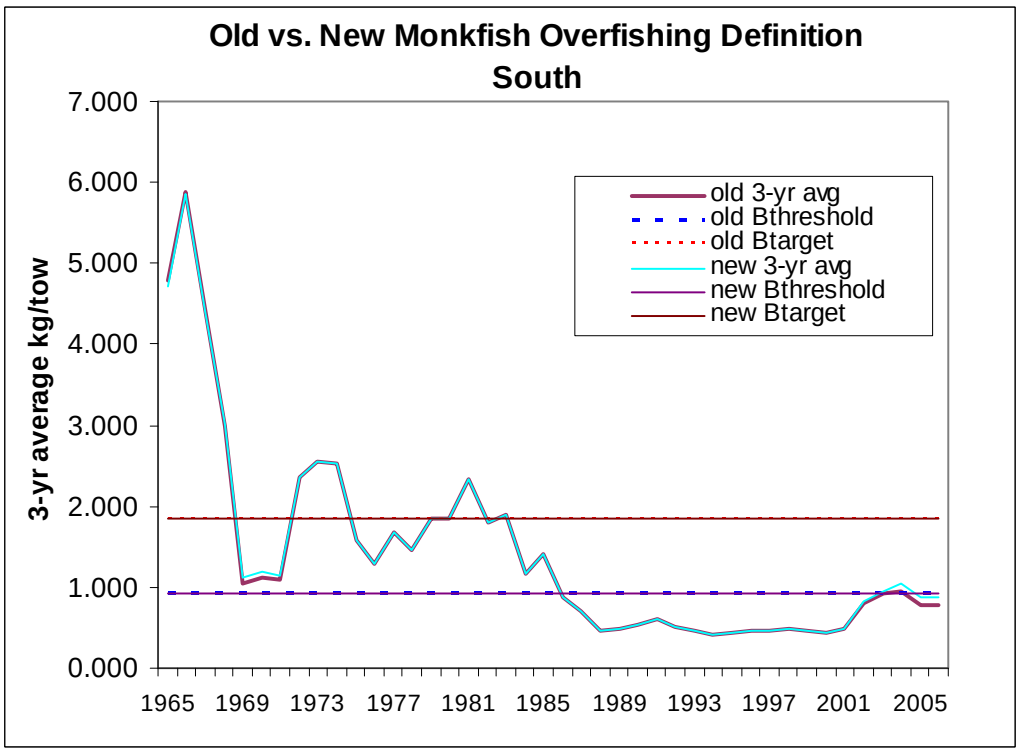
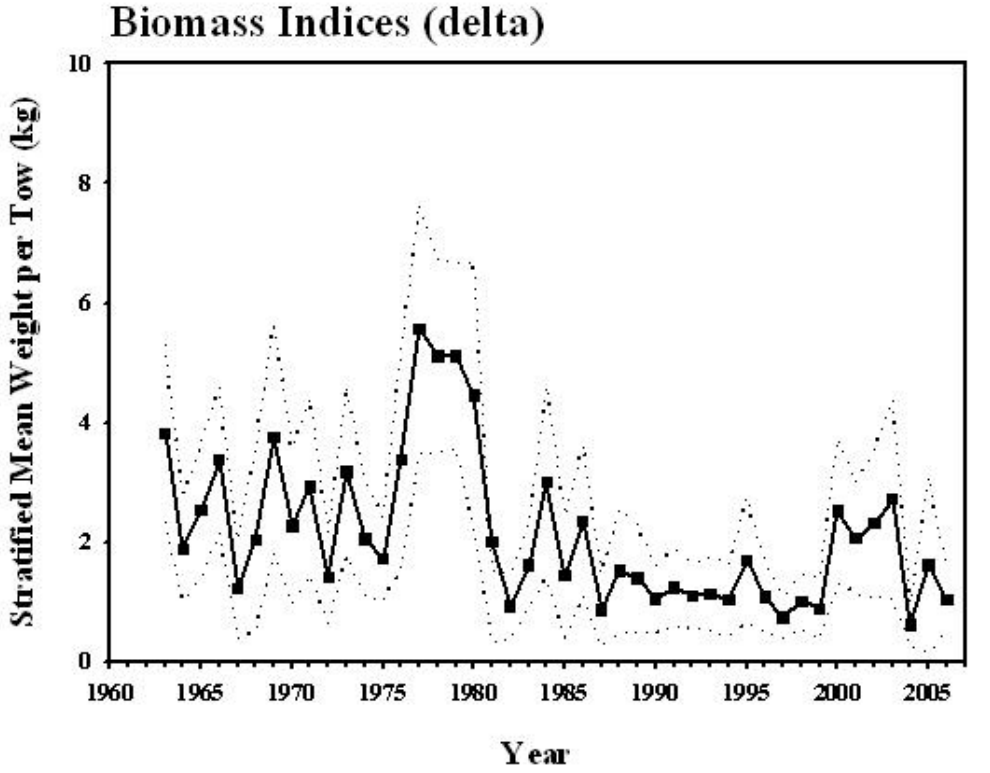


Figure 5 Comparison of observed indices and reference points using original and recalculated survey index values for the Southern area



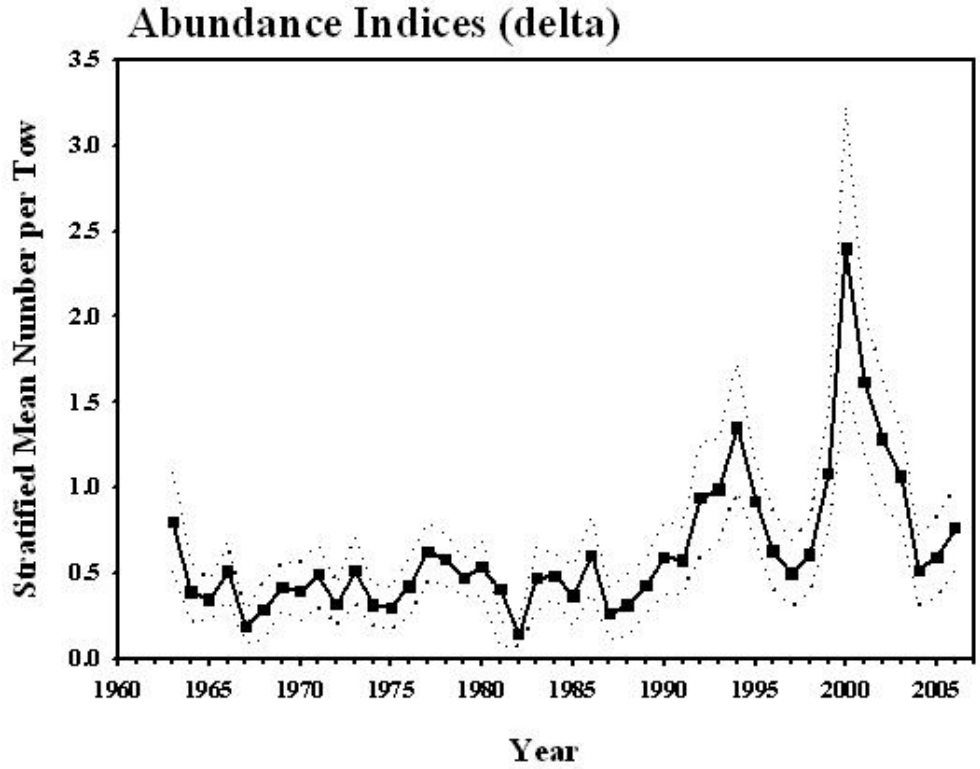
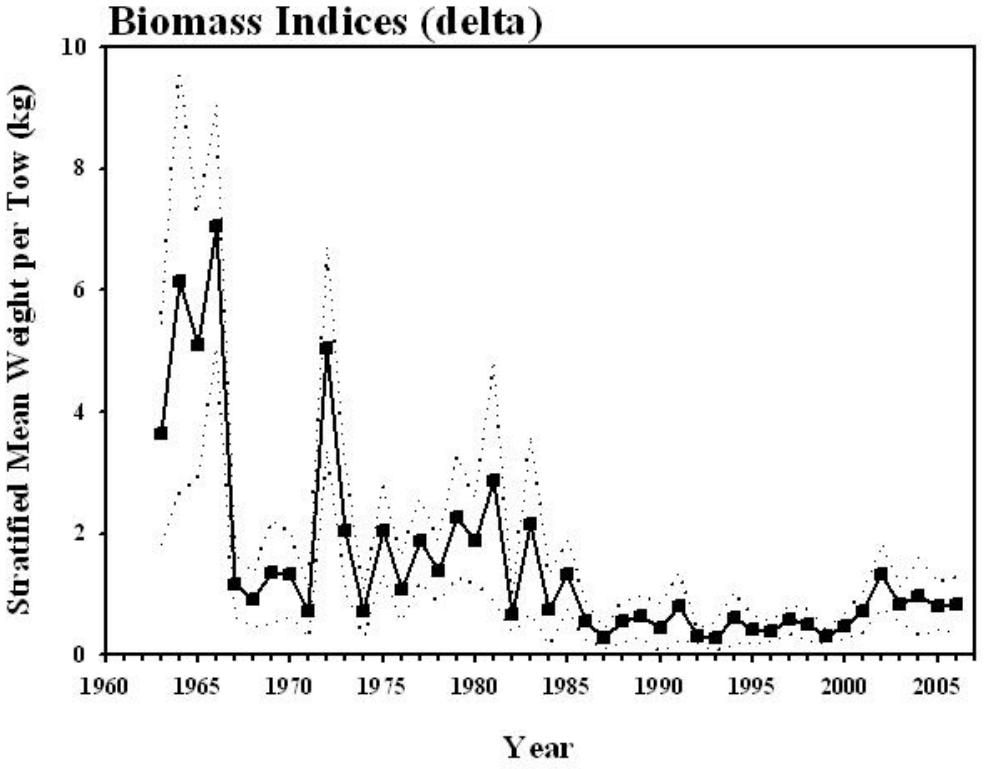


Figure 6 NFMA Fall Survey Biomass and abundance indices 1963-2006



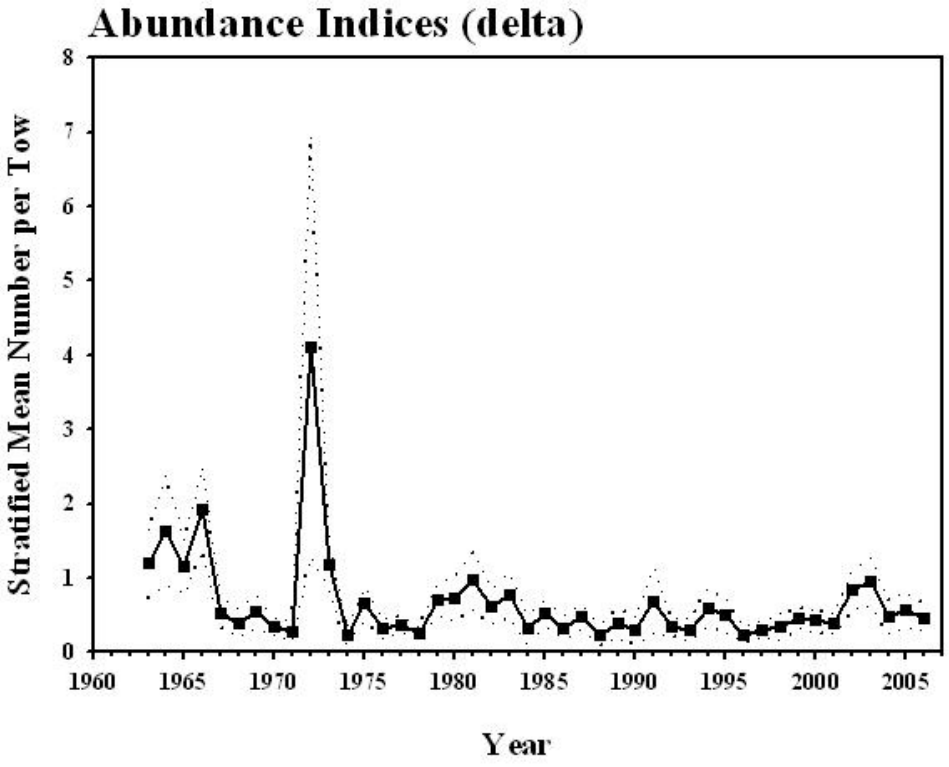


Figure 7 SFMA Fall Survey Biomass and abundance indices 1963-2006

4.1.1.3 Northeast Data Poor Stocks Working Group Assessment 2007

In July, 2007, the Northeast Data Poor Stocks Working Group (DPWG) completed an assessment of monkfish. The Summary Assessment Report is attached as Appendix I. The DPWG concluded that based on existing biomass reference points, the resource would be considered overfished in both northern and southern areas. The DPWG developed and recommended new reference points based on a revised yield-per-recruit analysis (using a revised value of natural mortality, M), and results of a length-tuned model that incorporates multiple survey indices and catch data. Based on these new reference points and estimates of current biomass, monkfish in both management areas are above the biomass target (i.e., are "rebuilt"), and overfishing is not occurring, Table 5.

	B_{2006} (mt)	B_{target} (mt)	$B_{threshold}$ (mt)
NFMA	118,700	92,200	65,200
SFMA	135,500	122,500	96,400
B_{target} = average of total biomass 1980 – 2006			
$B_{threshold}$ = lowest value of total biomass 1980 – 2006			

Table 5 DPWG estimates of 2006 biomass and recommended biomass reference points

The assessment report cautions, however, that while the development of a new analytic model is a significant advance, there is substantial uncertainty in the assessment, and the results need to be viewed with caution. Reservations stem from: (a) uncertainty about model inputs, including unknown or under-reported catch data, particularly early in the period, and an incomplete understanding of key biological parameters such as age and growth, longevity, natural mortality and stock structure; (b) the shorter assessment data time series, starting in 1980 rather than 1963, as in prior assessments; and (c) the relatively recent development of the assessment model.

4.1.2 Marine Mammals and Protected Species

The following protected species are found in the environment utilized by the monkfish fishery. A number of them are listed under the Endangered Species Act of 1973 (ESA) as endangered or threatened, while others are identified as protected under the Marine Mammal Protection Act of 1972 (MMPA). Two right whale critical habitat designations are located in the area in which the monkfish fishery is prosecuted. The information provided here is summary of the full descriptions provided in the Amendment 2 FSEIS. Actions taken to minimize the interaction of the fishery with protected species are described in Section 1.2.2.2 of this document.

Cetaceans	***Status***
Northern right whale (*Eubalaena glacialis*)	Endangered
Humpback whale (*Megaptera novaeangliae*)	Endangered
Fin whale (*Balaenoptera physalus*)	Endangered
Blue whale (*Balaenoptera musculus*)	Endangered
Sei whale (*Balaenoptera borealis*)	Endangered
Sperm whale (*Physeter macrocephalus*)	Endangered
Minke whale (*Balaenoptera acutorostrata*)	Protected
Pilot whale (*Globicephala* spp.)	Protected

Spotted dolphin (*Stenella frontalis*)	Protected
Risso's dolphin (*Grampus griseus*)	Protected
White-sided dolphin (*Lagenorhynchus acutus*)	Protected
Common dolphin (*Delphinus delphis*)	Protected
Bottlenose dolphin: coastal stocks (*Tursiops truncatus*)	Protected
Harbor porpoise (*Phocoena phocoena*)	Protected
Seals	
Harbor seal (*Phoca vitulina*)	Protected
Gray seal (*Halichoerus grypus*)	Protected
Harp seal (*Phoca groenlandica*)	Protected
Hooded seal (*Crystophora cristata*)	Protected
Sea Turtles	
Leatherback sea turtle (*Dermochelys coriacea*)	Endangered
Kemp's ridley sea turtle (*Lepidochelys kempii*)	Endangered
Green sea turtle (*Chelonia mydas*)	Endangered*
Loggerhead sea turtle (*Caretta caretta*)	Threatened
Fish	
Shortnose sturgeon (*Acipenser brevirostrum*)	Endangered
Atlantic salmon (*Salmo salar*)	Endangered
Critical Habitat Designations	
Right whale Cape Cod Bay	
Great South Channel	

**Green turtles in U.S. waters are listed as threatened except for the Florida breeding population which is listed as endangered.*

Although salmon belonging to the Gulf of Maine distinct population segment (DPS) of Atlantic salmon occur within the general geographical area covered by the Monkfish FMP, they are unlikely to occur in the area where the fishery is prosecuted given their numbers and distribution. Therefore, the DPS is not likely to be affected by the monkfish fishery. Similarly, there is no evidence to suggest that operation of the monkfish fishery has any adverse effects on the habitat features (e.g., copepod abundance) in the specific areas designated as right whale critical habitat. Therefore, operation of the monkfish fishery is not expected to have effects on critical habitat for right whales that has been designated for Cape Cod Bay and the Great South Channel.

It is expected that all of the remaining species identified have the potential to be affected by the operation of the monkfish fishery. However, given differences in abundance, distribution and migratory patterns, it is likely that any effects that may occur, as well as the magnitude of effects when they do occur, will vary among the species. Summary information is provided here that describes the general distribution of cetaceans, pinnipeds, and sea turtles within the management area for the Monkfish FMP as well as the known interactions of gear used in the monkfish fishery with these protected species. Additional background information on the range-wide

status of marine mammal and sea turtle species that occur in the area can be found in a number of published documents. These include sea turtle status reviews and biological reports (NMFS and USFWS 2007; Hirth 1997; USFWS 1997; Marine Turtle Expert Working Group (TEWG) 1998 & 2000), recovery plans for Endangered Species Act-listed sea turtles and marine mammals (NMFS 1991; NMFS and USFWS 1991a; NMFS and USFWS 1991b; NMFS and USFWS 1992; NMFS 1998; USFWS and NMFS 1992; NMFS 2005), the marine mammal stock assessment reports (*e.g.*, Waring *et al*. 2006), and other publications (*e.g.*, Clapham *et al.* 1999; Perry *et al.* 1999; Wynne and Schwartz 1999; Best *et al.* 2001; Perrin *et al*. 2002). Additionally, the Center for Biological Diversity and the Turtle Island Restoration Network has recently filed a petition to reclassify loggerhead turtles in the North Pacific Ocean as a distinct population segment (DPS) with endangered status and designate critical habitat under the ESA (72 *Federal Register* 64585; November 16, 2007). While this petition is geared toward the North Pacific, the possibility exists that it could affect status in other areas. NMFS has found that the petition presents substantial scientific information that the petition action may be warranted, and has published a notice and request for comments, available at: http://www.nmfs.noaa.gov/pr/pdfs/fr/fr72-64585.pdf.

Sea Turtles

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. 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).

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 6, provides the most recent information on observed turtle interactions with the monkfish fishery for the period 2003 – Nov. 2007. The data have not been analyzed with respect to trends or impact of effort controls and/or sea turtle closures relative to monkfish fishery. Gillnet gear is the most prevalent gear used in the SFMA 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 6 Turtle Interactions in Gillnet Gear Targeting Monkfish, 2003-Nov. 2007.
Source: NEFSC Observer Data

Large Cetaceans (Baleen Whales and Sperm Whale)
The western North Atlantic baleen whale species (Northern right, humpback, fin, sei, and minke) follow a general annual pattern of migration from high latitude summer foraging grounds, including the Gulf of 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. 2006). 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).

In comparison to the baleen whales, sperm whale distribution occurs more on the continental shelf edge, over the continental slope, and into mid-ocean regions (Waring *et al*. 2005). However, sperm whales distribution in U.S. EEZ waters also occurs in a distinct seasonal cycle (Waring *et al*. 2006). 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*. 2005). Distribution extends further northward to areas north of Georges Bank and the Northeast Channel region in summer and then south of New England in fall, back to the Mid-Atlantic Bight (Waring *et al.* 1999).

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*. 2006). However, it is often not possible to attribute the gear to a specific fishery.

Small Cetaceans (Dolphins, Harbor Porpoise and Pilot Whale)
Numerous small cetacean species (dolphins, pilot whales, harbor porpoise) occur within the area from Cape Hatteras through the Gulf of Maine. Seasonal abundance and distribution of each species in Mid-Atlantic, Georges Bank, and/or Gulf of Maine 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 dolphins). Information on the western North Atlantic stocks of each species is summarized in Waring *et al*. (2006). Small cetaceans are known be captured in gillnet and trawl gear (Waring *et al*. 2006).

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 (610 animals/year from 2001-2005) 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). The Harbor Porpoise Take Reduction Team is currently developing options to reduce takes.

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). Grey seals are the second most common seal species in U.S. EEZ waters, occurring primarily in New England (Katona *et al.* 1993; Waring *et al*. 2006). Pupping colonies for both species are also present in New England, although the majority of pupping occurs in Canada. Harp and hooded seals are less commonly observed in U.S. EEZ waters. Both species form aggregations for pupping and breeding off of eastern Canada in the late winter/early spring, and then travel to more northern latitudes for molting and summer feeding (Waring *et al*. 2006). However, individuals of both species are also known to travel south into U.S. EEZ waters and sightings as well as strandings of each species have been recorded for both New England and Mid-Atlantic waters (Waring *et al*. 2006). All four species of seals are known to be captured in gillnet and/or trawl gear (Waring *et al*. 2006).

4.1.3 Status of bycatch species

Information about the absolute level of bycatch species in the directed monkfish fishery is not available, according to the EIS for Amendment 2. Nevertheless, Amendment 2 stated that winter skates and dogfish are the predominant species discarded in the NFMA monkfish fisheries, while winter and thorny skates, as well as dogfish are discarded in the SFMA. The status of these three species is summarized below:

- **Winter skate** –overfished, overfishing is not occurring
- **Thorny skate –** overfished, overfishing is not occurring,
- **Spiny dogfish** – no biomass target adopted in the FMP. but there is an approved minimum biomass threshold under which the stock would be considered not overfished, and overfishing is not occurring.

4.2 Physical Environment

The following sections summarize the physical environment of the monkfish fishery. A full description of the physical environment is provided in Section 5.2 of the FSEIS prepared for Amendment 2 to the FMP. The NFMA comprises the Gulf of Maine and most of Georges Bank, while the SFMA extends from the southern edge of Georges Bank through the Mid-Atlantic Bight (see Figure 1). As noted in the following discussion, the NFMA has a diverse physical geography consisting of shoal areas on Georges Bank and numerous rocky banks and basins of the Gulf of Maine, reflecting the influence of glaciation and post-glacial rise of sea level. The SFMA is characterized by the predominantly sandy continental shelf, and 12 deep-water canyons along the edge of the shelf. Figure 8 shows the sediment types in the Northeast, overlaid with the monkfish management areas.

4.2.1 Gulf of Maine

The Gulf of Maine (GOM) is characterized by a system of deep basins, moraines and rocky protrusions with limited access to the open ocean. The GOM is topographically unlike any other part of the continental border along the U.S. Atlantic coast. The GOM's geologic features, when coupled with the vertical variation in water properties, result in a great diversity of habitat types. It contains twenty-one distinct basins separated by ridges, banks, and swells.

Bedrock is the predominant substrate along the western edge of the GOM north of Cape Cod in a narrow band out to a depth of about 60 m. Rocky areas become less common with increasing depth, but some rock outcrops poke through the mud covering the deeper sea floor. Mud is the second most common substrate on the inner continental shelf. Mud predominates in coastal valleys and basins that often abruptly border rocky substrates. Many of these basins extend without interruption into deeper water. Gravel, often mixed with shell, is common adjacent to bedrock outcrops and in fractures in the rock. Large expanses of gravel are not common, but do occur near reworked glacial moraines and in areas where the seabed has been scoured by bottom currents. Gravel is most abundant at depths of 20 - 40 m, except in eastern Maine where a gravel-covered plain exists to depths of at least 100 m. Bottom currents are stronger in eastern Maine where the mean tidal range exceeds 5 m. Sandy areas are relatively rare along the inner shelf of the western GOM, but are more common south of Casco Bay, especially offshore of sandy beaches.

An intense seasonal cycle of winter cooling and turnover, springtime freshwater runoff, and summer warming influences oceanographic and biologic processes in the GOM. The Gulf has a general counterclockwise nontidal surface current that flows around its coastal margin that is primarily driven by fresh, cold Scotian Shelf water that enters over the Scotian Shelf and through the Northeast Channel, and freshwater river runoff, which is particularly important in the spring. GOM circulation and water properties can vary significantly from year to year. Notable episodic events include shelf-slope interactions such as the entrainment of shelf water by Gulf Stream rings and strong winds that can create currents as high as 1.1 m/s over Georges Bank. Warm core Gulf Stream rings can also influence upwelling and nutrient exchange on the Scotian shelf, and affect the water masses entering the GOM.

4.2.2 Georges Bank

Georges Bank is a shallow (3 - 150 m depth), elongate (161 km wide by 322 km long) extension of the continental shelf that is characterized by a steep slope on its northern edge and a broad, flat, gently sloping southern flank. The Great South Channel lies to the west. Bottom topography on eastern Georges Bank is characterized by linear ridges in the western shoal areas; a relatively smooth, gently dipping sea floor on the deeper, easternmost part; a highly energetic peak in the north with sand ridges up to 30 m high and extensive gravel pavement; and steeper and smoother topography incised by submarine canyons on the southeastern margin. The central region of the Bank is shallow, and the bottom is characterized by shoals and troughs, with sand dunes superimposed upon them. The area west of the Great South Channel, known as Nantucket Shoals, is similar in nature to the central region of the Bank. The Great South Channel separates the main part of Georges Bank from Nantucket Shoals. Sediments in this region include gravel pavement and mounds, some scattered boulders, sand with storm generated ripples, and scattered shell and mussel beds.

Oceanographic frontal systems separate water masses of the GOM and Georges Bank from oceanic waters south of the Bank. These water masses differ in temperature, salinity, nutrient concentration, and planktonic communities, which influence productivity and may influence fish abundance and distribution. Currents on Georges Bank include a weak, persistent clockwise gyre around the Bank, a strong semidiurnal tidal flow predominantly northwest and southeast, and very strong, intermittent storm induced currents, which all can occur simultaneously. Tidal

currents over the shallow top of Georges Bank can be very strong, and keep the waters over the Bank well mixed vertically.

4.2.3 Mid-Atlantic Bight

The Mid-Atlantic Bight includes the shelf and slope waters from Georges Bank south to Cape Hatteras, and east to the Gulf Stream. In this region, the shelf slopes gently from shore out to between 100 and 200 km offshore where it transforms to the slope (100 - 200 m water depth) at the shelf break. In both the Mid-Atlantic and on Georges Bank, numerous canyons incise the slope, and some cut up onto the shelf itself. The primary morphological features of the shelf include shelf valleys and channels, shoal massifs, scarps, and sand ridges and swales. The sediment type covering most of the shelf in the Mid-Atlantic Bight is sand, with some relatively small, localized areas of sand-shell and sand-gravel. On the slope, silty sand, silt, and clay predominate.

Sediments are uniformly distributed over the shelf in this region. A sheet of sand and gravel varying in thickness from 0 - 10 m covers most of the shelf. The sands are mostly medium to coarse grains, with finer sand in the Hudson Shelf Valley and on the outer shelf. Mud is rare over most of the shelf, but is common in the Hudson Shelf Valley. Occasionally relic estuarine mud deposits are re-exposed in the swales between sand ridges. Fine sediment content increases rapidly at the shelf break, which is sometimes called the "mud line," and sediments are 70 - 100% fines on the slope.

The northern portion of the Mid-Atlantic Bight is sometimes referred to as southern New England. Most of this area was discussed under Georges Bank; however, one other formation of this region deserves note. The mud patch is located just southwest of Nantucket Shoals and southeast of Long Island and Rhode Island. Tidal currents in this area slow significantly, which allows silts and clays to settle out. The mud is mixed with sand, and is occasionally re-suspended by large storms. This habitat is an anomaly of the outer continental shelf.

Shelf and slope waters of the Mid-Atlantic Bight have a slow southwestward flow that is occasionally interrupted by warm core rings or meanders from the Gulf Stream. On average, shelf water moves parallel to bathymetry isobars at speeds of 5 - 10 cm/s at the surface and 2 cm/s or less at the bottom. Storm events can cause much more energetic variations in flow. Tidal currents on the inner shelf have a higher flow rate of 20 cm/s that increases to 100 cm/s near inlets.

Slope water tends to be warmer than shelf water because of its proximity to the Gulf Stream, and tends to be more saline. The abrupt gradient where these two water masses meet is called the shelf-slope front. The position of the front is highly variable, and can be influenced by many physical factors. Vertical structure of temperature and salinity within the front can develop complex patterns because of the interleaving of shelf and slope waters; e.g., cold shelf waters can protrude offshore, or warmer slope water can intrude up onto the shelf.

The seasonal effects of warming and cooling increase in shallower, nearshore waters. Stratification of the water column occurs over the shelf and the top layer of slope water during the spring-summer and is usually established by early June. Fall mixing results in homogenous

shelf and upper slope waters by October in most years. A permanent thermocline exists in slope waters from 200 - 600 m deep where temperatures decrease at the rate of about 0.02ºC per meter and remain relatively constant except for occasional incursions of Gulf stream eddies or meanders. A warm, mixed layer approximately 40 m thick resides above the permanent thermocline.

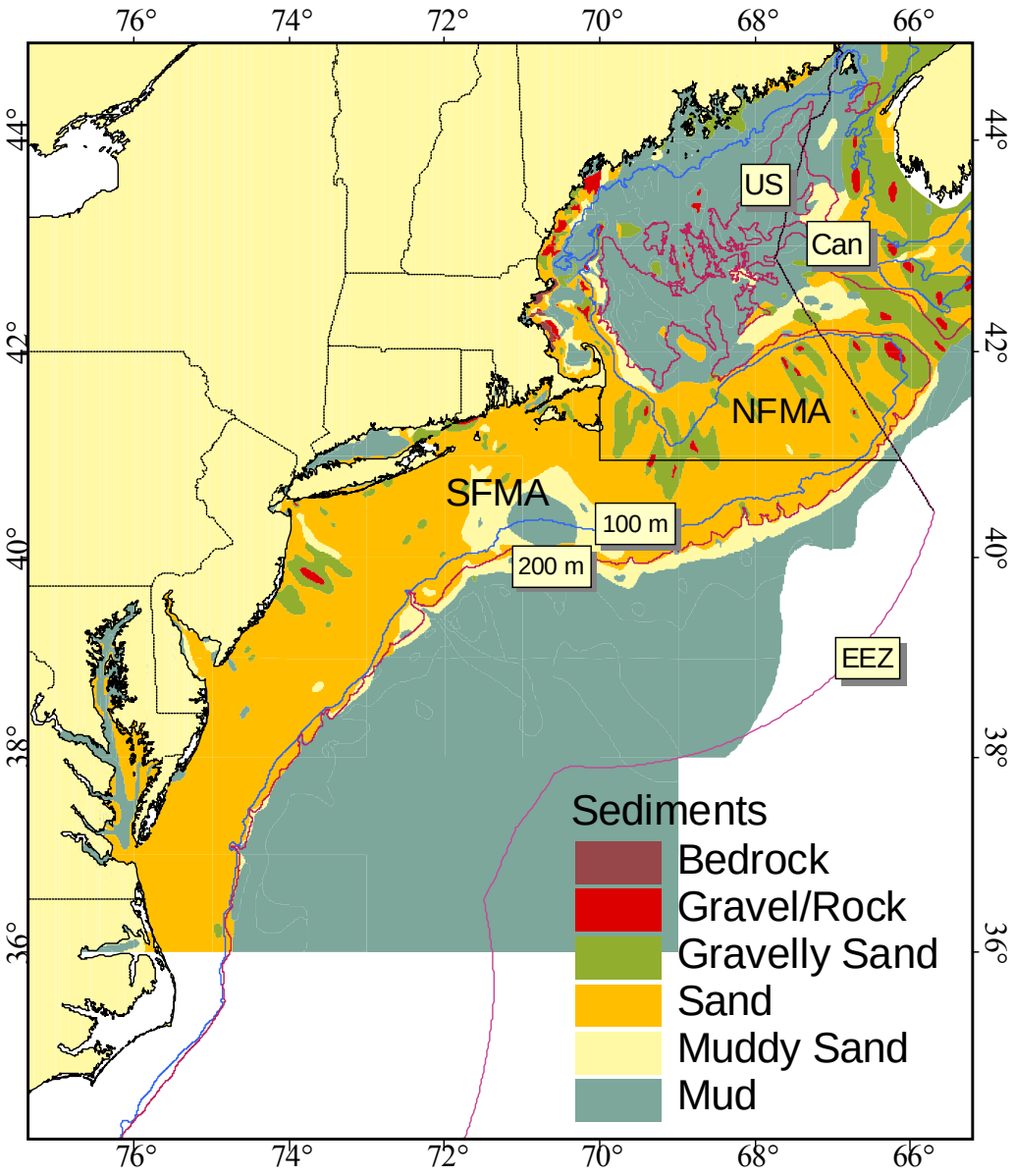


Figure 8. Overlap of sediment types and fishery management areas in Monkfish FMP (Poppe *et al*. 1989a and b).

4.3 Habitat Requirements and Gear Effects Evaluation

4.3.1 Monkfish Habitat Requirements and Essential Fish Habitat

Section 5.1 of the FSEIS to Amendment 2 described benthic habitats that exist within the range of the monkfish fishery biological characteristics of regional systems, and assemblages of fish and benthic organisms. It also included a description of canyon habitats on the edge of the continental shelf. The EFH text descriptions and map designations for the various life stages of monkfish were defined in the Habitat Omnibus Amendment (1998). The following paragraphs and maps, excerpted from the Habitat Omnibus Amendment, describe the environmental needs and natural distribution of Monkfish. For more information on Monkfish EFH refer the Habitat Omnibus Amendment (1998). Note that figures 4.1 and 4.2 (EFH for eggs and larvae) referenced in the following excerpt are not shown, and an additional figure is added, showing combined adult and juvenile monkfish EFH designations. Figure 9 shows the areas designated as EFH for juvenile monkfish (corresponding to Figure 4.3 in the excerpt), Figure 10 shows EFH designated for adult monkfish (Figure 4.4), and Figure 11 shows the combined areas designated as monkfish EFH.

Essential Fish Habitat Description
Monkfish (Lophius americanus)

In its Report to Congress: Status of the Fisheries of the United States (September 1997), NMFS determined monkfish is currently overfished. This determination is based on an assessment of stock size. Essential Fish Habitat for monkfish is described as those areas of the coastal and offshore waters (out to the offshore U.S. boundary of the exclusive economic zone) that are designated on Figures 4.1 - 4.4 and meet the following conditions:

Eggs: *Surface waters of the Gulf of Maine, Georges Bank, southern New England, and the middle Atlantic south to Cape Hatteras, North Carolina as depicted in Figure 4.1. Generally, the following conditions exist where monkfish egg veils are found: sea surface temperatures below 18° C and water depths from 15 - 1000 meters. Monkfish egg veils are most often observed during the months from March to September.*

Larvae: *Pelagic waters of the Gulf of Maine, Georges Bank, southern New England and the middle Atlantic south to Cape Hatteras, North Carolina as depicted in Figure 4.2. Generally, the following conditions exist where monkfish larvae are found: water temperatures 15° C and water depths from 25 - 1000 meters. Monkfish larvae are most often observed during the months from March to September.*

Juveniles: *Bottom habitats with substrates of a sand-shell mix, algae covered rocks, hard sand, pebbly gravel, or mud along the outer continental shelf in the middle Atlantic, the mid-shelf off southern New England, and all areas of the Gulf of Maine as depicted in Figure 4.3. Generally, the following conditions exist where monkfish juveniles are found: water temperatures below 13° C, depths from 25 - 200 meters, and a salinity range from 29.9 - 36.7‰.*

Adults: *Bottom habitats with substrates of a sand-shell mix, algae covered rocks, hard sand, pebbly gravel, or mud along the outer continental shelf in the middle Atlantic, the mid-shelf off southern New England, along the outer perimeter of Georges Bank and all areas of the Gulf of Maine as depicted in Figure 4.4. Generally, the following conditions exist where monkfish adults are found: water temperatures below 15° C, depths from 25 - 200 meters, and a salinity range from 29.9 - 36.7‰.*

Spawning Adults: *Bottom habitats with substrates of a sand-shell mix, algae covered rocks, hard sand, pebbly gravel, or mud along the outer continental shelf in the middle Atlantic, the mid-shelf off southern New England, along the outer perimeter of Georges Bank and all areas of the Gulf of Maine as depicted in Figure 4.4. Generally, the following conditions exist where spawning monkfish adults are found: water temperatures below 13° C, depths from 25 - 200 meters, and a salinity range from 29.9 - 36.7‰. Monkfish are observed spawning most often during the months from February to August.*

The Council acknowledges potential seasonal and spatial variability of the conditions generally associated with this species.

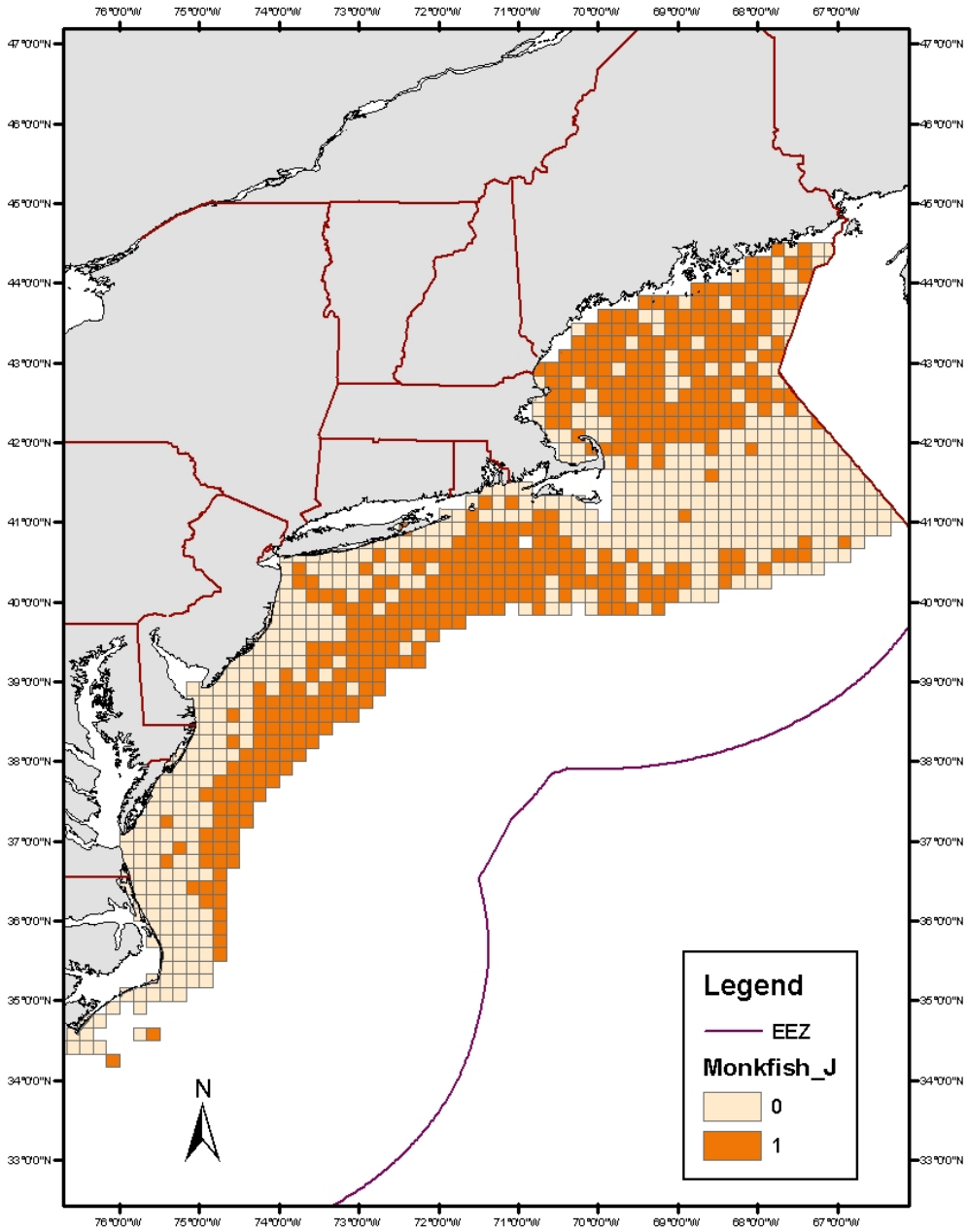


Figure 9 – EFH Designation for Juvenile Monkfish is highlighted in the shaded ten-minute squares

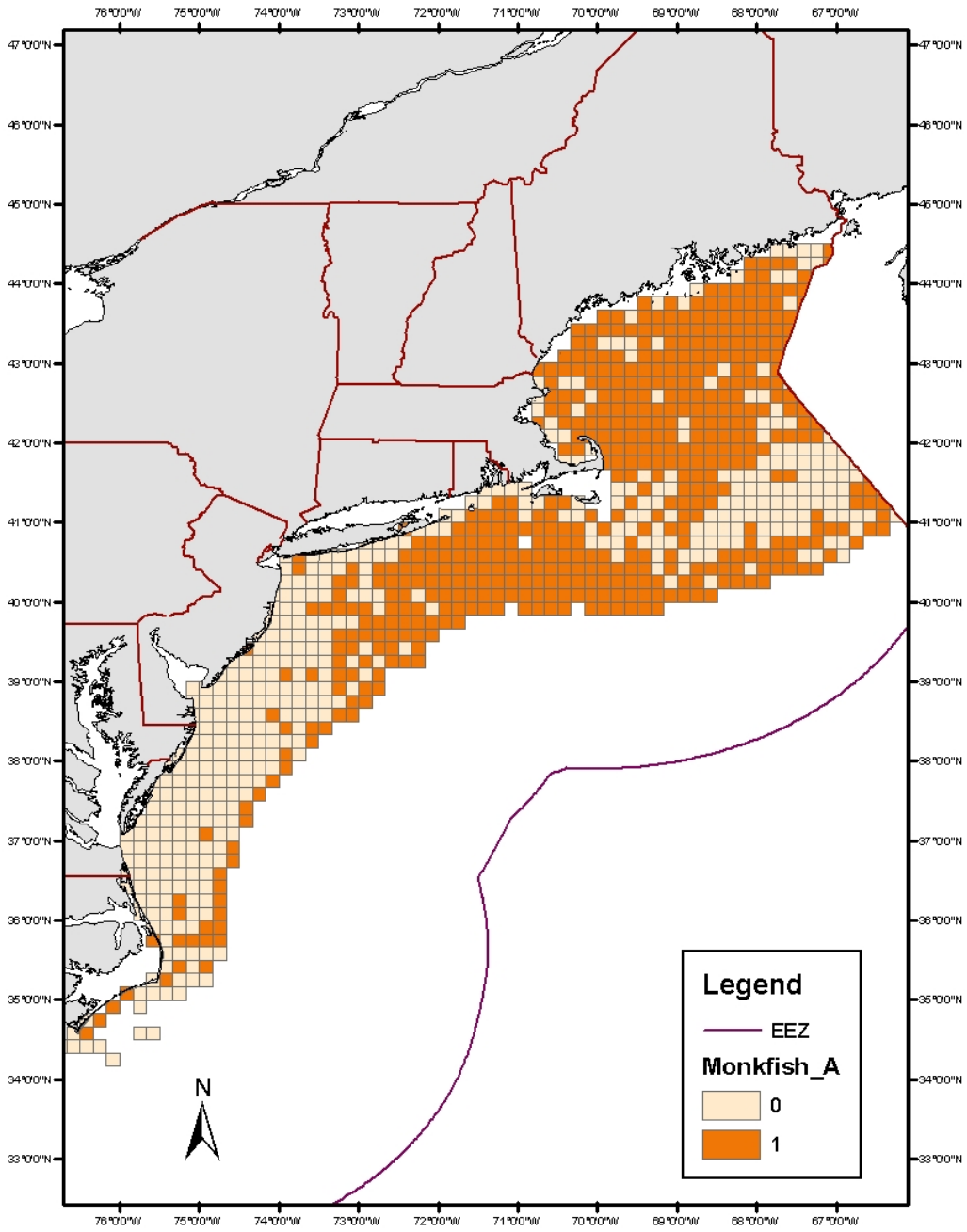


Figure 10 – EFH Designations for Adult Monkfish is highlighted in the shaded ten-minute squares

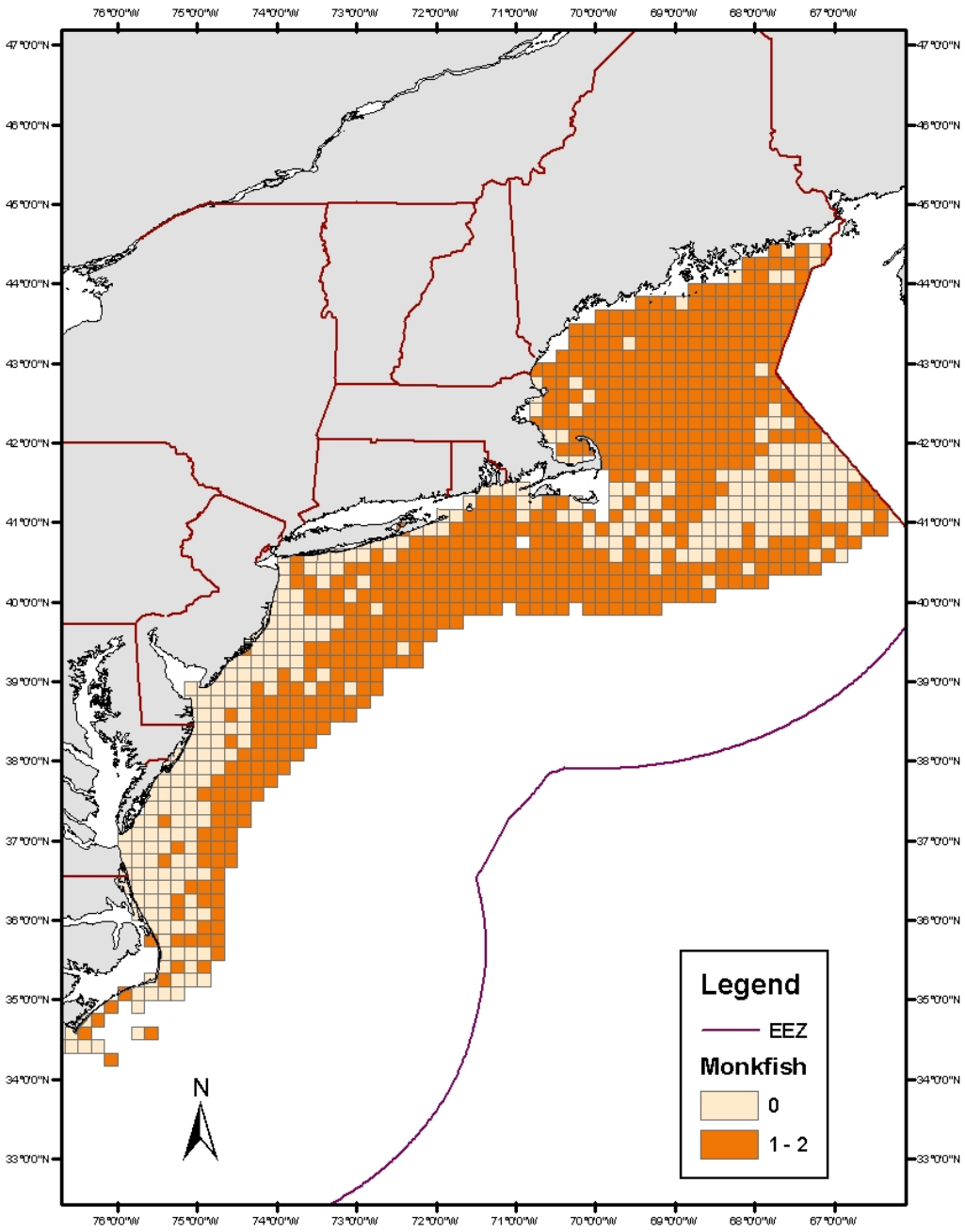


Figure 11 – EFH Designation for both Juvenile and Adult Monkfish combined is highlighted in the shaded ten-minute squares

4.3.2 Effects of fishing gear on monkfish Essential Fish Habitat

Section 5.4 of the FSEIS to Amendment 2 evaluated the potential adverse effects of gears used in the directed monkfish fishery on EFH for monkfish and other federally-managed species and the effects of fishing activities regulated under other federal FMPs on monkfish EFH. The evaluation considered the effects of each activity on each type of habitat found within EFH. The two gears used in the directed monkfish fishery are bottom trawls and bottom gill nets which are described in detail in Section 1.2.1 of Appendix 2 to Amendment 2 to the Monkfish FMP. Generally, otter trawls are towed at speeds of 2-3 knots over the bottom and the trawl doors and footrope contact the benthic environment. Conversely, while sink gill nets are deployed on the ocean bottom, they are stationary or static, anchored at each end and left in place for varying periods of time.

Monkfish EFH has been determined to only be minimally vulnerable to bottom-tending mobile gear (bottom trawls and dredges) and bottom gillnets (see Appendix II of Amendment 2 FSEIS). 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 less than 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*., in press):

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 gill nets (Stevenson *et al*., 2004).

In Amendment 13 to the Multispecies FMP and Amendment 10 to the Scallop FMP, the New England Council implemented a range of measures to minimize the impacts of bottom trawling in the Gulf of Maine, George's Bank and Southern New England. In addition to the significant reductions in days-at-sea and some gear modifications, in Amendment 13 the Council closed 2,811 square nautical miles to bottom-tending mobile fishing gear (known as Habitat Closed Areas). Because the monkfish fishery overlaps significantly with the groundfish fishery in the northern fishery management area and the habitat closed areas extend into the southern fishery management area, measures to protect habitat in Amendment 10 and Amendment 13 assist in minimizing the effect of fishing on EFH in the monkfish fishery.

The alternatives implemented in Amendment 2 focus on those areas (offshore/shelf slope/canyons) and gears modifications (trawl mesh) where the monkfish fishery operations do not overlap (spatially or gear use) with the groundfish or scallop fishery. The Councils closed Oceanographer and Lydonia Canyons deeper than 200 meters, a total closure of 116 square nautical miles, to vessels on a monkfish DAS to minimize the impacts of the directed monkfish fishery on deepwater canyon, hard bottom communities. These two canyon areas are outside the range of the multispecies and scallop fisheries, but could be areas in which, or adjacent to where deep-water monkfish fisheries occur.

4.4 Human Environment, Vessels, Ports and Communities

This section updates information provided in the annual SAFE Report for the Monkfish FMP, adding data for the 2006 fishing year.

4.4.1 Vessels and Fishery Sectors

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

4.4.1.1 Permits

In 2006, there were 765 monkfish limited access vessels, of which 348 were Category C permits holding limited access permits in either a Multispecies (60%) or Scallop (47%) fisheries, and 357 were Category D permits, primarily (99%) holding limited access Multispecies permits (Table 7). Overall, 74% of monkfish limited access permit holders also hold multispecies limited access permits. Vessels in all four primary monkfish permit categories also hold limited access permits in a number of New England and Mid-Atlantic fisheries. Since Amendment 2, there are also 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	LOBSTER	MULTI-SPECIES	OCEAN QUAHOG	RED CRAB	SCALLOP	SCUP	SQUID/ MACKEREL/ BUTTERFISH	TILEFISH
A	14	7	2	6	0	0	0	0	5	1	1
B	39	22	7	17	1	0	0	0	13	0	4
C	348	131	261	285	210	0	0	165	150	111	1
D	357	126	206	321	352	0	0	20	157	107	6
H	7	2	0	0	0	0	0	0	0	0	0
TOTAL	765	288	476	629	563	0	0	185	325	219	12

MONKFISH PERMIT CATEGORY	NUMBER OF MONKFISH PERMITS	PERCENT OF MONKFISH VESSELS ALSO ISSUED A LIMITED ACCESS PERMIT FOR:									
		BLACK SEA BASS	SUMMER FLOUNDER	LOBSTER	MULTI-SPECIES	OCEAN QUAHOG	RED CRAB	SCALLOP	SCUP	SQUID/ MACKEREL/ BUTTERFISH	TILEFISH
A	14	50%	14%	43%	0%	0%	0%	0%	36%	7%	7%
B	39	56%	18%	44%	3%	0%	0%	0%	33%	0%	10%
C	348	38%	75%	82%	60%	0%	0%	47%	43%	32%	0%
D	357	35%	58%	90%	99%	0%	0%	6%	44%	30%	2%
H	7	29%	0%	0%	0%	0%	0%	0%	0%	0%	0%
TOTAL	765	38%	62%	82%	74%	0%	0%	24%	42%	29%	2%

Table 7 – Number and Percent of monkfish limited access vessels also issued a limited access permit in other fisheries in 2006, 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 8 shows that the number of category E permits increased rapidly during the first few years of the FMP but has remained relatively steady since 2004, averaging 2,315 permits.

Fishing Year	Number of permits
1999	1466
2000	1882
2001	1991
2002	2142
2003	2120
2004	2256
2005	2379
2006	2310
TOTAL	3841

Table 8 – Monkfish open-access (Category E) permits issued each year since implementation of the FMP in 1999.
*The "**total**" is the number of unique Category E permits issued since inception of the plan.*

4.4.1.2 Landings and Revenues

Table 9 shows monthly landings for FY2006 by area and gear, as well as total monthly landings since FY2002. In FY2006, landings in both areas declined by a total of 6,603 mt or 34% from the previous year and were at the lowest level since the inception of the FMP in 1999 (Figure 12). Monkfish landings increased between FY2002 and FY2003, principally due to the increase trip limits in the SFMA 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 SFMA landings as a result of increased trip limits and DAS allocations, and in spite of a decline of 20% in NFMA landings from the previous year.

Table 10 shows monthly landings by gear from the dealer reports for FY2006, 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 fish. The lower ratio of landed weight to live weight for otter trawls (0.38), compared to gillnets (0.74), 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 10 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.

Figure 13 shows the long-term trend in landings (live weight equivalent) and revenues based on a calendar year. While landings have declined by nearly half since the peak period in the mid- to late-1990's, revenues on a nominal basis were roughly equivalent in 2006, despite a decline from the peak in 2000. Table 11, which is based on fishing year and landed weights, not calendar year and live weights as in Figure 13, shows a similar trend in revenues, but actually shows a slight increase in landed weights in FY2005, reflecting a trend toward landing more whole fish rather than tails.

Figure 14 illustrates the seasonal pattern of monkfish landings in FY2006, and the distinct difference between NFMA and SFMA fisheries, not only in terms of seasonality, but also in terms of the predominant gear. In the NFMA, trawl gear is the primary gear landing monkfish,

and gillnet gear landings are a small proportion during the winter months. In the SFMA, on the other hand, gillnet gear accounts for the majority of monkfish landings, with a peak in the late spring/early summer months, and showing less of a winter effect. Figure 15 shows the annual distribution of landings by gear for each area since FY1999. While the NFMA pattern is fairly consistent over that period in terms of the proportion landed by gear type, the proportion of landings accounted for by trawl vessels has declined in the SFMA, although it nearly doubled in FY2005 from the previous year.

	MAY - 2006	JUN - 2006	JUL - 2006	AUG - 2006	SEP - 2006	OCT - 2006	NOV - 2006	DEC - 2006	JAN - 2007	FEB - 2007	MAR - 2007	APR - 2007	MAY 06 - APR 07		2006*		2005*	
															May06 - Apr07 as a % of Target TAC	Target TAC	May05-Apr06 as a % of Target TAC	Target TAC
	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Metric Tons	Percent of Area		Metric Tons		Metric Tons
NORTHERN	**201**	**627**	**717**	**678**	**669**	**735**	**509**	**576**	**482**	**413**	**678**	**393**	**6,677**	**53%**	**86%**	**7,737**	**69%**	**13,160**
OTTER TRAWL	134	356	261	343	434	601	378	425	457	389	658	373	4,808	38%	62%		51%	
GILLNET	64	256	453	332	182	109	111	147	22	24	19	19	1,738	14%	22%		18%	
HOOK	0	0	0	0	0	1	0	0	0	0	0	0	2	0%	0%		0%	
OTHER GEARS	3	15	4	4	53	25	20	4	3	0	0	0	130	1%	2%		0%	
SOUTHERN	**1,114**	**863**	**464**	**230**	**212**	**370**	**631**	**554**	**485**	**258**	**273**	**455**	**5,909**	**47%**	**161%**	**3,667**	**91%**	**9,673**
OTTER TRAWL	90	76	239	173	163	200	209	105	183	75	129	92	1,734	14%	47%		25%	
GILLNET	873	657	146	16	6	115	349	417	269	149	87	282	3,365	27%	92%		58%	
HOOK	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	0%		0%	
OTHER GEARS	151	130	79	42	43	54	73	32	33	34	58	81	810	6%	22%		8%	
ALL AREAS	**1,314**	**1,490**	**1,181**	**909**	**880**	**1,104**	**1,140**	**1,130**	**967**	**671**	**951**	**848**	**12,586**	**100%**				
OTTER TRAWL	223	431	499	515	597	801	588	531	640	464	787	465	6,542	52%				
GILLNET	937	914	598	348	187	224	459	564	292	173	106	301	5,103	41%				
HOOK	0	0	0	0	0	1	0	0	0	0	0	0	2	0%				
OTHER GEARS	154	145	83	46	96	79	93	35	35	34	58	81	940	7%				
LANDINGS - ALL AREAS																		
Fishing Year 2006	**1,314**	**1,490**	**1,181**	**909**	**880**	**1,104**	**1,140**	**1,130**	**967**	**671**	**951**	**848**	**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**					
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**					
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**					
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**					

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.

* Fishing Year is May 1 through April 30.

Table 9 – Monkfish landings by area, gear and month for FY2006 (converted to live weight).

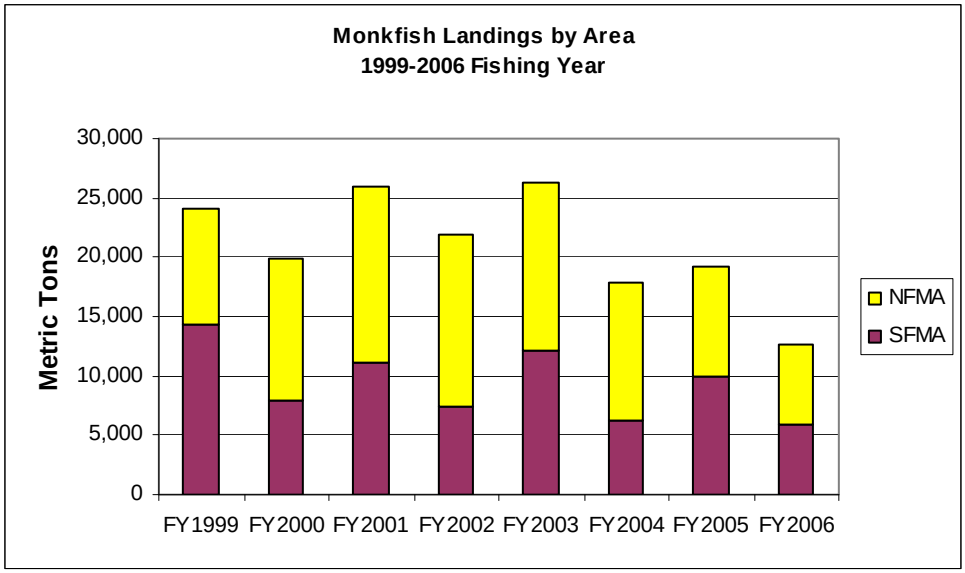


Figure 12 – Monkfish landings by management area, FY1999 – 2006

Month	Otter Trawl	Scallop Dredge	Gillnet	Hook	Other	Total Pounds
May	600,005	121,696	1,891,046	7,084	413,455	3,033,286
June	993,649	98,235	1,704,932	44,731	522,701	3,364,248
July	1,050,117	79,493	1,092,429	47,649	333,046	2,602,734
August	974,691	48,020	647,577	19,044	339,080	2,028,412
September	1,134,194	50,587	301,639	4,392	460,854	1,951,666
October	1,284,589	106,347	416,989	2,614	643,763	2,454,302
November	1,013,716	122,872	842,780	4,978	552,236	2,536,582
December	1,026,960	63,131	1,056,341	1,499	382,211	2,530,142
January	1,083,758	22,554	784,032	1,264	263,397	2,155,005
February	936,930	25,320	330,287	464	217,301	1,510,302
March	1,437,423	18,354	346,814	351	358,461	2,161,403
April	900,327	53,702	628,989	953	322,528	1,906,499
TOTAL	**12,436,359**	**810,311**	**10,043,855**	**135,023**	**4,809,033**	**28,234,581**

Source: NMFS Statistics Office, dealer weighout database

** May include data from CT vessels without a 2006 Monkfish permit*

LANDED WEIGHT for FY 2006

Month	Otter Trawl	Scallop Dredge	Gillnet	Hook	Other	Total Pounds
May	245,776	36,688	1,518,419	2,778	164,958	1,968,619
June	388,851	29,896	1,276,215	26,085	202,532	1,923,579
July	378,911	23,943	794,641	32,950	129,615	1,360,060
August	379,650	14,464	461,359	14,325	149,748	1,019,546
September	421,653	15,237	205,683	1,375	176,146	820,094
October	530,735	32,828	308,944	1,078	251,814	1,125,399
November	389,249	38,431	670,346	3,197	230,359	1,331,582
December	417,326	21,008	842,854	602	161,887	1,443,677
January	412,902	6,811	642,409	625	116,033	1,178,780
February	363,240	7,627	267,437	547	112,698	751,549
March	507,026	5,528	267,438	256	126,574	906,822
April	307,976	16,297	496,361	392	104,524	925,550
TOTAL	**4,743,295**	**248,758**	**7,752,106**	**84,210**	**1,926,888**	**14,755,257**

Table 10 – FY2006 monkfish landings from dealer reports, showing live weight (top) and landed weights (bottom).

Note: 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

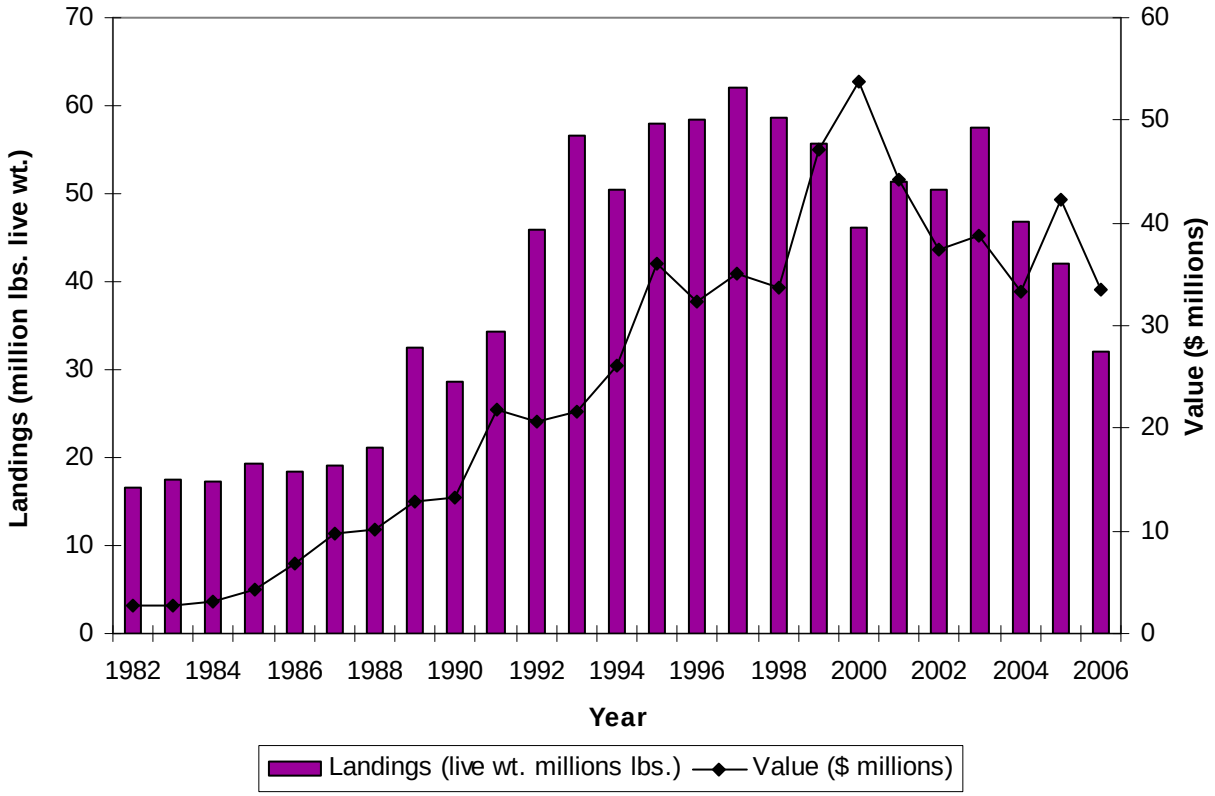


Figure 13 Calendar year monkfish landings and revenues, 1982-2006.

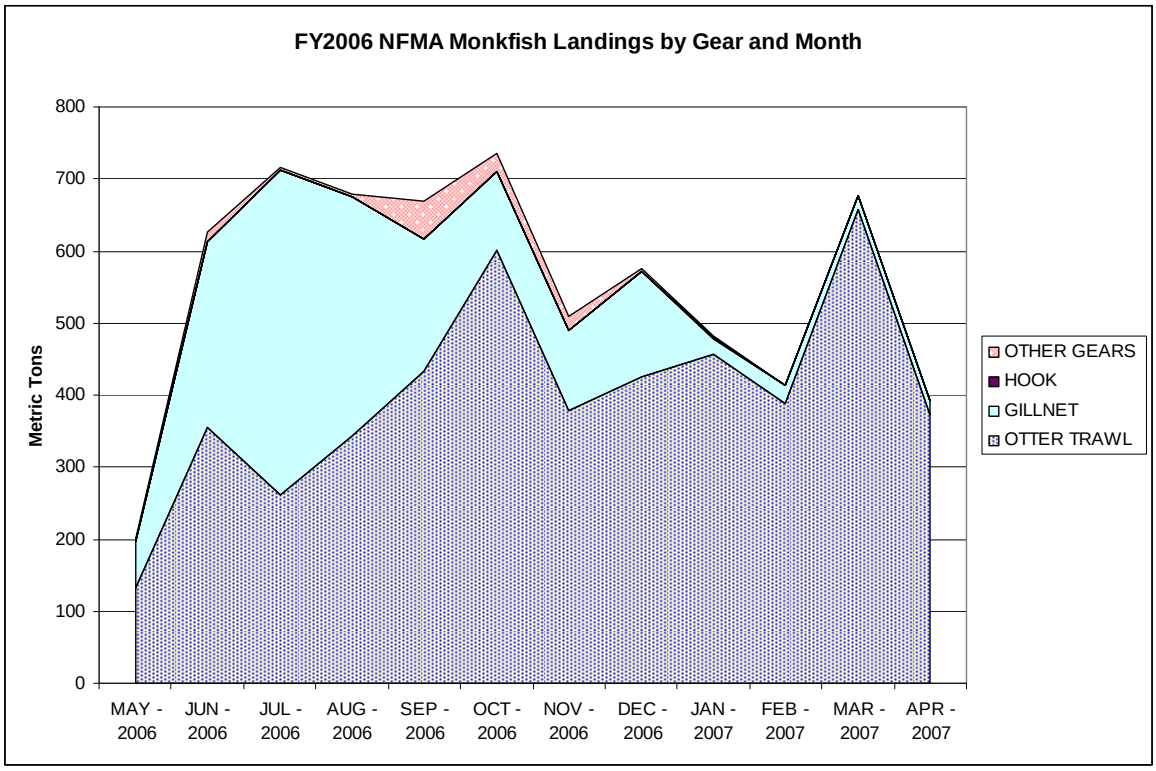
Fishing Year	Landings*	Revenues*
(May 1 - April 30)	(1,000 lbs. landed wt.)	($1,000)
1995	18,415.6	$24,758.8
1996	20,732.6	$26,188.5
1997	21,774.3	$30,127.0
1998	24,156.0	$34,682.0
1999	26,077.2	$48,713.7
2000	23,422.8	$46,122.9
2001	30,519.6	$42,353.5
2002	25,312.0	$35,256.4
2003	29,341.7	$37,504.3
2004	17,851.8	$30,159.9
2005	22,285.9	$41,651.7
2006	14,369.9	$27,442.3

** May include data from CT vessels without a 2001-2006 Monkfish permit*

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2006 fishing year data are based on vessels issued a monkfish permit during the 2002-2006 fishing years, respectively.

Table 11 – Fishing year landings (in landed weights) and revenues, 1995 – 2006

(a)



(b)

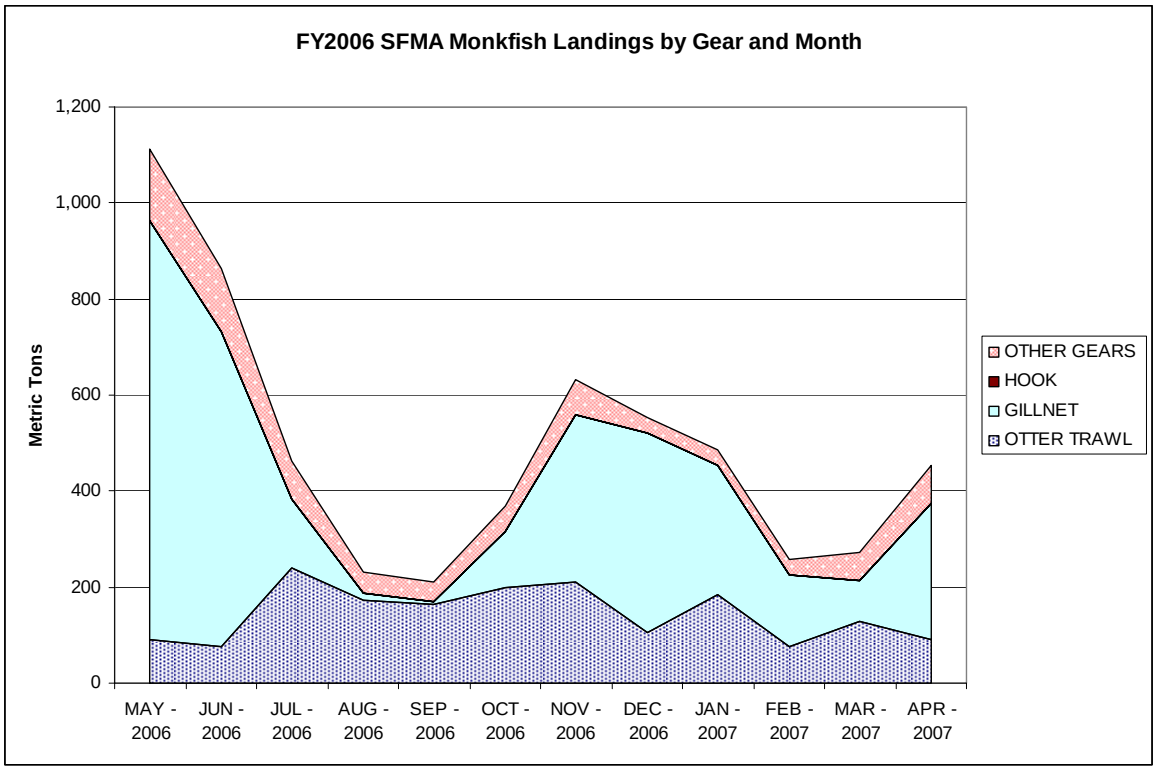
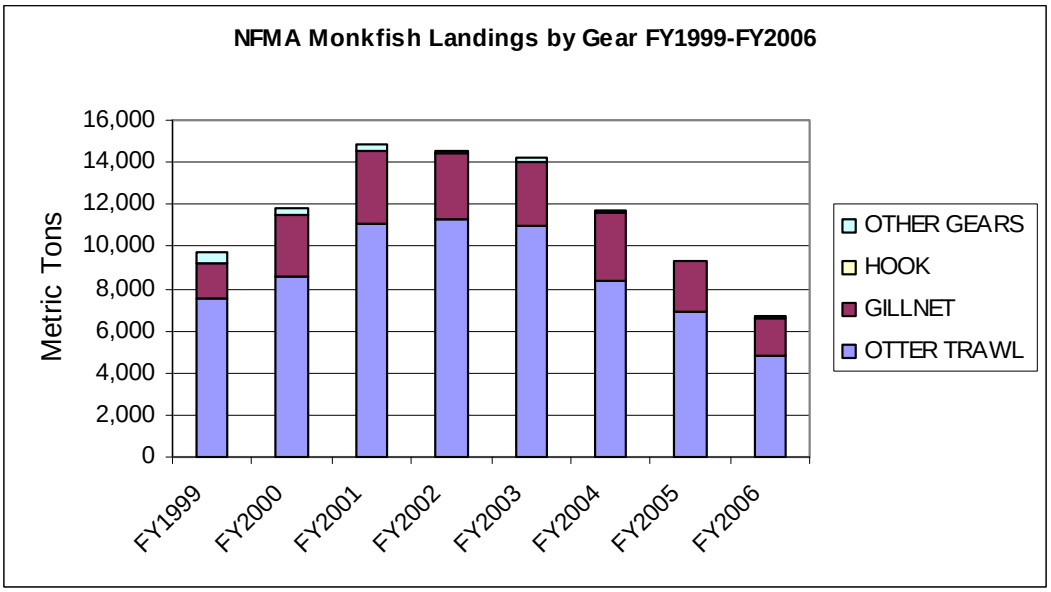


Figure 14 – FY2006 NFMA (a) and SFMA (b) monkfish landings by gear and month

(a)



(b)

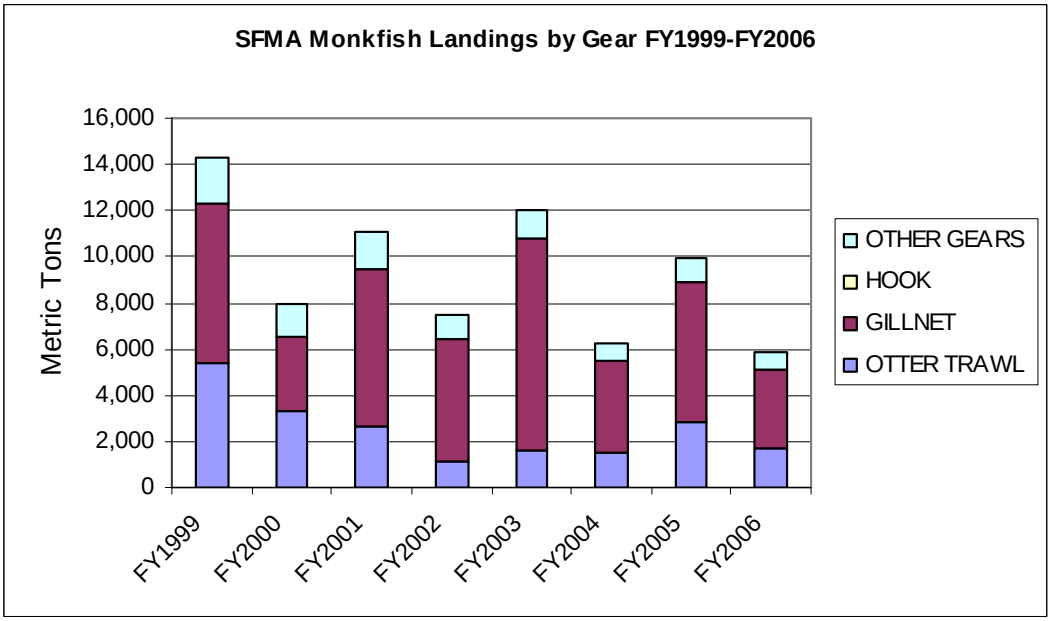


Figure 15 - NFMA (a) and SFMA (b) monkfish landings by gear, FY1999 – 2006

Massachusetts continues to account for the greatest proportion (nearly half) of all monkfish landings, followed by New Jersey, Rhode Island and Maine (Table 12).

STATE	Thousands of Pounds of Monkfish											
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
CT*	1,029	733	592	574	557	603	787	455	585	373	420	277
MA	10,023	8,955	9,893	11,353	11,167	10,643	12,298	10,684	12,059	8,346	10,767	7,134
MD	178	524	382	322	341	107	158	38	119	54	140	106
ME	1,815	1,932	2,102	1,986	3,193	3,993	5,012	4,971	3,716	2,902	2,092	977
NC	0	431	445	395	432	166	167	112	187	47	83	97
NH	329	401	523	452	801	1,477	1,928	1,233	909	1,087	789	391
NJ	1,414	2,321	2,680	3,903	4,371	2,825	5,261	3,886	5,349	2,195	3,242	2,521
NY	248	513	654	775	573	435	707	694	1,044	541	1,065	573
RI	2,829	4,080	3,732	3,597	3,969	2,720	3,519	2,808	4,617	1,928	2,901	1,831
VA	550	841	773	799	671	455	683	431	758	379	788	463
TOTAL	18,416	20,733	21,774	24,156	26,077	23,423	30,520	25,312	29,342	17,852	22,286	14,370

Source: NMFS Statistics Office, dealer weighout database & permit database

** May include data from CT vessels without a 2001-2006 Monkfish permit*

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2006 fishing year data are based on vessels issued a monkfish permit during the 2002-2006 fishing years, respectively.

Table 12 – Monkfish landings by state (landed weight), FY1995-2006

Table 13 and Table 14, below, show monkfish landings and revenues as a percentage of total landings and revenues by permit categories for FY1995 – 2006. 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. In the first few years after implementation of the FMP, vessels with Category B and D permits showed an increased reliance on monkfish revenues, although this trend reversed somewhat in FY2004 as a result of lower monkfish landings, it returned to near-peak levels in FY2005, and declined again in FY2006 as monkfish landings declined. Category A vessels dependence on monkfish revenues peaked in FY1999, and has since returned to pre-FMP levels despite a slight increase in FY2005. Category C vessels, of which 48% also hold scallop limited access permits have seen their dependence on monkfish revenues decline steadily as revenues from scallops have increased in the past five years, and in FY2006 obtained only 4.5% of their total revenues from monkfish.

When viewed by vessel length category (Table 15 and Table 16), a decreased reliance on monkfish is evident for all size classes since peaking in 1999-2000, especially in most recent years.

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 landings and revenues during FY1995-2006, Table 17 and Table 18, and less than 5% in FY2006. While prior to FY2004 the proportion of monkfish remained relatively constant (4-5% of landings, 7-11% of revenues), 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 substantially, reflecting improvements in the scallop fishery in recent years, and the proportion of multispecies landings has declined modestly since FY2002 due to restrictions in that fishery.

Monkfish Permit Category	1,000 pounds, landed weight											
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
A	453	817	563	1,093	1,277	845	1,152	1,072	1,375	727	1,117	596
% of Total A Landings	49.1%	54.1%	13.4%	10.0%	20.5%	6.5%	6.8%	4.6%	4.9%	14.1%	14.2%	9.0%
B	322	583	479	992	1,474	1,050	2,084	1,594	1,932	916	1,839	1,171
% of Total B Landings	14.0%	18.2%	23.4%	24.1%	36.9%	30.2%	46.4%	40.1%	48.9%	28.7%	43.0%	37.3%
C	11,504	12,322	12,364	12,144	11,876	10,583	12,708	10,359	11,021	6,703	8,480	5,445
% of Total C Landings	10.4%	9.3%	7.5%	8.2%	8.5%	6.9%	6.4%	7.9%	8.5%	5.3%	8.4%	6.0%
D	4,094	5,020	6,139	7,509	8,982	8,905	11,974	10,388	12,941	8,021	9,049	5,706
% of Total D Landings	4.6%	5.3%	5.8%	6.7%	11.1%	9.7%	11.7%	9.9%	12.9%	8.0%	10.7%	8.1%
H											233	242
% of Total H Landings											25.5%	19.8%
E (Open Access)	1,014	1,257	1,637	1,845	1,911	1,459	1,816	1,452	1,489	1,112	1,148	957
% of Total E Landings	0.5%	0.6%	0.5%	0.6%	0.8%	0.6%	0.7%	0.6%	0.4%	0.3%	0.3%	0.3%
CT	1,029	733	592	574	557	580	787	448	583	373	420	253
% of Total CT Landings	5.7%	4.0%	3.3%	3.5%	2.9%	3.3%	4.5%	2.9%	3.8%	2.4%	3.2%	2.9%
TOTAL MONK LANDED	18,416	20,733	21,774	24,156	26,077	23,423	30,520	25,312	29,342	17,852	22,286	14,370

Source: NMFS Statistics Office, dealer weighout database

** May include data from CT vessels without a 2001-2006 Monkfish permit*

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2006 fishing year data are based on vessels issued a monkfish permit during the 2002-2006 fishing years, respectively.

Table 13 – Monkfish landings as a percent of total landings by permit category, 1995-2006.

Monkfish Permit Category	$1,000, nominal (not discounted)											
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
A	$582	$849	$663	$1,262	$2,011	$1,428	$1,615	$1,439	$1,432	$900	$1,821	$958
% of Total A Revenues	36.9%	41.4%	35.7%	51.2%	63.5%	46.6%	50.6%	42.5%	35.8%	38.3%	44.0%	30.2%
B	$391	$583	$552	$1,183	$2,528	$1,699	$2,828	$2,099	$1,998	$1,094	$2,813	$1,642
% of Total B Revenues	24.6%	33.5%	38.7%	49.6%	62.2%	48.1%	60.3%	53.3%	54.2%	31.5%	52.1%	44.1%
C	$16,014	$16,423	$18,091	$18,501	$23,250	$22,380	$17,503	$14,713	$15,582	$12,751	$16,790	$11,369
% of Total C Revenues	13.0%	12.0%	13.3%	14.0%	13.5%	11.5%	9.2%	7.4%	7.1%	5.0%	6.1%	4.5%
D	$4,736	$5,649	$7,514	$10,076	$16,043	$16,620	$16,836	$14,434	$15,721	$13,016	$16,947	$10,935
% of Total D Revenues	8.2%	9.3%	11.2%	14.9%	20.4%	19.9%	20.2%	17.3%	18.4%	14.5%	17.2%	12.1%
H											$328	$276
% of Total H Revenues											40.3%	33.9%
E (Open Access)	$1,263	$1,452	$2,270	$2,642	$3,471	$2,848	$2,504	$1,970	$2,000	$1,851	$2,356	$2,015
% of Total E Revenues	1.1%	1.2%	1.7%	2.1%	2.4%	1.9%	1.6%	1.2%	1.0%	0.8%	0.7%	0.7%
CT	$1,772	$1,233	$1,036	$1,018	$1,410	$1,148	$1,067	$603	$772	$548	$597	$247
% of Total CT Revenues	4.1%	2.5%	3.1%	3.0%	3.6%	3.8%	3.5%	2.2%	2.5%	1.7%	1.6%	0.8%
TOTAL MONK REVENUE	$24,759	$26,188	$30,127	$34,682	$48,714	$46,123	$42,354	$35,256	$37,504	$30,160	$41,652	$27,442

Source: NMFS Statistics Office, dealer weighout database

** May include data from CT vessels without a 2001-2006 Monkfish permit*

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2006 fishing year data are based on vessels issued a monkfish permit during the 2002-2006 fishing years, respectively.

Table 14 - Monkfish revenues as a percent of total revenues by permit category, 1995-2006.

Vessel Length Category	1,000 pounds, landed weight											
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
0-29 Feet	70	61	21	20	50	62	73	54	55	42	26	1
% of Total 0-29 Landings	11.7%	10.5%	3.1%	2.5%	6.9%	7.1%	6.8%	6.5%	8.5%	4.9%	2.0%	0.1%
30-49 Feet	5,303	6,317	6,415	8,458	10,537	9,291	13,067	11,384	14,782	8,987	11,376	7,296
% of Total 30-49 Landings	8.7%	10.3%	10.7%	13.3%	18.5%	17.0%	24.0%	23.7%	28.3%	17.7%	22.5%	14.3%
50-69 Feet	2,675	3,771	3,398	4,057	4,550	4,983	7,056	5,919	6,364	3,251	4,079	2,158
% of Total 50-69 Landings	3.5%	4.7%	3.2%	4.7%	5.5%	5.9%	8.7%	7.6%	8.4%	4.6%	6.6%	3.7%
70-89 Feet	7,228	8,208	9,629	9,217	8,904	7,469	8,250	6,846	6,754	4,586	5,786	4,254
% of Total 70-89 Landings	4.0%	4.4%	3.6%	3.8%	4.0%	3.4%	3.5%	3.1%	2.9%	1.9%	2.9%	2.3%
90+ Feet	2,109	1,643	1,718	1,830	1,480	1,038	1,285	661	805	613	600	407
% of Total 90+ Landings	2.1%	1.3%	1.2%	1.1%	1.2%	0.7%	0.6%	0.4%	0.3%	0.3%	0.2%	0.2%
CT	1,029	733	592	574	557	580	787	448	583	373	420	253
% of Total CT Landings	5.7%	4.0%	3.3%	3.5%	2.9%	3.3%	4.5%	2.9%	3.8%	2.4%	3.2%	2.9%
TOTAL MONK LANDED	18,416	20,733	21,774	24,156	26,077	23,423	30,520	25,312	29,342	17,852	22,286	14,370

Source: NMFS Statistics Office, dealer weighout database

** CT data may include landings from vessels without a 2001-2006 Monkfish permit*

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2005 fishing year data are based on vessels issued a monkfish permit during the 2002-2006 fishing years, respectively.

Table 15 – Monkfish landings as a percent of total landings by vessel length category, 1995 - 2006

Vessel Length Category	$1,000, nominal (not discounted)											
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
0-29 Feet	$72	$60	$34	$25	$99	$98	$98	$66	$61	$57	$42	$2
% of Total 0-29 Revenues	8.3%	8.3%	3.3%	2.4%	8.9%	9.4%	8.4%	6.3%	6.4%	5.3%	2.8%	0.1%
30-49 Feet	$5,657	$6,474	$7,049	$9,933	$16,887	$16,199	$18,410	$15,353	$15,822	$11,744	$18,681	$11,272
% of Total 30-49 Revenues	13.1%	15.1%	15.4%	20.2%	29.3%	29.3%	31.0%	27.9%	28.1%	20.2%	21.0%	13.6%
50-69 Feet	$3,524	$4,530	$4,488	$5,718	$8,669	$9,963	$9,931	$8,460	$8,583	$6,311	$8,293	$4,898
% of Total 50-69 Revenues	7.2%	8.4%	7.7%	10.3%	13.0%	13.6%	13.5%	11.3%	11.0%	7.4%	8.2%	5.4%
70-89 Feet	$10,548	$11,509	$14,712	$14,957	$18,420	$16,034	$11,161	$9,894	$11,040	$10,152	$12,794	$9,997
% of Total 70-89 Revenues	7.1%	7.2%	8.6%	8.8%	8.7%	6.8%	4.8%	4.0%	3.9%	3.0%	3.3%	2.7%
90+ Feet	$3,186	$2,383	$2,808	$3,031	$3,228	$2,682	$1,687	$880	$1,227	$1,349	$1,245	$1,026
% of Total 90+ Revenues	5.6%	3.8%	4.7%	5.4%	4.9%	3.8%	2.3%	1.2%	1.4%	1.2%	1.0%	1.0%
CT	$1,772	$1,233	$1,036	$1,018	$1,410	$1,148	$1,067	$603	$772	$548	$597	$247
% of Total CT Revenues	4.1%	2.5%	3.1%	3.0%	3.6%	3.8%	3.5%	2.2%	2.5%	1.7%	1.6%	0.8%
TOTAL MONK REVENUE	$24,759	$26,188	$30,127	$34,682	$48,714	$46,123	$42,354	$35,256	$37,504	$30,160	$41,652	$27,442

Source: NMFS Statistics Office, dealer weighout database

** CT data may include landings from vessels without a 2001-2006 Monkfish permit*

Table 16– Monkfish revenues as a percent of total revenues by vessel length category, 1995 – 2006

Species Category	1,000 pounds, landed weight											
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Dogfish	33,914	32,392	23,902	34,127	22,942	6,742	4,129	3,632	2,285	1,586	2,177	4,346
Dogfish % of Total Landings	7.8%	6.8%	4.0%	5.9%	4.6%	1.3%	0.7%	0.7%	0.4%	0.3%	0.4%	0.9%
Fluke	7,829	7,941	7,732	9,396	9,478	8,670	11,375	12,092	13,992	16,161	12,530	9,919
Fluke % of Total Landings	1.8%	1.7%	1.3%	1.6%	1.9%	1.7%	1.9%	2.3%	2.2%	2.6%	2.1%	2.0%
Monkfish	18,416	20,733	21,774	24,156	26,077	23,423	30,520	25,312	29,342	17,852	22,286	14,370
Monkfish % of Total Landings	4.2%	4.3%	3.7%	4.2%	5.2%	4.5%	5.0%	4.8%	4.6%	2.9%	3.8%	2.9%
Multispecies	47,365	53,830	62,951	67,977	68,654	88,081	102,515	83,362	81,268	75,811	63,096	48,026
Multispecies % of Total Landings	10.8%	11.3%	10.6%	11.7%	13.6%	16.8%	16.9%	16.0%	12.7%	12.4%	10.6%	9.7%
Scallops	14,535	15,852	11,834	12,565	23,332	35,380	47,572	50,541	58,584	60,915	52,840	59,065
Scallops % of Total Landings	3.3%	3.3%	2.0%	2.2%	4.6%	6.8%	7.9%	9.7%	9.2%	10.0%	8.9%	11.9%
Skates	9,134	17,503	16,740	18,756	18,061	17,643	17,987	16,849	20,890	15,164	15,377	15,977
Skates % of Total Landings	2.1%	3.7%	2.8%	3.2%	3.6%	3.4%	3.0%	3.2%	3.3%	2.5%	2.6%	3.2%
Other	306,209	329,535	448,958	412,327	334,735	343,322	390,973	330,310	432,700	424,068	424,663	343,949
Other % of Total Landings	70.0%	69.0%	75.6%	71.2%	66.5%	65.6%	64.6%	63.3%	67.7%	69.3%	71.6%	69.4%
TOTAL LBS. LANDED	437,402	477,786	593,890	579,303	503,280	523,261	605,070	522,098	639,061	611,558	592,969	495,652

Source: NMFS Statistics Office, dealer weighout database

** CT data may include landings from vessels without a 2001-2006 Monkfish permit*

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2006 fishing year data are based on vessels issued a monkfish permit during the 2002-2006 fishing years, respectively.

Table 17 – FY1995-2006 Landings of monkfish and other species as a percent of total landings, on vessels with a monkfish permit in 2001 – 2006.

Species Category	$1,000, nominal (not discounted)											
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Dogfish	$6,610	$6,003	$3,555	$5,876	$4,072	$1,798	$1,110	$870	$537	$448	$571	$1,121
Dogfish % of Total Revenues	1.9%	1.6%	1.0%	1.6%	0.9%	0.4%	0.2%	0.2%	0.1%	0.1%	0.1%	0.2%
Fluke	$13,961	$13,243	$14,061	$14,418	$16,148	$13,663	$14,303	$16,649	$20,899	$23,701	$22,637	$20,822
Fluke % of Total Revenues	4.1%	3.6%	3.8%	3.9%	3.7%	2.9%	3.0%	3.5%	3.9%	3.8%	3.0%	3.1%
Monkfish	$24,759	$26,188	$30,127	$34,682	$48,714	$46,123	$42,354	$35,256	$37,504	$30,160	$41,652	$27,442
Monkfish % of Total Revenues	7.3%	7.1%	8.2%	9.5%	11.0%	9.9%	9.0%	7.3%	7.0%	4.8%	5.6%	4.1%
Multispecies	$57,323	$60,825	$71,309	$82,758	$83,994	$93,590	$102,070	$98,877	$88,850	$80,060	$81,541	$73,506
Multispecies % of Total Revenues	16.8%	16.5%	19.3%	22.6%	19.0%	20.0%	21.8%	20.5%	16.5%	12.7%	10.9%	10.9%
Scallops	$75,624	$92,763	$76,005	$72,999	$122,812	$169,407	$172,621	$201,193	$244,878	$335,221	$412,383	$373,586
Scallops % of Total Revenues	22.2%	25.2%	20.6%	19.9%	27.8%	36.3%	36.8%	41.8%	45.5%	53.1%	55.2%	55.6%
Skates	$2,708	$5,440	$3,071	$3,471	$3,234	$3,598	$3,105	$3,489	$4,517	$3,241	$4,315	$5,414
Skates % of Total Revenues	0.8%	1.5%	0.8%	0.9%	0.7%	0.8%	0.7%	0.7%	0.8%	0.5%	0.6%	0.8%
Other	$159,711	$163,907	$171,432	$152,363	$162,812	$138,606	$133,675	$125,062	$141,058	$158,507	$184,589	$170,210
Other % of Total Revenues	46.9%	44.5%	46.4%	41.6%	36.9%	29.7%	28.5%	26.0%	26.2%	25.1%	24.7%	25.3%
TOTAL REVENUE	$340,696	$368,369	$369,559	$366,568	$441,785	$466,785	$469,238	$481,396	$538,244	$631,338	$747,687	$672,101

Source: NMFS Statistics Office, dealer weighout database

** CT data may include landings from vessels without a 2001-2006 Monkfish permit*

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2006 fishing year data are based on vessels issued a monkfish permit during the 2002-2006 fishing years, respectively.

Table 18 – FY1995-2006 Revenues of monkfish and other species as a percent of total landings, on vessels with a monkfish permit in 2001-2006.

4.4.1.3 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 six 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.

In the NFMA, until this year under Framework 4, vessels were not required to use a monkfish DAS, as there was no monkfish trip limit when a limited access vessel is on a multispecies DAS. Therefore, DAS usage has been well below the total DAS allocated (Table 19), and primarily reflects monkfish fishing activity in the SFMA. In FY2004 call-in vessels (that is those fishing primarily in the SFMA) used only 35% of their allocated DAS. That number increased to 54% in FY2005 and decreased to 39% in FY2006 as SFMA allowable DAS limits were reduced (Table 20). The number of DAS used increased from approximately 5,568 in FY2004 to 7,114 in FY2005, and declined again to 4163 DAS in FY2006 (Figure 16).

Permit Category	All Vessels		Call-In Vessels	
	DAS Allocated	DAS Used	DAS Allocated	DAS Used
A	604	207	554	207
B	1,596	550	1,308	550
C	15,933	1,420	3,676	1,420
D	15,283	1,893	4,984	1,893
H	285	93	285	93
TOTAL	**33,700**	**4,163**	**10,807**	**4,163**

Source: NMFS Days-at-Sea (DAS) database.

Table 19 – Monkfish DAS usage, FY2006

Permit Category	DAS Allocated	DAS Used				
		Monkfish	Monkfish/ Multispecies	Monkfish/ Scallop	Total	% Used
A	554	207	0	0	207	37%
B	1,308	550	0	0	550	42%
C	3,676	0	1,420	0	1,420	39%
D	4,984	0	1,893	0	1,893	38%
H	285	0	93	0	93	33%
TOTAL	**10,807**	**757**	**3,406**	**0**	**4,163**	39%

Source: NMFS Days-at-Sea (DAS) database.

Table 20 - Monkfish-only, Monkfish/Multispecies and Monkfish/Scallop DAS Usage by call-in vessels (vessels fishing in the SFMA), FY2006.

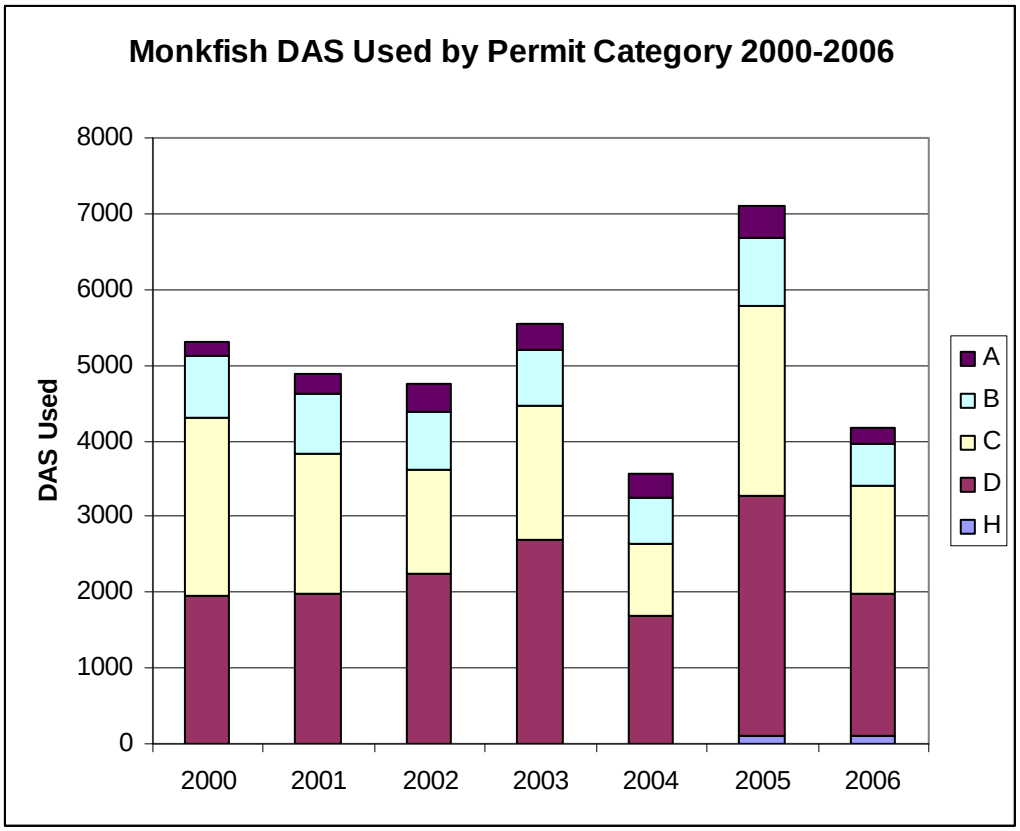


Figure 16 - DAS used by permit category, FY2000 – 2006.

4.4.2 Ports and communities

This section updates information contained in the FSEIS for Amendment 2, as well as in the SAFE Report for the 2005 fishing year prepared in conjunction with Framework 4. 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 multispecies or scallops.

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 21 shows the distribution of monkfish permit holders by homeport and monkfish permit category for the six primary, 18 secondary, and "other" monkfish ports for FY2003 - 2006. Table 22 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 NFMA, while 49% of New Bedford's landings and only 7%of Pt. Judith's landings come from the NFMA in FY2006. Portland and Boston's landings are almost totally from otter trawls, while otter trawls make up about 63% of New Bedford landings in FY2006. Gloucester and Pt. Judith landings are evenly split between trawls and gillnets, while New Hampshire, New York and New Jersey landings are predominately (>75%) caught by gillnet gear. This is similar to the distribution by gear for each port in previous fishing years, 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.

Port landings and revenue data based on May-April fishing year is presented in Table 23 and Table 24, for primary and secondary ports (as identified in the original FMP), respectively, for FY1995-FY2006. Data is based on the vessel's homeport and, for FY2006, 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, although their share declined in more recent years, while the share of vessels homeported in Boston has increased. Of note is the observation that while Boston ranked the highest in monkfish revenues based on vessels' homeport, New Bedford, Portland and Gloucester were the highest based on principal port in FY2006, as in the previous year. The overall decline in landings and revenues in FY2006 discussed in previous sections was experienced by all ports, both primary and secondary ports. In nearly all cases, the revenues from monkfish as a percentage of total revenues by port also declined (Table 25).

HOMEPORT		FY 2003 by Category						FY 2004 by Category						FY 2005 by Category							FY 2006 by Category						
		A	B	C	D	E	TOTAL	A	B	C	D	E	TOTAL	A	B	C	D	E	H	TOTAL	A	B	C	D	E	H	TOTAL
PRIMARY PORTS		**5**	**17**	**203**	**160**	**396**	**781**	**4**	**15**	**206**	**161**	**398**	**784**	**5**	**16**	**202**	**164**	**404**	**X**	**791**	**7**	**16**	**207**	**173**	**381**	**X**	**784**
Portland	ME	X	X	12	17	27	57	X	X	15	19	24	58	X	X	12	20	23	X	55	X	X	12	22	22	X	56
Boston	MA	X	X	39	40	116	198	X	X	39	29	100	169	X	X	36	29	81	X	147	X	X	32	29	65	X	127
Gloucester	MA	X	X	20	34	129	183	X	X	21	38	133	192	X	X	22	42	128	X	192	X	X	23	41	128	X	192
New Bedford	MA	X	X	102	33	68	203	X	X	102	44	77	223	X	X	102	43	101	X	248	X	X	110	46	90	X	249
Barnegate Light	NJ	X	14	10	20	19	65	X	15	11	17	23	68	X	15	12	14	28	X	71	3	15	11	17	27	X	73
Point Judith	RI	X	X	20	16	37	75	X	X	18	14	41	74	X	X	18	16	43	X	78	X	X	19	18	49	X	87
SECONDARY PORTS		**5**	**10**	**61**	**77**	**396**	**549**	**4**	**11**	**64**	**82**	**451**	**612**	**X**	**14**	**66**	**81**	**484**	**X**	**647**	**X**	**10**	**61**	**76**	**514**	**X**	**663**
Rockland	ME	X	X	X	X	3	4	X	X	X	X	6	7	X	X	X	X	5	X	6	X	X	X	X	6	X	7
Port Clyde	ME	X	X	5	4	5	14	X	X	5	5	5	15	X	X	6	4	4	X	14	X	X	4	4	3	X	11
South Bristol	ME	X	X	X	4	3	9	X	X	X	5	6	13	X	X	X	5	5	X	12	X	X	X	6	5	X	13
Ocean City	MD	X	X	X	X	16	16	X	X	X	X	18	18	X	X	X	X	19	X	19	X	X	X	X	26	X	26
Chatham	MA	X	X	X	14	71	85	X	X	X	15	64	79	X	X	X	15	60	X	77	X	X	X	15	58	X	73
Provincetown	MA	X	X	X	3	14	17	X	X	X	3	20	23	X	X	X	3	16	X	19	X	X	X	3	11	X	14
Scituate	MA	X	X	X	6	31	38	X	X	X	7	32	39	X	X	X	8	28	X	36	X	X	X	5	25	X	31
Plymouth	MA	X	X	X	3	17	23	X	X	X	3	24	31	X	X	3	X	21	X	28	X	X	X	X	19	X	23
Westport	MA	X	X	X	5	19	25	X	X	X	4	19	23	X	X	X	X	18	X	20	X	X	X	X	17	X	19
Portsmouth	NH	X	X	3	10	19	32	X	X	3	12	32	47	X	X	3	12	31	X	46	X	X	X	9	38	X	49
Point Pleasant	NJ	X	4	X	4	33	44	X	4	X	4	37	47	X	4	X	5	48	X	58	X	X	X	6	49	X	58
Cape May	NJ	X	X	20	6	66	94	X	X	23	6	75	106	X	X	26	7	105	X	139	X	X	25	7	123	X	156
Greenport	NY	X	X	X	X	7	8	X	X	X	X	7	8	X	X	X	X	7	X	8	X	X	X	X	6	X	7
Montauk	NY	X	X	4	8	65	79	X	3	5	8	74	90	X	4	5	8	73	X	90	X	4	7	8	77	X	96
Hampton Bay	NY	X	X	X	X	7	9	X	X	X	X	6	7	X	X	X	X	9	X	10	X	X	X	X	12	X	15
Newport	RI	X	X	7	8	8	24	X	X	7	8	13	29	X	X	7	8	16	X	32	X	X	7	7	15	X	31
Hampton	VA	X	X	3	X	3	7	X	X	4	X	X	7	X	X	X	X	4	X	6	X	X	X	X	10	X	12
Newport News	VA	X	X	11	X	9	21	X	X	11	X	11	23	X	X	11	X	15	X	27	X	X	8	X	14	X	22
OTHER PORTS		**6**	**13**	**76**	**104**	**1,317**	**1,516**	**5**	**15**	**73**	**112**	**1,392**	**1,597**	**7**	**12**	**78**	**103**	**1,481**	**6**	**1,687**	**6**	**13**	**80**	**108**	**1,403**	**7**	**1,618**
TOTAL		**16**	**40**	**340**	**341**	**2,109**	**2,846**	**13**	**41**	**343**	**355**	**2,241**	**2,993**	**14**	**42**	**346**	**348**	**2,369**	**6**	**3,125**	**14**	**39**	**348**	**357**	**2,298**	**7**	**3,065**

Source: NMFS Statistics Office, permit databases

Table 21 – Monkfish permits by port, FY2003 – 2006.

Ports where there are fewer than three permits are marked "x" for confidentiality reasons.

PORT/ STATE	MAY 06 - APR 07	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	1,318	1,314	100%	3	0%	1,269	96%	48	4%	0	0%	0	0%
Gloucester, MA	1,704	1,692	99%	12	1%	1,001	59%	702	41%	0	0%	0	0%
Boston, MA	1,030	1,023	99%	7	1%	1,030	100%	0	0%	0	0%	0	0%
New Bedford, MA	3,530	1,734	49%	1,796	51%	2,232	63%	739	21%	0	0%	559	16%
Point Judith, RI	867	58	7%	809	93%	456	53%	395	46%	0	0%	16	2%
MAINE	1,357	1,353	100%	3	0%	1,290	95%	67	5%	0	0%	0	0%
NEW HAMPSHIRE	274	274	100%	1	0%	32	12%	243	88%	0	0%	0	0%
MASSACHUSETTS	7,031	4,922	70%	2,109	30%	4,331	62%	2,128	30%	2	0%	571	8%
RHODE ISLAND	1,363	125	9%	1,238	91%	558	41%	740	54%	0	0%	66	5%
CONNECTICUT	70	0	0%	70	100%	24	33%	31	44%	0	0%	16	22%
NEW YORK	484	3	1%	481	99%	93	19%	384	79%	0	0%	7	2%
NEW JERSEY	1,621	0	0%	1,621	100%	145	9%	1,258	78%	0	0%	219	13%
OTHER NORTHEAST	386	0	0%	385	100%	71	18%	253	66%	0	0%	62	16%
TOTAL	**12,586**	**6,677**	**53%**	**5,909**	**47%**	**6,542**	**52%**	**5,103**	**41%**	**2**	**0%**	**940**	**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 22 – Preliminary FY2006 monkfish landings by primary port (excluding Long Beach/Barnegat Light, NJ) and State, by gear.

HOME PORT		MONKFISH LANDINGS AND REVENUES												Principal Port
		FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2006
Portland, ME	1,000 Lbs.	1,446.2	1,604.8	1,691.7	1,472.8	2,542.9	2,995.8	1,487.6	1,498.2	1,436.1	990.0	895.8	587.7	1,146.1
	$1,000	$2,257.6	$2,393.9	$2,707.1	$2,640.2	$5,472.7	$6,707.8	$2,004.9	$2,289.6	$2,667.0	$2,471.3	$2,088.9	$1,692.8	$3,297.8
Boston, MA	1,000 Lbs.	822.8	674.0	917.6	781.9	1,267.6	960.9	4,964.1	4,777.8	4,291.2	2,829.7	3,405.7	2,478.8	1,304.1
	$1,000	$1,082.5	$936.3	$1,300.3	$1,104.1	$2,240.1	$2,027.5	$6,737.6	$6,629.9	$5,947.0	$5,165.8	$6,202.5	$4,724.3	$2,280.8
Gloucester, MA	1,000 Lbs.	1,675.6	1,154.1	844.3	941.6	1,700.9	2,364.8	2,090.8	2,055.4	1,961.8	1,353.3	1,771.0	980.5	1,186.8
	$1,000	$1,620.8	$1,097.7	$1,037.9	$1,382.6	$3,060.7	$4,441.5	$3,053.4	$2,923.5	$2,604.0	$2,702.3	$3,504.5	$2,083.0	$2,494.1
New Bedford, MA	1,000 Lbs.	5,983.8	5,789.6	7,345.5	8,537.1	7,026.5	5,515.4	3,452.8	2,319.5	2,584.6	2,003.6	2,343.2	1,569.3	1,933.1
	$1,000	$8,980.7	$8,260.4	$11,686.0	$13,926.2	$14,442.8	$11,783.9	$4,697.9	$3,278.4	$3,918.8	$4,191.3	$5,514.6	$3,984.9	$4,754.7
Long Beach/Barnegat Light, NJ	1,000 Lbs.	846.4	1,382.2	729.0	1,702.9	2,568.7	1,801.5	3,582.0	2,435.4	3,625.5	1,418.0	2,013.4	1,607.1	1,573.2
	$1,000	$1,210.6	$1,531.5	$977.7	$2,099.9	$4,430.7	$3,049.4	$4,807.6	$3,227.3	$3,870.5	$1,797.6	$3,261.3	$2,366.1	$2,311.8
Point Judith, RI	1,000 Lbs.	1,194.2	2,444.6	2,125.9	1,485.1	1,708.7	1,635.0	643.4	511.9	954.3	422.3	837.6	400.1	878.7
	$1,000	$1,645.1	$3,366.8	$3,248.1	$2,175.5	$3,275.3	$3,423.8	$1,008.6	$779.4	$1,381.3	$672.8	$1,825.1	$1,032.2	$1,881.8

Source: NMFS Statistics Office, dealer weighout & permits databases

Pounds are in landed weight

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2006 fishing year data are based on vessels issued a monkfish permit during the 2002-2006 fishing years, respectively.

Table 23 – Monkfish landings and revenues for monkfish primary ports, by homeport in FY1995 – 2006, and principal port, FY2006.

HOME PORT		MONKFISH LANDINGS AND REVENUES												Principal Port
		FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2006
Rockland, ME	1,000 Lbs.	47.7	42.5	37.1	56.3	53.9	74.0	8.3	3.8	3.1	7.3	0.9	0.0	12.8
	$1,000	$61.2	$55.3	$54.3	$90.0	$113.2	$184.5	$15.5	$5.5	$5.4	$14.3	$2.4	$0.0	$32.7
Port Clyde, ME	1,000 Lbs.	119.2	120.0	183.0	210.4	294.3	325.1	543.5	471.9	386.6	293.8	203.5	90.2	103.9
	$1,000	$148.5	$152.7	$260.9	$328.4	$581.8	$749.5	$748.4	$676.8	$679.8	$645.7	$505.2	$242.0	$279.3
South Bristol, ME	1,000 Lbs.	126.4	109.5	89.9	93.3	106.6	219.2	278.7	238.3	233.6	235.6	191.5	77.8	77.8
	$1,000	$162.9	$145.1	$131.2	$146.5	$217.4	$494.5	$410.1	$342.7	$431.7	$539.2	$470.6	$223.7	$223.7
Ocean City, MD	1,000 Lbs.	178.5	520.8	348.5	282.0	314.1	106.7	3.1	2.6	2.4	3.3	4.0	4.2	7.9
	$1,000	$241.0	$450.5	$310.3	$254.1	$347.4	$154.4	$4.6	$4.2	$3.9	$5.5	$7.9	$9.2	$18.3
Chatham, MA	1,000 Lbs.	126.3	97.5	117.2	231.6	212.7	475.3	613.4	944.1	1,317.9	649.7	1,194.5	830.8	857.8
	$1,000	$110.9	$936.3	$126.9	$237.2	$327.1	$771.5	$829.9	$1,229.6	$1,364.5	$750.1	$1,905.7	$1,265.7	$1,301.8
Provincetown, MA	1,000 Lbs.	83.3	38.8	24.4	85.6	79.9	35.1	25.9	19.8	38.0	39.2	21.1	11.3	12.7
	$1,000	$108.0	$51.8	$36.7	$141.5	$136.4	$76.8	$37.7	$26.4	$75.2	$84.0	$57.2	$30.5	$34.7
Scituate, MA	1,000 Lbs.	58.9	45.3	43.2	330.0	331.0	434.4	100.0	206.8	202.9	117.6	173.0	171.7	108.7
	$1,000	$67.9	$53.0	$50.3	$391.6	$561.5	$745.7	$147.7	$266.4	$216.1	$186.3	$324.0	$258.9	$192.5
Plymouth, MA	1,000 Lbs.	53.5	33.0	27.6	42.3	13.9	276.5	585.5	613.1	717.2	306.1	168.4	85.7	85.7
	$1,000	$61.6	$37.6	$25.5	$55.8	$24.3	$508.0	$826.2	$795.9	$704.8	$403.5	$308.1	$146.8	$146.8
Westport, MA	1,000 Lbs.	809.6	856.9	461.4	539.0	451.9	307.4	685.7	549.5	830.6	246.4	164.3	61.2	115.1
	$1,000	$764.5	$768.5	$387.6	$543.3	$691.2	$568.3	$1,022.6	$739.3	$799.1	$248.5	$272.4	$83.0	$154.3
Portsmouth, NH	1,000 Lbs.	370.7	387.9	519.9	474.7	845.3	1,253.7	1,098.7	671.8	562.9	439.4	434.0	143.1	354.9
	$1,000	$447.5	$443.0	$636.9	$532.5	$1,319.5	$2,122.7	$1,578.8	$967.0	$641.6	$612.1	$751.8	$219.1	$525.6
Point Pleasant, NJ	1,000 Lbs.	84.3	517.7	1,091.5	1,578.5	1,286.0	772.5	337.9	128.3	401.2	312.1	190.8	146.6	228.8
	$1,000	$111.4	$565.8	$1,096.5	$1,884.9	$2,320.0	$1,208.2	$441.5	$164.4	$395.6	$401.9	$302.5	$251.5	$375.9
Cape May, NJ	1,000 Lbs.	273.0	312.6	465.0	316.3	124.3	117.5	187.5	117.9	162.1	87.5	117.7	143.2	157.8
	$1,000	$370.1	$389.2	$571.7	$398.2	$255.7	$266.2	$248.2	$134.7	$206.3	$131.6	$217.6	$279.2	$306.3
Greenport, NY	1,000 Lbs.	26.1	48.9	62.9	41.9	12.1	3.6	6.9	19.8	7.8	13.6	22.1	12.2	12.2
	$1,000	$35.1	$72.0	$86.2	$62.2	$20.0	$8.7	$10.7	$32.6	$14.5	$36.6	$61.8	$35.0	$35.0
Montauk, NY	1,000 Lbs.	46.9	53.0	92.2	157.4	79.7	47.2	146.7	238.4	569.5	239.2	382.1	275.8	271.7
	$1,000	$62.3	$74.2	$135.9	$246.9	$170.1	$122.2	$237.5	$358.4	$691.9	$370.4	$630.4	$470.1	$456.6
Hampton Bays, NY	1,000 Lbs.	87.0	318.9	309.5	454.3	415.7	316.6	93.2	138.8	128.9	8.2	47.0	12.0	12.2
	$1,000	$120.5	$516.1	$589.6	$733.0	$661.6	$562.6	$134.4	$191.2	$134.8	$11.8	$72.1	$28.5	$28.9
Newport, RI	1,000 Lbs.	312.0	406.9	436.3	406.8	581.5	360.9	614.2	671.1	1,234.6	594.5	864.8	445.5	382.5
	$1,000	$388.0	$505.4	$558.1	$584.3	$1,229.4	$808.1	$848.2	$917.9	$1,507.4	$817.8	$1,565.9	$834.9	$731.4
Hampton, VA	1,000 Lbs.	256.2	336.0	113.4	134.9	42.2	35.8	20.7	3.6	4.7	7.4	12.1	7.6	18.0
	$1,000	$326.5	$350.5	$129.3	$178.5	$79.1	$76.1	$23.8	$3.6	$6.3	$11.6	$20.1	$13.9	$34.7
Newport News, VA	1,000 Lbs.	184.3	253.9	373.0	275.2	95.9	90.0	39.6	43.8	37.3	30.4	34.3	39.5	49.3
	$1,000	$221.1	$285.0	$454.0	$333.1	$140.4	$106.5	$42.9	$50.9	$43.3	$41.4	$52.9	$75.3	$93.6

Source: NMFS Statistics Office, dealer weighout database & permit database

Pounds are in landed weight

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2006 fishing year data are based on vessels issued a monkfish permit during the 2002-2006 fishing years, respectively.

HOME PORT		MONKFISH LANDINGS AND REVENUES												Principal Port
		FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006	FY2006
All Other Ports	1,000 Lbs.							8699.4	6182.4	7063.9	4830.2	6373.5	3935.5	3225.7
	$1,000							$12,153	$8,618	$8,421	$7,299	$11,129	$6,846	$5,203
Summary of "Primary", "Secondary" and "Other" Ports								30,310	24,864	28,758	17,478	21,866	14,117	14,117
								$42,072	$34,654	$36,732	$29,612	$41,054	$27,196	$27,196

Table 24 - Monkfish landings and revenues for monkfish secondary and other ports, by homeport in FY1995 – 2006, and principal port, FY2006.

	HOME PORT	Number of Vessels	FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005	FY2006
1	Westport, MA	20	56.9%	69.0%	42.5%	40.8%	49.6%	51.2%	62.9%	37.4%	47.3%	28.9%	30.7%	8.9%
2	Port Clyde, ME	9	10.6%	7.7%	13.7%	19.2%	37.6%	44.6%	36.5%	32.7%	36.1%	35.4%	13.4%	3.8%
3	Plymouth, MA	21	6.0%	4.2%	6.3%	7.9%	7.5%	38.5%	29.8%	28.6%	4.6%	22.8%	6.8%	13.6%
4	South Bristol, ME	10	7.1%	7.6%	7.5%	13.5%	22.6%	42.5%	32.4%	27.7%	35.6%	34.1%	35.9%	0.9%
5	Portsmouth, NH	41	11.8%	12.5%	19.8%	19.4%	38.4%	39.9%	49.8%	37.8%	31.3%	28.4%	30.0%	15.2%
6	Scituate, MA	49	5.9%	3.5%	3.2%	20.2%	30.5%	40.5%	34.5%	17.5%	30.7%	13.8%	10.2%	6.5%
7	Boston, MA	33	13.1%	10.8%	14.0%	13.5%	27.4%	30.8%	20.6%	23.6%	23.3%	27.8%	30.2%	24.1%
8	Portland, ME	115	12.5%	13.0%	13.9%	14.4%	23.5%	26.2%	22.2%	27.6%	26.3%	27.4%	22.8%	19.2%
9	Rockland, ME	5	17.6%	22.4%	4.1%	9.0%	12.3%	14.3%	9.5%	2.8%	4.2%	0.3%	0.0%	0.0%
10	Long Beach/Barnegat Light, NJ	80	17.7%	21.6%	14.8%	28.6%	39.1%	22.3%	34.2%	24.0%	25.1%	8.5%	12.4%	12.4%
11	Gloucester, MA	244	10.2%	6.9%	5.2%	5.8%	13.2%	18.0%	15.8%	15.1%	12.9%	14.3%	13.1%	11.0%
12	Point Judith, RI	155	6.6%	12.7%	9.1%	8.5%	10.6%	13.3%	11.2%	8.0%	8.5%	4.2%	7.7%	5.2%
13	Newport, RI	78	6.2%	9.5%	10.1%	10.7%	23.6%	11.4%	13.3%	12.1%	18.0%	7.8%	6.4%	3.5%
14	Chatham, MA	137	2.8%	22.4%	2.6%	4.9%	5.7%	11.2%	9.3%	19.9%	18.1%	10.5%	20.7%	14.8%
15	Point Pleasant, NJ	125	2.0%	7.1%	10.6%	19.0%	19.1%	9.0%	13.8%	8.0%	7.1%	3.7%	4.1%	3.7%
16	New Bedford, MA	520	13.4%	9.4%	14.0%	15.8%	11.5%	8.1%	5.9%	4.1%	4.5%	3.5%	3.9%	2.6%
17	Hampton Bays, NY	64	2.5%	9.5%	8.1%	10.0%	10.1%	7.9%	9.7%	7.0%	6.4%	3.4%	11.8%	7.9%
18	Ocean City, MD	74	7.3%	15.0%	12.3%	11.7%	15.3%	4.3%	4.8%	0.8%	2.2%	1.2%	2.2%	1.6%
19	Provincetown, MA	34	9.0%	4.9%	2.5%	8.1%	6.7%	4.3%	0.9%	2.2%	4.3%	4.9%	3.2%	2.4%
20	Montauk, NY	126	0.9%	1.4%	1.8%	3.3%	2.1%	1.6%	2.3%	3.4%	6.2%	3.4%	4.8%	3.1%
21	Cape May, NJ	223	1.5%	1.8%	2.4%	1.9%	1.4%	1.2%	0.7%	0.5%	0.6%	0.3%	0.8%	0.8%
22	Greenport, NY	4	1.7%	2.6%	2.9%	2.0%	1.3%	1.0%	1.1%	0.6%	0.2%	0.1%	0.5%	0.5%
23	Hampton, VA	68	4.0%	5.1%	2.7%	2.9%	1.2%	0.8%	0.6%	0.2%	0.2%	0.3%	0.5%	0.3%
24	Newport News, VA	75	1.8%	2.2%	3.9%	2.8%	0.9%	0.5%	0.2%	0.2%	0.2%	0.1%	0.1%	0.2%

Source: NMFS Statistics Office, dealer weighout database & permit database

1995-2001 data based on vessels that were issued a monkfish permit during the 2001 fishing year. 2002-2006 fishing year data are based on vessels issued a monkfish permit during the 2002-2006 fishing years, respectively.

Table 25 - Monkfish Revenues, FY1995-2006, as a Percentage of Total Revenues by Port

5.0 Environmental Consequences of Proposed Action

5.1 Biological Impacts

5.1.1 Impact on monkfish and non-target species

5.1.1.1 Biological impact of Biological Reference Point (BRP) Alternatives

The proposed change in biomass reference points does not have a direct biological impact on monkfish or non-target species because it does not, in and of itself, change fishing effort or behavior. Indirectly, however, the change in stock status under Alternative 1, to "rebuilt" from "overfished", obviates the need for a restrictive rebuilding program, especially since, under the previous status, there were only three years remaining in the 10-year rebuilding program. The Councils are not, however, proposing any change in the allocated effort under the revised reference points in deference to the strongly stated cautionary statements contained in the assessment report and recommendations. Therefore, there is no biological impact resulting from Alternative 1 when compared to the no-action alternative since allocated effort (target TACs, trip limits and DAS) is not changed.

5.1.1.2 Biological impact of DAS Carryover Alternatives

The Councils are considering reducing the number of unused monkfish DAS that a vessel may carryover from the current level (no action alternative) of 10 DAS to 6 or 4 DAS. If a reduction in carryover DAS is adopted, the biological impact would be a reduction in potential fishing effort in the year in which those vessels use those carryover DAS. In developing these alternatives for Framework 4, the PDT agreed that the allowance of 10 DAS as a carryover could seriously undermine the rebuilding program, and recommended the more conservative value of 4 DAS. The PDT could not quantify the impact, especially because it depends on whether a vessel has carryover DAS to use from the previous year, and if, when and where that vessel uses those DAS. Qualitatively, the PDT noted that allowing fewer carryover DAS is more precautionary than taking no action.

The impact of a relatively large number of carryover DAS (as a percentage of the allocated baseline) anticipated by the PDT was actually observed in the 2006 fishing year, when SFMA landings exceeded the target TAC by 61%. Analysis of landings attributable to the use of carryover DAS is somewhat complicated by the way DAS are counted in the system. If a vessel has DAS to carryover from a previous year, those DAS are counted as being used first by the DAS tracking program, followed by base DAS. Thus, if catch rates are higher during the early part of the year, landings attributable to carryover DAS would be higher than landings attributable to base DAS, even if the number of DAS (base and carryover) were equal. Nevertheless, with that in mind, it is possible to estimate the landings that the DAS carryover accounted for by accumulating the landings until the total number of carryover DAS is used up.on each vessel. These results are shown in Table 26. In the SFMA the landings attributable to carryover DAS accounted for approximately three quarters of the total TAC overage in 2006 (1,636 mt out of a total overage of 2,242 mt). Note that in 2006, vessels fishing in the NFMA were not required to use a monkfish DAS, and, therefore, the number of carryover DAS and associated landings is comparatively small.

	2006	
	SFMA	NFMA
Sum of monkfish DAS charged	1364	110
Sum of monkfish DAS charged matched with dealer weighout database	908	52
Live pounds of monkfish	3,606,324	367,853
Metric tons of monkfish	1,636	167

Table 26 Sum of monkfish landings on carryover DAS in FY2006 by area.

This analysis suggests that a higher number of carryover DAS increases the risk that landings will exceed the target TAC. Furthermore, the additional effort represented by the carryover DAS would result in a greater impact on non-target species, particularly skates and dogfish.

5.1.1.3 Biological impact of 3-hour Gillnet Rule Alternatives

The PDT analyzed DAS and landings data by area for 2006 and 2007 (through September). Gillnet trips that recorded less than 3 hours were pulled from the DAS database. Those trips that could be matched with landings in the dealer weighout data were matched, while the landings for remainder were prorated based on the number of trips. The results are shown in Table 27.

	SFMA		NFMA	
	2006	2007*	2006	2007*
Vessels	89	33	15	12
Trips	426	526	30	16
Trips matched with weighout database	265	381	23	7
Live pounds of monkfish	642,592	937,360	58,699	11,128
Metric tons of monkfish	291	425	27	5
Mean no. of trips per vessel	4.7	15.9	2	1.3
Median no. of trips per vessel	1	3	1	1
Mode of trips per vessel	1	1	1	1
Maximum no. of trips per vessel	95	70	10	2
Minimum no. of trips per vessel	1	1	1	1

* - through September 30, 2007

Total number of day gillnet vessels recording trips in the DAS database	190	101	65	50

Table 27 Information on monkfish gillnet trips less than three hours by area for 2006 and 2007 (though September).

The highly skewed distribution of trips in these results suggests that while approximately half of the SFMA gillnet vessels have availed themselves of the opportunity to land monkfish and only be charged 3 hours (89 vessels out of 190 gillnet vessels with monkfish landings from the SFMA in 2006), relatively few vessels are doing so extensively and some are taking this to its extreme (up to 95 trips in 2006 and 70 trips through September 2007). There also appears to be an increasing trend in numbers of trips, and in average and total landings by vessels landing monkfish on trips less than 3 hours, with only about a third of the vessels having done so in the May-September 2007 period, but accounting for about 25% more trips and 46% more monkfish

landings. This increase could be attributed to one or both of two factors: vessels have learned that they can increase their annual landings for a restricted number of allocated DAS, and the imposition in 2007 of the VMS requirement for vessels that also have a multispecies limited access permit. For those vessels with a VMS, DAS counting no longer starts when the vessel calls in before leaving port, but when it crosses the demarcation line, meaning that less DAS time is needed to reach and haul the gear than in previous years. In 2006 in the SFMA trips under 3 hours accounted for approximately 5% of the total landings, while in 2007, through September, those trips accounted for approximately 15% of the estimated landings for the period (based on an unaudited SFMA landings estimate).

The trend is only discernable in the SFMA, primarily because in the NFMA in 2006, vessels were not required to use a monkfish DAS and did not have a trip limit while on a multispecies DAS. Framework 4, however, implemented both regulations for 2007.

In terms of the biological impact of the alternatives, Alternative 1, which prohibits landings on trips less than three hours, and Alternative 3, which would charge a gillnet vessel a minimum of 15 hours on any trip that landed monkfish are functionally equivalent, and both would have a positive impact compared to the no action alternative because they would increase the increments at which DAS are counted whenever monkfish landings occur. Alternative 2, would have a negative biological impact compared to the other alternatives, including no action, because allowing a vessel to land monkfish on trips less than three hours, charging only time used, and requiring that only one such landing occur per calendar day would mean that the gillnets would be soaking for a greatly extended period over the year. In the extreme, counting DAS in increments of 3 hours, instead of 15, could mean that the gear is in the water for up to five times as long. This would result in increased incidental catch of non-target species, and likely result in increased discards of monkfish due to product quality as well as trip limit regulations.

5.1.1.4 Biological impact of Large-Mesh Incidental Catch Alternatives

Alternative 1 would cap the allowable landings of monkfish by vessels fishing with large mesh in the SNE RMA while not on a monkfish, scallop or multispecies DAS. This alternative also places a maximum cap of either 450 lbs. (Option A) or 50 lbs. tail weight, to a maximum of 150 lbs. (Option B), which is equal to the incidental limit on vessels fishing with small mesh in the SFMA. At this time, vessels comprising the affected group are those fishing under a Skate Bait Letter of Authorization. The no action alternative allows those vessels to retain up to 5% of the total weight of fish on board without a cap, and, therefore, if a vessel catches 9,000 lbs. of skate, it can retain more monkfish than a limited access (Category B or D) vessel fishing on a monkfish DAS. Since vessels targeting skate are not limited in the number of trips or the amount of skates they can land, there is a lack of control on the quantity of monkfish such vessels can land, which depends only on the total weight of fish on board. Furthermore, the more skate a vessel catches, the greater the incentive to target monkfish to maximize the landings and trip revenues. Therefore, the no action alternative could result in increased effort on both skates and monkfish, without control on the total quantity of either species being caught, compared with Alternative 1. Similarly, Alternative 1 Option A has a higher overall cap, and, thus, represents a greater incentive than Option B to target monkfish. In addition, Option B expands the landings cap to all vessels fishing under a Skate Bait LOA east of 74°00'W. According to public comment, the

lower overall cap would not result in increased discards of monkfish caught incidental to skate fishing in the SFMA. As noted in Section 5.3.4, only a total of three trips in 2006 would be affected by the proposed action, suggesting that the action is a precautionary measure at this time.

5.1.1.5 Biological Impacts of Letter of Authorization (LOA) Alternatives

The LOA requirement is an administrative rule designed to improve enforcement of the area based regulations, principally the trip and incidental catch limits. The alternative that would eliminate this requirement (Alternative 1) will not have a measurable effect on fishing effort, and, consequently, on either monkfish or non-target species, compared to taking no action.

5.1.2 Impact on Protected Species

NMFS previously considered the effects of implementation of Framework 2 on Endangered Species Act (ESA)-listed cetaceans, sea turtles, shortnose sturgeon, and Atlantic salmon during Section 7 consultation on the fishery, which was completed on April 14, 2003. The Biological Opinion (Opinion) for that consultation concluded that the proposed action was not likely to result in jeopardy to any ESA-listed species inhabiting the management unit. A revised Incidental Take Statement was provided for the anticipated taking of loggerhead, leatherback, green, and Kemp's ridley sea turtles in the fishery. Reasonable and prudent measures to reduce the likelihood of takes were also provided to address the possible entanglement of sea turtles in the fishery.

5.1.2.1 Impacts of Biological Reference Point (BRP) Alternatives on Protected Species

The proposed change in biomass reference points does not have a direct biological impact on monkfish or non-target species because it does not, in and of itself, change fishing effort or behavior. As such, Alternative 1 will not likely have a direct impact on protected species when compared to the no action alternative.

5.1.2.2 Impacts of DAS Carryover Alternatives on Protected Species

Alternative 1 would allow 6 carryover DAS, Alternative 2 would allow 4, and Alternative 3, the no action alternative, would allow up to 10. While it is not possible to quantify the impact of these alternatives on the total amount of fishing effort by monkfish vessels that may interact with protected species, because such impacts depend on the type of gear used, the time of year, and area fished, it is reasonable to state that a higher number of carryover DAS translates to a correspondingly higher potential fishing effort. Since the no action alternative would provide the highest number of carryover DAS, the other alternatives would have a relatively positive effect on protected species because of the lower level of effort and, therefore, the reduced chance of interaction.

5.1.2.3 Impacts of 3-hour Gillnet Rule Alternatives on Protected Species

As with the discussion of the impact of the DAS carryover alternatives on protected species, the impact of 3-hour gillnet rule cannot be quantified, but some qualitative conclusions are possible. Alternative 1 and Alternative 3 represent the most conservative alternatives, because for each trip on which a vessel lands monkfish, the vessel would be charged a minimum of 15 hours against its DAS allocation, and the DAS allocation would be used up at a faster rate. If vessels remove their gillnet gear from the water once the DAS allocation is used up, the risk of fishery

interaction with protected species is reduced or eliminated. The no action alternative (Alternative 4) would allow gillnet vessels to keep their gear in the water for a longer duration than under the Alternative 1 because of the greater number of trips and hauls a vessel can make for a given allocation of DAS. Under Alternative 2, the impact on protected species could, in fact, be greater than under the no action alternative because by eliminating the ability of vessels to make for multiple hauls on a calendar day, the gear would be in the water for a longer duration.

5.1.2.4 Impacts of Large-Mesh Incidental Catch Alternatives on Protected Species

Alternative 1 would place a cap on the allowable landings of monkfish by vessels fishing with large mesh in the SNE Regulated Mesh Area but not on a monkfish, multispecies or scallop DAS. At this time, such vessels are mainly trawl vessels fishing for bait skate. Since the cap is a limit on an incidentally caught species, not the species on which the effort is directed, the rule will not have a major impact on the amount or distribution of directed effort by vessels targeting skate, and will, therefore, not have an impact on protected species compared to taking no action.

5.1.2.5 Impacts of Letter of Authorization (LOA) Alternatives on Protected Species

Alternative 1 would eliminate the requirement for vessels fishing for monkfish to obtain an LOA when fishing in the NFMA, as is currently required (under the no action alternative). Since Alternative 1 would be an administrative action, it will not change the amount or distribution of fishing effort, and would not have an impact on protected species compared to taking no action.

5.2 Habitat Impacts

In general, the activity described by this proposed action, fishing for monkfish, occurs off the New England and Mid-Atlantic coasts within the U.S. EEZ. Thus, the range of this activity occurs across the designated EFH of all Council-managed species (see Amendment 11 to the Northeast Multispecies FMP for a list of species for which EFH was designated, the maps of the distribution of EFH, and descriptions of the characteristics that comprise the EFH). EFH designated for species managed under the Secretarial Highly Migratory Species FMPs are not affected by this action, nor is any EFH designated for species managed by the South Atlantic Council as all of the relevant species are pelagic and not directly affected by benthic habitat impacts.

The alternatives under consideration in this action will not increase monkfish effort in either management area. The overall effect of the fishery on EFH was discussed and mitigated for in Amendment 2, and in Multispecies Amendment 13, and the alternatives under consideration do not change those findings. The fishery must continue to respect the 2,811 square nautical miles of habitat closed areas established by the Multispecies Amendment 13 as well as the Oceanographer and Lydonia Canyon closures adopted in Monkfish Amendment 2. Monkfish fishing effort will continue to occur in areas that are already open to bottom tending mobile gears or by gears that have been determined to not adversely impact EFH in a manner that is more than minimal and less than temporary in nature. Therefore, the alternatives under consideration will not have an adverse impact on EFH.

As described in Section 5.1, the alternatives under consideration that are not likely to affect monkfish fishing effort and, therefore, the commensurate impacts of the fishery on EFH include revision to the biological reference points, and the elimination of the LOA requirement for

vessels fishing for monkfish in the NFMA. The alternatives to modify the 3-hour gillnet rule, all of which would result in a reduction in fishing effort in comparison to the no action alternative, would only impact vessels using gillnets. There are no species or life stages for which EFH is more than minimally vulnerable to bottom gillnets (Stevenson, *et al.,* 2004). As a result, the alternatives to modify the 3-hour gillnet rule would not result in additional impacts to EFH. The alternatives to reduce DAS carryover would cause a modest reduction on potential fishing effort by both trawl and gillnet vessels in comparison to the no action alternative, proportional to the number of DAS proposed (4, 6 or 10 under no action), and depending on the number of carryover DAS that would otherwise have been used by those vessels. The alternatives to place a cap on the incidental catch of monkfish by large-mesh vessels fishing in the SFMA and not on a monkfish, multispecies or scallop DAS are also not likely to have a significant impact on trawl effort, in comparison to the no action alternative, since the measure would not regulate the directed effort of those vessels, except to the extent that such vessels may target monkfish under the existing incidental limit of 5% of total weight of fish on board (i.e., the no action alternative). These measures are described in detail in Section 3.0.

In summary, for the reasons stated above, the action proposed in this framework adjustment would not have an adverse impact on EFH for any federally managed species in the region. Because the EFH Final Rule (50 CFR 600.920 (e)(1-5)) states that "federal agencies are not required to provide NMFS with assessments regarding actions that they have determined would not adversely affect EFH", no EFH Assessment is provided for this action.

5.3 Economic Impacts of the Alternatives

The proposed management changes include several measures that would impact vessels participating in the monkfish fishery, although the majority of the measures would affect small subsets of the vessels. The following sections provide a discussion of potential impacts from each measure; where possible a quantitative analysis is provide with an estimate of the number of affected vessels, however much of the discussion remains qualitative due to data and model limitations.

The overall framework for economic analysis is change in benefits and costs, and ultimately net national benefits. While an alternative may result in immediate costs to a particular group of vessels, this must be compared to the future benefits to the nation of a well-functioning plan. The anticipation is that should the plan achieve its objectives, future benefits would be at higher sustained levels. Actions that delay the achievement of plan objectives reduce net national benefits by delaying the achievement of higher future benefits.

Four sources of data were used: i) DAS trip records; ii) permits issued including Letter of Authorization (LOA) records; iii) Vessel Trip Reports (VTR) data; and, iv) Commercial Fisheries (CF) data. The CF data provided price and landings information for fishing trips, as well as average monthly prices. The VTR data was used to determining fishing trip location, as well as provide an estimate of quantity kept when CF data was not available. The DAS and permit data was used to determine the type of trip by category, and DAS charges.

5.3.1 Biological Reference Points (BRP) Alternatives

A change in the biological reference point (BRP) would not, in itself, have an immediate economic impact. However Alternative 1, which moves the fishery from overfished to rebuilt, implicitly includes potential additional future benefits for participating vessels after the expiration of current TAC measures or when those measures are changed. Without proposals for changes in the TAC for future years it is not possible to assess the level of potential economic benefit. Biological uncertainty from either BRP alternative would compound the uncertainty inherent in an economic impact analysis of possible trajectories for the fishery; the more biological uncertainty within a BRP the greater the economic uncertainty.

Alternative 2, which would not change the BRP, would not result in additional economic impacts beyond those identified in earlier actions.

5.3.2 DAS Carryover Alternatives

The DAS carryover alternatives would restrict a permit holder's ability to carry forward unused DAS to the next fishing year; Alterative 1 would limit the carryover to 6 DAS, Alternative 2 would restrict the carryover to 4 DAS and Alternative 3 (no action) would maintain the limit at 10 carryover DAS.

For the fishery as a whole, maintaining high allowable carryover DAS could risk reducing future benefits to the fishery should a significant portion of the potential carryover DAS be utilized and landings levels exceed TAC levels. This risk is reduced with fewer carryover days; thus the risk is lowest for Alternative 2 (4 carryover DAS), followed by Alternative 1 (6 DAS) and highest for Alternative 3 (10 DAS).

For individual permit holders a reduction in carryover DAS below that which they wish to utilize would reduce economic opportunity and have a negative economic impact on those individuals. Permit holders may carryover DAS for a number of reasons. Unexpected events such as weather and mechanical failure could result in unintended carryovers; this was the intent of the provision. Vessels could also intentionally carryover days for economic reasons including expectations in the next fishing year of higher prices, larger trip limits or a lower base DAS allocation. A higher number of carryover DAS allows vessels greater flexibility and increased opportunities. This was not the intent of the provision, and it is seems unlikely that the DAS trip-limit model could account for this behavior. As a result, there is a risk of exceeding the TAC within a given year due to unaccounted for (strategic) economic behavior. Exceeding the TAC would result in a reduction in future benefits for the industry.

Based on FY2006 DAS use (Table 28), the majority of permit holders used both base and carryover DAS; six that fished only in the NFMA, 95 that fished only in the SFMA and 85 that fished in both the NFMA and SFMA. The mean carryover DAS used by these permit holders varied by area fished and ranged from 8.4 DAS for those fishing in both the NFMA and SFMA up to 9.3 DAS for those fishing only in the NFMA. In general, a reduction in carryover DAS below the mean used suggests a possible reduction in economic opportunity for those permit holders. Alternative 3 (no action) is not expected to have an economic impact beyond that which currently exists. However, the carryover DAS levels for both Alternative 1 (6 DAS) and Alternative 2 (4 DAS) are both below the average number of carryover days used by these permit

holders and thus could potentially have negative economic impacts depending on the constraints placed on the permit holder by the base DAS allocation.

The 46 permit holders that used only their carryover allocation would have had unused base DAS available for use, and so carryover DAS use was simply a replacement of base DAS use. (VTR records for trips with kept monkfish weights greater than zero were used to assess the location of monkfish fishing effort. One vessel that reported use of carryover DAS only and one vessel that reported base DAS use only did not have such VTR records with location information. These two vessels are not included in the calculation of the information in the table.) An additional eight permit holders used only their base allocation; this could be the result of having no DAS to carry forward; these permit holders have the potential to be affected in future years if they were to have unused DAS to carryover.

A caveat with this information is that the DAS use program requires the use of carryover DAS before the use of base DAS. For vessels that are not constrained by the base DAS allocation, this will result in a higher mean carryover DAS use than if they were held in reserve. The mean total DAS use in all areas is well below the FY2006 allocation (39.3 DAS), and is below the current DAS allocation for the areas. This suggests DAS allocation may not be a constraint on most permit holders, and carryover DAS are simply displacing use of base DAS.

	Type of DAS used		
Area Fished	Carryover Only	Base Only	Both Carryover and Base
NFMA Only			
Permits	5	-	6
mean carryover used	3.6	-	9.3
mean base used	-	-	13.1
*mean **total** used*	*3.6*	-	*22.4*
SFMA Only			
Permits	19	3	95
mean carryover used	5.3	-	8.9
mean base used	-	9.7	9.9
*mean **total** used*	*5.3*	*9.7*	*18.8*
Both NFMA & SFMA			
Permits	21	4	85
mean carryover used	7.1	-	8.4
mean base used	-	14.1	13.9
*mean **total** used*	*7.1*	*14.1*	*22.3*

Table 28 Average Monkfish DAS used by vessels in FY2006

When permit holders are unconstrained by base DAS allocations, there is no economic value for a carryover DAS. That is, if a permit holder would not normally fish beyond what is the current annual base DAS allocation, then having carryover DAS under the current system just displaces base DAS use. In FY2007 and FY2008, the base DAS allocation is 31 DAS, with a maximum use of 23 DAS in the SFMA. Thus, permit holders that fish only in the SFMA are limited to 23 DAS, while those fishing in the NFMA only or in both areas could fish up to 31 DAS. To

determine if the DAS allocations are a binding constraint on permit holders' fishing activity, we examine total FY2006 DAS use, which had a higher DAS allocation (39.3 DAS). Permit holders that were fishing near the FY2007 allocation may have an economic value for carryover DAS that arise due to unforeseen circumstances. This assumes that DAS use in FY2006 below the allocation was typical of the level of DAS use a permit holder would prefer.

In FY2006, 240 permit holders used monkfish DAS. Of these, five permit holders fished only in the SFMA and had total DAS use (carryover plus base) greater than 23 DAS, the amount allowed for use in the SFMA in FY2007. This suggests that only a small number of permit holders in the SFMA would be constrained by the current base DAS allocation and have an economic value for carryover DAS.

For permit holders that fished only in the NFMA or in both the NFMA and SFMA, 15 had total DAS use above 31 DAS. This suggests that these vessels would fully utilize the current DAS allocation, barring unforeseen circumstances, and so could have a value for carryover DAS. This result is provided with a caution, as there have been regulatory changes since FY2006 that may require higher DAS use by vessels fishing in the NFMA. Consequently, more permit holders may be constrained by the FY2007 DAS allocation, and so have an economic value for carryover DAS.

While a permit holder may have an economic value for a carryover DAS, this information does not provide guidance on how many carryover DAS a permit holder would value, or the value they would place on a carryover DAS. Additionally, other measures within this Framework would (e.g. elimination of 3-hour DAS use) require higher DAS use for some permit holders, particularly in the SFMA.

Combined this suggests that while negative economic impacts would be anticipated for Alternative 2 (4 carryover DAS) and Alternative 1 (6 carryover DAS) relative to Alternative 3 (no action), the number of affected permit holders would be small. This must be balanced with the potential economic impact of high levels DAS carryover on the ability of the plan to achieve its goals and provide future economic benefits to those permit holders. At this time it is not possible to calculate the value of those competing impacts.

5.3.3 Gillnet 3-hour Rule Alternatives

This measure addresses limits on landings for gillnet vessels that make fishing trips of 3 hours or less. In a fishery constrained by DAS and trip limits, profit maximizing vessels will attempt to decrease costs and/or increase trips within the DAS allowance. If a vessel can haul its gear within the 3-hour window and achieve its trip limit, it effectively reduces trip costs and increases annual revenues simultaneously. A vessel that must add steam time to a trip in order to harvest gear within the 3-hour window would be achieving an increase in revenues but with increased costs; for this to be economically rational the increase in revenues must exceed the increased costs. Consequently, the vessels using the 3-hour rule to increase annual landings are acting as economically rational agents. Any action that results in an increase in cost for these vessels, or decreases their revenue potential, will result in a negative economic impact to the affected vessels. However, the intent of the rule was to allow vessels that experienced unexpected events (e.g. weather, mechanical difficulties) to return to port without being charged 15 hours against its

DAS allocation, as it otherwise is for trips lasting 15 hours or less. Economically rational behavior by a few that do not follow this intent could undermine the plan's ability to achieve higher future benefits because of the increased likelihood that landings will exceed the target TAC. The potential economic impact on these vessels should be weighed with the impact on the larger fishery of potentially delaying future benefits. The risk of this cost is increased by alternatives that allow vessels to significantly exceed total landings anticipated by the DAS-trip limit model.

Based on the DAS data, the number of gillnet vessels taking 3-hour trips under the monkfish plan appears to have increased between FY2004 and FY2006 (Table 29). The majority of vessels in all years took only one or two 3-hour trips within the fishing year. A small group of vessels have made more extensive use of the provision. In FY2006, 21 vessels made more than four 3-hour trips, up from 15 in FY2004.

# of 3-hr trips	FY2004	FY2005	FY2006
1	27	41	60
2	12	11	14
3	9	6	6
4-10	8	12	11
> 10	7	6	10
Total	*63*	*76*	*101*

Table 29 Number of vessels taking a given number of trips of 3 hours or less, FY2004 to 2006.

To estimate the economic impact of the alternatives the DAS, Vessel Trip Report (VTR) and commercial landings (CF) data were used. To estimate the impact on revenues, trips less than 3 hours (≤ 0.13 DAS) from the DAS database were matched with CF and/or VTR records. Matches with a CF record were used to estimate the average value of monkfish and all other landings per trip; an average over both NFMA and SFMA was used due to the small number of NFMA trips.

In FY2006, approximately 80% of the 3-hr. DAS records were matched with either a CF or VTR record and had a monkfish kept weight greater than zero. This indicates that the majority of trips were landing some monkfish, although it seems plausible that at least some of the trips did not actually result in landings. To provide an upper estimate of revenue generated by these trips it was assumed that all 3-hour trips did result in landed catch and the mean value per trip calculated above was applied to all trips. The mean for monkfish revenue per trip was $1,911 (Coefficient of Variation 76%) and the mean for total revenue per trip was $2,282 (CV=79%), indicating that monkfish was the primary harvest. The estimated revenue generated from all 3-hour trips in FY2006 was $612,794 from monkfish, with estimated total revenue from all species (including monkfish) of $891,229 from 447 trips by 101 vessels. Based on CF data, in FY2006 the total revenue generated from monkfish by 621 limited access permit holders was slightly over $29 million, of which a little over $13 million was from 232 vessels using gillnet gear.

The economic impacts of such limits will depend on the behavior by fishermen of affected vessels. If a vessel has the DAS allocation available to fully convert all 3-hour charged trips to

trips charged at 15-hours there should be no change in profits for the vessel or the industry. This is likely the case for vessels that take a small number of such trips in a year. However, vessels that take a large number of 3-hour trips may be constrained by available DAS and would unable to convert all 3-hour trips to 15-hour trips. This would result in a negative impact on vessel and industry profits proportional to the reduction in the total number of trips within a year. The number of vessels likely to be so affected is small.

Alternative 4 (no action) would have no immediate economic impact as vessels would be able to continue to land monkfish on trips less than 3 hours. However, there is potential for long term costs if the plan objectives were delayed as the current DAS trip model is unable to account for landings from such trips.

Alternatives 1 and 3B are functionally equivalent from an economic impact perspective. In order to land monkfish a vessel would be required to take a 15 hour DAS charge (0.625 DAS). It seems reasonable to assume that most vessels landing monkfish would make such an adjustment, thus there would be a limited impact on industry revenues. However, vessels that currently take more trips than that available by taking the total DAS (carryover plus base) divided by 0.625 would see a reduction in revenues, although there would also be a proportional reduction in trip costs. A small number of vessels (less than 5) appear to fall within this category. The impact on total monkfish revenues and profits is thus likely to be a fraction of the total estimate revenues from 3-hour trips.

Alternative 2, which would allow vessels to land monkfish on one 3-hour trip per calendar day, would have an even smaller economic impact than Alternatives 1 and 3B. If more than one 3-hour trip is taken in a calendar day all trips but one would no longer be allowed, resulting in economic loss to the vessel. However, less than 1% of 3-hour trips in FY2006 were the result of more than one trip within a calendar day.

Another consideration is that removing the allowance for landings on 3-hour trips may reduce the potential safety issues caused by a race to "beat the clock."

5.3.4 Large-mesh Incidental Limit Alternatives

This measure provides for alternative limits on the incidental landings of monkfish. It is assumed that the group of potentially affected vessels are those defined by the preferred alternative; that is, vessels not on a monkfish, multispecies or scallop DAS using large mesh (>6.5") in the Southern New England (SNE) Regulated Mesh Area (RMA) east of 72°30'W or with an active Skate Bait LOA in the SNE RMA. Alternative 2 (no action) would maintain the current limit of 5% (tail weight) of the total weight of fish on board without a poundage limit. Alternative 1A would limit the monkfish landings to 450 pounds (tail weight) or 5% of the total weight, whichever is less. Alternative 1B would limit monkfish landings to 50 pounds (tail weight) per day or 150 pounds per trip or 5% of the total weight of fish, whichever is less.

Data from FY2006 was used to provide an estimate of the number of vessels and trips that could be affected by this measure. All FY2006 VTR trips with a location in the SNE RMA with a kept quantity for monkfish greater then zero were examined. Trips were excluded if they matched with a monkfish, multispecies or scallop DAS or reported more than 75% of landings in

monkfish, scallops or of the multispecies complex. The latter criterion was based on the assumption that the match with the DAS records was incomplete. To determine the value of landings, the average monthly price from the CF data was multiplied by the weight recorded on the VTR. For large mesh vessels only those east of 72° 30' W were included. For the Skate Bait LOA holders in SNE RMA only trips that occurred while a LOA was in place (between start date and end or withdrawal date, which ever occurred first) were considered.

We assume that monkfish is incidental to the landings on the trips meeting the above criterion. As such, we assume that decreasing the amount of monkfish that could be landed would decrease trip revenues, but would have no impact on trip costs. Thus, any decrease in monkfish revenues translates to a decrease in trip net revenues and negative economic impacts. If the monkfish landings for a trip are above the cap described there will be a decrease in net revenues of the difference between the cap and actual landings; however, if the cap is above the monkfish landings there will be no loss in net revenue. For most of the trips examined, the 5% limit was lower than the associated cap.

In FY2006, 12 vessels fished in the SNE RMA area that met the above criteria. Four of the vessels landed monkfish on 10 trips while on a Skate Bait LOA, generating $10,616 in total revenues of which $2,304 were from monkfish (22%). Eight vessels landed monkfish on 19 trips while using large mesh east of 72°30'W, generating $73,013 in total revenues of which $1,160 were from monkfish (2%). There was no overlap in identified vessels.

Most of the identified trips had incidental monkfish landings below the limits defined by the alternatives, and so would not have been affected by the proposed limits. The estimated losses in revenues from the three alternatives are less than $2,000 over all trips (Table 30), with each alternative affecting three vessels. The impact of Alternative 2 (no action) and Alternative 1A (450 pound cap) are the same as the landings of other species on the affected trips are low enough that the 5% cap is below the 450 pound limit and is the effective cap. The table indicates that strict adherence to the 5% limit would achieve Alternative 1A, although the overages were very small. Under Alternative 1B (50 pounds per day absent/150 pounds per trip) the anticipated losses in revenue are slightly larger; the average anticipated loss per vessel is $588. The loss in revenue would have been about 2% for all vessels that met the criteria for analysis. It may be possible for vessels to reduce the impact of this loss by retaining additional quantities of other species; however, this is not addressed.

	Alternative		
	1A	1B	2
Trips affected	3	3	3
Vessels	3	3	3
Decrease in revenues ($)	***540***	***1,765***	***540***

Table 30 Estimated losses from alternative incidental monkfish caps based on FY2006 VTR trips.

In summary, the economic impacts in terms of lost revenues to the economy are small from all alternatives although the impacts at the trip level could result in some trips no longer being economically attractive. Closer adherence to the 5% limit on incidental landings of monkfish

would achieve the same outcome as Alternative 1A, while Alternative 1B would result in a small additional reduction in landings based on FY2006 data.

5.3.5 Letter of Authorization (LOA) Alternatives

Alternative 1 in this measure would remove the requirement to obtain a Letter of Authorization (LOA) to fish in the NFMA for vessels using a VMS, while Alternative 2 would continue to require the LOA. Currently all vessels that fish in the NFMA, including those with an incidental catch permit (category E), require an LOA. The direct economic impacts of Alternative 1 are likely small and relate to a reduction in administrative burden and a potential increase in flexibility for vessels particularly those that fish in both the NFMA and SFMA.

In FY2006, according to the VTR records, a total of 604 vessels fished in the NMFA including 282 vessels that fished in both the NFMA and SFMA. The total number of permitted vessels that reported some monkfish landings in all areas was 1,190. Using DAS records for all fisheries, it is estimated that 525 of the 604 vessels (87%) have VMS capabilities, as they reported DAS use using a VMS at least some of the time. Given the prevalence of VMS, Alternative 1 may improve the data on use of the NFMA as the current LOA data includes only a portion of the vessels that fish in the NFMA based on VTR records. As well, it is possible that the increased flexibility would encourage more vessels to fish in the NFMA; however it is not possible to model such behavior changes at this time.

Alternative 2 (no action) would not result in economic impacts beyond those that currently exist.

5.4 Social Impact Assessment for Measures under Consideration

National Standard 8 of the SFA demands that "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 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" (16 U.S.C.§1851(2)(8)). The analysis that follows provides a context for understanding possible social impacts to communities resulting from the proposed measures in this framework.

Daily routines, safety, occupational opportunities, and community infrastructure are examples of social impacts that can be affected by changes in management measures. Modifications to daily routines can make long-term planning difficult. New gear requirements such as netting and some equipment must be ordered months in advance resulting in changes to daily routines when these modifications cannot be met in a time and cost efficient manner. Further the cost of making such changes may prove to be a burden for some vessel owners. Changes in management measures that limit access to fishing may increase the likelihood of safety risks. Increased risk can result when fishermen spend longer periods at sea in order to minimize steam time to and from fishing grounds, operate with fewer crew, and fish in poor weather conditions.

Occupational opportunities within the fishing industry in general appear to be largely on the decline with more people leaving the industry than entering it. Management measures that further reduce occupational opportunities may have profound social impacts on the future

occupational viability of commercial fishing. The increasing challenge to maintain economically viable fishing operations has resulted in an increasing number of fishermen leaving the fishing industry in search of other occupational pursuits. The tight fit between the unique characteristics of commercial fishing and the personality profile of fishermen has meant that many fishermen transitioning out of the industry have not found similar job satisfaction in replacement career pursuits, resulting in personal and familial stress (Pollnac and Poggie, 1988 and 2006).

While it is the intended objective of fishery management to protect fishery resources and, where practicable, provide for continued participation of communities in fishing over the long term, and minimize negative social impacts (16 U.S.C.§1851(2)(8)) , changes in measures which result in long term benefits to stocks can result in short-term negative impacts to fishermen and their families which have longer term consequences (sometimes negative) for the social and cultural fabric of communities. Changes in management measures can affect the size, demographic characteristics, and social structure of communities. Port infrastructure may be also affected by the gradual loss of shore-based services essential to a strong working waterfront. Impacts that decrease occupational opportunities within fishing in turn can affect fishing families and community infrastructure. The shift in status of the monkfish fishery from overfished to rebuilt, as proposed in this framework, may loosen some restrictions and increase opportunities to fish for those that remain in the fishery. This may also help to offset impacts in other fisheries still considered overfished.

5.4.1 Methods

Qualitative, and where possible quantitative, methods have been used to assess the relative impact of the proposed management measures outlined in this framework. In some cases the number of vessels or landings value affected is too small to constitute a reliable evaluation of community level impacts and, therefore, the discussion may focus on vessel level rather than community level impacts. While some management measures, more than others, tend to engender certain types of social impacts it is not possible to predict with accuracy precise social impacts particularly when there are overlaying management measures such as in this proposed action. Therefore the discussion of social impacts for alternatives will indicate only the likely directional impacts of specific measures, e.g., positive, negative, or neutral, rather than the precise degree.

5.4.2 Biological Reference Points (BRP) Alternatives

5.4.2.1 BRP Alternative 1

Under this alternative, the biomass minimum threshold and target would be those recommended by the DPWG. This alternative moves the status of the monkfish fishery from overfished to rebuilt. Future positive social impacts are likely to accrue to vessels that remain in the fishery should monkfish stocks continue to do well.

5.4.2.2 BRP Alternative 2 (no action)

The current biomass targets are based on the median of the 3-year moving average of the NEFSC fall survey biomass indices during 1965-1981. The biomass threshold is equal to ½ the biomass target. The BRP for this alternative would remain the same. Social impacts would be neutral.

Future negative impacts may occur should monkfish stocks decline or fail to rebuild within the program timetable, by 2009.

5.4.3 DAS Carryover Alternatives

DAS carryover can improve adherence to safe fishing practices by providing a mechanism through which vessels can carry forward some unused DAS to the next fishing year. The intent of carryover DAS is to offset lost fishing days due to unforeseen circumstances including equipment failure, poor weather conditions, or due to more stringent regulations. Alternative 1 would limit carryover DAS to 6, Alternative 2 would limit carryover DAS to 4, and Alternative 3 – no action, would keep carryover DAS at 10. Table 31 shows DAS usage for vessels that used both carryover and base DAS in FY 2006. The mean number of carryover DAS used by vessel homeport for FY2006 was 9 and the mean base DAS per vessel was 19.

	State	Homeport	Vessels using both	Carryover DAS (mean)	Base DAS (mean)	Total DAS (mean)	Actual DAS used
2006	NJ	WARETOWN	4	10	11	21	82
2006	MA	GLOUCESTER	8	10	9	19	149
2006	NC	WANCHESE	4	10	8	18	73
2006	RI	POINT JUDITH	12	10	8	18	213
2006	MA	CHATHAM	9	9	12	21	193
2006	NY	MONTAUK	4	9	6	16	62
2006	RI	TIVERTON	5	9	13	22	108
2006	MA	FAIRHAVEN	6	9	24	33	199
2006	NJ	BARNEGAT LIGHT	32	8	11	19	612
2006	RI	NEWPORT	10	8	8	16	156
2006	MA	NEW BEDFORD	32	8	17	25	792
2006	MA	BOSTON	14	8	14	22	302
		Ports with 3 or fewer vessels	46	9	10	19	869
		TOTALS FOR ALL PORTS	**174**	**9**	**10**	**19**	**3810**

Table 31 - Vessels Using Both Carryover and Base DAS in FY2006

Compared to Alternative 3 – no action, both Alternative 1 (6 DAS) and Alternative 2 (4 DAS) would reduce the opportunities to fish thus having potential negative social impacts. Alternative 2 is the most restrictive of the three alternatives and thus would result in the greatest potential negative social impacts, at least in the short term. Alternative 3 would allow vessels to retain the greatest number of DAS and would have neutral social impacts should monkfish stocks continue to do well.

5.4.4 Gillnet 3-hour Rule Alternatives

Monkfish gillnet vessels that run 3 hours or less on their DAS clock are only charged for time used, and if they go over 3 hours, they are charged 15 hours, or time used beyond 15 hours. Monkfish are primarily harvested using gillnet, trawl, and dredge gear. These alternatives specifically affect gillnet vessels, the most common gear configuration in the monkfish fishery.

Social impacts may be greater for smaller vessels that are more dependent on harvesting fish closer to shore while larger vessels have the flexibility to fish both closer to shore and in deeper waters. Although fishermen in both fishery management areas have engaged in this practice, ports with the greatest number of trips are found in the SFMA. Port communities with trips culminating in 3 or less hours with associated landings value of greater than $100,000 include Montauk, NY, Hampton Bays, NY, and Barnegat Light/Long Beach, NJ, Table 32 . For Point Judith, RI, another important monkfish port, the landings value associated with trips of 3 hours or less in duration was approximately $78,000. While the closing of this loop hole would create greater equity amongst all fishermen in the monkfish fishery, those communities with the greatest involvement would experience negative social impacts in the short term, including possible outmigration and disruption of social networks. In the long term, closing loopholes may allow higher TACs. All vessels that remain viable once loopholes are closed would then begin to experience positive impacts from any increases in TACs.

		Trips <= 3hrs				Total Port Monkfish Landings Value	
State	***Port***	***Landings Value***	***Trips***	***Vessels***	***% Total Monkfish Value***	***Landings Value***	***Vessels***
NY	MONTAUK	170,102	89	5	28	601,803	38
NY	HAMPTON BAYS	154,812	81	5	31	504,631	43
NJ	BARNEGAT LIGHT/LONG BEACH	114,675	60	24	5	2,351,160	75
RI	POINT JUDITH	78,362	48	9	4	1,920,310	102
NJ	POINT PLEASANT	59,249	31	9	8	708,078	89
NY	SHINNECOCK	36,314	19	4	23	159,694	13
MA	CHATHAM	28,669	15	9	2	1,395,694	34
MA	NEW BEDFORD	26,758	14	12	0	7,006,119	337
VA	CHINCOTEAGUE	15,290	8	5	4	394,551	76
RI	LITTLE COMPTON	9,556	5	4	3	358,062	25
	ALL OTHER PORTS	101,297	53	23	2	6,724,155	524
	TOTAL	795,083	423	109	4	22,124,257	1,356
(Ports with 3 or fewer vessels overall or ports with 3 or fewer vessels with at least one trip culminating in less than 3 or fewer hours were excluded from this analysis due to confidentiality. Landings value for trips <=3 hrs. is based on a per trip average for only those monkfish trips in FY 2006. Total monkfish landings value is based on reported value from the commercial fisheries database)							

Table 32 Port Communities with 1 or more Trips Culminating in Less than 3 Hours in FY 2006

5.4.4.1 Gillnet 3-hour Rule Alternative 1

This alternative would prohibit monkfish landings on trips less than three hours. This alternative would preserve the safety purpose of the 3-hour rule, by allowing vessels to return to port within 3 hours and not be charged the minimum 15 hours normally assessed gillnet vessels on a monkfish DAS. This alternative would, however, have a negative economic impact on vessels

that use this rule to lower costs (both in terms of trip costs and DAS assessed) and increase revenues (by enabling more trips and per-DAS landings over the year due to the reduced trip charge). The opportunity to make such trips, with monkfish landings, is not equally available to all communities, as evidenced in Table 32. Therefore, this loophole is a potential source of conflict among communities involved in the monkfish fishery. This is further exacerbated by the fact that continued allowance of monkfish landings on trips less than 3 hours in duration can potentially cause landings to exceed the target TAC with commensurate downstream restrictions to the management program being placed on all vessels and communities. In fact, such affected fishermen are the ones who raised this issue to the Councils resulting in proposed action. Thus, while there would be some short-term negative economic impact of this alternative, the overall social impact would likely be positive.

5.4.4.2 Gillnet 3-hour Rule Alternative 2

This alternative would allow landings on trips less than 3 hours, but not more than once per calendar day. While this alternative would minimize some of the negative social impacts of Alternative 1, by lessening the economic impact, it would still not address the discord among communities that exists as a result of some vessels using the 3-hour rule beyond its safety intent. This alternative would, therefore, have less of a negative social impact than alternative one when compared to taking no action.

5.4.4.3 Gillnet 3-hour Rule Alternative 3, Option A

This alternative eliminates the possibility of a gillnet vessel being charged for time used for a trip culminating within 3 hours. Gillnet vessels would be charged 15 hours for any vessel trip length up to 15 hours unless no fish were landed for a trip culminated within three hours. Vessels returning to port in less than 3 hours with no landings would contact enforcement prior to the close of the next business day to have their DAS adjusted to time used. This would result in negative economic impacts for all vessels that make a regular practice of taking trips under three hours, but would have a positive social impact through elimination of the landings loophole discussed under Alternative 1. However, this alternative would result in some administrative burden on industry members due to the requirement to contact enforcement if a vessel returns to port in less than 3 hours with no landings.

5.4.4.4 Gillnet 3-hour Rule Alternative 3, Option B

This alternative would charge 15 hours against the DAS allocations for all gillnet monkfish trips less than 15 hours, eliminating the 3-hour window. Since this alternative would eliminate the opportunity for some vessels to realize cost savings and increased revenues, it would have a negative economic impact for those boats, but the impact would not be equal across all vessels or communities. On the other hand, this alternative would reduce the chance that the landings will exceed target TACs, by closing a regulatory loophole, with commensurate long-term positive economic and social impacts. It will also "level the field" for all vessels, resulting in immediate positive social impacts, as a potential source of conflict among fishermen and communities is removed. While this may raise some safety concerns, because of the elimination of the 3-hour window that vessels may use due to bad weather or breakdowns, comments from fishermen and industry advisors indicate the overall sentiment that the decision to remain at sea when there is a safety concern is the captain's responsibility, and that this rule change does not impose a safety concern. Furthermore, vessels with a VMS unit still have the opportunity to utilize the window

of time between leaving port and crossing the VMS demarcation line, which is some areas is more than a 3-hour steam, to return to port due to bad weather or mechanical issues with no DAS charge.

5.4.4.5 Gillnet 3-hour Rule Alternative 4 – no action

Under this alternative, vessels that return to port within 3 hours of starting a trip would be allowed to land monkfish, and could make multiple 3-hour trips in any calendar day or 24-hour period. Social impacts for this alternative would be neutral, in that this is the no-action alternative. This rule, however, has caused some conflict within the industry, since not all vessels can avail themselves of the loophole, and since the loophole increases the chances that the target TAC will be exceeded.

5.4.5 Large-mesh Incidental Limit Alternatives

These alternatives apply to vessels fishing with regulated large mesh, but not on a monkfish, multispecies or scallop DAS in the SNE Regulated Mesh Area east of 72°30'W. In addition, Alternative 1B applies to vessels fishing on a Skate Bait Letter of Authorization east of 74°00'. Due to the small number of vessels involved it is not possible to report on port level impacts. A potential benefit of closing this loop hole may be improved equity in the monkfish fishery. However, social impacts would be neutral as no significant differences were found between Alternative 2 , no action, and the other alternatives.

5.4.5.1 Large-mesh Incidental Limit Alternative 1a

This alternative would impose a limit of either the lesser of a 5% of total weight of fish on board or a cap on monkfish landings of 450 lbs. Social impacts would be neutral since few vessels currently are landing monkfish in excess of this amount, indicating that this trip limit would not be constraining. However, there is some possibility under this alternative that vessels could conduct targeted monkfish trips and land the same amount of monkfish as a limited access Category B, D, or H vessel, which could result in an issue of equity between limited access and open access vessels.

5.4.5.2 Large-mesh Incidental Limit Alternative 1b

This alternative would impose a limit of either the lesser of 5% of total weight of fish on board or a cap on monkfish landings of 50 lbs./day to a maximum of 150 lbs., and is also applicable to vessels fishing under a Skate Bait LOA east of 74°00'. Social impacts would be neutral since few vessels are currently landing monkfish in excess of this amount, indicating that this trip limit would not be constraining. In addition, this alternative would impose a trip limit cap that is consistent with that applicable to other open access vessels (those fishing with small mesh and not under a DAS program) addressing the issue of equity between limited access an open access vessels, and among open access vessels fishing in the same area.

5.4.5.3 Large-mesh Incidental Limit Alternative 2 – no action

This alternative would have neutral social impacts for vessels currently fishing in designated areas who are allowed to retain monkfish equal to less than 5% of the total weight of fish on board with no maximum poundage limit. Social impacts would be neutral if vessels continue to fish at the same levels, or potentially positive for vessels that would increase landings since there would be no trip limit cap as with Alternatives 1A and 1B.

5.4.6 Letter of Authorization (LOA) Alternatives

5.4.6.1 LOA Alternative 1

Under this alternative, the requirement to obtain a letter of authorization (LOA) to fish in the NFMA would be eliminated for vessels with VMS in the NFMA and retained for non-VMS vessels. This alternative would reduce the administrative burden for vessels with VMS, while vessels without VMS would be required to obtain a letter of authorization. Social impacts would be positive for vessels with VMS and neutral for non-VMS vessels.

5.4.6.2 LOA Alternative 2 – no action

Under this alternative, vessels fishing in the NMFA must so declare for a period of at least 7 days, and obtain a Letter of Authorization, otherwise that vessel will be presumed to be fishing in the SFMA, under more restrictive trip limits and/or incidental catch limits. This alternative would have neutral social impacts as the administrative burden for vessels would not change.

5.5 Cumulative Effects

5.5.1 Introduction

The purpose of this section is to summarize the incremental impact of the proposed action on the environment when added to other past, present and reasonably foreseeable future actions regardless of what agency or person undertakes them. The National Environmental Policy Act (NEPA) requires that cumulative effects of "past, present, and reasonably foreseeable future actions" (40 CFR § 1508.7) be evaluated along with the direct effects and indirect effects of each proposed alternative. Cumulative impacts result from the combined effect of the proposed action's impacts and the impacts of other past, present, and reasonably foreseeable future actions. These impacts can result from individually minor but collectively significant actions taking place over a period of time. The Council on Environmental Quality (CEQ) directs federal agencies to determine the significance of cumulative effects by comparing likely changes to the environmental baseline. On a more practical note, the CEQ (1997) states that the range of alternatives considered must include the "no-action alternative as a baseline against which to evaluate cumulative effects." Therefore, the analyses referenced in the following cumulative impacts discussion, compare the likely effects of the proposed action to the effects of the no-action alternative.

CEQ Guidelines state that cumulative effects include the effects of all actions taken, no matter who has taken the actions, but that the analysis should focus on those effects that are truly meaningful in terms of the specific resource, ecosystem and human community being affected. Thus, this section will contain a summary of relevant past, present and reasonably foreseeable future actions to which the proposed alternatives may have a cumulative effect. This analysis has taken into account, to the extent possible, the relationship between historical (both pre- and post-FMP) and present condition of the monkfish population and fishery, although significantly less is known about the population and the fishery prior to the implementation of the FMP and other management actions affecting the fishery (particularly Multispecies Amendments 5 and 7 and Sea Scallop Amendment 4).

In terms of past actions for fisheries, habitat and community impacts, the temporal scope for this analysis is primarily focused on the 1990s when more data on the monkfish resource became available, although some historical trawl survey data extending to the 1960's is considered. For endangered and other protected species, the context is largely focused on the 1980's and 1990's, when NMFS began generating stock assessments for marine mammals and sea turtles that inhabit waters of the U.S. EEZ. Detailed information concerning recent actions affecting the monkfish fishery is provided in Section 1.2 of this document. In terms of future actions, the analysis examines fishing and non-fishing actions that are in the development or permitting stage, or are in some way proposed or under discussion. In addition, Section 1.2.2.3 of this action notes that the all FMPs must come into compliance with the new provisions of the recently reauthorized Magnuson-Stevens Act by 2011. Therefore, this action examines the period between implementation of Framework 5 measures (Spring 2008) and approximately 3 years into the future, which coincides with the Magnuson-Stevens Act deadline. Predictions beyond this timeframe cannot be made with certainty.

The geographic scope of the analysis of impacts to fish species and habitat for this action is the range of the fisheries in the Western Atlantic Ocean from the Gulf of Maine to North Carolina, as described in the Affected Environment. The distribution of monkfish is described in the Essential Fish Habitat Section of the Affected Environment (Section 4.3.1). For endangered and protected species, the geographic range is the total range of each species as described in Section 4.1.2. The geographic range for community impacts is defined as those fishing communities bordering the range of the monkfish fishery management areas, from the U.S.-Canada border to, and including North Carolina.

The cumulative effects analysis focuses on five Valued Environmental Components (VEC's):

1. target species (monkfish)
2. non-target species (incidental catch and bycatch)
3. protected species
4. habitat, and
5. communities (includes social and economic mpacts).

The cumulative effects determination on these VEC's is based on the following analyses: (1) the discussion in this section of non-fishing actions occurring outside the scope of this FMP; (2) the analysis of direct and indirect impacts contained in the Environmental Consequences section; and (3) the summary of past, present and future actions affecting the monkfish fishery.

NMFS staff determined that the 5 VECs (target species, non-target species, protected species, habitat and communities) are appropriate for the purpose of evaluating cumulative effects of the proposed action based on the environmental components that have historically been impacted by fishing, and statutory requirements to complete assessments of these factors under the Magnuson-Stevens Act, Endangered Species Act, Marine Mammal Protection Act, Regulatory Flexibility Act, and several Executive Orders. The VECs are intentionally broad (for example, there is one devoted to protected species, rather than just marine mammals, and one on habitat, rather than Essential Fish Habitat) to allow for flexibility in assessing all potential environmental factors that are likely to be impacted by the action. While subsistence fishing would ordinarily

fall under the "communities" VEC, no subsistence fishing or Indian treaty fishing take place in the area managed under this FMP.

The vessels participating in the monkfish fishery must comply with all federal air quality (engine emissions) and marine pollution regulations, and, therefore, do not significantly affect air or marine water quality. Consequently, the management measures contained in this adjustment would not likely result in any additional impact to air or marine water quality and thus this issue is not discussed further in the analyses below.

5.5.2 Past, Present, and Reasonably Foreseeable Future Actions

5.5.2.1 Fishing and Fishery Actions

The current condition of the monkfish fishery (in the context of the five VECs) is the result of the cumulative effect of past fishing effort on the monkfish resource, implementation of the Monkfish FMP in 1999, and regulations under other FMPs in the region that impact vessels catching monkfish as well as measures adopted under other laws, particularly the Endangered Species Act and the Marine Mammal Protection Act. The two FMP's that have had the greatest impact on monkfish fishery VECs, other than the Monkfish FMP, are the Sea Scallop and Northeast Multispecies FMP's because of the spatial overlap of the fisheries, the relatively high level of incidental catch of monkfish in those fisheries, and the fact that more than 90 percent of the monkfish limited access permit holders are also permitted in one or the other of those two fisheries.

A summary of recent Monkfish FMP actions is provided in Section 1.2.1. Beginning with the establishment of a target TAC setting method in Framework 2, these actions have, cumulatively, implemented management measures that have resulted in increasingly effective control over fishing effort in the monkfish fishery, and have reduced fishing effort overall. The proposed action contains several measures that continue that trend, particularly the adjustments to the 3-hour gillnet rule, DAS carryover provisions, and the large-mesh incidental catch limit in the SFMA. While further reductions in fishing effort are not required, given the revisions to the biomass reference points and updated stock status, such controls over effort are important to the effective management of the fishery even as future allowable catch limits are modified and perhaps increased.

In the short term, the Councils have initiated Framework 6 to eliminate or modify the TAC backstop provisions adopted in Framework 4. That provision would adjust DAS in FY2009 if landings in either area exceeded the target TAC in 2007 by more than 10%. If the landings exceed the TAC by more than 30% in either area, the directed fishery in that area would be closed for FY2009. That provision was adopted when the stocks were in a 10-year rebuilding program with a terminal year of 2009. Given the revised stock status (not overfished, overfishing not occurring), the Councils have agreed that such an extreme backstop is no longer appropriate or justifiable.

Both the Multispecies and Sea Scallop fisheries have undergone a series of major actions since 1994 to reduce fishing effort and rebuild overfished stocks (see Section 1.2.2). These actions reduced overall fishing effort and have imposed other restrictions such as year-round and

seasonal closed areas, and gear restrictions that have affected both the directed and incidental catch monkfish fishery. Most recently, Multispecies Amendment 13, and Frameworks 40A, 40B, 41 and 42 have resulted in substantial reductions in multispecies effort, particularly on stocks of concern. Framework 42 also prohibited the use of multispecies B-regular DAS to target monkfish. Further, the NEFMC is developing Multispecies Amendment 16. This Amendment, scheduled for implementation in 2009, would continue rebuilding programs started under Amendment 13, and could impose additional effort reductions. It is also possible that the NEFMC may consider the development of a new Multispecies Framework action to address several issues that were cut from Framework 42, including those related to special access programs. However, it is unclear when this new action would be initiated and whether it would contribute to the cumulative impacts associated with this environmental assessment.

Atlantic Sea Scallop Amendment 10 and Frameworks 16, 17 and 18 implemented area rotation measures and set scallop DAS levels to achieve mortality targets. In general, these actions have reduced DAS (effort) allocations and dredge contact time with the ocean bottom as a result of increases in yield per recruit. This has contributed to a reduction in overall levels of monkfish incidentally caught in the scallop fishery. The NEFMC has submitted Amendment 11 to the Scallop FMP, with implementation expected in 2008, which would limit the number of General Category (open access) permit holders, likely resulting in further effort reductions. The NEFMC has also submitted Framework 19, which would, among other things, reduce allocated DAS and, consequently, the incidental catch of monkfish by scallop vessels. Improvements in the profitability of the scallop fishery have also reduced directed effort on monkfish by scallop vessels that possess monkfish limited access permits, since such vessels do not use their monkfish DAS (which would require also using a scallop DAS).

Cumulatively, these actions have likely had a positive effect on the direct and incidental monkfish fisheries, protected species and habitat, principally as a result of the overall reduction in fishing effort (limited entry and DAS controls), closed areas, and the increased selectivity of gears used in those fisheries. Further, as the relative profitability of some rebuilt stocks, such as scallops, has increased, it has resulted in a redirection of effort away from monkfish. Alternately, recent effort reductions in the multispecies fishery have had a negative economic impact on communities, including those that rely on the monkfish fishery due to the overlap between the two fisheries.

Other FMPs that likely have had an impact on the fishery VECs include those managing other demersal species in the region, such as the Skate FMP (implemented 2003), Spiny Dogfish FMP (implemented 2000), and the Summer Flounder, Scup, Black Sea Bass FMP (1996 and amendments). To varying degrees, these management plans, as well as others in the region, have directly or indirectly affected the monkfish fishery by causing effort to shift among fisheries and by changes to the levels of incidental catch of monkfish, but it is not possible to analyze the impact of individual actions on the monkfish fishery.

In the next two to four years, the Councils will be adopting FMP amendments to comply with the reauthorized MSA requirements to adopt annual catch limits (ACLs) and accountability measures (AMs). Based on the assessment results that monkfish are not subject to overfishing,

the ACL.AM amendment must be implement by 2011. The Councils are awaiting further guidance from NMFS as to what the amendment will include.

The NEFMC is undertaking a mandated five-year update of it's Essential Fish Habitat designations, which will include an Omnibus Amendment to all NEFMC FMP's. The Amendment will consider new methods for designating Essential Fish Habitat (EFH) for four life stages of all Council-managed species. It will also consider new Habitat Areas of Particular Concern (HAPC) designations, and whether or not to change existing regulations designed to practicably minimize the adverse effects of fishing on designated EFH.

Potential changes in the designation of Essential Fish Habitat for monkfish and other species encountered by vessels fishing for monkfish are not expected to have a direct impact on the administration of the monkfish fishery. HAPC designations, in and of themselves, contain no changes to fishery regulations that would impact the monkfish fishery. Considering changes or additions to existing fishery regulations designed to practicably minimize the adverse effects of fishing on designated EFH, however, may involve changes and/or additions to existing regulations governing fishing effort, gear utilization and area closures. These changes and/or additions could affect where and how the monkfish fishery is prosecuted. Final alternatives have not been crafted by the Council, making more definitive analysis impossible at this time.

With respect to protected species, and 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 (610 animals/year from 2001-2005) 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). The Harbor Porpoise Take Reduction Team is currently developing options to reduce takes.

In addition to FMPs implemented by the Councils, other actions that have directly and cumulatively affected the monkfish fishery VEC's include three federal court decisions (*Hall v. Evans*, *AOC v. Daley*, and *CLF v. Evans,* see discussion in Section 2.5.2 of Amendment 2 to the Monkfish FMP), two marine mammal take reduction plans (Harbor Porpoise and Atlantic Large Whale Take Reduction Plans), and an rule implemented by NMFS under authority of the Endangered Species Act to protect sea turtles (Section 1.2.2.2). Cumulatively, these actions have limited areas open to fishing on a seasonal basis, specifically to gillnet gear, and have prescribed gear restrictions, including the mandatory use of acoustic deterrent devices in some areas, net limits, and buoy line specifications.

5.5.2.2 Non-Fishing Actions and Activities

There are several ongoing, non-fishing actions that could potentially impact the monkfish fishery. These activities include: chemical (e.g., pesticides and oil pollution), biological (e.g., invasive species and pathogens), and physical (e.g., dredging and disposal, coastal development) disturbances to riverine, inshore and offshore habitats; power plant operations (thermal pollution

and entrainment of larvae); global warming; and energy projects such as liquid natural gas (LNG) facilities and windfarms (only two windfarms have been formally proposed, though others may be proposed in the future). LNG facilities are currently planned or under construction for the following locations: Passamaquoddy, ME (onshore); two projects offshore of Boston, MA (one just southeast of Gloucester); Fall River, MA (onshore); Long Island Sound, NY (onshore) South Shore of Long Island (onshore); Logan Township, NJ (onshore); Philadelphia, PA (onshore); and an expansion of an existing facility in Cove Point, MD. The majority of these activities tend to affect inshore areas, and the impacts are often localized. Monkfish are a ubiquitous species that can be found in inshore areas to depths greater than 800 meters. Monkfish are known to migrate seasonally and these migration patterns, although not well understood, are thought to be associated with spawning and food availability. Additionally, monkfish are known to live on various types of substrate from mud to rocky bottom, and can tolerate a wide range of temperatures. Since monkfish are not dependant upon any particular biological, physical, or habitat requirements during any life stage, the impacts to this species of non-fishing activities such as oil pollution, dredging activities, and coastal development are likely localized, and minimal as a whole.

5.5.3 Cumulative Effects on the Monkfish Fishery (target species)

The primary purpose of the proposed action is to update the biological reference points contained in the FMP to be consistent with the most recent scientific advice, and to introduce new management measures that either directly (by reducing carryover DAS) or indirectly (by closing existing loopholes that could result in excess effort) reduce fishing effort. As a result, this action is expected to have a positive cumulative effect on the monkfish resource. The cumulative effect of the management measures proposed in this action, in conjunction with actions taken or proposed in the Multispecies FMP to reduce fishing effort on species of concern, combined with the successful management of the scallop fishery allowing those vessels to operate profitably without the need to target monkfish on a scallop DAS, is positive for the monkfish resource. The cumulative effect of non-fishing activities cited above is not likely to be substantial, given the life history and spatial distribution of monkfish relative to those activities.

5.5.4 Cumulative Effects on Non-target Species

Since the proposed action maintains effort levels (DAS) that are below the baseline level established in the FMP, the cumulative effect of the management measures contained in this action on non-target species is expected to be consistent with the neutral or positive cumulative effects of the rebuilding program as described in the FMP and subsequent analyses (Framework 2 and Amendment 2). However, it should be noted that by updating the biological reference points in the FMP, this action effectively eliminates the rebuilding program in the FMP since both stocks are considered to be rebuilt based upon the revised reference points.

The principal non-target species affected by the directed monkfish fishery are skates and dogfish. Those species should benefit from the reduced levels of effort, compared to the FMP baseline, that is allocated under this framework adjustment, and the cumulative effect of the proposed action is likely positive or neutral. Of note, since the effort level is within the baseline analyzed in the Skate FMP, the proposed adjustment does not trigger a skate baseline review. The cumulative effect of non-fishing activities on non-target species affected by the proposed action, mainly dogfish and skates, would not be significant primarily because the range of these species

is widely distributed, and the effect of most non-fishing activities are concentrated along the coast.

5.5.5 Cumulative Effects on Protected Species

The proposed action maintains monkfish fishing effort at reduced levels, as analyzed in Framework 4 (31 and 23 DAS in the NFMA and SFMA, respectively), which are lower than the levels set in Amendment 2 and Framework 2 (40 DAS), and, therefore, the proposed action is not expected to have significant cumulative effects on marine mammals and protected species beyond those analyzed and discussed in the noted documents. Those documents concluded that the cumulative effect of the monkfish management program, combined with measures adopted to protect marine mammals and ESA-listed species, and effort control programs in other fisheries affecting monkfish vessels, could enhance, and at least not undermine the protection of marine mammals and other protected species. Furthermore, the cumulative effect of the proposed action on protected species is likely enhanced by recent changes to the Atlantic Large Whale Take Reduction Plan (see Section 1.2.2.2.2). There is no evidence suggesting that non-fishing activities are having a cumulative effect on protected species affected by this proposed action.

5.5.6 Cumulative Effects on Habitat

The cumulative effect of the proposed action on habitat should be viewed in context of the habitat protection measures adopted in Amendment 2 to the Monkfish FMP, as well as actions taken in Sea Scallop and Multispecies FMPs. Effort reductions and Habitat Closed Areas were adopted in Monkfish Amendment 2, Sea Scallops Amendment 10 and Multispecies Amendment 13 to minimize the adverse impact of mobile, bottom-tending fishing gear (bottom trawls and dredges) on benthic EFH. Since the proposed action maintains effort levels that are at or below the baseline level established in the FMP, hence, the cumulative effect of the management measures contained in this action on habitat is expected to be neutral and consistent with the cumulative effects of the management program as described in previous actions under the FMP.

5.5.7 Cumulative Effects on Communities

The primary action in this framework, that is, the change to the biomass reference points and subsequent stock status determination from "overfished" to "rebuilt" will likely have an overall positive cumulative effect on monkfish fishing communities as a result of eliminating the need for further management restrictions, stability in the management program, and potentially higher and sustainable yields from the resource. The other proposed actions, which reduce carryover DAS, eliminates the 3-hour rule for gillnet vessels, and establish a restrictive incidental catch limit for non-DAS vessels fishing in the SNE RMA east of 72°30' W. long may have a short-term negative impact on some communities due to the resulting decrease in monkfish revenues from affected vessels. However, these measures will likely have long-term positive effects on those and all other communities dependent on monkfish, since they are aimed at preventing the target TACs from being exceeded. The 2007 monkfish stock assessment noted that both stocks would continue to experience growth under the target TACs implemented in Framework 4. Continued stock growth will likely lead to higher target TACs, a more stable fishery and increased community benefits in the future. In addition, the proposed elimination of the monkfish LOA requirement for vessels fishing in the NFMA, and using a VMS, reduces the administrative burden, resulting in modestly positive social effects. The cumulative effect of the proposed action on fishing communities, in conjunction with other past, present and reasonably

foreseeable future actions, including non-fishing activities, may be somewhat negative in the short term for that segment of the fleet and their respective communities where vessels are affected by the proposed changes to the 3-hour gillnet rule, the reduction in carryover DAS and the incidental limit on skate bait vessels, primarily communities in the SFMA. Over the long term, however, all communities affected by the monkfish fishery will benefit from stock rebuilding, a higher level of sustainable catch and overall stability in the fishery.

5.5.8 Summary of Cumulative Effects

There are no significant cumulative impacts of this fishery action on the monkfish resource, non-target species, social/economic resources, EFH, or protected species. The proposed action will maintain fishing effort below FMP baseline levels. The implementation of measures that reduce carryover DAS, eliminate the 3-hour gillnet rule, and establish a restrictive incidental catch limit for non-DAS vessels fishing in the SNE RMA east of 72°30'W or under a Skate Bait LOA in the SNE RMA, will increase the likelihood that the target TACs will not be exceeded, resulting in continued growth in stock biomass, with overall positive, long-term cumulative effects on all VECs. The proposed action has been determined to be "not significant" under the National Environmental Policy Act (NEPA) guidelines (see Section 6.2.1). This action is also not considered a "significant regulatory action" under the criteria established in Executive Order 12866 (See Section 6.3, *Regulatory Impact Review and Initial Regulatory Flexibility Analysis* for more details on the economic impacts of the proposed action).

6.0 Consistency with Applicable Law

6.1 Magnuson-Stevens Act (MSA)

6.1.1 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. 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.

Based on the most recent stock assessment (see Appendix I), overfishing is not occurring in either management area, and both stock components are not overfished. The assessment contains numerous cautionary statements, however, and consequently, the Councils are not proposing to change the target TACs (optimum yield), in spite of the change in stock status as a result of the new assessment. Additionally, this action contains measures to help prevent the target TACs from being exceeded, and, thus, future overfishing from occurring.

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

The scientific information used in the development of the proposed action includes NMFS fishery data through September, 2007 and a stock assessment completed in August 2007. These are the best and most recent scientific information available, and are compliant with the Data

Quality Act (see Section 6.8). As noted in the discussion of NS 1 above, the Councils have considered the cautionary and uncertain nature of the stock assessment report in applying that information to the proposed action.

(3) 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.

The FMP established a two-area management program for monkfish, covering the exploitable range of the species. SARC 34 discussed the basis for assessing goosefish as a single stock, versus two stocks, and concluded that information was insufficient to make a determination on a biological basis. The SARC noted that the choice of number of management units is independent of the number of assessment units, and that the use of two management units may be required because of the characteristically different fisheries that occur in the two areas, in terms of gear, catch composition, seasonality and other parameters. In Amendment 2, the Councils considered a single-stock approach, but rejected it for further analysis and consideration prior to the development of the DSEIS.

(4) 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.

The proposed action does not discriminate between residents of different states. While the FMP measures developed to achieve the conservation goals of the FMP may have a differential impact on sectors of the industry, that differential impact is not the purpose. The two-area management program is based on differences in the fisheries between the two areas, and not based on allocation of fishing privileges differently among sectors of the industry. In fact, all limited access permit holders, with the exception of Category H permits, may fish in either management area, subject to the rules that apply in each. In Amendment 2, the Councils qualified a group of vessels for a limited access permit (Category H permits), that had not qualified under the original FMP, on the condition that on those vessels would be restricted to fishing only in their historical area, at the southernmost range of the fishery.

(5) 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.

The proposed actions are designed to achieve and not exceed the target TACs. Many of the measures used in the management of the monkfish fishery reduce efficiency of vessels as a way to control catch and achieve multiple objectives, such as optimum yield and minimizing bycatch and the impact of the fishery on communities, habitat and protected species. While the FMP generally, and the proposed actions specifically, may have differential impacts on various fishery groups, economic allocation is not one of the goals or objectives, nor do the actions proposed in this framework directly allocate the fishery resource.

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

The two-area management approach of the FMP, is specifically intended to take into account the differences in fisheries between the two areas. Other measures in the FMP, such as the permit categories and gear- and area-based incidental catch limits are also based on the differences among various fisheries that catch monkfish either as a target or incidental catch species.

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

This FMP does not duplicate measures or regulations implemented under other FMPs, but coordinates with them. For example, this framework provides that vessels required to use a VMS under the Multispecies FMP, will no longer be required to obtain a Letter of Authorization to fish in the NFMA.

(8) 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.

The actions proposed in this framework are not expected to have significant adverse effects on fishing communities (see Section 5.4). The change in biomass reference points and stock status will likely have a long-term positive effect on those communities since it obviates the need for additional restrictions to rebuild overfished stocks, or stop overfishing.

(9) 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.

The FMP contains numerous measures to minimize bycatch and bycatch mortality, including large-mesh regulations, incidental catch allowances for all fisheries, and, since Framework 4 was implemented, the ability to declare a monkfish DAS while at sea by VMS if a vessel exceeds the incidental allowance. Other than the incidental catch allowance on large-mesh vessels in the SFMA, the measures proposed in this framework adjustment will not materially affect bycatch. The proposed change to the large-mesh incidental catch limit in the SFMA better aligns the allowable landings with the actual incidental catch on affected vessels (skate bait vessels) while eliminating the incentive to target monkfish while not on a DAS.

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

This framework adjustment does not substantially change the impact of the FMP on safety at sea. This action retains, albeit at a reduced level, the carryover DAS provision of the FMP. That provision promotes safety by allowing vessels to retain up to 4 unused DAS, eliminating the

predicament of "use-or-lose" those DAS in the event of weather or mechanical problems at the end of the fishing year.

6.1.2 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;

The Monkfish FMP comprises conservation and management measures designed to achieve optimum yield from the fishery and prevent overfishing. Based on the biomass reference points proposed in this framework adjustment, and the results of the most recent stock assessment, monkfish is not overfished in either management area. The other actions proposed in this framework adjustment are primarily intended to ensure that the landings do not exceed the target TAC under the baseline effort control mechanisms (trip limits and DAS) for the directed fishery.

(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;

The fishery and its components, including biological, social and economic aspects, are described in the Affected Environment section of the EIS for the FMP, as well as in subsequent environmental documents (Amendment 2, Framework 2, and Framework 4), including Section 4.0 of this document. There is no foreign fishing for monkfish, and there are no known Indian treaty fishing rights pertaining to monkfish.

(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;

The most recent stock assessment (see Appendix I of this document, Monkfish Assessment Summary for 2007, Northeast Data Poor Stocks Working Group) contains the best estimate of the present condition of the monkfish resource, as well as estimates of future stock growth under the target TACs implemented in Framework 4. Appendix I also contains a summary of the information and methods used in the assessment and projections.

(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;

There is sufficient capacity for United States' vessels to harvest the optimum yield from the monkfish resource, as evident by the fact that, even though the fishery is under a limited access program, vessels are restricted in the number of DAS and the amount of monkfish they can land per DAS to stay within the target TACs. Thus, there is no amount of optimum yield available for foreign fishing. Furthermore, sufficient domestic processing capacity exists to utilize all monkfish harvested by United States' vessels.

(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;

Section 4.4 of this document, Human Environment, contains a description of the fishery, including affected communities. The Councils' Monkfish Monitoring Committee compiles and publishes this information annually as part of the Stock Assessment and Fishery Evaluation (SAFE) Report. There is no significant recreational or charter fishery for monkfish.

(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;

The framework adjustment mechanism established in the FMP provides the Council with the ability to change regulations to address issues such as vessel safety within the context of the fishery management program on an annual, or as needed basis.

(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;

Section 4.3 contains the description of monkfish essential fish habitat, and Section 5.2 contains the analysis of impacts of the proposed action and alternatives on essential fish 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;

The Council prepares annually a Stock Assessment and Fishery Evaluation (SAFE) Report which is used to monitor the fishery and the progress of the FMP. Section 4.0 of this document contains the information and data for the 2006 fishing year that is usually provided in the SAFE Report.

(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;;

The impacts of the proposed action and alternatives, including cumulative impacts, impacts on the physical and human environments are discussed in Section 5.0 of this document.

(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;

Based on the recommendations of the most recent stock assessment (see Appendix I), the Council propose to revise the reference point used to identify when the resource is overfished. Based on that assessment and the revised reference point, the stock is not overfished in either management area.

(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;

NMFS currently has in place reporting requirements for all vessels participating in the Federal monkfish fishery, including requirements to report all bycatch on the Vessel Trip Reports (VTR), and maintains, to the extent the budget allows, a fishery observer program on board vessels. Additionally, VMS is mandatory on the majority of limited access monkfish vessels through the requirements of the Atlantic Sea Scallop and Northeast Multispecies FMPs. Since VMS allows the tracking of fishering locations, coordination of this information with observer coverage may allow for more accurate bycatch assessment and projection. Also, the emerging Study Fleet

Program can provide another source of bycatch information for the different gear types and areas. The Study Fleet Program is designed to enhance fishery-dependent data necessary for management decisions through the development of electronic reporting technology.

The establishment of a Standardized Bycatch Reporting Methodology (SBRM) is required pursuant to section 303(a)(11) of the Magnuson-Stevens Act. In January 2006, development began on the Northeast Region Omnibus SBRM Amendment. This amendment covers 13 FMPs, 39 managed species, and 14 types of fishing gear. The purpose of the amendment is to: Explain the methods and processes by which bycatch is currently monitored and assessed for Northeast Region fisheries; determine whether these methods and processes need to be modified and/or supplemented; establish standards of precision for bycatch estimation for all Northeast Region fisheries; and document the SBRM established for all fisheries managed through the FMPs of the Northeast Region. The SBRM Amendment was approved on October 22, 2007, and a final rule is pending.

For the reasons noted above, and given the fact that NMFS is approaching the bycatch issue on a national level versus on a fishery-by-fishery basis, the Councils determined that is not appropriate or practicable to implement a significantly new or expanded reporting methodology focused just on the monkfish fishery through amendments to the FMP. Therefore, no additional specific bycatch monitoring alternatives are being recommended in this action.

Measures proposed in this framework to minimize bycatch and/or bycatch mortality are discussed in the previous section under National Standard 9.

(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;

Monkfish catch in recreational fisheries is not significant enough to be recorded in the recreational catch data.

(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;

Monkfish catch in recreational fisheries is not significant enough to be recorded in the recreational catch and vessel data. Commercial fishery sectors are described in the Affected Environment section of the EIS accompanying the original FMP and updated in the Affected Environment Section of this Environmental Assessment (Section 4.0).

(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;

As noted under the discussion of National Standard 4 in the previous section, while conservation measures may have a differential impact on different sectors of the industry, that differential impact is not the purpose of the regulations, and is done in a manner that is intended to achieve the conservation and rebuilding goals of the FMP. The two-area management program is based on differences in the fisheries between the two areas, and not to allocate fishing privileges differently among sectors of the industry.

(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.

MSA Section 303 note states that this required provision does not take effect until fishing year 2010 for stocks that are subject to overfishing, and 2011 for all other stocks. Based on the most recent assessment (DPWG 2007) overfishing is not occurring in either northern or southern monkfish areas.

6.1.3 EFH Assessment

According to the EFH Final Rule, "federal agencies are not required to provide NMFS with assessments regarding actions that they have determined would not adversely affect EFH." The action proposed under this framework will not have an adverse effect on EFH of federally managed species, and, therefore, no EFH Assessment is required or provided.

6.2 National Environmental Policy Act (NEPA)

This section evaluates the proposed action in the context of NEPA, for determining the significance of federal actions, in this case the setting of annual monkfish fishery specifications.

6.2.1 Finding of No Significant Impact (FONSI Statement)

NMFS 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?*

Based on the analysis and conclusions of the DPWG assessment (Appendix I), the target TACs established in Framework 4, and not modified by this framework, will not jeopardize the sustainability of monkfish. The DPWG also concluded that overfishing is not occurring and monkfish is rebuilt in both management areas. The proposed action, to the extent the measures modify the management program, is designed to provide additional assurance that the landings will remain within the target TACs, and as discussed in Section 5.1.1, will not significantly

impact overall monkfish fishing effort levels.

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

As noted in Section 5.1.1, the proposed action is not expected to jeopardize the sustainability of any non-target species. The level of fishing effort resulting from the proposed action is the same as, or moderately below the levels analyzed in previous management actions, specifically Framework 4 in 2007, as well as Framework 2, Amendment 2 and the original FMP. Although information about bycatch is limited and inconclusive with respect to fishery-wide impacts, the impact of the monkfish fishery on non-target species is not significant, primarily as a result of the large-mesh gear requirements and low level of effort allocated.

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?*

The alternatives under consideration in this action will not increase monkfish effort in either management area. The overall effect of the fishery on EFH was discussed and mitigated for in Amendment 2, and in Multispecies Amendment 13, and the alternatives under consideration do not change those findings. As discussed in Section 5.2, the action proposed in this framework adjustment would not have an adverse impact on EFH for any federally managed species in the region.

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

None of the actions proposed in this framework adjustment would create a safety or public health concern. The proposed action retains, at a reduced level, the carryover DAS provision which promotes safety (see discussion in Section 6.1.1, National Standard 10).

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

The activities and fishing effort levels conducted under the proposed action are within the scope of the FMP and do not change the basis for the determinations made in previous consultations, as noted in Section 5.1.2.

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)?*

The proposed action is not expected to have a substantial impact on biodiversity and ecosystem function within the affected area. While the role of monkfish within the ecosystem is not well understood, the maintenance of this predator and opportunistic feeder at historical and sustainable levels is likely to promote biodiversity and ecosystem function over the long term.

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

There are no significant social or economic impacts, nor are there any significant natural or physical environmental effects expected to result from the proposed action (Section 5.0, Environmental Consequences). Even though some vessels and communities may experience a minor reduction in revenues from monkfish fishing over the short term, the duration of this restriction reduces the significance of the proposed action in the context of NEPA. Furthermore, the long-term social and economic benefits across the entire region of a stable and sustainable fishery likely outweigh any short-term negative impact on vessels directly affected by the proposed action.

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

The effects of the proposed action on the human environment are not expected to be highly controversial, as they are based on the best and most recent scientific information available.

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?*

Other than the Stellwagen Bank National Marine Sanctuary (SBNMS), the proposed action does not affect areas of historic or cultural resources, park land, farmland, wetlands wild and scenic rivers or ecologically critical areas that are not already under protection (essential fish habitat areas and marine mammal protection zones). The effect on SBNMS is not likely to be substantial since the area is not a major monkfish fishing ground, and since the proposed action calls for a reduction in overall monkfish effort. Fishing vessels intentionally avoid shipwrecks, such as the SS "Portland" which is located within the SBNMS and is listed on the National Register of Historic Places (see question 12)..

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

The analysis of the effects on the human environment of the proposed adjustment is consistent with the analyses done for prior adjustments and a broad range of fishery management actions taken by the Councils. While these analyses have some inherent uncertainty because they involve predicting future impacts that depend on a wide range of variables, such as the response of the target species to the management measures and the short-term range of alternative fisheries for affected vessels. Thus, the risks inherent in analyses of the effects on the human environment are due to uncertainty, those risks are not unique or unknown.

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

The proposed action is related to other recent management actions beginning with the implementation of the Monkfish FMP in 1999 which put in place most of the management measures that are currently in effect. While the FMP and the associated monkfish rebuilding program resulted in some significant impacts to the human environment, the framework actions and Amendment 2 which followed and which refined the original FMP measures were found to not result in significant impacts. Thus, while the proposed action is related to a recent past action that was found to have significant impacts (the rebuilding plan under the FMP), as discussed and

analyzed in the cumulative effects assessment (CEA), this action when combined with other past, present and RFFAs would not result in significant cumulative impacts (see the CEA in Section 5.5).

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?

The proposed action is not likely to directly or indirectly affect objects listed in the National Register of Historic Places or cause significant impact to scientific, cultural or historical resources due to the spatial remoteness of the regulated activity relative to listed sites. The only object in the management area listed on the National Register of Historic Places is the wreck of the steamship "Portland", within the Stellwagen Bank National Marine Sanctuary. The current regulations allow fishing within the Sanctuary, however, vessels typically avoid fishing near shipwrecks or bottom obstructions in order to avoid tangling and losing expensive fishing gear. Therefore, this action would not result in any adverse affects to the wreck of the "Portland".

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

The proposed action does not result in any increased fishing effort that could result in the introduction or spread of a non-indigenous specie. In 2002, an invasive colonial sea squirt (*Didemnum sp)* was observed on Georges Bank. The tunicate occurs on pebble gravel habitat, and does not occur on moving sand. NMFS has surveyed the area and is monitoring the growth. At this time, there is no evidence that fishing spreads this species more than it would spread naturally, however, the role of fishing gear in the spread of invasive tunicates should be regularly evaluated and monitored..

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?

No, the proposed action is not likely to establish a precedent for future action with significant effects, and it does not represent a decision in principle about future consideration. This action is taken under an existing fishery management program. The future management regime for the monkfish fishery, should changes become necessary, has not been defined, and will depend on the advancements made in the scientific understanding of the species and its population dynamics, or shifts in management philosophy. The impact of any future changes will be analyzed as to their significance in the process of developing and implementing them.

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?

No, the proposed action is not reasonably expected to threaten a violation of Federal, State or local laws or requirements imposed for the protection of the environment. This action does not propose any changes that would provide incentives for environmental laws to be broken.

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?

Cumulative effects on target and non-target species related to the proposed action are discussed in Section 5.5 of this document. Based on that discussion, cumulative effects are not expected to be significant, and there is no change from the original analysis of cumulative impacts as assessed in the FMP and in the EIS for Amendment 2.

FONSI Statement

In view of the analysis presented in this document, the EA/RIR/RFA for the Framework 5 to the Monkfish FMP, as well as in the EIS for the Monkfish Fishery Management Plan (including the Supplemental EIS for Amendment 2), the proposed action will not have a significant effect on the human environment, with specific reference to the criteria contained in Section 6.02 of NOAA Administrative Order NAO 216-6, Environmental Review events for Implementing the National Environmental Policy Act, May 20, 1999. The impacts and alternatives in this document were analyzed with regard to both context and intensity, and are deemed not to be significant. Accordingly, the preparation of a Supplemental Environmental Impact Statement for the proposed action is not necessary.

NMFS, Northeast Regional Administrator **Date**

6.3 Regulatory Impact Review and Initial Regulatory Flexibility Analysis

6.3.1 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.

This action will have neither an annual effect on the economy of $100 million, nor adversely effect in a material way the economy, a sector of the economy, productivity, competition, the environment, public health or safety, or State, local, tribal governments or communities. During fishing years 1998 through 2003, gross monkfish revenues averaged approximately $42.9 million per fishing year. Monkfish revenues were $32.3 million in fishing year 2004, increasing to $43.1 million in fishing year 2005, and declined to approximately $29 million in FY2006. Given current TAC levels, FY2007 revenues are anticipated to be similar to FY2006. The value of the measures proposed in the Framework are not fully estimated, but the impact on the National economy is expected to be a reduction in monkfish revenues well below $1 million in forgone revenues from monkfish landings relative to fishing year 2006.

2. Create a serious inconsistency or otherwise interfere with an action taken or planned by another agency.

The proposed action does not create an inconsistency or otherwise interfere with an action taken or planned by another agency. The activity that would be allowed under this action involves commercial fishing for monkfish in Federal waters of the EEZ, for which NMFS is the sole agency responsible for regulation. Therefore, there is no interference with actions taken by another agency. Furthermore, this action would create no inconsistencies in the management and regulation of commercial fisheries in the Northeast.

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

The proposed action includes measures that would change the biological reference point for stock assessments, limit carryover of DAS, require gillnet vessels to take a minimum 15-hour DAS charge in order to land monkfish, establish poundage caps on the incidental take of monkfish in the SNE Regulated Mesh Area (RMA) by Skate Bait LOA holders and large mesh vessels fishing east of 72°30'W and remove the requirement for an LOA to fish in the NFMA for vessels with a VMS. This action is unrelated to any entitlements, grants, user fees, or loan programs, and, therefore, cannot be considered significant under the third criterion specified in E.O. 12866.

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.

The proposed action is being taken pursuant to the mandates of the Sustainable Fisheries Act to end overfishing, rebuild the stock to MSY in 10 years, and achieve optimum yield from the fishery using the best scientific information available. Therefore, the proposed action would not be considered significant under the fourth criterion specified in E.O. 12866.

Because none of these criteria apply, the National Marine Fisheries Service has determined that the proposed action in the monkfish fishery to change the biological reference point, limit DAS carryover, limit incidental landings in the SNE RMA and remove the NFMA LOA requirement for VMS vessels, is not significant for the purpose of E.O. 12866.

6.3.2 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.

6.3.2.1 Reasons for Considering the Action

The primary reason for this action is to adopt the revisions to the biological reference points (BRP); however, additional measures were included to address comments from the Regional Administrator (RA) and the public which were raised during Framework 4 development and implementation process. The areas of concern were the level of carryover DAS, monkfish landings from gillnet trips less than 3 hours, and incidental monkfish landings in the SNE RMA by holders of Skate Bait LOAs. To address these concerns, three additional measures were added to reduce the potential for monkfish landings to exceed the TAC within a given year. In addition, a measure to eliminate the need for a LOA to fish for monkfish in the Northern Fishery Management Area for vessels with VMS was included to reduce the administrative burden on vessel operators.

6.3.2.2 Objectives and legal basis for the action

The regulations implementing the FMP, found at 50 CFR Part 648, authorize the Council to adjust management measures as needed to achieve the FMP goals. As was noted earlier (see Section 2.2), the objective of this action is to achieve the goals of the FMP by using the best scientific information available by adopting the new BRP, to reduce the probability of monkfish landings exceeding the TAC by reducing "loopholes" for additional landings, and to reduce the administrative burden on vessels. Thus, the proposed action is consistent with the goals of the FMP and its implementing regulations.

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

All of the entities (fishing vessels) affected by this action are considered small entities under the SBA size standards for small fishing businesses ($4.0 million in gross sales). AS of November 30, 2007, there were 765 limited access monkfish permit holders and 2,142 vessels holding an open access Category E permit. In FY2006 there were 616 limited access permits holders that participated in the monkfish fishery based on VTR records. During the same period, 574 Category E permit holders reported landing monfkish. Table 33 reports the number of vessels by permit category fishing in each area.

This action would affect those monkfish permit holders that would like to carryover more than 4 monkfish DAS, gillnet vessels landing monkfish on trips less than 3 hours, vessels using large mesh or a Skate Bait LOA in the SNE RMA and landing monkfish above the 50-lb per day/150-lb per trip incidental limit and vessels with a VMS system that fish in the NFMA. Based on activity reports from fishing year 2006 (the most recent fishing year for which complete information is available) this action could affect up to 194 vessels with carryover DAS, 101 gillnet vessels with landings from 3-hour trips, 3 vessels with incidental landings of monkfish with large mesh or a Skate Bait LOA in SNE RMA above the limit and 525 vessels with VMS fishing in the NFMA.

Permit Category	Only NFMA Trips	Only SFMA Trips	NFMA and SFMA Trips	Total vessels
A	0	10	1	11
B	0	31	1	32
C	55	93	141	289
D	105	89	82	276
E	162	357	55	574
F	0	0	2	2
H	0	6	0	6
Total vessels	322	586	282	1,190

Table 33 Number of vessels fishing in NFMA, SFMA or both arreas by permit category in FY2006, based on VTR records.

6.3.2.4 Reporting, recordkeeping and other compliance requirements

This action does not introduce any new reporting, recordkeeping, or other compliance requirements.

6.3.2.5 Duplication, overlap or conflict with other Federal rules

The proposed rule does not duplicate, overlap or conflict with other Federal rules.

6.3.2.6 Economic impacts on small entities resulting from the proposed action

The proposed management changes encompass a variety of measures that would impact vessels participating in the monkfish fishery. The following sections provide a discussion of the impacts for each alternative. Where possible, a quantitative assessment of the impacts is provided. If a quantitative assessment is not possible, an attempt is made to identify the types and number of vessels that may be reasonably expected to be affected.

6.3.2.6.1 Biological Reference Points (BRP) Alternatives

The proposed change in BRP does not immediately affect any vessels because it does not change any management measures or otherwise modify vessel-level aspects of the management program.

6.3.2.6.2 DAS Carryover Alternatives

Reducing the number of unused DAS that can be carried forward into the next fishing year to 4 DAS would reduce the economic opportunities for those vessels that would like to carry forward more DAS. In FY2006 186 vessels used an average of between 8.4 and 9.3 DAS in addition to their based DAS use, while 8 vessels did not have carryover DAS available for use. An additional 46 vessels used only carryover DAS, suggesting they were not constrained by available DAS. Thus, based on FY2006 data, up to194 vessels may have economic opportunities reduced by the proposed reduction in carryover DAS. However, a substantially smaller number of vessels appear to be constrained by current DAS allocation levels and thus could suffer economic losses.

6.3.2.6.3 Gillnet 3-hour Rule Alternatives

The proposed action would require gillnet vessels that land monkfish to take at least a 15-hour charge to DAS, even if trips are less than 3 hours in length. In FY2006, 101 gillnet vessels had DAS charges of 3 hours (0.13 DAS) or less on 447 trips. The total estimated revenue generated by these trips was $891,229, assuming that all trips had the average revenue for attributed trips. An undefined portion of this revenue would be lost under the action, as vessels may not have the DAS allocation available to convert all trips to 15-hour trips. It was estimated that less than five vessels would fall into this category. The level of economic impact however, will depend on the future DAS allocation and the degree to which this is binding on vessels.

6.3.2.6.4 Large-mesh Incidental Limit Alternatives

The proposed action would affect vessels fishing with large mesh in the SNE RMA east of 72°30'W, and vessels fishing under a Skate Bait LOA anywhere in the SNE RMA. Approximately 12 vessels met these criteria in FY2006. Only trips that exceed the proposed incidental landings limit of 50 pounds of monkfish (tail weight) per day absent or 150 pounds of monkfish (tail weight) per trip would see a reduction in trip revenues, and thus net revenues. Based on FY2006 activity records, 3 trips undertaken by 3 vessels would have been affected with average lost revenues of $588 per vessel.

6.3.2.6.5 Letter of Authorization (LOA) Alternatives

This action would reduce the administrative burden for those vessels that have VMS and fish in the Northern Fishery Management Area (NFMA) at some time during the fishing year; this includes vessels with an incidental permit (i.e. category E). According to the VTR data, in FY2006 322 vessels fished only in the NFMA; 263 of those vessels used VMS or a combination of VMS and IVR to report DAS for some species. Similarly, 282 vessels fished in both the NFMA and SFMA; 262 of those vessels reported DAS used with either only VMS or a combination of VMS and IVR. This suggests that at least 525 vessels, or 87% of those fishing in the NFMA, would have the capacity to utilize VMS to offset the need for a LOA to fish in the NFMA.

6.4 Endangered Species Act (ESA)

Section 7 of the ESA requires Federal agencies conducting, authorizing, or funding activities that affect threatened or endangered species to ensure that those effects do not jeopardize the continued existence of listed species. The Councils have concluded that the proposed action in Framework 5 is not likely to result in jeopardy to any ESA-listed species under NMFS jurisdiction, or alter or modify any critical habitat, based on the analyses and discussions in this

document. For further information on the potential impacts of the fishery and proposed management action, see Section 5.1.2 of this document. When the Councils submit this document to NMFS, it is anticipated that the agency will initiate an informal consultation on this action under Section 7 of the ESA.

6.5 Marine Mammal Protection Act (MMPA)

The Councils have reviewed the impacts of Framework 5 on marine mammals, and concluded that the proposed actions are consistent with the provisions of the MMPA, and would not alter existing measures to protect the species likely to inhabit the management unit of the monkfish fishery. For further information on the potential impacts of the fishery and the proposed management action, see Section 5.1.2 of this document.

6.6 Paperwork Reduction Act (PRA)

The purpose of the PRA is to control and, to the extent possible, minimize the paperwork burden for individuals, small businesses, nonprofit institutions, and other persons resulting from the collection of information by or for the Federal Government. This action proposes one measure that does not change the total reporting burden associated with an activity, but modifies the form in which it comes. Under the proposed measure to remove the Monkfish LOA requirement for VMS vessels that intend to fish in the NFMA under the less restrictive measures of that area, these vessels will not longer be required to declare their intent to fish in the NFMA by obtaining an LOA, but will instead be required to make this declaration through their vessel's VMS unit. Although this action modifies an existing reporting burden, it does not change the overall burden estimate. Therefore, further action under the PRA is not required.

6.7 Coastal Zone Management Act (CZMA)

Section 307(c)(1) of the Federal CZMA of 1972 requires that all Federal activities that directly affect the coastal zone be consistent with approved state coastal zone management programs to the maximum extent practicable. The NEFMC reviewed the approved coastal zone management plans of the following states to determine the consistency of the actions proposed in Framework 5 to the Monkfish FMP with the enforceable policies of the state programs: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, New Jersey, Delaware, Maryland, Virginia, and North Carolina. The NEFMC has determined that the proposed action is consistent to the maximum extent possible with the enforceable policies of the coastal zone management programs of these states. If NMFS agrees with the NEFMC's determination, it will notify the affected states of this determination in writing, and request concurrence in accordance with the provisions of 15 CFR 930 *et seq.*

6.8 Data Quality Act (DQA)

Pursuant to NMFS guidelines implementing Section 515 of Public Law 106-554 (the Data Quality Act), all information products released to the public must first undergo a Pre-Dissemination Review to ensure and maximize the quality, objectivity, utility, and integrity of information (including statistical information) disseminated by Federal agencies. The following paragraphs address these requirements.

Utility

The information presented in this document is helpful to the intended users (the affected public) by presenting a clear description of the purpose and need of the proposed action, the measures proposed, and the impacts of those measures. A discussion of the reasons for selecting the proposed action is included so that intended users may have a full understanding of the proposed action and its implications. The intended users of the information contained in this document include individuals involved in the monkfish fishery, (e.g., fishing vessels, fish processors, fish processors, fishery managers), and other individuals interested in the management of the monkfish fishery. The information contained in this document will be helpful and beneficial to owners of vessels holding limited access monkfish permits since it will notify these individuals of the following changes to Monkfish FMP: A revision of the biological reference points based on information from the most recent stock assessment; changes to the 3-hour gillnet rule; changes to the DAS carryover provision; changes to the monkfish incidental catch limit; and changes to the requirement that vessels obtain a Monkfish LOA to fish in the NFMA. This information will enable these individuals to adjust their management practices and make appropriate business decisions based upon the new management measures.

Until a proposed rule is prepared and published, this EA/RIR/IRFA is the principal means by which the information contained herein is available to the public. The information provided in this document is based on the most recent available information from the relevant data sources. The information contained in this document includes detailed, and relatively recent information on the monkfish resource and, therefore, represents an improvement over previously available information. For example, the Affected Human Environment section of the EA contains the most recent (FY2006) Stock Assessment and Fishery Evaluation (SAFE Report) for the monkfish fishery. In addition, this document includes applicable information from the most recent monkfish stock assessment (July 2007). This EA/RIR/IRFA will be subject to public comment through proposed rulemaking, as required under the Administrative Procedure Act and, therefore, may be improved based on comments received.

This document is available in several formats, including printed publication, and online through the NEFMC's web page (www.nefmc.org). The Federal Register notice that announces the proposed rule and the final rule and implementing regulations will be made available in printed publication, on the website for the Northeast Regional Office (www.nero.noaa.gov), and through the Regulations.gov website. The Federal Register documents will provide metric conversions for all measurements.

Integrity

Prior to dissemination, information associated with this action, independent of the specific intended distribution mechanism, is safeguarded from improper access, modification, or destruction, to a degree commensurate with the risk and magnitude of harm that could result from the loss, misuse, or unauthorized access to or modification of such information. All electronic information disseminated by NMFS Service adheres to the standards set out in Appendix III, "Security of Automated Information Resources," of OMB Circular A-130; the Computer Security Act; and the Government Information Security Act. All confidential information (e.g., dealer purchase reports) is safeguarded pursuant to the Privacy Act; Titles 13, 15, and 22 of the U.S. Code (confidentiality of census, business, and financial information); the

Confidentiality of Statistics provisions of the Magnuson-Stevens Act; and NOAA Administrative Order 216-100, Protection of Confidential Fisheries Statistics.

Objectivity
For purposes of the Pre-Dissemination Review, this document is considered to be a "Natural Resource Plan." Accordingly, the document adheres to the published standards of the Magnuson-Stevens Act; the Operational Guidelines, Fishery Management Plan Process; the Essential Fish Habitat Guidelines; the National Standard Guidelines; and NOAA Administrative Order 216-6, Environmental Review Procedures for Implementing the National Environmental Policy Act.

This information product uses information of known quality from sources acceptable to the relevant scientific and technical communities. Several sources of data were used in the development of Framework 5. These data sources included, but were not limited to, historical and current landings data from the Commercial Dealer Weighout database, vessel trip report (VTR) data, effort data collected through the monkfish DAS program, fisheries independent data collected through the NMFS bottom trawl surveys, and the July 2007 monkfish stock assessment. Therefore, the analyses contained in this document were prepared using data from accepted sources. Furthermore, these analyses have been reviewed by members of the Monkfish Monitoring Committee and the Monkfish Plan Development Team.

Despite current data limitations, the conservation and management measures proposed for this action were selected based upon the best scientific information available. The analyses conducted in support of the proposed action were conducted using information from the most recent fishing years through FY2006. Specialists (including professional members of plan development teams, technical teams, committees, and Council staff) who worked with these data are familiar with the most current analytical techniques and with the available data and information relevant to the monkfish fishery. In addition, this action utilizes information from the July 2007 monkfish stock assessment, which is considered the best and most recent scientific information available concerning the status of the monkfish resource.

The policy choices are clearly articulated, in Section 3.0 of this document, as the management alternatives considered in this action. The supporting science and analyses, upon which the policy choices are based, are summarized and described in Section 5.0 of this document. All supporting materials, information, data, and analyses within this document have been, to the maximum extent practicable, properly referenced according to commonly accepted standards for scientific literature to ensure transparency.

The review process used in preparation of this document involves the responsible Council (the NEFMC), the Northeast Fisheries Science Center (Center), the Northeast Regional Office (NERO), and NMFS Service Headquarters. The Center's technical review is conducted by senior level scientists with specialties in population dynamics, stock assessment methods, demersal resources, population biology, and the social sciences. The Council review process involves public meetings at which affected stakeholders have opportunity to provide comments on the document. Review by staff at the Regional Office is conducted by those with expertise in fisheries management and policy, habitat conservation, protected species, and compliance with

the applicable law. Final approval of any proposed regulatory action, including any implementing regulations, is conducted by staff at NMFS Service Headquarters, the Department of Commerce, and the U.S. Office of Management and Budget. In addition, the information contained in this document concerning monkfish stock status (Northeast "Data Poor" Stocks Working Group: Monkfish) was peer reviewed according to standard methodology (Stock Assessment Review Committee; SARC).

6.9 Executive Order 13132 (Federalism)

This E.O. established nine fundamental federalism principles for Federal agencies to follow when developing and implementing actions with federalism implications. The E.O. also lists a series of policy making criteria to which Federal agencies must adhere when formulating and implementing policies that have federalism implications. However, no federalism issues or implications have been identified relative to the measures proposed in Framework 5. This action does not contain policies with federalism implications sufficient to warrant preparation of an assessment under E.O. 13132. The affected states have been closely involved in the development of the proposed management measures through their representation on the Council (all affected states are represented as voting members of at least one Regional Fishery Management Council). No comments were received from any state officials relative to any federalism implications that may be associated with this action.

6.10 Executive Order 13158 (Marine Protected Areas)

The Executive Order on Marine Protected Areas requires each federal agency whose actions affect the natural or cultural resources that are protected by an MPA to identify such actions, and, to the extent permitted by law and to the maximum extent practicable, in taking such actions, avoid harm to the natural and cultural resources that are protected by an MPA. The E.O. directs federal agencies to refer to the MPAs identified in a list of MPAs that meet the definition of MPA for the purposes of the Order. The E.O. requires that the Departments of Commerce and the Interior jointly publish and maintain such a list of MPAs. As of the date of submission of this FMP, the list of MPA sites has not been developed by the departments. No further guidance related to this Executive Order is available at this time.

6.11 Administrative Procedure Act (APA)

Section 553 of the APA establishes procedural requirements applicable to informal rulemaking by Federal agencies. The purpose of these requirements is to ensure public access to the Federal rulemaking process, and to give the public adequate notice and opportunity for comment. At this time, the NEFMC is not requesting any abridgement of the rulemaking process for this action.

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Monkfish Framework 4
APPENDIX I

Monkfish Assessment Summary for 2007
(Report in .pdf format)

Northeast Data Poor Stocks Working Group

August 2007

Northeast Fisheries Science Center Reference Document 07-13

Monkfish Assessment Summary for 2007

by Northeast Data Poor Stocks Working Group

August 2007

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06-28 *Precision Exercises Associated with SARC 42 Production Aging*, by SJ Sutherland, NJ Shepherd, and SE Pregracke. December 2006.

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07-10 *44th Northeast Regional Stock Assessment Workshop (44th SAW): 44th SAW assessment report*. May 2007.

07-11 *45th Northeast Regional Stock Assessment Workshop (45th SAW): 45th SAW Assessment Summary Report*. July 2007.

07-12 *Proposed Vessel Calibration Studies for NOAA Ship Henry B. Bigelow*, by NEFSC Vessel Calibration Working Group. August 2007.

Northeast Fisheries Science Center Reference Document 07-13

Monkfish Assessment Summary for 2007

by Northeast Data Poor Stocks Working Group

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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Northeast Fisheries Science Center
Woods Hole, Massachusetts

August 2007

Northeast Fisheries Science Center Reference Documents

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This document's publication history is as follows: manuscript submitted for review August 10, 2007; manuscript accepted through technical review August 14, 2007; manuscript accepted through policy review August 14, 2007; and final copy submitted for publication August 14, 2007. This document may be cited as:

Northeast Data Poor Stocks Working Group. 2007. Monkfish assessment summary for 2007. US Dept Commer, *Northeast Fish Sci Cent Ref Doc*. 07-13; 12 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole MA 02543-1026.

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State of Stock

Based on existing biomass reference points in the Monkfish Fishery Management Plan, the resource would be considered overfished in both the northern and southern stock management areas (Figure 1). In the northern area, the most recent biomass index, based on the 2004-2006 NEFSC fall survey 3-yr average, is 1.1 kg per tow. This is lower than the current $B_{threshold}$ value for the northern management area (1.30 kg/tow), and also lower than B_{target} (2.60 kg/tow). In the southern area, the most recent biomass index, based on the 2004-2006 NEFSC fall survey 3-yr average, is 0.87 kg per tow. This is lower than the $B_{threshold}$ (0.92 kg/tow) and B_{target} (1.84 kg/tow) for the southern area.

New reference points were developed as part of the 2007 assessment, based on a revised yield-per-recruit analysis (using a revised value of M) and results of a length-tuned model that incorporates multiple survey indices and catch data. Based on these new reference points, monkfish in both management regions are not overfished and overfishing is not occurring (Figure 2). New estimates of $B_{threshold}$ are 65,200 mt of total biomass in the north and 96,400 mt of total biomass in the south. Estimates of B_{target} are 92,200 mt in the north and 122,500 mt in the south. Estimates of total biomass for 2006 are 118,700 mt in the north and 135,500 mt in the south, both of which are greater than their respective biomass targets. The existing overfishing threshold is based on F_{max}, and this was retained, although new values were estimated. The new, updated estimates of F_{max} are 0.31 per year in the north and 0.40 per year in the south. Estimates of current F (2006) are 0.09 per year in the north and 0.12 per year in the south, both of which are lower than their respective overfishing thresholds.

The development of a new analytic model ("SCALE") for monkfish is a significant advance. However, the new assessment results are accompanied by substantial uncertainty, and therefore need to be viewed with caution. Reservations stem from: (a) input uncertainties (under-reported landings and unknown discards during the 1980s and incomplete understanding of key biological parameters such as age and growth, longevity, natural mortality and stock structure); (b) the shorter assessment time frame (1980-2006) than in previous assessments (1963-2006); and (c) the relatively recent development of the assessment model. Compared to the previous monkfish assessment approach, the new model integrates more types of information and incorporates temporal variation in fishery selectivity patterns. It was not possible to utilize all sources of information with the previous approach. (See "Special Comments" section below.)

As indicated by NEFSC survey recruit abundance indices for approximate ages 1 and 2 (inferred from lengths, Figure 3), the frequency of better than average recruitment events increased since the late 1980s in the northern area. Relatively strong year classes were

produced in 1993, 1999 and 2001. In the south, recruitment has varied without trend during 1963-2006; however, a relatively strong 2001 year class is apparent in the south (Figure 3).

The median size of monkfish in both regions declined as landings increased in the 1980s (Figure 4). Maximum sizes have also declined, from about 110 cm during the 1960s to 90 cm since the early 1990s in the north, and from about 100 cm in the 1960s to 75 cm since the 1990s in the south.

Projections

The SCALE (Statistical Catch-at-Length) assessment model was used to evaluate the impacts of TACs proposed in Framework 4 (5,000 mt in the north and 5,100 mt in the south), assuming long-term average recruitment. The results indicate that total biomass in both regions would continue to increase through 2009 and remain above B_{target} (Figure 5). These results did not incorporate any uncertainty associated with the stock size estimates for 2006. Further work is necessary to develop a complete forecasting approach.

Catches

Reported total landings (live weight) increased from an annual average of 2,500 mt in the 1970s to 8,700 mt in the 1980s, 23,000 mt in the 1990s, and 22,000 mt during 2000-2005. Total landings in 2006 declined to 14,500 mt, the lowest level since 1990, due to management regulations (Figure 6). Landings in the early part of the time series are thought to be under-reported. The accuracy of landings data has likely improved with mandatory reporting, which began in 1994. In the northern area, landings peaked in 2003 (15,000 mt), and have since declined to 6,700 mt in 2006. In the southern area, landings peaked in 1998 (19,300 mt), and declined to 7,800 mt in 2006.

During 1990-1999, 53% of USA monkfish landings were taken in otter trawls, 28% in sea scallop dredges, and 18% in gillnets. During 2000-2006, 53% of USA monkfish landings were taken in otter trawls, 7% in sea scallop dredges, 35% in gillnets, and 6% other gear. While trawl gear accounts for most of the landings in the northern area (75% during 2000-2006, Figure 7), gillnets now account for the majority of the landings in the southern area (54% during 2000-2006, Figure 7).

Estimated total discards of monkfish have ranged between 1,600 mt (1992) and 7,500 mt (2001) per year, with a long-term discard/kept ratio of 0.15 (1989-2006, north and south combined). Discard rates have been highest in the sea scallop dredge fisheries in the southern area, particularly since 2000, and lowest in the gillnet fisheries. Discard ratios and discard levels (mt) increased in the southern area after 2000 (overall discard/kept ratio for 2001-2006 =0.34).

Table 1. Catch and status table (weights in '000 mt): monkfish.

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Max[1]	Min[1]	Mean[1]
USA Commercial landings													
Northern area	9.7	7.3	9.1	10.7	13.3	14.0	15.0	13.2	10.3	6.7	15.0	3.2	8.0
Southern area	18.5	19.3	16.1	10.1	10.0	8.9	11.1	8.0	8.8	7.8	19.3	3.7	9.4
Total	28.2	26.6	25.2	20.9	23.3	22.9	26.1	21.2	19.1	14.5	28.2	7.3	17.4
USA Commercial discards													
Northern area	1.3	0.9	0.8	1.0	2.9	1.4	1.3	0.9	0.9	0.5	2.9	0.4	1.1
Southern area	1.2	1.1	1.2	1.5	4.6	3.4	3.2	2.7	2.5	1.8	4.6	0.6	2.1
Total	2.5	2.0	2.0	2.5	7.5	4.8	4.5	3.6	3.4	2.3	7.5	1.6	3.2
Foreign landings[2]	0.2	0.2	0.2	0.2	0.1	0.3	0.3	-	-	-	0.3	0.1	0.5
Total Catch	30.9	28.8	27.4	23.6	30.9	28.0	30.9	24.7	22.5	16.7	31.0	16.7	25.5
Northern area													
Biomass index[3]	0.67	0.97	0.83	2.50	2.07	2.32	2.72	0.63	1.62	1.04	5.6	0.6	2.1
Southern area													
Biomass index[3]	0.59	0.50	0.30	0.48	0.71	1.32	0.83	0.97	0.80	0.83	7.0	0.3	1.5
Northern area													
Total Biomass[4]	65.3	69.1	78.3	88.3	97.9	103.0	108.3	110.1	112.9	118.7	65.2	127.3	92.2
Fishing Mortality rate (F)[4]	0.32	0.20	0.20	0.22	0.30	0.30	0.32	0.23	0.16	0.09	0.43	0.05	0.19
Southern area													
Total Biomass[4]	100.2	98.4	96.4	99.8	107.4	112.6	120.1	124.3	130.0	135.5	96.4	152.7	122.6
Fishing Mortality rate (F)[4]	0.37	0.36	0.29	0.19	0.23	0.19	0.20	0.15	0.15	0.12	0.37	0.04	0.16

[1] Landings data based on 1980-2006 . Commercial fishery discard estimates not available before 1989; discard means from 1989-2006. Biomass index time span is 1963-2006. Total biomass and F time span is 1980-2006.

[2] Foreign landings are for NAFO Areas 5 and 6. Foreign landings not available for 2004-2006.

[3] NEFSC fall survey, stratified mean weight (kg) per tow.

[4] Annual estimates from SCALE model ('000 mt for biomass).

Stock Distribution and Identification

The monkfish resource in US waters is distributed from the Gulf of Maine through Cape Hatteras, NC. Current management practice divides US waters into two regions north and south of Georges Bank to accommodate differences in fishery practices; however, there is no strong biological evidence (growth, maturity, and genetic information) of separate stocks.

Data and Assessment

Monkfish were last assessed at SAW-40 in November 2004. Data used in the current assessment include NEFSC research survey data, data from cooperative monkfish surveys conducted in 2001 and 2004, and commercial fishery data from (a) vessel trip reports, (b) dealer landings records, and (c) on-board fishery observers. The assessment assumed a natural

mortality rate (M) = 0.3; previous assessments used M=0.2. Fishing mortality rates were estimated from survey catch-per-tow-at-age from NEFSC research surveys, and using several length-based approaches (catch-survey analysis, statistical catch-at-length analysis (SCALE), length-based mortality, stage-based mortality). Although these methods were useful for exploratory data analysis, the only method deemed adequate for assessment was the SCALE model. The model could only be applied to the period from 1980 to the present, because the early (pre-1980) commercial catch data were too uncertain.

Biological Reference Points

Existing biological reference points (BRPs) for monkfish are from Framework 2 of the Fishery Management Plan for Monkfish (2003). For both management areas, the existing B_{target} was established as the median of the 3-year moving average of NEFSC fall survey biomass indices during 1965-1981. $F_{threshold}$ was set equal to F_{max} (F=0.2 per year). The Framework 2 overfishing definition did not include an F_{target} reference point.

New biomass reference points were developed as part of the new assessment, based on an updated age-based yield-per-recruit analysis, and results of the SCALE model, both of which assumed M=0.3 (previous assessments used M=0.2). The new B_{target} is the average of total biomass during the 1980 – 2006 period, estimated as 92,200 mt in the north and 122,500 mt in the south. The new $B_{threshold}$ is defined as the lowest value of total biomass in the assessment time series (1980 - 2006) from which the stock subsequently increased (termed "B_{Loss}"), estimated as 65,200 mt in the north and 96,400 mt in the south.

The existing overfishing threshold is based on F_{max}, and this was retained in the new assessment, although the value was updated. The revised estimates of F_{max} are 0.31 per year in the north and 0.40 per year in the south. The recommended F_{target} is F at 40% of maximum spawning potential ($F_{40\%}$), estimated to be 0.18 per year in the north and 0.31 per year in the south. $F_{40\%}$ was chosen to ensure some adequacy in spawning potential and because it has been used in managing other fisheries. The differences between areas in the $F_{40\%}$ estimates are due to different selectivity patterns of the predominant gears in the two regions (otter trawls in the north, large mesh gillnets in the south).

Monkfish is a data-poor species, and there are significant uncertainties associated with the assessment results. This should be considered when developing management measures.

Fishing Mortality

Previous assessment reviews (SAWs -31, -34 and -40) concluded that instantaneous fishing mortality rates (F) estimated from NEFSC research survey length frequency distributions were not sufficiently reliable to allow evaluation of current F with respect to reference points.

In the current assessment, fishing mortality in 2006, estimated using the SCALE assessment model (assuming M=0.3 per year), was F=0.09 per year in the north, and F=0.12 per year in the south. Fishing mortality has declined in both regions since 2003 (Figure 2).

Recruitment

Size-based indices of abundance indicate strong recruitment in the northern area in 1993, 1999 and 2001 (Figure 3). The strong recruitment in 1999 and 2001 led to rebuilding of stock biomass in the north. Recruitment has been stable in the south, with a strong year class produced in 2001 (Figure 3).

Stock Biomass

Total biomass in the northern region declined steadily from the early 1980s through the early 1990s, remained at a relatively low level during the 1990s, and then increased after 1999, reflecting strong recruitment and management efforts from 2000 onwards (Figure 2). Biomass in the north was estimated to be 118,700 mt in 2006. In the south, total biomass increased until the late 1980s and then declined during the 1990s. Since 2000, biomass has increased in the south, and was estimated to be 135,500 mt in 2006 (Figure 2).

Median body size of monkfish, in fall NEFSC bottom trawl surveys of the northern area, declined rapidly during the 1980s, but since 1990, has stabilized at a relatively small body size (20-40 cm recently, compared to 60-80 cm before 1982) (Figure 4). Maximum size has also declined, from approximately 100-120 cm to 80-100 cm. In the southern area, median size has been more variable, but shows a gradual decline over time (Figure 4), and maximum size has declined from around 100 cm before 1982 to 60-80 cm since 1990.

Special Comments

This assessment is uncertain for a number of reasons, including poor quality of some data and uncertainties in life history parameters. The assessment hinges critically on assumptions regarding growth, longevity, and natural mortality of monkfish, all of which are poorly known. In addition, commercial catches prior to 1993 are not well characterized. Model results are sensitive to the assumed value of natural mortality, revised in this assessment from 0.2 to 0.3 per year. This decision was based on the observed longevity of male and female fish in the resource; however, the actual lifespan of monkfish may be greater than that which has been thus far observed. Uncertainties in key life history parameters and historical catches are unlikely to be resolved in the short term.

In developing management alternatives, it should be recognized that monkfish is a "data-poor" species and this assessment has significant uncertainty. Landings on the order of 5,000 mt in

each management area (roughly the proposed TACs in FMP Framework Adjustment 4) are unlikely to result in a change in stock status, and should allow monkfish resources in both regions to increase.

The SCALE model used for assessment could only be applied to the period from 1980 to the present. Monkfish biomass indices in NEFSC surveys were approximately twice as high prior to 1980 than after this time. As such, the productivity of the resource may be higher than reflected in this assessment and thus, the possibility of attaining higher biomass levels in the future should not be discounted. Reconsideration of the newly proposed biomass reference points might thus be justified in the future.

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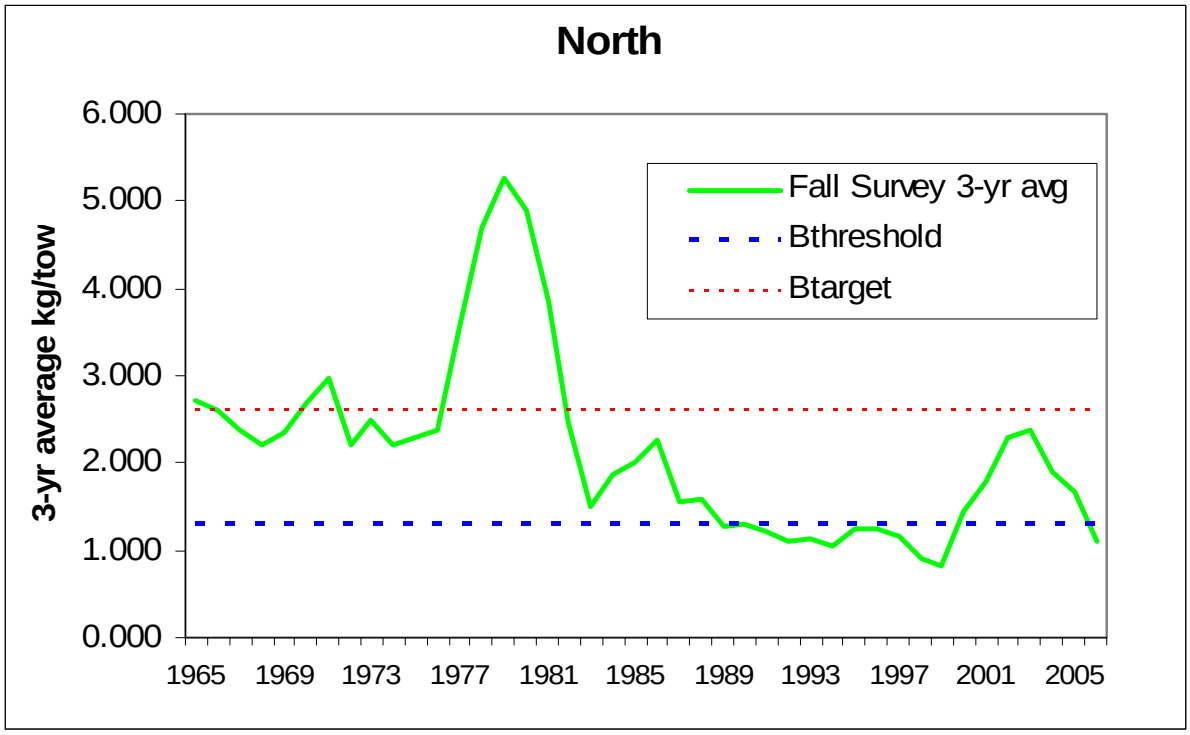
Figure 1. Trends in NEFSC fall survey biomass indices (3-year moving average) of monkfish relative to existing biomass overfishing definitions, in the northern and southern management regions.



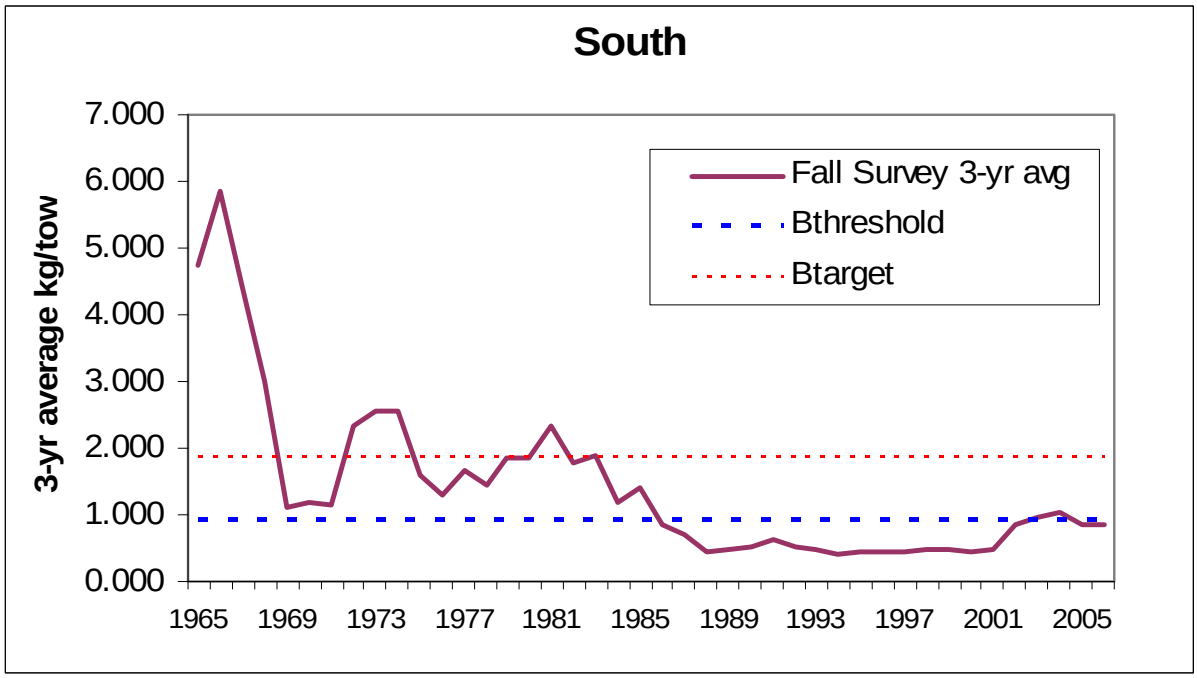
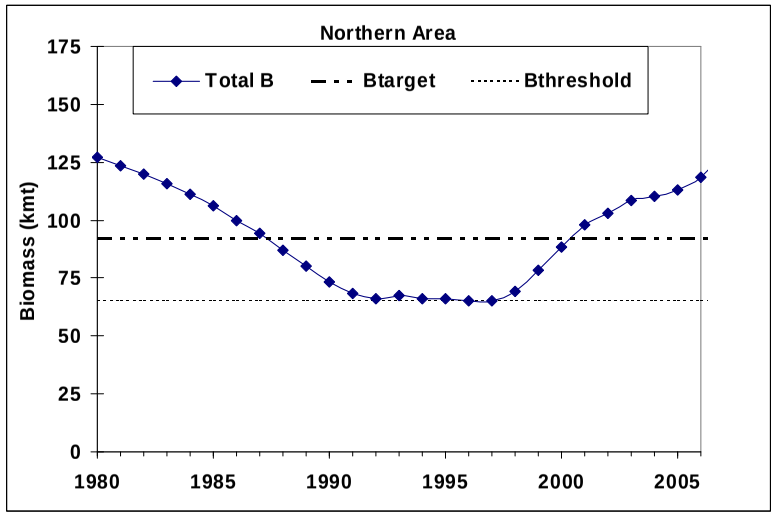
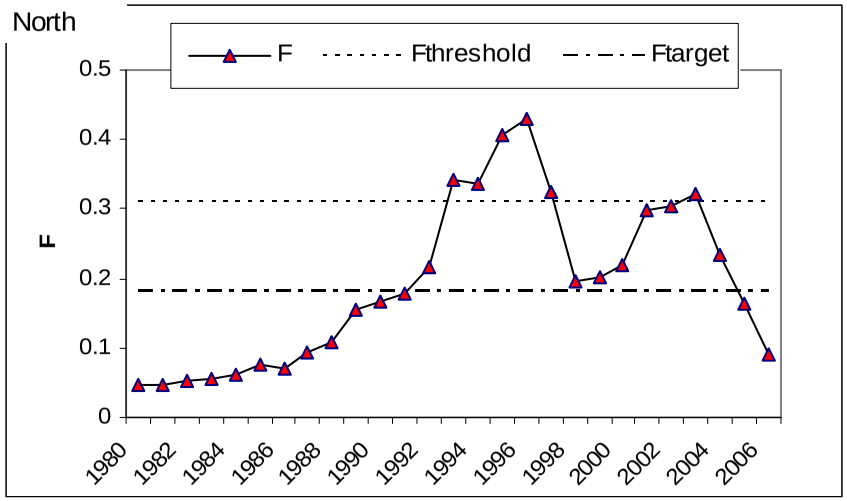


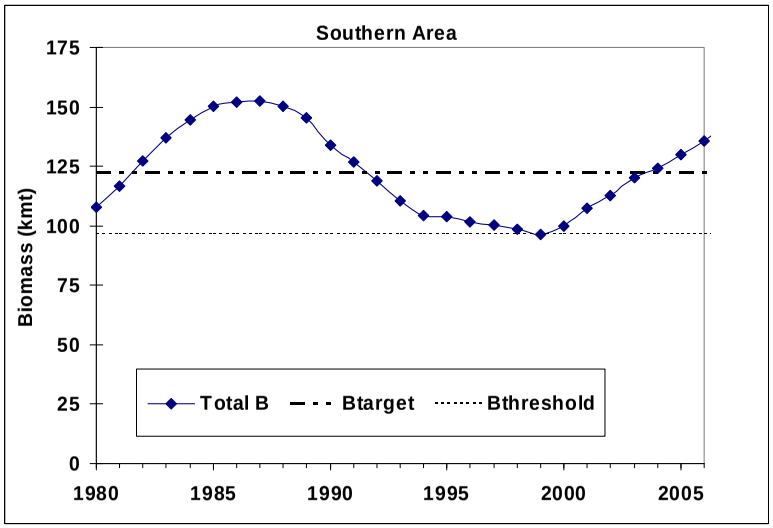
Figure 2. Trends in total biomass and fishing mortality rate (F), from the assessment model (SCALE), along with new (proposed) biological reference points for monkfish from the 2007 assessment. (A) northern management region, (B) southern management region.

A. North





B. South



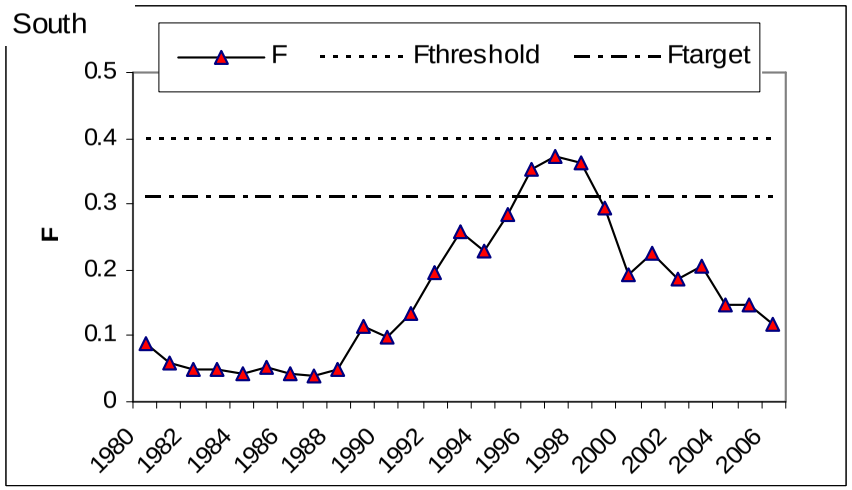
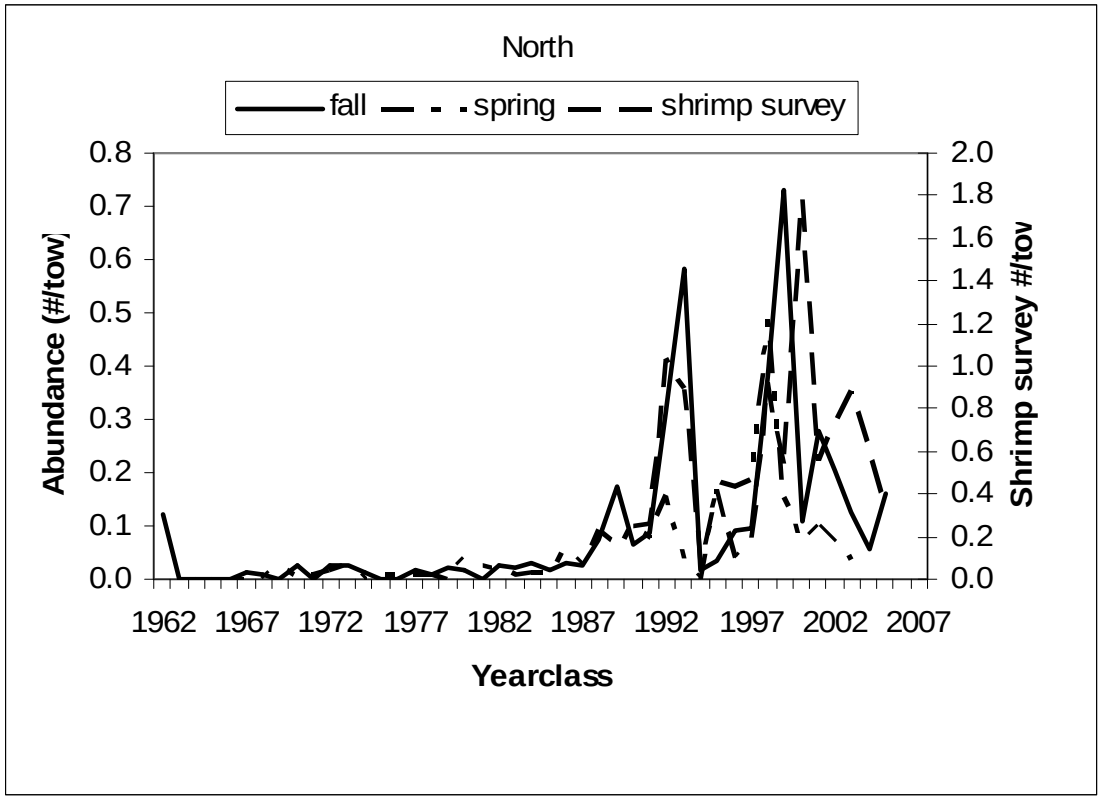


Figure 3. Recruitment indices (stratified mean number per tow) for monkfish from winter, spring, summer (shrimp, scallop), and autumn NEFSC surveys for the northern and southern management regions.



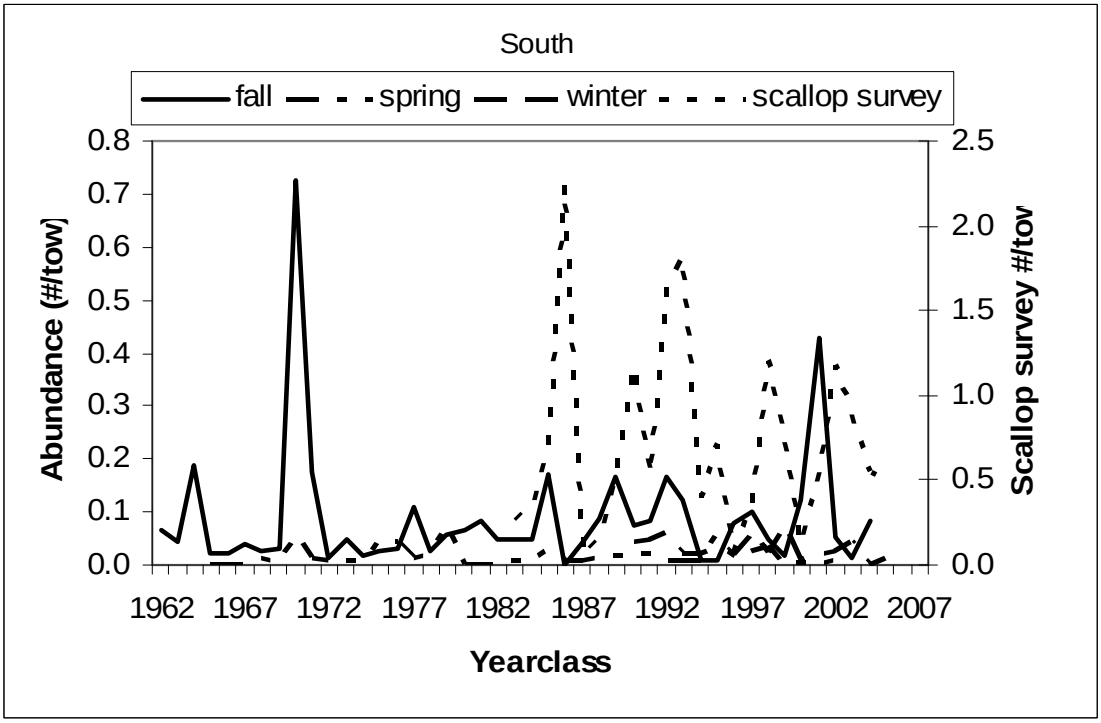
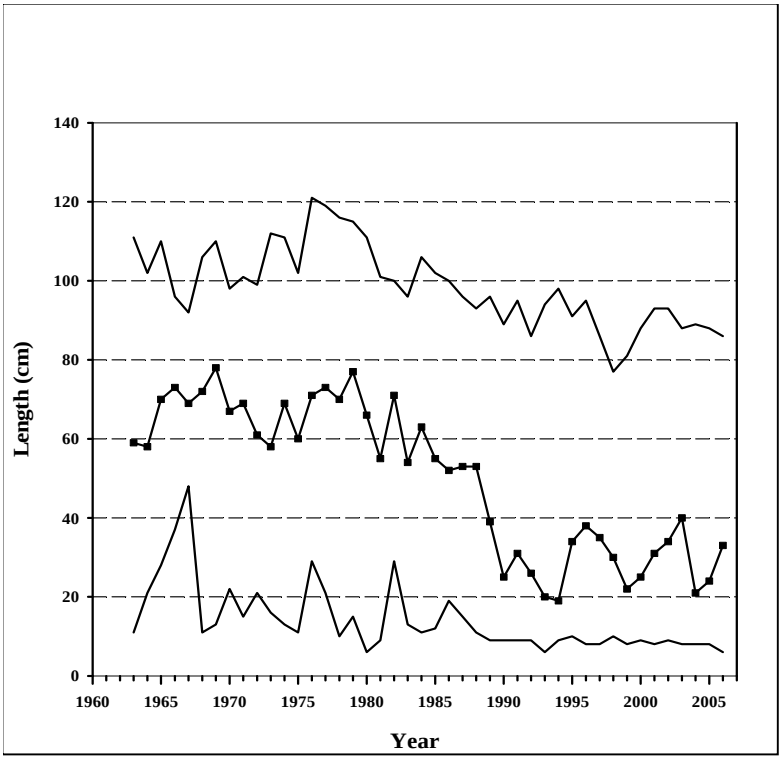


Figure 4. Body length of monkfish (minimum, median, maximum) over time in the NEFSC autumn bottom trawl survey. (A) northern management region and (B) southern management region.

A.



B.

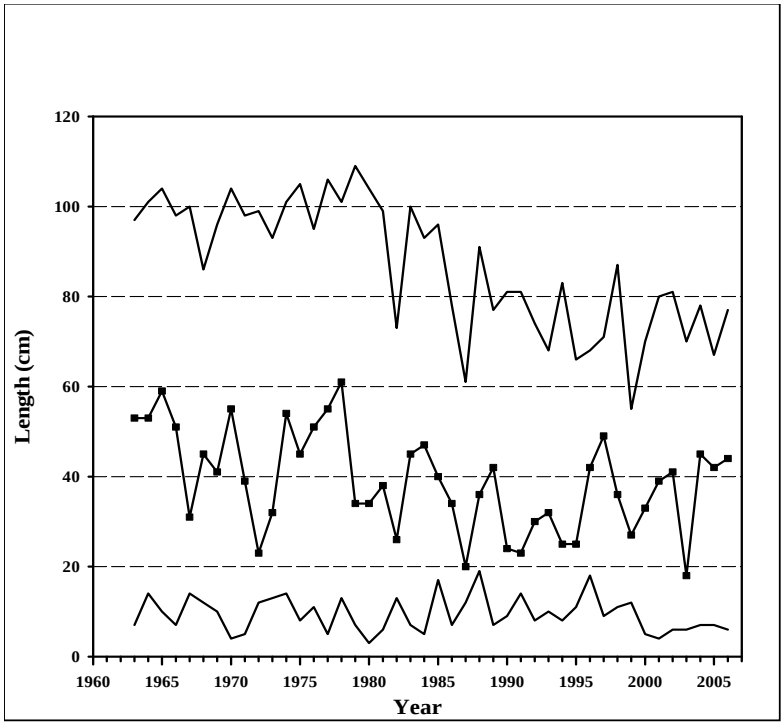


Figure 5. Projection of total biomass to 2009 based on the Statistical Catch-At-Length (SCALE) model in the northern and southern management regions.

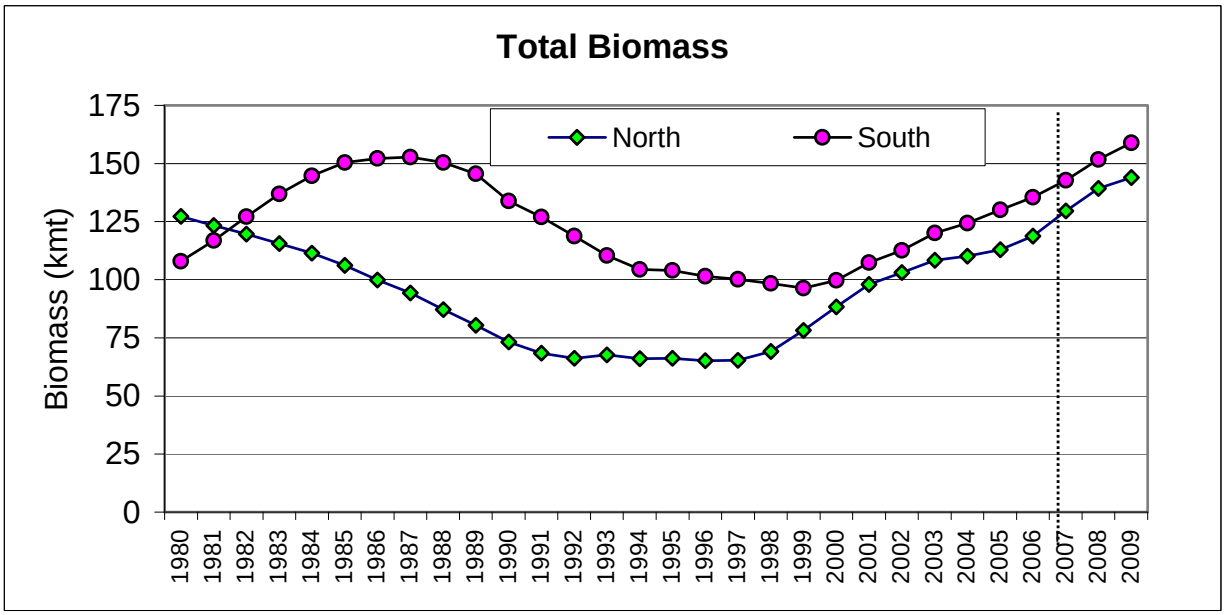


Figure 6. Monkfish commercial fishery landings, by management region and total, 1964-2006.

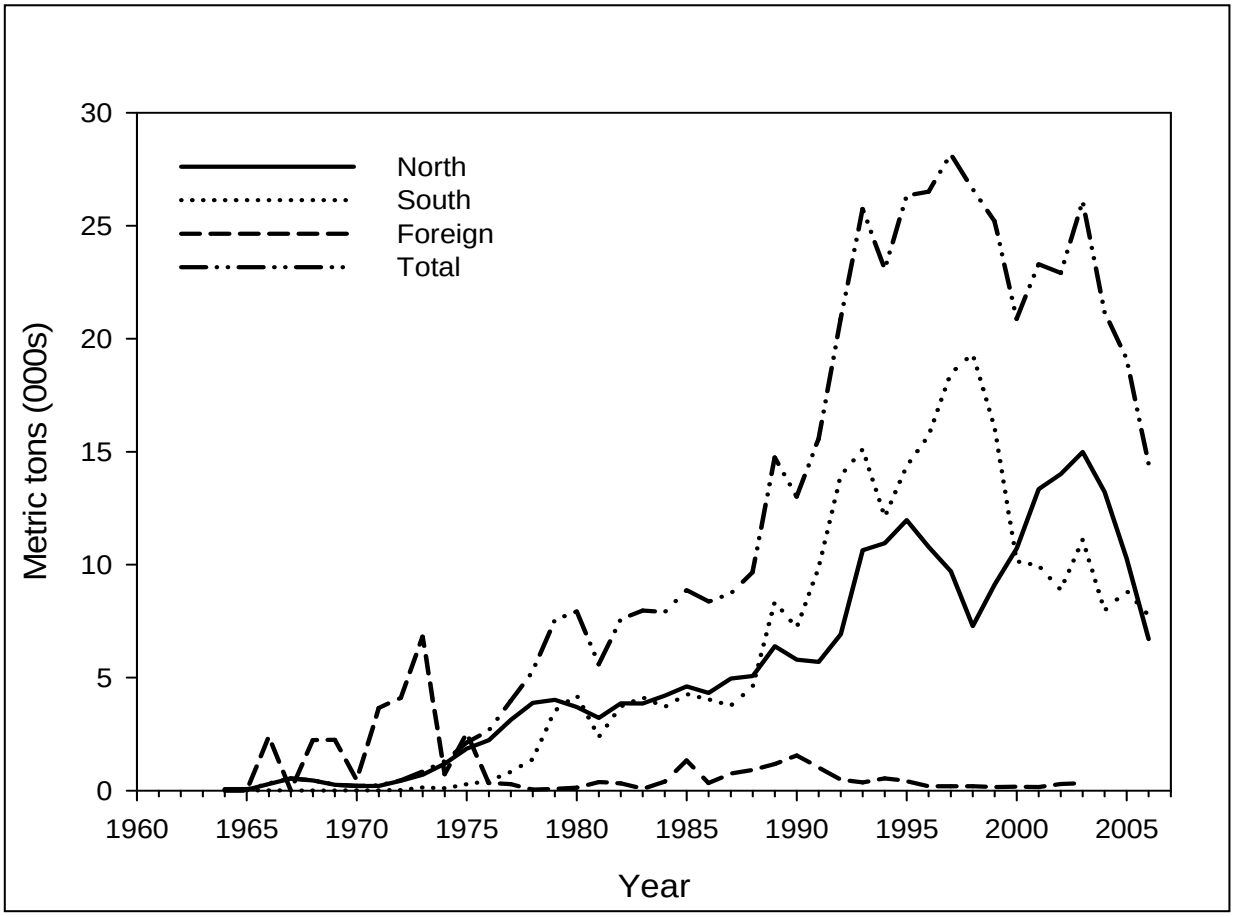
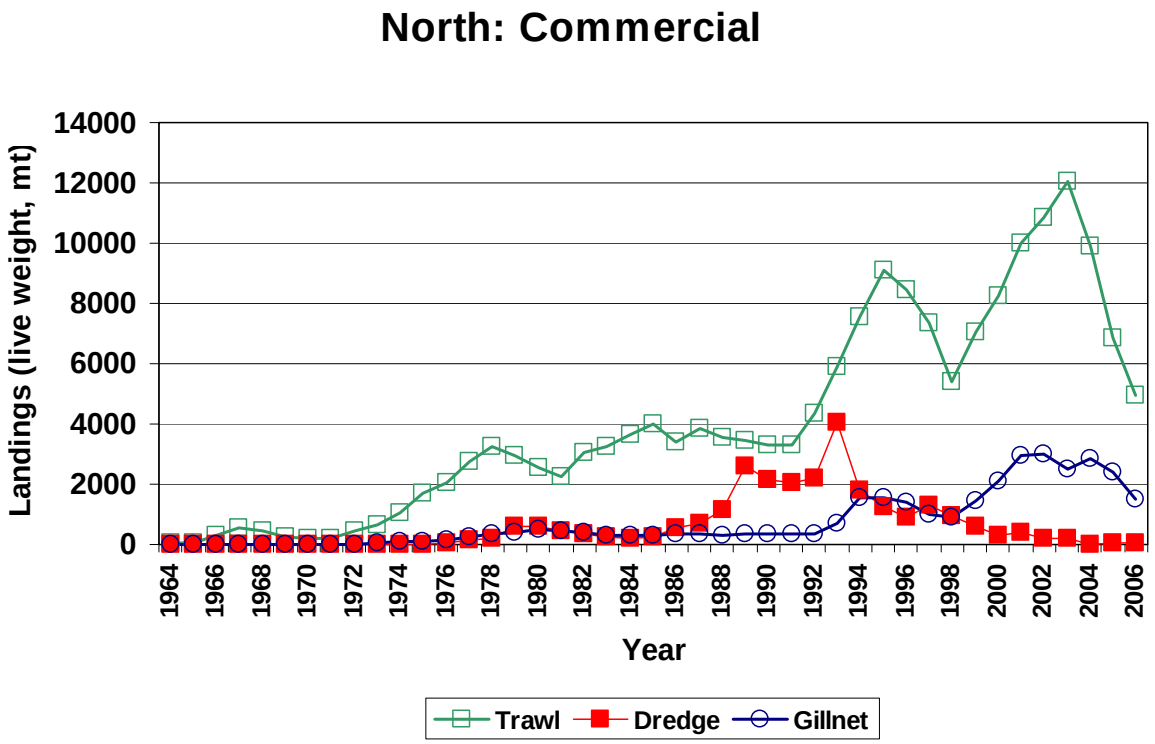
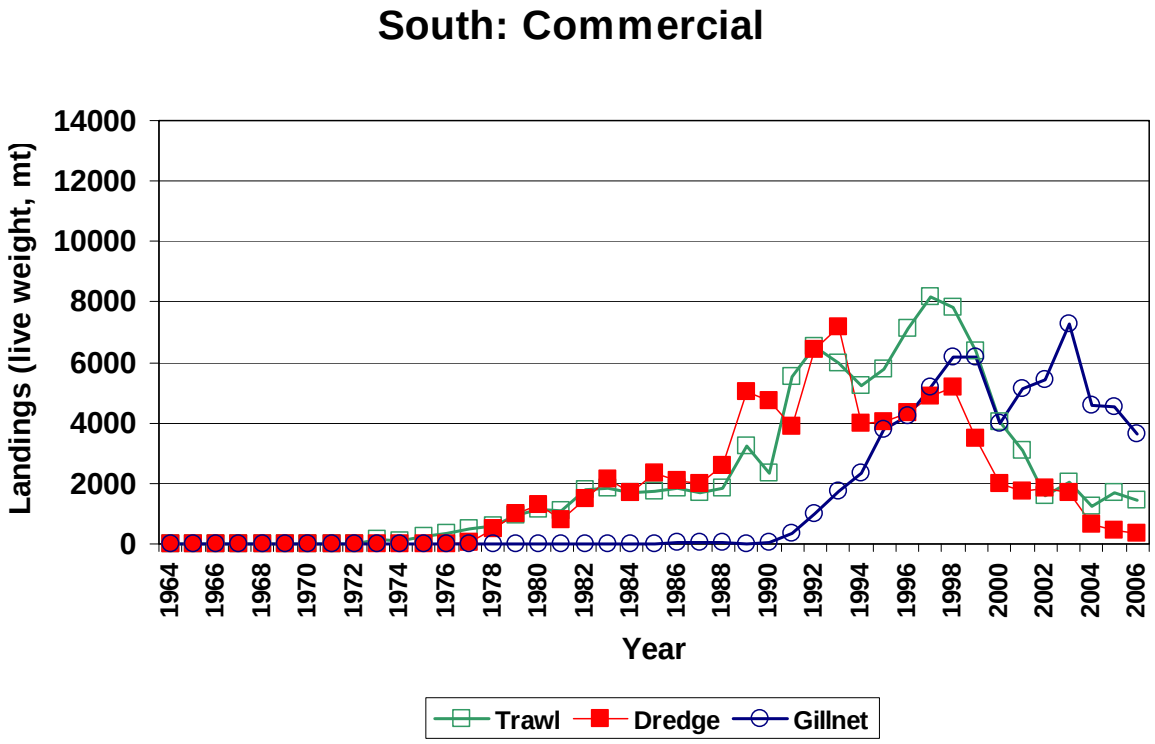


Figure 7. Monkfish commercial fishery landings by major gear type, northern and southern management regions.





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Monkfish Framework 4
APPENDIX II

Monkfish Committee and Advisory Panel
Meeting Summaries

New England Fishery Management Council

SUMMARY
Monkfish Oversight Committee Meeting
Hilton Garden Inn, Warwick, RI
October 3, 2007

The primary purpose of the meeting was to identify alternatives for analysis and development in the Framework 5 document based on the issues identified by the New England Council to be addressed. Based on the Council's September 19 decisions, Framework 5 will address revised biological reference points, days-at-sea carryover allowances, landing restrictions under the 3-hour gillnet rule, monkfish incidental catch limits on vessels fishing with large mesh and not on a day-at-sea, and the requirement to hold a Letter of Authorization to fish for monkfish in the northern area.

The staff summarized the results and recommendations of the recent Northeast Data Poor Stocks Working Group (DPWG) assessment of monkfish. The assessment group recommended that the biomass reference points be revised from the current basis of using NEFSC fall biomass survey indices, to ones using absolute biomass estimates derived from a new length-based assessment model. If adopted, the status of both northern and southern stock components would change from "overfished" to "rebuilt". The assessment report strongly cautions, however, that this conclusion needs to be taken in the context of the uncertainties outlined in the report, particularly with respect to the newness of the assessment model, assumptions about natural mortality and growth rates, and the limitations of the data used in the assessment.

The staff then summarized the issues identified by the Council to be addressed in Framework 5, and presented a range of alternatives that could be considered by the Committee. Staff noted that it presented the list of alternatives as a way to start the discussion, and that Committee had the task of adding, removing, or modifying individual alternatives as appropriate. Staff also reminded the Committee of the short time available in which to analyze the alternatives and prepare a draft framework document for consideration by the Council at its November meeting, where final action is expected.

The Committee reviewed the Framework 4 approval letter issued by the Regional Administrator, in which the RA highlighted NMFS' concern with the current days-at-sea (DAS) carryover provision. One Committee member noted that the letter cites the Council's reason for not modifying the carryover provision in Framework 4, and asked if that situation still existed. The letter states that "*the Councils voted not to change the existing DAS carryover provision contained in the FMP due to concerns over NMFS' ability to provide the fishing industry with accurate DAS balance information*." Agency staff at the meeting stated that the new DAS program has been running for about a year and the agency is working on a web-based system that would give vessel owners the ability to get current DAS accounting. That system is currently in testing.

Biological reference points
The staff provided the Committee with two alternatives for consideration, including the no-action alternative.

Biological Reference Points Alternative 1
Under this alternative, the biomass minimum threshold and target would be those recommended by the DPWG, as shown in the following table

	B_{2006} (mt)	B_{target} (mt)	$B_{threshold}$ (mt)
NFMA	118,700	92,200	65,200
SFMA	135,500	122,500	96,400
B_{target} = average of total biomass 1980 – 2006			
$B_{threshold}$ = lowest value of total biomass 1980 – 2006			

Biological Reference Points Alternative 2 (no action)
The current biomass targets are based on the median of the 3-year moving average of the NEFSC fall survey biomass indices during 1965-1981. The biomass threshold is equal to ½ the biomass target. The most recent values are shown in the following table.

	B_{2006} (kg/tow, 3-yr. ave)	B_{target} (kg/tow)	$B_{threshold}$ (kg/tow)
NFMA	1.1	2.60	1.3
SFMA	0.87	1.84	0.92
B_{target} = median, 3-year moving average of the NEFSC fall survey biomass indices, 1965-1981			
$B_{threshold}$ = ½ B_{target}			

Motion

To consider Biological Reference Points Alternative 1 in Framework 5 (Pierce/Stockwell, **motion passed unanimously**)

DAS Carryover
The staff provided a range of 5 alternatives for Committee consideration, as well as some discussion of their rationale, as follows:

Under the initial Monkfish FMP, which allocated 40 monkfish DAS, vessels were allowed to carryover 10 unused monkfish DAS, consistent with the carryover provisions of the Multispecies FMP, which at that time allocated 88 multispecies DAS to Fleet Category vessels. In Framework 4, the Councils considered modifying or eliminating the DAS carryover provision in the FMP, to reduce the potential dilution of the effort control program. The AP and the Monkfish Committee recommended Alternative 3, no action, noting that as DAS are reduced, the economic need for carryover DAS is more urgent. The PDT had recommended a reduction in carryover DAS to 4, which was modified by the Committee to 6 DAS under Alternative 1. The Councils recommended no action. For the current framework, the staff suggests considering the Framework 4 alternatives, as well as the PDT's recommendation of 4 DAS.

While reviewing the Framework 4 document in preparation for this meeting the staff found a discrepancy in the language describing the proposed action, which should be clarified. The text describing the DAS carryover provisions in Section 3.6 of Framework 4 states the following:

> *Carryover DAS are based on the higher allocated DAS in either area, not on the baseline of 40 DAS set in the original FMP. In other words, if the maximum DAS allocated in either area is 31, for example, and a vessel fishes 30 DAS total (counting DAS used in both areas) then a vessel would have one carryover DAS, not 10 DAS under Alternative 3 (40 baseline minus 30 used), or 6 under Alternative 1 (40 baseline minus 30 used to a maximum of 6).*

The description of Alternative 3, the no action alternative, however, says:

> *…vessels would continue to be able to carryover up to 10 unused monkfish DAS, out of the baseline allocation of 40, regardless of the DAS allocated under the options being considered…*

The proposed and final rules for Framework 4 are based on the first language, and, therefore, that would be the no action alternative in this framework. So that the Councils' intent can be clarified, staff has included an alternative that would reflect the second paragraph. The Committee requested the staff research the Committee discussions on this subject during development of Framework 4 and circulate the material to the Committee.

<u>DAS Carryover Alternative 1</u>
Under this alternative, which was Alternative 1 in Framework 4, vessels would be able to carryover up to 6 unused DAS based on the higher allocation of DAS in the two areas, currently 31 DAS (if a vessel fishes 30 DAS, it would only be able to carryover 1 DAS, not 6, as it would if the rule were based on a baseline of 40 DAS). The maximum carryover allowance under this alternative is 19% of the total annual allocation of monkfish DAS, and 26% of the DAS allowed in the SFMA. This alternative restricts the number of unused monkfish DAS that could be carried over to the next fishing year. While this option would reduce fishing opportunities in the following fishing year, it would also reduce any dilution of the effort control program and the need for an adjustment under the backstop provision.

<u>DAS Carryover Alternative 2 (rejected from further analysis in Framework 4)</u>
Under this alternative, the provision enabling vessels to carryover unused monkfish DAS to the next year would be eliminated. A vessel could not carryover any unused DAS. A vessel that fished its 23 DAS in the SFMA, and no DAS in the NFMA (where the allocation is 31 DAS), would start the next year with 23 and 31 DAS in SFMA and NFMA, respectively. In preparing Framework 4, the Monkfish Committee voted to reject this alternative from consideration or further analysis. The Committee agreed that elimination of the carryover DAS would not be appropriate, given that the measure is intended to promote safety by providing a contingency for unforeseen events (weather, breakdowns) for vessels that have retained some DAS for use at the end of the fishing year.

DAS Carryover Alternative 3 – no action (adopted in Framework 4)
Under this alternative, vessels would continue to be able to carryover up to 10 unused monkfish DAS, based on the higher allocation of DAS in the two management areas, currently 31 (if a vessel fishes 30 DAS, it would only be able to carryover 1 DAS, not 10, as it would if the rule were based on a baseline of 40 DAS). The maximum carryover allowance under this alternative is 30% of the total annual allocation of monkfish DAS, and 43% of the DAS allowed in the SFMA.

DAS Carryover Alternative 4 (PDT's recommendation for Framework 4)
In developing Framework 4, the Monkfish PDT recommended reducing the carryover DAS allowance to 4 DAS, since 10 DAS represented a significant potential increase over the allocated DAS. The maximum carryover allowance under this alternative is 13% of the total annual allocation of monkfish DAS, and 17% of the DAS allowed in the SFMA.

DAS Carryover Alternative 5 (clarification of Council intent, regarding baseline allocation)
Under this alternative, vessels would continue to be able to carryover up to 10 unused monkfish DAS, regardless of the DAS allocated under current regulations (31 DAS, or some other number if modified). As noted in the discussion above, the staff included this alternative to get Councils' clarification of contradictory language in different sections of the Framework 4 document describing the proposed action and alternatives.

Motion

To consider DAS Carryover Alternatives 1, 3, 4 and 5 for analysis in Framework 5 (Stockwell/Pierce)

NMFS staff stated that the agency's view is that 10 DAS is too high relative to the allocation of DAS, and goes beyond the safety/breakdown contingency intent of the carryover provisions. The staff also noted that Alternative 5, which bases the carryover on the original 40 DAS baseline, rather that the 31 DAS under Framework 4, is even more liberal.

Motion to amend

To remove Alternative 5 from consideration (Pierce/Leary, **motion to amend passed unanimously**)

Main motion, as amended, passed unanimously

Revision to the 3-hour rule for monkfish gillnet vessels
Monkfish gillnet vessels that run 3 hours or less on their DAS clock are only charged for time used, and if they go over 3 hours, they are charged 15 hours, or time used beyond 15 hours. Staff has heard reports that when the monkfish are close enough to shore gillnet vessels are making trips of less than three hours (to avoid the automatic 15-hour rule) and landing a day's worth of monkfish under the trip limit. In some cases, these vessels are reportedly landing multiple trips in one calendar day. This problem is exacerbated by the required use of VMS on Category C and D permits with a Multispecies permit, because the DAS clock does not start until the vessel crosses the demarcation line, rather than when the vessel leaves port. Staff has learned that some vessels

steam considerable distances inshore of the demarcation line, and then cross the line in the immediate vicinity of their gear.

The PDT is currently investigating these reports to determine the frequency and magnitude of this activity. The staff notes that the original intent of the 3-hour provision in the FMP was to provide a contingency for when bad weather or vessel problems force the vessel to return to port after starting a trip, not to enable vessels to land fish and avoid the 15-hour rule. Given the short time available for development of this framework document, staff recommends that the Committee identify alternatives that would address this problem, if it actually exists, and then base its final recommendation (at the next meeting) on the results of that analysis, or as a matter of policy.

Revision to the 3-hour rule Alternative 1
Under this alternative, vessels that return to port within 3 hours of starting a trip would be prohibited from landing monkfish.

Revision to the 3-hour rule Alternative 2
Under this alternative, vessels that return to port within 3 hours of starting a trip would be allowed to land monkfish, but could only do so once per calendar day, or in any 24 –hour period (to be specified by the Committee if retaining this alternative).

Revision to the 3-hour rule Alternative 3 (no action)
Under this alternative, vessels that return to port within 3 hours of starting a trip would be allowed to land monkfish, and could make multiple 3-hour trips in any calendar day or 24-hour period.

Motion

To include 3-hour rule Alternatives 1, 2 and 3 (Pierce/Nolan)

NMFS staff commented that under Alternative 2, the Committee should consider only allowing one landing per calendar day, regardless of the length of the trip. A member of the Committee suggested that another alternative would be to charge a gillnet vessel a minimum of 15 hours any time the vessel lands monkfish on a DAS. Another suggestion was to automatically charge a gillnet vessel 15 hours off the DAS allocation whenever it called in, and in those instances where there were no landings and the vessel was out for less than 3 hours, it could request a manual adjustment to only be charged for the time used.

Motion to amend

To add Alternative 4 that would say: for all trips less than 15 hours, a gillnet vessel will be charged 15 hours unless the trip is less than 3 hours and the vessel can prove that no fish were landed, in which case the vessel would only be charged for time used (Leary/Stockwell)

Staff suggested that this proposal requires a vessel owner to prove the negative (that no fish were landed), and that perhaps a solution would be for the agency to rely on VTR and dealer reports to determine if fish were landed. One Committee member suggested that a vessel contact

enforcement prior to returning to port to verify that the vessel does not have landings, but other members viewed this as impractical and unreliable. The Committee suggested that enforcement agencies should provide some input on this issue before a final decision is made.

Two members of the industry, who also sit on the Monkfish Advisory Panel commented that the problem of landing fish under the 3-hour rule is a serious and growing problem that threatens to send landings over the target TAC, triggering the backstop adjustment in Framework 4. They noted that vessels are using this rule as a loophole, and not as originally intended, and that the required use of VMS only makes it easier for vessels to make such trips. One of the two also pointed out that allowing vessels to land fish under the 3-hour rule promotes at-sea transfers of fish, especially when the VMS is used, and that Alternative 4 would also promote cash sales so there is no landings record.

Motion to amend carries 3-2

Main motion perfected by friendly amendment

> That the intent under Alternative 2 is to allow monkfish landings under the 3-hour rule, but only once per calendar day

Main motion as amended and perfected passed unanimously

Mid-Atlantic/Southern New England Monkfish incidental limit when not on a DAS while fishing with large mesh

In the original FMP, vessels not on a monkfish, multispecies or scallop DAS, and fishing with mesh that complied with the area-based large mesh regulations, were provided with a 5% monkfish incidental catch limit. In the Mid-Atlantic RMA, the applicable large mesh rule was the summer flounder mesh size, while in all areas east of 72°30'W, "large mesh" referred to multispecies regulated mesh. In Amendment 2, the Councils adopted a 450 lb. cap on vessels fishing under the 5% incidental limit west of 72°30'W. The rationale for the cap was that this was the trip limit (on a per-DAS basis) applicable in some years to vessels in the directed monkfish fishery in the SFMA, and it would not be equitable to allow an incidental limit that is greater than the directed trip limit.

In response to reports that vessels fishing for bait skate in the SNE RMA, using mesh larger than the multispecies minimum size, are targeting monkfish under the 5% rule, the Council now proposes modifying the rule to preserve the "incidental catch" aspect of this allowance. One alternative that would address this concern would be to extend the 450-lb. cap throughout the SNE RMA. The same rationale used for adopting such a cap in the MA RMA could be applied throughout the SNE RMA. The following alternatives are not limited to vessels operating under a Skate Bait Letter of Authorization, and would apply to all vessels fishing with regulated mesh or larger, and not fishing on a DAS.

<u>SFMA Incidental Limit Alternative 1</u>

Under this alternative, vessels fishing with large mesh in the SNE Regulated Mesh Area as defined in the multispecies regulations, but not on a monkfish, scallop or multispecies DAS

would be allowed to retain monkfish equal to 5% of the total weight of fish on board, but not to exceed 450 pounds (tail weight).

The following shows the current regulation and modifications (shaded) that would accomplish this change.

3) *Vessels fishing with large mesh and not fishing under a DA*S.
(i) A vessel issued a valid monkfish incidental catch (Category E) permit or a limited access monkfish permit (Category A, B, C, D, F, G, or H) fishing in the GOM or GB RMAs, ~~or the SNE RMA east of the MA Exemption Area boundary~~ with mesh no smaller than specified at §§648.80(a)(3)(i), (a)(4)(i), and (b)(2)(i), respectively, while not on a monkfish, NE multispecies, or scallop DAS, may possess, retain, and land monkfish (whole or tails) only up to 5 percent (where the weight of all monkfish is converted to tail weight) of the total weight of fish on board. For the purpose of converting whole weight to tail weight, the amount of whole weight possessed or landed is divided by 3.32.
(ii) A vessel issued a valid monkfish incidental catch (Category E) permit or a limited access monkfish permit (Category A, B, C, D, F, G, or H) fishing in the SNE or MA RMAs west of the MA Exemption Area boundary with mesh no smaller than specified at §648.104(a)(1) while not on a monkfish, NE multispecies, or scallop DAS, may possess, retain, and land monkfish (whole or tails) only up to 5 percent (where the weight of all monkfish is converted to tail weight) of the total weight of fish on board, but not to exceed 450 lb (204 kg) tail weight or 1,494 lb (678 kg) whole weight of monkfish. For the purpose of converting whole weight to tail weight, the amount of whole weight possessed or landed is divided by 3.32.
(iii) A vessel issued a valid monkfish incidental catch (Category E) permit or a limited access monkfish permit (Category A, B, C, D, F, G, or H) fishing in the SNE RMA east of the MA Exemption Area boundary with mesh no smaller than specified at ~~§648.104(a)(1)~~ §648.80 (b)(2)(i), while not on a monkfish, NE multispecies, or scallop DAS, may possess, retain, and land monkfish (whole or tails) only up to 5 percent (where the weight of all monkfish is converted to tail weight) of the total weight of fish on board, but not to exceed 450 lb (204 kg) tail weight or 1,494 lb (678 kg) whole weight of monkfish. For the purpose of converting whole weight to tail weight, the amount of whole weight possessed or landed is divided by 3.32.

SFMA Incidental Limit Alternative 2 (no action)
Under this alternative, vessels fishing with large mesh in the SNE Regulated Mesh Area as defined in the multispecies regulations, but not on a monkfish, scallop or multispecies DAS would be allowed to retain monkfish equal to 5% of the total weight of fish on board, with no maximum limit.

Motion

To include SFMA Incidental Limit Alternative 1 in Framework 5 (Alternative 2 is the no-action alternative and is, therefore already included) (Pierce/Stockwell, **motion passed unanimously**)

Requirement to obtain a monkfish Letter of Authorization (LOA) to fish in the NFMA.
The revised VMS screens and IVR DAS call-in protocol enable vessels to declare the management area that they are fishing in when declaring a monkfish DAS. As a result, several

industry members have proposed to the NMFS Regional Office that the LOA requirement is unnecessary and should be eliminated. While this seems like a reasonable request that would reduce the paperwork burden of the program, there are some issues to be resolved, namely the applicable monkfish incidental catch limit (which varies between north and south) on vessels fishing on a multispecies DAS but not a monkfish DAS, as well as the area-based trip limits while on a monkfish DAS.

LOA Alternative 1
Under this alternative, the requirement to obtain a letter of authorization (LOA) to fish in the NFMA would be eliminated.

LOA Alternative 2 (no action)
Under this alternative, vessels fishing in the NMFA must so declare for a period of at least 7 days, and obtain a Letter of Authorization, otherwise that vessel will be presumed to be fishing in the SFMA, under more restrictive trip limits and/or incidental catch limits.

Motion

To include LOA Alternative 1 in Framework 5 (Stockwell/Leary)

The maker of the motion stated that his intent in proposing this be included is to get comment and input from NMFS Enforcement as to the continued need for the LOA. One member of the Committee stated that he is not yet confident that the VMS program has reached sufficient capability to replace the LOA. NMFS staff noted that the VMS and IVR systems now include a question as to whether a vessel is fishing in the SFMA.

Motion passed, 4-0-1 (RO designee abstaining)

Other Issues
Having completed the necessary decisions for Framework 5 with time to spare in the meeting, the Committee agreed to discuss other issues raised by the public. The Monkfish Defense Fund distributed a list of issues it would like considered in Framework 5. This list raised two issues, in addition to the items already discussed by the Committee. One of the issues had already been removed from consideration in Framework 5 by the Council, namely the DAS frontloading and VMS requirement in the SFMA, and the idea of dynamic quota monitoring. The impact of the VMS requirement on vessels fishing in the southern area is sufficiently important, the MDF stated, that it warrants further discussion by the Committee. The dynamic quota management concept is also extremely important given the backstop provision in Framework 4, and the industry would like to explore ways to get near-real-time monitoring of the landings so it can take steps to avoid exceeding the TAC, especially since Framework 4 results in additional DAS available to SFMA fishermen for the remainder of this fishing year.

The Committee, staff and members of the public had an open discussion of the impact of the VMS requirement. Among the comments and observations are the following points:

- One biological impact that could affect whether the TAC is exceeded is that those vessels required to use a VMS do not have their DAS clock started until crossing the demarcation

line. In some cases, this is as much as two hours steaming time from port. In other cases, vessels intentionally steam inside the demarcation line until they reach the shortest point to where they want to fish, or where the gear is deployed, before crossing the demarcation line and starting the trip clock. As a result, there is an accumulation of DAS that can be used to make additional trips, resulting in an increase in landings over what was expected when the DAS allocations were calculated. That calculation was made based on performance of vessels in prior years when the VMS was not used, and included steaming time. Thus, even if all other factors (DAS used, catch rates, number of nets used, etc.) remained exactly as they were in the year prior that was used to allocate DAS and trip limits to achieve the TAC, the imposition of the VMS, and the subsequent non-counting of steaming time, means that the landings will exceed the expected landings, or target TAC.

- The VMS requirement takes away the ability of vessels to "frontload" their DAS clock. Frontloading enables a vessels to accumulate time before leaving port so it can land fish that it has caught in excess of the amount that would be allowed under the time away from port (without frontloading). This practice minimizes bycatch by enabling vessels to land overages that would otherwise occur. Without frontloading, gillnet vessels that reach their limit must either discard the overage or leave fish in the nets until the next trip, resulting in poor product quality and subsequent discards. Vessels tend to use frontloading during periods when the monkfish are migrating and catch rates are high, but they also risk not catching the allowed amount, if they have run up the clock and the catch rates are not as anticipated. Allowing vessels to land more of the fish they catch on each trip through the frontloading provision, rather than discarding, also improves the catch statistics and data that is used in the stock assessments. Furthermore, frontloading enables vessels to be more efficient and reduces fuel usage. Frontloading does not provide a loophole for exceeding the expected catch, since the DAS are allocated based on the expected catch, and all landings are accounted for against the DAS allocation.
- There is a safety issue in situations where a vessel exceeds its trip limit and does not want to discard the overage. Prior to the VMS requirement, vessels in that situation could steam around in a sheltered area before returning to port. With the VMS, those vessels must either discard, or steam around outside the demarcation line, in more open water and in closer proximity to shipping lanes.
- The VMS requirement on Multispecies vessels was implemented in Framework 42. While the Framework 42 environmental document does contain a discussion of the impact on DAS in general, it does not discuss the impact of the VMS requirement on the monkfish fishery as discussed above. Thus, the affected public were not made aware of this impact, and did not have the opportunity to comment on it.
- Since the VMS is only required on Category C and D vessels that also have a Multispecies permit, there is the matter of equity. Vessels with Category A and B permits are not required to have a VMS, and can continue to frontload the clock.
- A possible solution would be to request that the Regional Administrator authorize the use of the IVR call-in system as an alternative to the VMS for declaring the start of a trip. Federal regulations at §648.10(d) state: *The Regional Administrator may authorize or require, on a temporary basis, the use of the call-in system of notification specified in paragraph (c) of this section, instead of the use of the VMS. If use of the call-in system is authorized or required, the Regional Administrator shall notify affected permit holders*

through a letter, notification in the Federal Register, e-mail, or other appropriate means. This authority enables the RO to reinstate the IVR call in system for those affected vessels in a timely way and may contribute to preventing a TAC overage for the reasons explained in the first bullet. The Council can then address this issue in the next available regulatory action since it is too late to consider this in Framework 5. Furthermore, if implemented in Framework 5, it would not take effect until the end of the current fishing year, which is the year on which the backstop provision is based.

Consensus

To request the staff to draft a letter to the Regional Administrator summarizing the points raised in the discussion of VMS impacts on the monkfish fishery, and request that the IVR call-in system be authorized for monkfish vessels to use to declare the start of a monkfish trip. The letter will be reviewed by the Committee at its next meeting, and presented to both Councils for review and approval before being transmitted to the Regional Administrator.

Dynamic quota management

As noted above, the Monkfish Defense Fund also raised their concerns about the ability to monitor landings in a timely way. This is of critical importance since Framework 4 contains a backstop provision that would adjust DAS in 2009 if the TAC is exceeded in 2007 by more than 10%, and would shut down the fishery in 2009 if the overage is greater than 30%. Landings data for May and June of 2007 indicate that almost 40% of the SFMA target TAC had already been landed, and with the implementation of Framework 4, vessels will have an additional 11 DAS allocated for the second half of the year. If the industry could monitor landings in near-real time, it could take steps to prevent exceeding the TAC.

Several commenters noted that the backstop provision was included when the stock status was overfished, and only three years remained in the rebuilding program. With the new assessment concluding that both stocks are overfished, they questioned the need for such an extreme consequence for TAC overages. They also stated that they recognized the need to account for overages, but alternatives could be developed. The assessment group also concluded that the biomass of both stocks would continue to increase at a relatively rapid rate if landings were kept at the level of the target TACs, suggesting that the impact of some TAC overage would not compromise the continued growth of the stocks.

In addressing this concern, Committee members and public commenters explored possible solutions. One point that was made was that since the greatest majority of monkfish landings passes through only a dozen or so dealers, it might be possible for an industry group to informally poll those dealers to get up-to-date estimates of total landings. Alternatively, NMFS could conduct such polling and make the data available to industry with the caveat that such information is unofficial and preliminary. NMFS staff pointed out, however, that dealer reports are not area-specific, and only when the VTR data is complete can landings be prorated to management areas.

One Committee member noted that some of the measures proposed in Framework 5, specifically prohibiting landings under the 3-hour clock, capping the incidental limit on large-mesh vessels

not on a DAS, and possible reductions in the DAS carryover allowance would result in a reduction in effort before 2009, but not during 2007 (the year on which the backstop provision is based). This member suggested that some credit be given to those reductions before calculating any DAS reductions if the backstop provision is invoked.

Several members of the industry expressed deep concern over the potential shutdown of the fishery in 2009 under the circumstances described above. They stated that they are not seeking an increase in the TAC or in trip limits or DAS allocations, only to avoid a shutdown of the fishery that no longer seems necessary given the stock status. They all agreed that the stocks appear to be growing, and based on their own observations of monkfish in the past, there is potential for further growth, especially as measured by the average size of fish in the catch. They are supportive of measures that will allow this growth trend to continue, but at the same time do not feel a shutdown of the fishery is warranted. They pointed out that one of the reasons for adopting a three-year TAC in Framework 4 was to provide some stability to the fishery and enable vessel owners to plan ahead (including ordering fishing gear which requires a significant lead time). The potential for a shutdown or significant reduction in DAS in 2009 is contrary to that purpose.

Monkfish Advisory Panel (MAP) Meeting Summary
October 23, 2007, Holiday Inn, Peabody, MA

Members present: Tim Froelich, Chris Hickman, Allyson Jordan, Stephen Lee, Dean Pesante, Ted Platz, Maggie Raymond Council members present: Laurie Nolan, Jim Ruhle

In response to the briefing on the latest monkfish assessment, the MAP recommends:

That the Council ask the Science Center to define the specific elements used to describe the monkfish resource as "data poor", (e.g. absence of specific data). Purpose is to be able to determine when the resource comes off the data poor status list.

The MAP discussed the specific measures within Framework 5 (in reverse order) and developed the following recommendations:

5.3.5 LOA – the MAP supports alternative 1 for vessels with VMS, provided they can continue to declare monkfish DAS while at sea. However, the LOA requirement should continue for non-VMS vessels.

5.3.4 Large Mesh Incidental Catch Limit – the MAP supports alternative 1, but concerned with 450 lb possession limit, because this is equivalent to the daily possession limit for limited access monkfish vessels. The MAP would prefer 50 lb incidental catch limit, as this is consistent with allowance for other fisheries.

5.2.3 Gillnet 3-hour rule – the MAP supports alternative 1, as this is consistent with the original intention of the FMP. Vessels that need to come to port in less than 3 hours with fish onboard, due to safety or mechanical problems, should contact Enforcement in order to get the minimum DAS charge of 15 hours.

However, recognizing that this practice has been carried out since the inception of the plan, and these landings are contributing to achievement of the TAC; removing this practice will reduce the landings and therefore the DAS allocations and trip limits should be adjusted.

Further, the MAP recommends that the Council request the Regional Administrator take emergency action to close the 3-hour window loophole, in order to prevent overfishing of the 2007 TAC. In addition, the MAP also recommends that the emergency action reduce the carryover DAS by 4 (leaving 6 carryovers) for the 2007-08 fishing year again to help prevent the overfishing the 2007 TAC.

3.2.1 DAS Carryover Alternative – majority of the MAP supports alternative 1 (6 carry-over DAS) because the MAP believes the elimination of the 3 hour window has the potential to significantly reduce landings; one advisor supports no action if the 3-hour landing window is eliminated (5.2.3)

3.1.1. Biomass Reference Points – MAP supports recommendation of the Committee

With respect to the draft letter to the RA regarding the VMS requirement – The MAP recommends removing the paragraph regarding safety – the decision to stay at sea is a personal one, not a cause of the regulations.

In addition, the MAP makes the following recommendation:

In SFMA, when on a monkfish DAS (with the mandatory large mesh requirement, 10" for gillnet and trawl) no landings of multispecies, vessel can be exempt from the VMS by obtaining a LOA for a minimum of 7 DAS. Category C& D vessels would still be required to use multispecies or scallop DAS.

The MAP recommends the following additional considerations be included in FW 5.

1) **Eliminate or modify the backstop provision –** In light of the recent assessment, a closure of the fishery for a 30% TAC overage is unwarranted. The emergency action recommendations, if implemented quickly, should help decrease of likelihood of exceeding the TAC in 2007. MAP recommends that the council take action in FW5 to eliminate or modify the backstop provision, with the understanding that Amendment 4 will adopt additional accountability measures (ACLs and AMs).

2) **Increase the TAC –** In light of the recent assessment, the MAP suggests that an increase in the TAC is warranted. The MAP is concerned that changes in the TAC or the management measures will not happen until 2011 (Amendment 4). The MAP suggests the committee include in FW5 an increase in the TAC of 20% with consequent adjustments to DAS and/or trip limits for the 2010 fishing year. One member of the MAP does not agree with this recommendation.

With respect to Amendment 4, the MAP recommends that the Council include an option to allow for the formation of Sectors in the monkfish FMP.

Respectfully submitted
Maggie Raymond

New England Fishery Management Council

SUMMARY
Monkfish Oversight Committee Meeting
Holiday Inn, Peabody, MA
October 24, 2007

(Note: attachments to be included: draft letter reviewed by the Committee on 10/24, and AP meeting report)

The primary purpose of the meeting was to finalize recommendations to the Councils for measures to be submitted in Framework 5. The Committee also planned to review a draft letter to the NMFS Regional Administrator for approval by the two Councils. The letter expressed concerns about the impact of the VMS requirement adopted in Framework 42 of the Multispecies FMP on the monkfish fishery, and to recommend a revision to that rule. Based on comments and discussion at the October 3 meeting, the Committee had scheduled a discussion of the impact of the Framework 4 backstop provision in light of the recent stock assessment, and make a recommendation to the Councils to address this situation. The Committee also scheduled a closed session for the end of the meeting to review Advisory Panel applications and make a recommendation to the Executive Committee. The Committee had received a number of written comments requesting a consideration of the Framework 4 target TACs and associated management restrictions adopted in Framework 4, prior to the recent stock assessment and change in stock status. Based on the New England Council's September 19 decisions, supported in a subsequent motion at the Mid-Atlantic Council, Framework 5 will address revised biological reference points, days-at-sea carryover allowances, landing restrictions under the 3-hour gillnet rule, monkfish incidental catch limits on vessels fishing with large mesh and not on a day-at-sea, and the requirement to hold a Letter of Authorization to fish for monkfish in the northern area.

The day prior to this meeting, the Monkfish Advisory Panel (AP) met and made recommendations to the Committee on these measures, as well as on the other issues to be discussed. Among these recommendations, as discussed further below, the AP asked the Committee to recommend the Council request the Regional Administrator take emergency action to prevent overfishing of the 2007 TAC which would result in backstop measures being invoked in 2009, including a possible closure of the directed fishery, under the regulations adopted pursuant to Framework 4. The AP also requested that the Council ask the Northeast Fisheries Science Center to define the specific elements used to describe the monkfish resource as "data poor", in order to be able to determine when the resource comes off the data poor status list.

<u>Letter of Authorization (LOA)</u>
The AP supported LOA Alternative 1 for vessels with a VMS, but agreed that the LOA requirement be retained for vessels that are not using a VMS. Under LOA Alternative 1, the requirement to obtain a letter of authorization (LOA) to fish in the NFMA would be eliminated. This position is consistent with the suggestion of the Regional Administrator in an October 22 correspondence.

Motion

To recommend LOA Alternative 1 as the preferred alternative in Framework 5 for vessels using a VMS, but to retain the LOA for non-VMS vessels (Ruhle/Stockwell, **motion passed unanimously**)

Large-mesh incidental catch limits

At the October 3 meeting, the Committee had defined Large-Mesh Incidental Catch Limit Alternative 1 as placing a 450 lb. tail weight limit on vessels fishing in the Southern New England Regulated Mesh Area, with large mesh and not on a monkfish, scallop or multispecies DAS. Those vessels are currently under a monkfish incidental limit of 5% of the total weight of fish on board, which enables them to land more monkfish than vessels in the directed fishery on a monkfish DAS. The AP supported Alternative 1 but expressed concern with size of the limit because it is equivalent to the limit for limited access monkfish vessels, and stated a preference for a lower limit consistent with the incidental limit in other fisheries, which is 50 lbs. per day to a maximum of 150 lbs..

Motion

To recommend Large-Mesh Incidental Catch Limit Alternative 1, with a 50 lb./day tail weight and a maximum limit of 150 lbs. (Stockwell/Leary, **motion passed 3-0-1)**

Gillnet 3-hour rule

The Committee had identified three alternatives, plus no action for consideration to address problems identified in previous public comment with the gillnet 3-hour rule. Under this rule, monkfish gillnet vessels that run 3 hours or less on their DAS clock are only charged for time used, and if they go over 3 hours, they are charged 15 hours, or time used beyond 15 hours. Based on reports and public comment that when the monkfish are close enough to shore some gillnet vessels are making trips of less than three hours (to avoid the automatic 15-hour rule) and landing a day's worth of monkfish under the trip limit. In some cases, these vessels are reportedly landing multiple trips in one calendar day. This problem is exacerbated by the required use of VMS on Category C and D permits with a Multispecies permit, because the DAS clock does not start until the vessel crosses the demarcation line, rather than when the vessel leaves port. Some vessels allegedly steam considerable distances inshore of the demarcation line, and then cross the line in the immediate vicinity of their gear to minimize the DAS clocked by the VMS. The original intent of the 3-hour rule was to promote safety by not charging a vessel 15 hours out of its DAS allocation if the vessel needed to return to port due to mechanical or weather problems that occur after the start of the trip, but before the vessel starts fishing.

The three alternatives that the Committee identified are: 1) to prohibit landings on trips less than 3 hours; 2) to allow such landings but only once per calendar day; and, 3) to charge 15 hours for all trips less than 15 hours, unless the trip is less than 3 hours and the vessel can prove that no fish were landed, in which case the vessel would only be charged for time used. The AP supported Alternative 1, and commented that if a vessel needs to return to port within three hours but with fish on board, the vessel should contact enforcement and be charged 15 hours. The AP also noted that since the practice of landing within three hours has been going on in some areas since the inception of the plan, the reduction in landings should be translated into a recalculation of DAS allocations and trip limits. Furthermore, the AP recommended that Alternative 1 be implemented by emergency action as soon as possible to prevent exceeding the 2007 TAC and causing a reduction in DAS or closure of the fishery in 2009 under the Framework 4 backstop provision. The Committee discussed the emergency action request later in the meeting.

The Regional Administrator, in her October 22 letter to the Committee Chairman, commented that from an enforcement perspective, Alternative 2 is preferable, but noted it does not effectively address the purpose of the measure because vessels could still avoid the 15-hour charge. The RA recommended a variation that would eliminate the 3-hour exemption for VMS vessels and reducing it for non-VMS vessels.

Motion

To recommend that all gillnet monkfish trips less than 15 hours would be counted as 15 hours and monkfish landings on trips under three hours would be prohibited. Vessels returning to port under three hours without landings should contact enforcement to get their DAS corrected, and there can only be one landing per calendar day (Leary/Ruhle)

Motion perfected by friendly amendment

To remove the prohibition on landing on trips under three hours

The rationale for the perfection is that a vessel is being charged 15 hours for the trip, and so landings could be allowed and would be accounted for against the DAS clock.

NMFS staff noted that the motion is inconsistent with the agency's comment letter, and also questioned why the motion proposes only one landing per calendar day, if the DAS clock is accumulating at a minimum of 15 hours per trip.

Motion perfected by friendly amendment

To remove the restriction on landing only once per calendar day

A member of the public suggested that multispecies trip gillnet vessels should not be charged a minimum of 15 hours because they must bring their gear to port, and they are not subject to the 3-hour rule.

Motion perfected by friendly amendment

To add that permit category C and D vessels that are declared into the Multispecies Trip Gillnet category would be exempt from this requirement

Motion perfected by friendly amendment

To add that the vessel seeking a correction to the DAS because it came in within three hours and had no landings must contact enforcement before the close of the next business day

NMFS staff commented on the perfection regarding trip gillnet vessels that all gillnet vessel on a monkfish DAS have the DAS counted at a minimum of 15 hours. They noted that the original Monkfish FMP contained both trip and day gillnet categories, but the proposed and final rule treated all monkfish gillnet vessels as day gillnet vessels. Other discussion on this included the recognition that a trip gillnet vessel would requires at least 15 hours to steam to the grounds, set, soak and haul the gear, and return to port, so the issue is moot. A Committee member pointed out that with the at-sea declaration capability, the exemption for trip gillnet vessels is not needed, since they would not be declaring a monkfish DAS until their landings exceeded the incidental limit.

Motion perfected by friendly amendment

To remove the previous perfection exempting category C and D vessels from the requirements of the main motion

Main motion as perfected passed 4-0-1

To recommend that all gillnet monkfish trips less than 15 hours would be counted as 15 hours. Vessels returning to port under three hours without landings should contact enforcement prior to the close of the next business day to get their DAS corrected to time used.

DAS Carryover Alternatives

In communicating approval of Framework 4, the Regional Administrator strongly recommended that the Councils revise the DAS carryover provision in the FMP that allows vessels to carryover up to 10 unused DAS to the following year. The RA expressed concern about the ability to manage the fishery within the target TAC levels established in Framework 4, when vessels have a carryover allowance equal to 32% of the total DAS allocation (of 31 DAS), and 43% of the SFMA allowance of 23 DAS. The Committee identified two alternatives, in addition to the no action alternative, for consideration in Framework 5. The two alternatives of 6 DAS (Alternative 1) and 4 DAS (Alternative 2) are the same as those that were considered but not adopted in Framework 4. A majority of the AP supports Alternative 1 because in their view the elimination of the 3-hour loophole would reduce landings and the need to cut back further on the carryover DAS. One AP member supported no action.

Motion

To recommend the Councils adopt DAS Carryover Alternative 1 (6 DAS) in Framework 5 (Ruhle/Stockwell)

Comments on the motion included:

- The reduction in carryover DAS should have a sunset in light of the updated stock status
- Any sunset provision to the reduced carryover, or increase in carryover allowance should be considered when the TAC and DAS increases are discussed in a future action
- Since the argument for reducing carryover DAS is to minimize the risk to exceeding the TAC, if there were better real-time reporting of landings, it would be possible to restore any carryover DAS if the TAC is not being exceeded, which would provide additional opportunity and flexibility to the industry
- After 2007, there is no incentive to stay within the TAC because there are no additional backstop measures. NMFS is also concerned that the carryover DAS is being used as a loophole to allow additional effort, and not as the safety provision that it was initially designed to be
- The advisors initially recommended Alternative 2 (4 DAS) but after discussing the 3-hour rule alternatives, changed the recommendation to Alternative 1. Any measure that risks exceeding the TAC is counter to the industry's desire to maintain stability in the fishery because of the risk of measures that might be taken to keep landings within the TAC

Motion passed 4-0-1

Biological Reference Points

The Committee is considering the recommendation of the Northeast Data Poor Stocks Working Group to modify the biomass reference points (threshold and target) based on the most recent assessment. The following table shows the recommended reference points and the 2006 estimated biomass:

	B_{2006} (mt)	B_{target} (mt)	$B_{threshold}$ (mt)
NFMA	118,700	92,200	65,200
SFMA	135,500	122,500	96,400
B_{target} = average of total biomass 1980 – 2006			
$B_{threshold}$ = lowest value of total biomass 1980 – 2006			

Motion

To recommend adoption of Biological Reference Points Alternative 1 (Stockwell/Ruhle, **motion passed unanimously**)

Review of Draft Letter on VMS

The Committee reviewed a draft letter to the Regional Administrator expressing concern about the impact of the Multispecies Framework 42 FMS requirement on the monkfish fishery, and recommending that it be modified. The review draft is attached. The AP reviewed the letter and recommended removing the paragraph citing safety impacts, noting that the decision to stay at sea is a personal one, not a requirement of the regulations. The AP also recommended that a vessel in the SFMA, when on a monkfish DAS (with the mandatory 10-inch mesh trawl or gillnet gear) and no landings of multispecies, be exempt from the VMS by obtaining a Letter of Authorization for a minimum of 7 days. Under that letter, permit category C and D vessels would still be required to use either a multispecies or scallop DAS in accordance with the regulations.

Motion

To recommend the Councils send the letter as drafted, but removing the paragraph pertaining to safety impacts (Ruhle/Stockwell)

Comment on the motion included the following:

- In the Multispecies FMP, under the IVR requirement, vessels are required to leave port within one hour of calling in, which eliminates the "frontloading" option. All monkfish C and D vessels, if they have multispecies DAS, and are required to use those DAS when on a monkfish DAS, must leave port within one hour, but if those vessels have no more multispecies DAS, they can still frontload their monkfish DAS under the IVR.
- Given the comments above, the action proposed in this letter won't provide much gain on the frontloading issue, and affected vessels will only gain the time it takes to steam from port to the demarcation line
- On the safety/discard issue, in multispecies, if you have catch that exceeds the amount allowed under a trip limit and have to return to port for safety reasons

before the required time has elapsed to eliminate the overage condition, you can contact enforcement and they will address the situation, on a case-by-case basis. In some cases they only remove the overage and not issue a violation

- The letter seems to require the IVR, while the discussion at the October 3 meeting on this subject reflected a desire to have the IVR as an option to the VMS for those who want to frontload their DAS clock
- The letter states that with the VMS requirement, landings "will" exceed the target TAC, but it should say "may"

Motion perfected by friendly amendment

To change the sentence on the impact of the VMS on landings, from "will exceed" to "may exceed" the target TAC, and to change the last sentence of the first paragraph to say: "…accordingly by allowing a vessel that has exhausted its Multispecies DAS to use the IVR and removing the requirement to use the VMS for the remainder of the fishing year."

Motion as perfected passed 3-0-2

Advisory Panel Request for Emergency Action

As noted above, members of the AP are extremely concerned that the 2007 landings in the SFMA will exceed the target TAC and result in the backstop adjustment or closure of the fishery in 2009 under Framework 4. Given the recent change to stock status (from overfished to rebuilt), and the fact that the backstop was adopted before the recent assessment, members felt that such extreme backstop measures are no longer appropriate but they recognized that a change to the regulation in the near term is not likely, since it has not been proposed for Framework 5. Therefore, the AP recommended that the Council request the Regional Administrator take emergency action to prevent overfishing the 2007 TAC by closing the 3-hour gillnet rule loophole and reducing the carryover DAS to 6 for the remainder of the 2007 fishing year.

Motion

To recommend the Council request the Regional Administrator take emergency action to close the gillnet 3-hour rule loophole, consistent with the proposal being recommended for Framework 5, and to reduce the 10 carryover DAS to 6, as soon as possible to prevent overfishing the 2007 target TAC and invoking the 2009 backstop provision adopted in Framework 4 (Stockwell/Ruhle)

Comment on the motion:

- It usually takes several months for NMFS to respond to and implement an emergency action request, and in that time vessels will have used their carryover DAS, especially if they anticipate a reduction, and also considering that the DAS tracking system counts carryover DAS first.
- The industry is very concerned about the backstop provision, and is being proactive is seeking ways to slow down landings and prevent exceeding the TAC
- One member stated he could not support the emergency action request for two reasons: one, once the request is made, the Regional Administrator can take whatever action the agency deems is necessary to address the emergency, and, second, there are a number of northern boats that reserve their DAS to fish for

monkfish in the SFMA at the end of the fishing year, and they will take the brunt of the emergency action implemented in several months

- The need to request emergency action would disappear if the Councils took action in Framework 5 to modify the backstop provision. The measures now under consideration in Framework 5 do not necessarily have to be implemented by the start of the fishing year, and, therefore, the consequences of a delay in submission to develop appropriate backstop provision changes would not be problematic

Motion to table

To take up consideration of this motion after the Committee addresses the backstop provision (Leary/Nolan, **motion to table passed unanimously**)

Motion

To recommend the Committee address the backstop provision in Framework 5 (Nolan/Leary)

Comment on the motion:

- The Council won't know until June 2008 if, and by how much the landings exceeded the TAC
- The Committee should proceed with sending its existing recommendations for Framework 5 to the Councils, while simultaneously requesting and seeking Council approval for adding measures to Framework 5, since the Councils have already scheduled final action at the upcoming meetings
- The Councils should not delay Framework 5, but rather should wait to see the extent of any overage, as well as to provide sufficient time to deliberate and develop appropriate backstop adjustment alternatives. Furthermore, delaying Framework 5 at this time undercuts the justification for taking emergency action.

Motion failed 2-3

Motion

To bring the tabled motion back for consideration (Ruhle/Stockwell, **motion passed 4-1**)

Motion to split the question

To consider the 3-hour rule and the carryover DAS adjustment separately in the request for emergency action (Stockwell/Nolan, **motion to split passed 3-2**)

Motion

To recommend the Council request the Regional Administrator take emergency action to close the gillnet 3-hour rule loophole, consistent with the proposal being recommended for Framework 5, as soon as possible to prevent overfishing the 2007 target TAC and invoking the 2009 backstop provision adopted in Framework 4. (**motion passed 3-2**) (NOTE: the Committee is recommending for Framework 5 the following: *All gillnet monkfish trips are counted as a minimum of 15 hours. Vessels returning to port in less than 3 hours without landings will contact enforcement as soon as possible and prior to the close of the next business day to have their DAS use corrected*)

Motion

To recommend the Council request the Regional Administrator take emergency action to reduce the 10 carryover DAS to 6, as soon as possible to prevent overfishing the 2007 target TAC and invoking the 2009 backstop provision adopted in Framework 4 (**motion failed 1-4**)

The Chair of the AP also brought to the Committee attention the AP's recommendation that the Councils consider increasing the TACs in light of the recent stock assessment. The AP recommended, with one member objecting, that the Council include in Framework 5 an increase in the TACs of 20%, with appropriate adjustments to DAS and trip limits, for the fishing year starting May 2010. Committee members discussed that taking such a move should be done as a separate action, and that the New England Council should consider it in the context of its overall priorities.

Motion

To recommend that the Council reconsider the monkfish TACs in light of the recent stock assessment (Ruhle/Stockwell, **motion passed 4-0-1**)

The Chair adjourned the open meeting, and the Committee held a closed session to discuss Advisory Panel membership. It will communicate its recommendations to the Executive Committee for a final decision.