

## **3.0 CONTEXT OF AMENDMENT 10 AND MANAGEMENT BACKGROUND (EIS, RFA)**

### ***3.1 Management Background***

The Council began managing Atlantic Sea Scallop in 1982 when NMFS approved and implemented the Atlantic Sea Scallop Fishery Management Plan. Before that time, the fishery was loosely managed by various state fishery and health regulations, as well as an industry agreement that governed the length of trips and the number of days a vessel must remain in port between trips (i.e. “layover” days).

Initially, the Scallop FMP regulated the fishery with an open access permit, a minimum average scallop meat count, and reporting or associated regulations to ensure compliance. These regulations were intended to maximize yield by preventing scallop vessels from landing small scallops, while maintaining a high degree of flexibility to determine when and where to fish.

Three factors contributed to the failure of these regulations to have the intended effect. First, the Department of Justice found that the industry agreement on trip length and other controls was anti-competitive and an injunction prevented the industry from enforcing them. Second, a large year class appeared in the South Channel area of Georges Bank, attracting more fishing effort when capital for new boat construction was readily available. Last, the Council considered and approved seasonal changes in the minimum meat weight with a tolerance for landings not complying with the minimum meat count. This made it difficult to enforce the minimum meat count and unobserved violations were believed to be frequent.

Finally, the minimum average meat count regulation, about 35 to 40 meats per pound was flawed because its enforcement and compliance was based on a statistical average that required subsampling the catch. It did not prevent the fishing industry from landing, and even targeting smaller scallops. The exceptionally strong 1989 year class was almost entirely caught by the fishery in the 1991-1992 fishing season as three year old scallops. At that time, fishing was considered ‘good’ if the boat landed 1,000 to 1,200 pounds per day at sea, with an 11 to 13 man crew (Table 2).

To make the average meat count minimum, vessels mainly targeted the abundant small scallops and then raised their average meat count by targeting a bed of much less abundant large scallops. A small proportion of very large scallops were sometimes sufficient to raise the average meat count to comply with the fishery regulation. Other methods were also used to increase the meat weight, including ‘tricks’ to make the scallops take up water weight before landing.

Thus, the FMP regulations were becoming more ineffective at preventing the fishery from targeting small scallops, at preventing mortality from increasing, and in maximizing yield from the scallop resource.

#### **3.1.1 Limited Access and Mortality Reduction**

In 1992 and 1993, the Council began evaluating new ways to achieve the FMP goals because catches declined quickly after the demise of the 1989 year class, because the industry found it more difficult to comply with the minimum meat count, and because mortality was too high to maximize yield.

Amendment 4 introduced major changes in scallop management, including a limited access program to stop the influx of new vessels, a day-at-sea reduction plan to reduce mortality and prevent recruitment overfishing, new gear regulations to improve size selection and reduce bycatch, a vessel monitoring system to track a vessel's fishing effort, and a new annual framework adjustment process to improve the ability of the FMP to respond to variations and contingencies.

Vessels could qualify for either a full-time, part-time, or occasional limited access scallop permit, based on its scallop fishing history between 1985 and 1990. Initially capped at 403 permits (NEFMC 1993), the number of permits has declined to 280 permits in 1999 and has since increased to 310 permits in 2001 as catches improved. Thirty-five of these permits are inactive permits that used none of the 2001 day-at-sea allocations. Another forty-three permits were temporarily retired as a Confirmation of Permit History and not associated with an active fishing vessel.

Amendment 4 also established a planned reduction in the annual day-at-sea allocations for vessels with limited access scallop permits. In 1994, full-time vessels were authorized to fish no more than 204 days during the fishing year (March 1 to February 28/29). Vessels with part-time and occasional permits received 40 and 8.3 percent, respectively, of a full-time allocation. The day-at-sea allocation schedule gradually declined to 120 full-time days in 2000 where it was intended to remain, subject to annual adjustment to meet the Amendment 4 fishing mortality targets.

In 1998, the NMFS approved and implemented Amendment 7 to the Atlantic Sea Scallop FMP which was needed to change the overfishing definition and the day-at-sea schedule, meeting new lower mortality targets that were intended to comply with the Sustainable Fisheries Act and the new National Standard 1 guidelines. In addition, Amendment 7 also established two new scallop closed areas (Hudson Canyon and VA/NC Areas) in the Mid-Atlantic, following up on a previous interim action. These closures were intended to postpone mortality until March 1, 2001 when they would automatically re-open unless the Council took other action.

Amendment 7 changed the original annual day-at-sea allocation schedule. On one hand, Amendment 7 established further reductions in the day-at-sea allocations during a 10-year 'rebuilding' period. Once rebuilt, Amendment 7 estimated that the plan could annually allocate 60 full-time days per fishing year and keep mortality below the new maximum fishing mortality threshold,  $F_{max}$ . On the other hand, Amendment 7 also advanced for one year, the planned day-at-sea reduction for 2000 in Amendment 4. This postponement of the more substantial reduction to meet the new SFA mortality targets was meant to allow industry time to adjust to the new, more restrictive regulations and for the Council to consider ways to promote industry consolidation.

The day-at-sea estimates in Amendment 7 did not fully recognize the effects of closures on the ability for the plan to meet the new mortality objectives, however. Because of higher survival of sea scallops in closed areas, more scallops were subject to no fishing mortality compared to the proportion of the scallop resource that was open to fishing. Although fishing mortality remained above  $F_{max}$  in much of the open fishing areas, the plan could meet the annual mortality targets with more days than had been estimated by Amendment 7. New estimates in Framework Adjustments 12 (NEFMC 1999) and 14 (NEFMC 2001) indicated that the Amendment 7 fishing mortality targets could be met by allocating 120 days per fishing year to full-time vessels during 2000, 2001, and 2002.

Table 2. Annual full-time day-at-sea allocation schedules, active permits, landings, and landings per day-at-sea .

Fishing year	Amendment 4 <sup>1</sup>		Amendment 7 <sup>2</sup>		Frameworks	Active limited access permits <sup>3</sup>	Days used <sup>4</sup>	Days accumulated <sup>5</sup>	Fishing mortality <sup>6</sup>		Annual landings (million lbs.) <sup>7</sup>	Landings (lbs.) per day-at-sea
	Annual day-at-sea allocation	Fishing mortality target	Annual day-at-sea allocation	Fishing mortality target	Annual day-at-sea allocation				Georges Bank	Mid-Atlantic		
1990												
1991									1.51	1.31	37.5	
1992							44,934		1.11	1.54	31.0	689
1993							40,490		1.28	1.12	16.1	397
1994	204	1.69				358	36,747	36,747	0.34	1.20	16.6	452
1995	182	1.51				347	33,490	33,490	0.23	0.95	17.6	524
1996	182	1.51				326	34,404	34,404	0.19	1.12	17.2	501
1997	164	1.33				305	30,830	30,830	0.16	0.92	14.4	468
1998	142	1.15				292	27,089	27,089	0.05	0.69	13.0	478
1999	142	1.15	120	0.83	120	248	23,074	25,155	0.16	0.20	22.7	983
2000	120	0.97	51	0.34	120	272	24,958	27,492	0.07	0.34	32.7	1,309
2001	120	0.97	49	0.28	120	286	28,198	29,174	-	-	46.7	1,665
2002	120	0.97	46	0.24	120	300	30,065	30,314	-	-	53.0	1,764
2003	120		45	0.22	120	279	30,082 <sup>8</sup>	30,276 <sup>9</sup>	-	-	30.6 <sup>10</sup>	1,906

1 Table 45 (NEFMC 1993)

2 Tables 4.2.1 and 4.2.7 (NEFMC 1998)

3 Summaries from NMFS permit data base records.

4 Includes days used by vessels with full-time, part-time, and occasional limited access permits. 1992 – 1997 (NEFMC 1999); 1998 – 2001 summaries from NMFS VMS and call in data.

5 Accumulated days differ from used days because of the extra days charged for trips to the Georges Bank groundfish closed areas and to the Hudson Canyon and VA/NC Areas.

6 Survey year fishing mortality rates: 1991 – 1998 (NEFSC 2001a), 1999 – 2000 PDT monitoring report, January 14, 2002.

7 Annual landings 1991-1997 (NEFSC 2001); Fishing year landings 1998-2001 NMFS Fisheries Statistics Office (<http://www.nero.nmfs.gov/ro/fso/tac0502.pdf>)

8 Projected based on March to July DAS use in 2003, compared to the seasonal DAS use pattern in 2002.

9 Assumes the same number of Hudson Canyon and VA/NC Area trips are taken. The scallop possession limit increased to 21,000 lbs. in the Hudson Canyon and VA/NC Areas, however.

10 Through July 2003.

### 3.1.2 History of Management Actions

In addition to the above actions to achieve the FMP mortality targets, other measures were also implemented to achieve plan goals, comply with National Standard guidelines, or implement regulations that would respond to required or discretionary provisions of FMPs in the Magnuson Act. The management actions taken by the Council since the implementation of the FMP in 1982 are listed chronologically below.

The Fishery Management Plan for Atlantic Sea Scallops, Placopecten magellanicus (Gmelin) initially implemented on May 15, 1982, included the following objectives:

- 1) To restore adult stock abundance and age distribution;
- 2) To increase yield per recruit for each stock;
- 3) To evaluate plan research, development and enforcement costs; and
- 4) To minimize adverse environmental impacts on sea scallops.

The management unit consists of the sea scallop resource throughout its range in waters under the jurisdiction of the United States. This includes all populations of sea scallops from the shoreline to the outer boundary of the Exclusive Economic Zone (EEZ). The principal resource areas are the Northeast Peak of Georges Bank, westward to the Great South Channel, and southward along the continental shelf of the Mid-Atlantic.

The management unit also includes populations found within the Gulf of Maine and Cape Cod Bay. These areas include the territorial seas throughout the range, primarily in ME and MA. Fishing for sea scallops within state territorial waters is not subject to regulation under the FMP except for vessels that do not hold a federal scallop permit when scalloping in state waters. Nonetheless, populations within state waters are included within the management unit in recognition of market interactions and the need for complementary state management action.

The management measures within the original plan included a 30 average meat count standard, a 3½-inch minimum shell height standard, and a temporary adjustment of standards. The plan took effect on May 15, 1982 through emergency rules. The 1982 meat count standard was 40 meats per pound for shucked scallop and a minimum shell height of 3¼ inches for scallops landed in the shell. These measures remained in effect during a one-year phase-in period, after which the measures were to be adjusted to 30 meats per pound and a 3½-inch shell height standard. In June 1983, the Regional Director invoked the Plan's temporary adjustment provision and set the meat count at 35 meats per pound and shell height standard at 3? inches. These restrictions remained in place until a Secretarial amendment was implemented.

Although the Amendment 10 proposed alternatives have separate treatments of the scallops on Georges Bank and in the Mid-Atlantic regions, five resource areas are generally recognized within the management unit: Delmarva, New York Bight, South Channel and Southeast Part of Georges Bank, Northeast Peak and Northern Part of Georges Bank, and the Gulf of Maine (Wigley et al. 1991, Wigley and Serchuk 1992). The Delmarva area includes scallops as far south as NC.

### 3.1.2.1 Description of past management actions

Because scallop management actions are closely linked to past and current fishing practices as well as historic landings, a description of past management actions is provided in the Description of the Fisheries, in Section 7.1 .

### 3.1.2.2 Rebuilding

Amendment 7 for the first time established a biomass target that would produce MSY. The Georges Bank and Mid-Atlantic stock estimates were 8.19 and 3.90 kg/tow respectively in Amendment 7. These estimates were computed as an index, rather than as total biomass, because scallop dredge efficiency was not estimated at that time and the scallop survey does not cover the entire resource<sup>11</sup>. In 1998, when the Amendment 7 SEIS was prepared, the scallop biomass index values were less than 25 percent of these targets and a rebuilding plan was included in Amendment 7.

Subsequently, these estimates of  $B_{max}$  for the Georges Bank and Mid-Atlantic regions were re-estimated using revised strata sets by SAW 29 (NEFSC 1999) ranging from 5.68 to 7.83 kg/tow for Georges Bank scallops and from 6.30 to 7.31 for Mid-Atlantic scallops. Due to the above management actions, reductions in fishing mortality through lower day-at-sea allocations and closed areas, the scallop resource has largely recovered to the Amendment 7 biomass targets for Georges Bank scallops and somewhat less than the revised Mid-Atlantic  $B_{max}$  estimates. The values stratified mean weight per tow in the 2001 R/V Albatross survey were 10.9 kg/tow for Georges Bank and 4.4 kg/tow for the Mid-Atlantic.

Most of the biomass increase was associated with closed fishing areas (Figure 1 and Figure 2), but lower fishing mortality levels and above average recruitment in recent years has allowed moderate increases in open fishing areas as well. The 2002 R/V Albatross survey has not yet occurred, but biomass projections indicate that the 2002 biomass should be around 11.4 kg/tow for Georges Bank and 5.6 kg/tow in the Mid-Atlantic. In 2003, projections indicate that total stock biomass will increase to 13.8 kg/tow for Georges Bank and 4.4 kg/tow in the Mid-Atlantic.

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<sup>11</sup> Areas with low abundance or that are difficult to survey are not routinely sampled by the annual resource survey. These areas include inshore strata in the Mid-Atlantic region, parts of Southern New England offshore of Long Island, NY and Nantucket Island, MA, and most of the Gulf of Maine. Landings from these areas are a small fraction of the total catch.

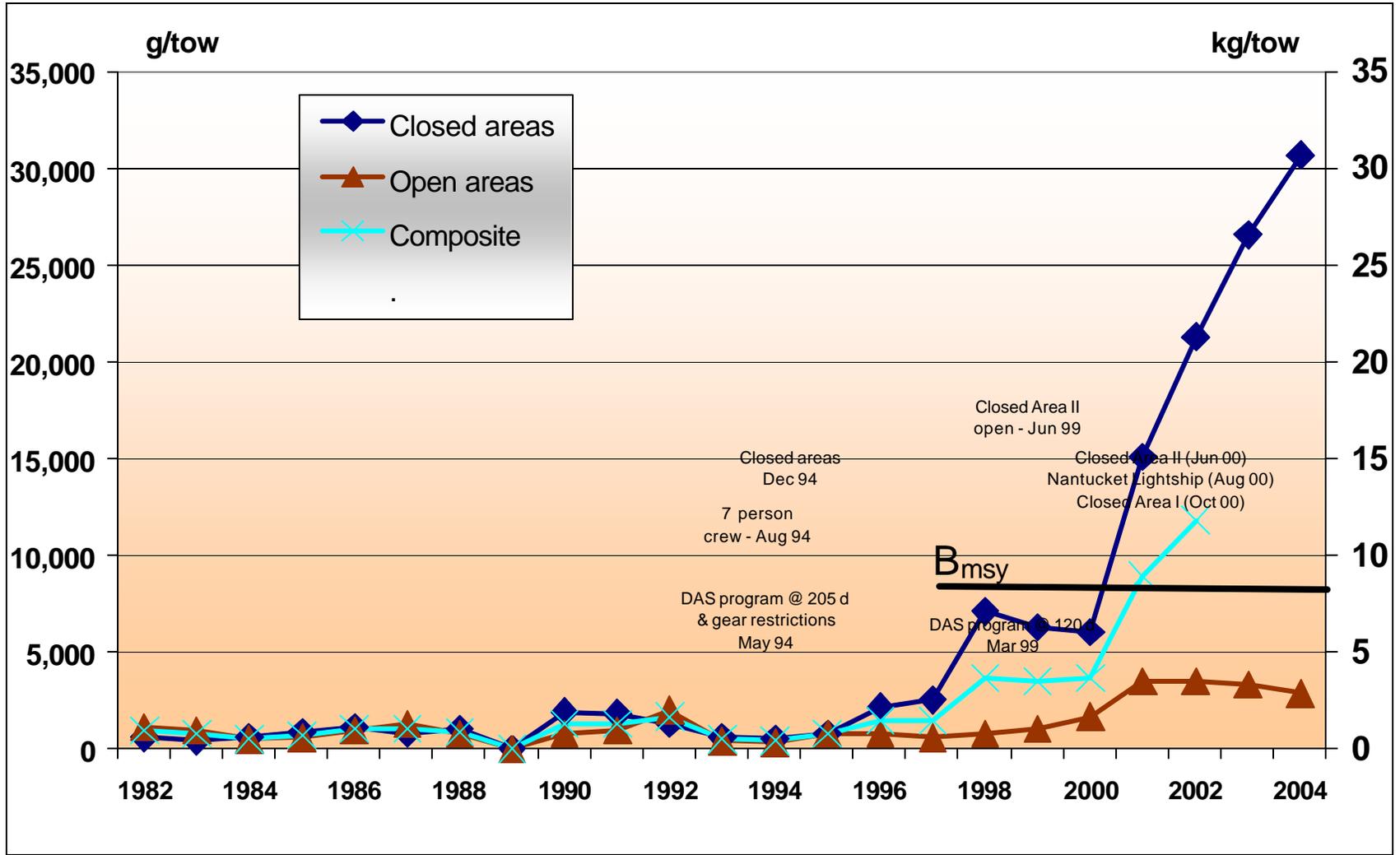


Figure 1. Trend in survey biomass for Georges Bank scallops in closed and open scallop fishing areas , 1982 to 2001. Trends from 2002 to 2005 are projections assuming status quo management where the Georges Bank groundfish areas remain closed to scallop fishing.

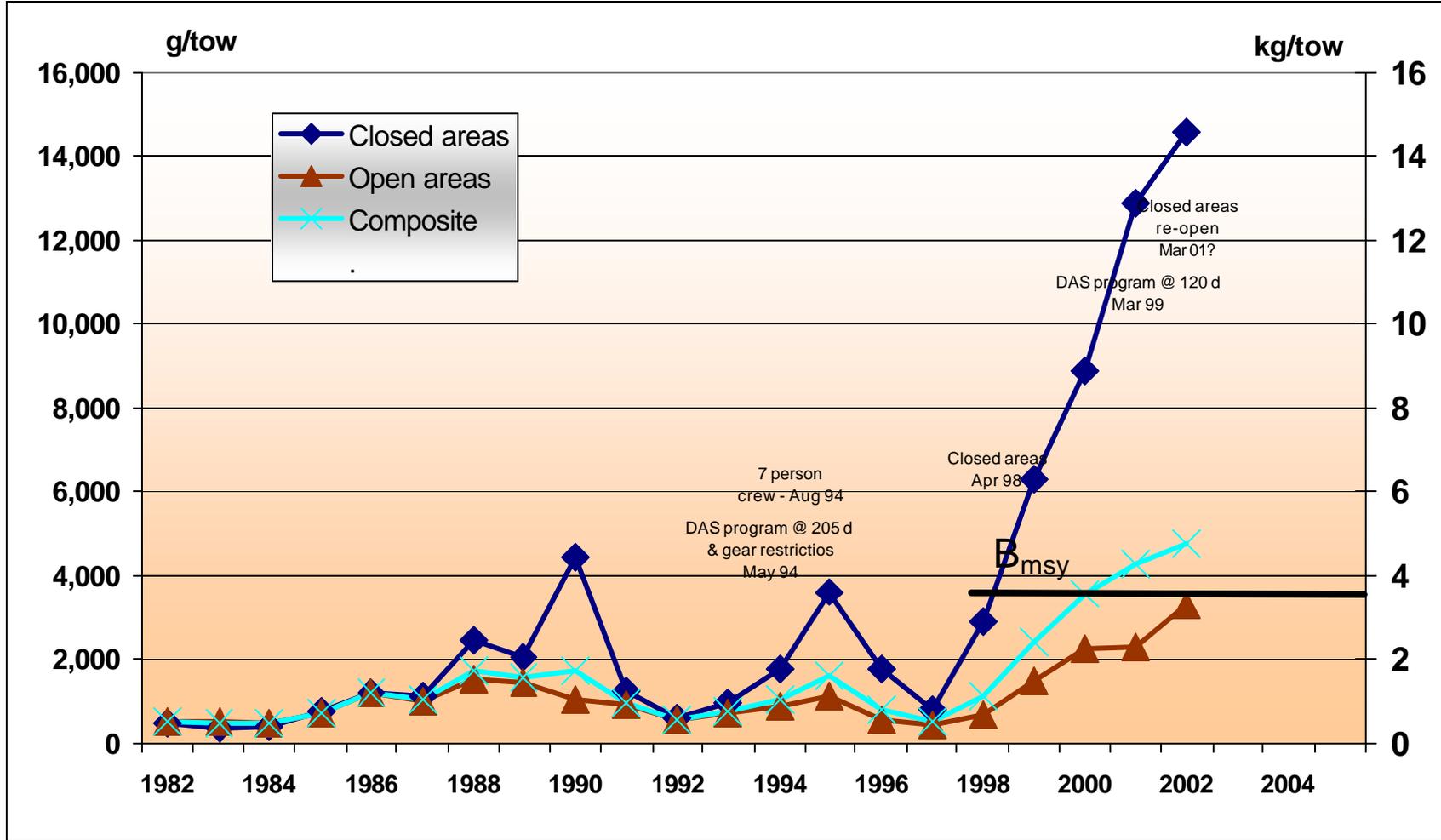


Figure 2. Trend in survey biomass for Mid-Atlantic scallops in closed and open scallop fishing areas , 1982 to 2001. Trends from 2002 to 2005 are projections assuming the Hudson Canyon Area is treated as a re-opened rotation management area with fishing mortality targets of 0.32, 0.40, and 0.48 in 2003 to 2005, respectively.

### 3.1.2.3 Essential Fish Habitat (Scallop EFH)

As required by the Magnuson-Stevens Act, NMFS developed guidelines at 50 CFR part 600, Subpart J, to assist the Councils in the description and identification of EFH and in the consideration of actions to ensure the conservation and enhancement of EFH. Section 600.815(a)(9) recommends that Councils identify habitat areas of particular concern (HAPCs) within EFH to provide greater focus for conservation and enhancement efforts. HAPCs are subsets of EFH that are especially important ecologically, sensitive to human-induced environmental degradation, stressed by development activities, and/or rare. This EIS does not include the consideration of new descriptions and identifications of EFH and new HAPCs. This exercise will take place in the Council's upcoming Omnibus Habitat Amendment (likely Amendment 11 to the Scallop FMP) which the Council started in fall 2004 to achieve an October 2004 submission (see below). For the purposes of this Plan Amendment, the existing and approved EFH designations and HAPCs from the Amendment 9 to the Scallop FMP of 1998 will continue. The EFH regulations include guidelines for identifying adverse impacts from both fishing and non-fishing activities and considering the practicability of actions for minimizing adverse effects on EFH from fishing.

NEPA provides a mechanism for identifying and evaluating the full spectrum of environmental issues associated with Federal actions, and for considering a reasonable range of alternatives to avoid or minimize adverse environmental impacts. NMFS and the New England Fishery Management Council will consider any new information and alternatives discussed in the EIS to determine whether changes to the EFH provisions of the fishery management plans previously approved by NMFS are warranted. As noted in the court's decision in *AOC v. Daley*, the alternatives NMFS must consider under NEPA are not restricted to the options originally presented in the fishery management plan amendments submitted by the Council.

During 2003, the Council initiated a Habitat Omnibus Amendment that will be considered Amendment 11 to the Scallop FMP. It will also amend the Northeast Multispecies (Amendment 14), Monkfish (Amendment 3), Herring (Amendment 1), Skate (Amendment 1), Red Crab (Amendment 1) and Atlantic Salmon FMPs. This Omnibus Amendment will be completed by October 2004 and, tentatively, will contain the following components:

- **Description and identification of EFH.** Consideration of a range of alternatives for EFH designations. Update all NMFS Source Documents for Species Reports
- **Non-Magnuson-Stevens Act fishing activities that may adversely effect EFH.** Update current section on identifying any fishing activities that are not managed under the MSA that may adversely effect EFH.
- **Non-fishing related activities that may adversely effect EFH.** Update current section on identifying activities other than fishing that may adversely effect EFH. For each activity, the FMP should describe known and potential adverse effects to EFH.
- **Conservation and enhancement.** Update current section on identifying actions to encourage the conservation and enhancement of EFH, including recommended options to avoid, minimize, or compensate for the adverse effects, especially in HAPCs.
- **Prey Species.** Review and update the current list the major prey species for the species in the fishery management unit and discuss the location of prey species' habitat. Consider adverse effects on prey species and their habitats that may result from actions that reduce their

availability, either through direct harm or capture, or through adverse effects to prey species' habitats.

- **Development and adoption of a habitat susceptibility and recovery index** for the Northeastern US will be a focus of further analysis.
- **Identification of habitat areas of particular concern (HAPCs)** will be done through the HAPC process approved by the Council and included in a formal RFP. The RFP will be initiated in NOI for the Omnibus Amendment 2 and terminated 6 months later.
- **Consideration and identification of Dedicated Habitat Research Areas**, using the same type of process as the HAPC process and work closely with the Research Steering Committee on this effort.
- **Research and Information Needs.** Review and update the current recommendations, in priority order, for research effects necessary to improve upon the description and identification of EFH, the identification of threats to EFH from fishing and other activities and the development of conservation and enhancement measures for EFH.

## **3.2 Current Fishery Regulations**

The fishery is presently regulated as two directed fisheries, using a combination of regulations including day-at-sea limits, gear restrictions, limits on the number of crew, area closures, trip allocations, and possession limits. One directed fishery is a limited access fleet categorized as full-time, part-time, and occasional, distinguished by different annual day-at-sea allocations. A second directed fishery is comprised of primarily smaller vessels that seasonally or opportunistically target local beds of scallops when commercial quantities are available. These vessels are regulated by an open access permit, a scallop possession limit, and area/season exemptions.

### **3.2.1 Limited access fleet**

Vessels that participated in the directed scallop fishery between 1988 and 1990 were able to qualify for a limited access permit, created in 1994 by Amendment 4 to the Sea Scallop FMP. Permits are categorized as full-time, part-time, or occasional, based on the vessel's scallop fishing activity from 1985 to 1990. Most vessels are authorized to use two dredges having a combined of no greater than 30 feet with rings no less than 3½-inches. Smaller or single dredges may be used. Additional restrictions govern the use of cookies, chafing gear, donuts, and links to prevent fishermen from decreasing the gear's size selectivity by closing the gaps between or within the rings. Dredges must have a twine top with mesh no less than 8-inches square or diamond to improve finfish escapement and reduce bycatch. Some vessels with a limited access scallop permit are also authorized to use a scallop trawl, no greater than 144 feet wide with a mesh no less than 5½-inches stretch.

As a limit on the fishing power of a day-at-sea, limited access vessels using either legal gear may carry no more than seven crew members and may not possess or land more than 50 US bushels of in-shell scallop while the vessel is not on a day-at-sea. The 50-bushel shell-stock limit became effective through Framework Adjustment 14 in 2001 as catches rose and fishermen began deckloading scallops to shuck off the day-at-sea clock. There is a 3½-inch minimum shell height limit for landed shell stock. For the same reasons, automatic sorting and shucking machines are prohibited. The present limits on the day-at-sea allocations are specified by Amendment 7, as amended by annual framework adjustments to achieve the annual fishing mortality targets established by Amendment 7 (see table below). Vessel may also carry up