

**FRAMEWORK ADJUSTMENT 1  
to the  
ATLANTIC HERRING FISHERY MANAGEMENT PLAN**

**To implement a split season quota for  
Management Area 1A**

Prepared by  
New England Fishery Management Council

in consultation with  
National Marine Fisheries Service and  
Atlantic States Marine Fisheries Commission

<b>Initial Framework Meeting:</b>	July 24 – 26, 2001
<b>Final Framework Meeting:</b>	September 25 – 27, 2001
<b>Submitted:</b>	October 2, 2001



1.0	Introduction.....	1
1.1	Executive Summary.....	1
1.2	Background .....	2
2.0	Purpose and Need.....	2
2.1	Need for the adjustment .....	2
2.2	Publication as a final rule.....	3
2.2.1	Timing of the rule .....	3
2.2.2	Opportunity for public comment .....	3
2.2.3	Need for immediate resource protection.....	4
2.2.4	Continuing evaluation.....	4
3.0	Proposed action and alternatives.....	4
3.1	Preferred alternative .....	4
3.1.1	Description of the alternative .....	4
3.1.2	Rationale for the preferred alternative .....	4
3.2	Other alternatives under consideration .....	5
3.3	No action (status quo).....	5
3.4	Alternatives not under consideration .....	5
3.4.1	Change the fishing year start date.....	6
3.4.2	Effort controls (Open/closed days).....	6
3.4.3	Re-calculate TAC.....	6
3.4.4	Limited entry/controlled access .....	6
3.4.5	Set the seasonal TACs on a percentage basis .....	7
4.0	Environmental Consequences.....	7
4.1	Biological impacts.....	7
4.2	Economic impacts.....	7
4.2.1	2000 SAFE Report discussion .....	7
4.2.2	Impacts of the proposed action .....	11
4.3	Social impacts .....	21
4.4	Habitat impacts .....	22
4.4.1	Framework 1 Preferred Alternative .....	22
4.4.2	Habitat assessment .....	23
4.5	Protected species.....	24
4.5.1	Threatened and Endangered Species of Particular Concern.....	24
4.5.2	Other Species of Concern .....	27
4.5.3	Impacts of the Herring Fishery .....	27
4.5.4	Impacts of the Proposed Action and Alternatives.....	27
4.5.5	References .....	29
5.0	Environmental Assessment (NEPA).....	30
5.1	Determination of significance .....	30
5.2	Finding of no significant impact (FONSI).....	31
6.0	Endangered Species Act and Marine Mammal Protection Act .....	31
6.1	Endangered Species Act (ESA) .....	31
6.2	Marine Mammal Protection Act (MMPA) .....	31
7.0	Regulatory Impact Review and Initial Regulatory Flexibility Analysis.....	31
7.1	Regulatory Impact Review (E.O. 12866) .....	32
7.1.1	Description of management objectives.....	32

7.1.2	Description of the fishery.....	32
7.1.3	Statement of the problem.....	32
7.1.4	Description of the alternatives .....	32
7.1.5	Economic analysis .....	32
7.1.6	Determination of significance under E.O. 12866 .....	32
7.2	Initial Regulatory Flexibility Analysis (RFA) .....	33
7.2.1	Reasons for considering the action .....	34
7.2.2	Objectives and legal basis for the action.....	34
7.2.3	Description and number of small entities to which the rule applies .....	34
7.2.4	Reporting, recordkeeping and other compliance requirements .....	35
7.2.5	Duplication, overlap or conflict with other Federal rules .....	35
7.2.6	Economic impacts on small entities resulting from the proposed action..	35
7.2.7	“Significance” evaluation criteria .....	36
7.2.8	“Substantial number” evaluation criteria .....	36
8.0	Coastal Zone Management Act.....	36
9.0	Paperwork Reduction Act .....	36

## TABLE OF FIGURES

Figure 1 Atlantic herring management areas .....	1
Figure 2 Area 1A cumulative monthly percent of total herring landings, 1976 – 1996, showing mean, standard deviation, minimum, and maximum. ....	12
Figure 3 Area 1A cumulative monthly percent of total herring landings, 1996-2000, showing mean, standard deviation, minimum and maximum. ....	12
Figure 4 – Gulf of Maine herring landings, 1960 – 2000 (Area 1A and 1B combined). Bold lines show Area 1A and combined TACs for 2001 and 2002 (60,000 mt and 70,000 mt, respectively).....	13
Figure 5 Catch rates by Week, 1999-2002, based on IVR data, for Areas 1A and 2. ....	15
Figure 6 Cumulative weekly landings from Areas 1A and 2 combined, 1999-2001. ....	16
Figure 7 Area 1A and Area 2 combined catch rates by week, 1999-2000. ....	17
Figure 8 Cumulative Area 1A landings, 1996 – 2001 through August. 2001 data is preliminary, based on IVR, while other years are based on VTR. ....	18

## TABLE OF TABLES

Table 1 Atlantic herring management area TACs recommended by the Council for 2002. The seasonal quota for 2002 proposed in this framework is shaded. ....	1
Table 2 – Summary of 1996 – 2000 Atlantic herring catches (mt), Vessel trip reports, (VTR) (Maine DMR).....	10
Table 3 Preliminary 2001 monthly landings by area, based on IVR call-in reports.....	11
Table 4 Area 3 landings for June and July, 1996-2001 (2001 landings are preliminary).	18

## 1.0 Introduction

### 1.1 Executive Summary

This is the first framework adjustment to the Atlantic Herring Fishery Management Plan (FMP). NMFS implemented the FMP on December 11, 2000. The Atlantic States Marine Fisheries Commission (ASMFC) also has an Interstate Fisheries Management Plan for Atlantic Herring which parallels the federal regulations, but includes spawning area closures and effort controls (days out of the fishery) which are not in the FMP. The primary management controls in the FMP and the ASMFC plan are annual quotas assigned to each of four management areas (see Figure 1). The proposed action would modify the quota rules to enable the Council to recommend a seasonal quota for the January – May period in Area 1A, and set that quota at 6,000 mt for 2002. The Council has already submitted to NMFS its recommendation for 2002 annual quotas. Those quotas, and the seasonal quota proposed in this framework are shown in (Table 1).



**Figure 1 Atlantic herring management areas**

Area	Amount
1A	60,000 mt Jan. – May 6,000 mt
1B	10,000 mt
2	50,000 mt (TAC reserve: 80,000 mt)
3	50,000 mt

**Table 1 Atlantic herring management area TACs recommended by the Council for 2002.** The seasonal quota for 2002 proposed in this framework is shaded.

## **1.2 Background**

Under the quota system of the current management plan, the directed herring fishery in a management area closes when 95 percent of the TAC is reached. If a closure of Management Area 1A occurs before the end of the season (that is, end of November as determined primarily by the demand for lobster bait), as it did in 2000, some vessels will not be able to continue fishing in other areas outside of the closure, and some users or communities may not be able to obtain herring to meet their demand. On October 27, 2000, under the ASMFC plan (the FMP was not in effect at that time) the states closed the directed fishery because the 95 percent threshold was reached.

The Council has identified the following possible causes of the problem:

- the harvest capacity exceeds Area 1A TAC (Area 1A accounts for ~60% of current market for herring)
- since the cost of harvesting fish from Area 1A is generally lower than in other areas during the peak demand period, competition for the lowest cost fish creates harvester conflict and a “derby-style” fishery. In this situation, participants make capital investments to remain competitive in excess of what is needed to efficiently harvest the resource.

The Council has considered several proposals to address this problem (see Section 3.4), and is currently considering whether to develop a limited entry or controlled access program to limit or control capacity of vessels fishing in Area 1A, but such a program would require a plan amendment, and would not address the problem in the immediate future. A number of other issues associated with implementation of a herring limited entry program exist that raise uncertainty about its efficacy in dealing with the problem. One of the main issues is that some people view a limited entry program, even if limited to one area, such as Area 1A, as inhibiting development of the fishery, which on a fishery-wide basis is not fully utilized, thereby reducing the fishery’s ability to achieve its optimum yield. Others view a limited entry program which allows for controlled development as more attractive to development because of the reduced uncertainty about future competition under an open-access system. The Council will have to address this and other issues in the development of an amendment, which may further delay resolution of the problem.

## **2.0 Purpose and Need**

### **2.1 Need for the adjustment**

The purpose of the proposed action is to cap the landings of herring from Area 1A during the winter/spring (January – May) season so that more of the annual quota is available to vessels fishing during the summer/fall peak demand season, thereby forestalling an early closure of the Area 1A fishery. As noted in the previous section, an early closure of the Area 1A fishery has a detrimental impact on some vessels that are unable to fish offshore, and on the communities that depend on those vessels to deliver fresh bait throughout the lobster season. The proposed action does not fully address the scope of the problems

identified by the Council, namely the excess harvesting capacity in Area 1A and the potential for derby-style fishing, but it does provide a more immediately available solution to the problem of running out of quota before the end of the bait-demand season.

**2.2 Publication as a final rule**

The Council recommends that NMFS publish the proposed adjustments as a final rule, and it has considered the following factors as specified in 50 CFR 648.90(b) in making this recommendation:

1. timing of the rule
2. opportunity for public comment
3. need for immediate resource protection, and
4. continuing evaluation of the plan.

**2.2.1 Timing of the rule**

The fishing year, on which the annual quotas are based, starts on January 1. The proposed action to set a seasonal quota for the January – May period needs to be in effect at, or near the start of the fishing year so those vessels that intend to fish during the first part of the year can plan their fishing strategy. A delay in publication of the rule could result in a disruption of business activity, particularly if a closure is called for soon after the publication of the rule.

**2.2.2 Opportunity for public comment**

The public has made numerous comments on the problem being addressed, both unsolicited and during scheduled discussions, as well as during the scoping process on the limited entry proposals. The formal discussions on this proposed action, for which public notice was given, are identified below:

<b>DATE</b>	<b>MEETING</b>	<b>AGENDA/DISCUSSION</b>
June 6, 2001	Herring Committee, Advisory Panel, ASMFC Herring Section	Review annual SAFE Report, develop recommendations to the Council, including the proposed action
June 13-14, 2001	Council	Recommend 2002 quotas, initiate framework adjustment to implement proposed action
July 24–26, 2001	Council	First framework meeting
August 15, 2001	Advisory Panel	Discuss proposed action
August 22, 2001	Herring Committee	Discuss proposed action
Sept. 25-27, 2001	Council	Final framework meeting

The mailing lists for meeting notices contain approximately 281 and 1,765 interested parties for Herring Committee and Council meetings, respectively. Notices are mailed at least two weeks in advance of committee meetings, and three weeks in advance of Council meetings, and are submitted to the *Federal Register* at least three weeks in

advance of the meetings. Agendas and meeting summaries for the above meetings are available from the Council Office.

### **2.2.3 Need for immediate resource protection**

The proposed action does not affect the biological status of herring. While the resource is underutilized, on a fishery-wide basis, it is considered to be fully utilized in Area 1A, which is why the quota has resulted in a closure before the end of the season.

### **2.2.4 Continuing evaluation**

The regulations require the Council to review the plan annually and make adjustments as necessary to insure that the plan objectives are being met (50 CFR 648.206). The Council is proposing this action as a result of its review of the fishery in 2000, including information in the 2000 SAFE Report and public comment.

## **3.0 Proposed action and alternatives**

This framework adjustment is unique in that the no-action alternative and the preferred action are almost equivalent because the states have already agreed to implement the preferred action under the ASMFC Herring Plan. Implementing the preferred alternative would authorize the Regional Administrator to take federal action to close the fishery and allow for federal enforcement. It would also better align the federal and state regulations.

### **3.1 Preferred alternative**

#### **3.1.1 Description of the alternative**

The Council proposes to divide the Area 1A TAC into two seasonal TACs as follows, January – May, and June – December. When 95 percent of the quota for either the January – May season or the full year is reached, the Regional Administrator may close the directed fishery in Area 1A by publication of a notice. When the fishery is closed, vessels may not possess or land on any trip more than 2,000 pounds of herring from Area 1A.

For the 2002 fishing year, the quota for the first period would be 6,000 mt. The full year quota would remain at 60,000 mt. The Council will recommend annually the seasonal and full-year quotas during its annual plan review and adjustment process through the specifications-setting process. It may also recommend mid-season adjustments as provided for in the regulations.

#### **3.1.2 Rationale for the preferred alternative**

The Council proposes to split the season primarily so that the majority of the Area 1A quota will be available during the period of peak demand for lobster bait. By taking this action through a framework adjustment, the Council seeks to address immediately the problem outlined above, effective for the 2002 fishing year, rather than wait for the development and implementation of other possible solutions, such as limited entry, which are more controversial and/or require the preparation of a full plan amendment.

This fishery is conducted by a variety of vessels (size and gear types), some of which have limited options other than a summer herring fishery in Area 1A. The rationale for the proposed 6,000 mt quota for the 2002 January – May period is that this represents a reasonable compromise between zero and other, higher quotas that would have reduced efficacy.

Furthermore, the Council has chosen this option to align federal regulations with state rules. Since the ASMFC Herring Section has already approved the split season and the quotas for the 2002 fishing year, failing to take the proposed action would create a situation in which federal quotas are inconsistent with state quotas. In addition to the general confusion that would result, there would be no authority for federal enforcement of a closure during the January – May period should one be called for under the state regulations. Other alternatives under consideration to address the stated problem, such as a federal limited entry program for Area 1A, would not resolve the inconsistency between state and federal quota rules.

### **3.2 Other alternatives under consideration**

The following section contains a description of alternatives that the Council has either considered and rejected, or is still considering for future action to address the stated problem.

### **3.3 No action (status quo)**

If the Council does not submit the proposed modification to the federal regulations, the seasonal quotas would still take effect under the ASMFC Herring Plan. In this situation, the difference between having seasonal quotas as state regulations only rather than as part of the federal regulations would be:

1. The closure of the directed fishery at 95 percent of the TAC would not be done by Regional Administrator notice action for the Jan. - May period, but would be a landing prohibition by the states.
2. There would be no Federal enforcement of the possession restriction and the landing restriction following the spring closure. The federal plan implements a closure only after 95 percent of the 60,000 mt is taken for the year

A federally permitted vessel would still be able to fish in Area 1A January - May even if 6,000 mt have been taken if that vessel processed at sea and landed in a state that has not implemented the ASMFC regulations. Under ACFCMA such a state would be found out of compliance with the ASMFC Herring Plan, so this problem would likely be short lived. While possible, but unlikely, a vessel could transit to the Gulf of Mexico to a state not under the ACFCMA, or to Canada (Canada currently does not allow U.S. fishing vessels to land in Canada).

### **3.4 Alternatives not under consideration**

The Council has considered the following alternatives to address the specified problem. Either the Council has rejected them, or, in the case of a limited entry program, it has determined that the time required to implement the measure would not address the immediate needs of the affected public.

### **3.4.1 Change the fishing year start date**

The Council received a petition last year proposing that the fishing year be changed to start June 1. The Council did not adopt this approach because of the problems with integrating stock assessments and other scientific information that are based on calendar year data.

### **3.4.2 Effort controls (Open/closed days)**

The Council submitted a proposal in the original FMP that would have prohibited fishing in Area 1A for two, three, or four days out of the fishery, at various TAC percentage benchmarks as a means of slowing the harvest of herring and, thereby, extending the season. However, NMFS disapproved the measure for several reasons. NMFS was concerned that vessels could easily work around the days-out restrictions, negating any conservation benefit. The agency raised safety concerns, suggesting that the proposal may cause some vessels to elect fish on bad weather days. NMFS also questioned the benefit – cost aspects, and stated that the measure imposes a burden with no purpose. Nevertheless, the states have implemented a similar days-out program under the ASMFC Herring Plan.

### **3.4.3 Re-calculate TAC**

The Council considered a proposal offered by members of the public and subsequently presented by the PDT in the 2000 SAFE Report that would allow for increasing the Area 1A TAC by an amount equivalent to the uncaught portion of Area 1A fish in both the Area 2 TAC and the Canadian weir fishery in the prior year. The formula in the FMP used to calculate the area TACs from the stock-wide Optimum Yield specification, factors in both the migration of Gulf of Maine herring into Area 2 during the winter months, and an assumed catch of 20,000 mt by the New Brunswick weir fishery. If the full amount of those fish are not caught, this proposal would have allowed for the underage to be applied to the Area 1A TAC in the subsequent year. The Council rejected this option, consistent with a strong recommendation by the PDT, because of the scientific uncertainty with the assumptions in the formula and the risks to the Gulf of Maine spawning component.

### **3.4.4 Limited entry/controlled access**

During and since the development of the FMP, the Council has considered whether to implement a limited entry or controlled access program in Area 1A to address the same problem being addressed by the proposed action in this framework. On September 16, 1999, the Council published a notice in the *Federal Register* establishing a control date that may be used for establishing eligibility criteria for a controlled access or limited entry program that may be implemented in the future. In February 2000 it held scoping hearings and published a notice of intent to formally consider the matter in a plan amendment. Ongoing discussions in the Committee and Advisory Panel are scheduled to result in a recommendation to the Council in September, 2001 on whether to proceed with the formal development of an amendment, or to terminate discussions at this time. If implemented, such a program could either complement or replace the seasonal quota, depending on the structure of the specific limited entry program adopted.

### **3.4.5 Set the seasonal TACs on a percentage basis**

The Council considered and rejected an option within the current preferred alternative that would set the seasonal TACs on a percentage basis in the regulations. Under this alternative, the Council would only set an annual TAC, and the seasonal portion would automatically be set based on the percentage defined in the regulation. While this option would have reduced the amount of work and discussion required during the annual quota-setting process, it would also limit the flexibility to set seasonal quotas appropriate to future circumstances without having to go through another framework adjustment. The Council rejected this option in favor of the more flexibility afforded by the preferred alternative.

## **4.0 Environmental Consequences**

### **4.1 Biological impacts**

The proposed action does not change the total amount of herring that can be harvested annually from Area 1A but simply limits the amount that can be taken during the first five months. Consequently, this action will not likely have any biological impact on herring. Furthermore, since the available evidence indicates that the herring fishery is highly selective, that is, there is a minimal bycatch of other species, the proposed action is not likely to have an effect on other fish species. Discards, fishery-wide, were less than 2 percent in 2000 according to information presented in the SAFE Report.

### **4.2 Economic impacts**

#### **4.2.1 2000 SAFE Report discussion**

The PDT provided the following discussion on the potential economic impacts of early closure of Area 1A in the Stock Assessment and Fishery Evaluation (SAFE) Report for 2000. The discussion describes potential consequences of taking no action to delay an early closure of the fishery under an annual quota system. The proposed action, while intended to forestall a closure during the fall, at the end of the season, may still result in a closure of the fishery due to reaching the seasonal quota before June 1. However, since most of the effort has historically directed on herring during the June – November period, the impacts of a closure in May will not likely be as significant as those described below. The following discussion would still apply, however, in the event that demand for herring in Area 1A during the June – November period exceeds the amount available after implementation of the proposed action. Much of this discussion parallels public comments on the problem.

The early closure of Area 1A was an unprecedented event for the herring industry in 2000. The unmeasured economic impact on vessels participating in the 2000 fishery and the potential for closure in 2001 and future years are likely to initiate a response that will have future economic consequences. A review of recent landings history (see Table 2) suggests that vessels may have anticipated an early closure and, thereby, assured the closure by increasing landings during the summer months. Table 2 shows that 2000 Area 1A landings in June, July, and August were the highest they have been since 1996. Whether the increased summer landings were in anticipation of an early closure or in the

course of normal landings fluctuations, the potential for closure could foster a “race to fish” in future years.

The economic impacts of resulting from the Area 1A TAC are described qualitatively below. These impacts are likely under any system where the total catch from an area is limited to less than the demand, regardless of how the quota is distributed, however, some of these will be exacerbated by an open season followed by a closure upon reaching the TAC. If effort controls and spawning closures under the ASMFC plan do not slow effort sufficiently during the season, or the closure problem is not otherwise addressed, the open season may become shorter each year and these impacts will become ever more significant.

- Closing Area 1A, other otherwise limiting the catch from Area 1A, forces the vessels that are able to move offshore to fish farther from port. This increases the cost of a fishing trip and negatively impacts profits. Some of the increased cost may be offset by higher catch rates. Recent acoustic surveys show higher abundance on Georges Bank. However, higher catch rates are not guaranteed and, under normal circumstances, the vessel owner would have to weigh the odds of getting higher catch rates against the increase in cost. Clearly, some vessels make the choice to fish offshore while inshore areas are still available. However, generally it is more economically efficient to be able to choose an area than have the choice limited by closure.
- For vessels unable to move offshore, the Area 1A closure means a shortened fishing season or a relocation to a port near Area 2. A vessel’s choice or ability to move offshore is an individual one, but gear type and vessel size or condition are important factors. The landings data for vessels with directed herring fishing in Area 1A (average more than 2,000 pounds per trip) show that four vessels fished exclusively in area 1A while open but did not fish for herring in any area after the closure. It is likely that these vessels were unable to move offshore. Four other vessels, three with significant herring landings in Area 1A, reported having some catch in Area 1B (but not Area 3 - the offshore area) while Area 1A was open. After the closure, one of these vessels reported landings from Area 1B while the other three vessels reported no landings. It is likely that any of these four vessels were unable or unwilling to travel to Area 3 during the Area 1A closure.
- Since purse seine gear is not as effective as mid-water trawl gear in offshore areas, purse seine owners may decide to switch to mid-water trawl gear if they think Area 1A will continue to close early. Changing gear types is costly. However, even prior to the implementation of the FMP the number of purse seine vessels was declining, with some of those vessels converting the mid-water trawl gear.
- Closing an area, or otherwise limiting the catch from the area may disrupt the flow of product to markets. The level of the disruption depends on the availability of alternative product, such as frozen herring or fresh herring transported from

other areas, and herring caught in other areas and delivered by vessel, as well as alternative products, such as groundfish racks (skeletons left after processing). For vessels fishing in other areas and delivering herring to ports in Area 1A, those vessels must travel farther to obtain product and may not be able to make deliveries according to their normal schedule. Remote communities, e.g., island communities in Maine, may be negatively impacted by a closure of Area 1A because they may not have freezer space and/or transportation of herring from other regions is cost prohibitive.

- As the flow of product, particularly to the bait market, is interrupted by a closure, lobster fishermen must seek bait substitutes. Options include other species such as menhaden, racks (backbones from filleted flounders or redfish), other animal products, or artificial bait. If these substitutes are at a higher cost or inferior in quality to herring, then there would be negative impacts on the lobster industry. Some comments suggest, however, that some of these alternatives are actually more desirable than herring, particularly during some seasons or as a matter of local preference.
- Another result of disrupted product flow to markets is the incentive to build freezer capacity. In Gloucester, MA a freezing plant is being built for herring. The Atlantic Frost, a mobile freezer, became active in the last couple years and in 2000 increased its amount of frozen bait. At public meetings, other investors have expressed interest in building freezing capacity. If the building of freezer capacity is in response to the closure rather than the development of new markets, then net national benefits are reduced because these excess productive resources could be applied elsewhere in the economy. On the other hand, if the building of freezer capacity facilitates the entry into new markets, and at the same time mitigates the impact of disruptions in the local availability of fresh bait, then net national benefits are increased.
- One of the results, common in other fisheries where there is a race to fish, is referred to as “input or capital stuffing”. In this situation, as vessel owners strategize to get to the fish before competitors, they spend money on vessel, gear, electronic, and other improvements to increase throughput. From the perspective of net national benefits, excess productive resources are diverted to fishing rather than being used for other more productive purposes.

**Herring catch (mt) - Management area by month, 1996 - 2000**

<b>2000*</b>	Month												
Mgt Area	1	2	3	4	5	6	7	8	9	10	11	12	Total
1A	3	3	76	1,339	7,076	10,377	14,175	12,620	4,334	8,525	812		59,340
1B		87	127		76	234	276	73	166	0	5,836	110	6,985
2	7,760	7,902	2,378	212	18	1	0	2	23	2	860	3,912	23,070
3	125		537	87	38		418	3,289	5,893	2,679			13,065
<b>Total</b>	<b>7,887</b>	<b>7,992</b>	<b>3,119</b>	<b>1,637</b>	<b>7,208</b>	<b>10,611</b>	<b>14,869</b>	<b>15,984</b>	<b>10,415</b>	<b>11,207</b>	<b>7,508</b>	<b>4,022</b>	<b>102,460</b>

\* preliminary catch data

<b>1999</b>	Month												
Mgt Area	1	2	3	4	5	6	7	8	9	10	11	12	Total
1A	628	120	93	3,264	4,975	8,055	12,939	9,415	9,497	5,907	8,644	5,110	<b>68,648</b>
1B	272		41		181	57		35	113	731	106	57	<b>1,593</b>
2	7,179	7,516	2,928	511	9	4	34	136	0	1	4	555	<b>18,878</b>
3		143	272	999	154	1,460	290	92	1,280	994			<b>5,685</b>
<b>Total</b>	<b>8,080</b>	<b>7,779</b>	<b>3,334</b>	<b>4,775</b>	<b>5,320</b>	<b>9,575</b>	<b>13,263</b>	<b>9,678</b>	<b>10,890</b>	<b>7,633</b>	<b>8,754</b>	<b>5,722</b>	<b>94,803</b>

<b>1998</b>	Month												
Mgt Area	1	2	3	4	5	6	7	8	9	10	11	12	Total
1A		193		2,705	3,831	4,014	7,200	4,092	5,101	5,973	6,004	4,473	<b>43,586</b>
1B				392		166	154	112	186	535	1,399	871	<b>3,815</b>
2	5,965	6,568	2,167	160	187	202	161		237	246	222	126	<b>16,242</b>
3				523	487	3,630	3,988	3,845	3,267	1,610	465	144	<b>17,959</b>
<b>Total</b>	<b>5,965</b>	<b>6,761</b>	<b>2,167</b>	<b>3,779</b>	<b>4,505</b>	<b>8,012</b>	<b>11,503</b>	<b>8,049</b>	<b>8,792</b>	<b>8,364</b>	<b>8,091</b>	<b>5,614</b>	<b>81,601</b>

<b>1997</b>	Month												
Mgt Area	1	2	3	4	5	6	7	8	9	10	11	12	Total
1A		6		2,801	3,302	5,885	10,311	12,530	12,841	11,647	7,303	983	<b>67,608</b>
1B				118	295	500	556	1,091	3	94	316		<b>2,972</b>
2	7,229	4,713	3,841	615	5					500	102	4,443	<b>21,448</b>
3			34		839	948	2,581		213	778			<b>5,393</b>
<b>Total</b>	<b>7,229</b>	<b>4,719</b>	<b>3,875</b>	<b>3,534</b>	<b>4,441</b>	<b>7,333</b>	<b>13,448</b>	<b>13,621</b>	<b>13,057</b>	<b>13,018</b>	<b>7,721</b>	<b>5,426</b>	<b>97,422</b>

<b>1996</b>	Month												
Mgt Area	1	2	3	4	5	6	7	8	9	10	11	12	Total
1A		19		1,613	6,785	8,155	10,675	10,037	14,383	11,597	9,684	238	<b>73,186</b>
1B				195	1,897	2,405	192	3,536	30	16	477		<b>8,746</b>
2	8,088	3,798	3,791	1,257	345	21				50	1,790	4,748	<b>23,888</b>
3			29						612	1,047			<b>1,688</b>
<b>Total</b>	<b>8,088</b>	<b>3,817</b>	<b>3,820</b>	<b>3,065</b>	<b>9,027</b>	<b>10,581</b>	<b>10,867</b>	<b>13,573</b>	<b>15,025</b>	<b>12,709</b>	<b>11,951</b>	<b>4,986</b>	<b>107,508</b>

**Table 2 – Summary of 1996 – 2000 Atlantic herring catches (mt), Vessel trip reports, (VTR) (Maine DMR)**

Table 3 shows landings reported under the IVR system for 2001 through August. IVR landings provide a preliminary, but generally low estimate of landings that are reported under the VTR and dealer reports.

2001 – call in data	Month												Total
Mgmt Area	1	2	3	4	5	6	7	8	9	10	11	12	Total
1A	0	2166	1338	2021	8294	9206	5990	9154	-	-	-	-	
1B	0	0	0	20	0	0	0	26	-	-	-	-	
2	9234	3428	326	469	152	0	207	0	-	-	-	-	
3	0	0	0	0	5	625	6927	7598	-	-	-	-	
Total													

**Table 3 Preliminary 2001 monthly landings by area, based on IVR call-in reports**

#### 4.2.2 Impacts of the proposed action

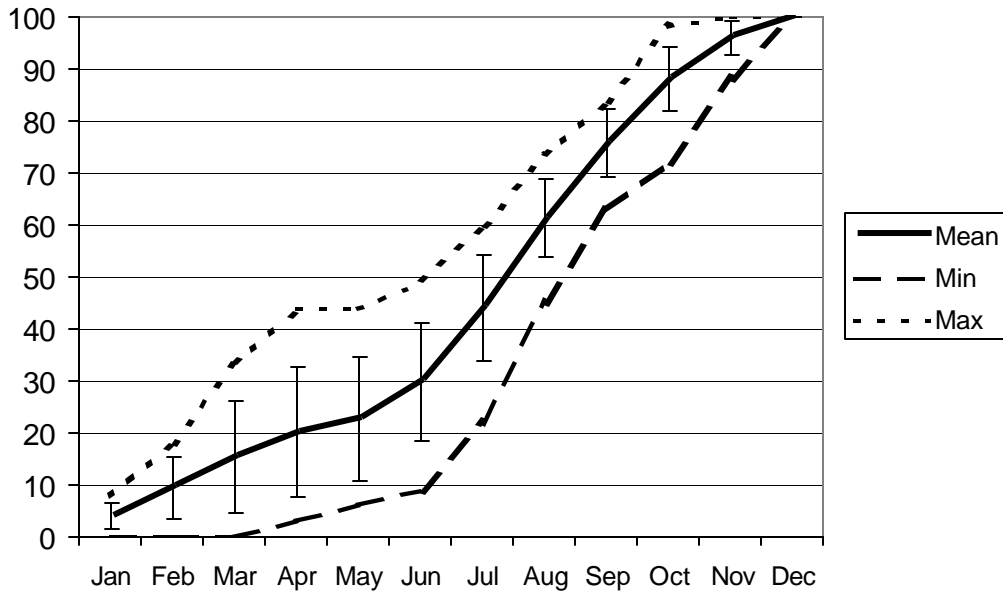
The following figures illustrate landings history for Area 1A. Figure 2 shows the monthly cumulative percentage of landings, 1976-1996. Over the 20-year period, 88 percent of the total was landed through October, and 96 percent through November. Annual landings during this period averaged 50,100 mt. Figure 3 shows the same data for the 1996-2000 period, when average annual landings increased to 61,383 mt.

When the two figures are compared, a noticeable shift in landings toward the second half of the year is evident in the more recent period. Even though annual landings were greater in the more recent period, landings during the January – May season were significantly lower. In the first period, through April, an average 20 percent of the total annual landings had occurred, with a maximum of 44 percent, while in the more recent period an average of 4 percent had been taken, with a maximum of 7 percent (in 1998). Through May, landings averaged 23 percent of the total in the first period, and only 13 percent in the more recent period. In absolute terms, average landings during January - April were 10,043 mt for the 1976-1996 and 2,691 mt since 1996. Through May, average landings were 11,404 mt and 7,812, respectively. By July, however, the trends in percentage of the total converge, and by October/November they are the same.

The cause of this shift, which appears to have started around 1993, is not yet known, but it may be due to changes in market patterns or availability of fish in Area 1A, or both. During the earlier period, the Georges Bank stock component was severely depleted. Around the same time as the Georges Bank component was rebounding, other sources of lobster bait were becoming scarcer. Groundfish fisheries (which provided carcasses for bait) declined, and menhaden (another source of lobster bait) in the Gulf of Maine virtually disappeared. The decline in the availability of bait options occurred at the same time as the demand for lobster bait was growing at a rapid rate. All of these factors likely contributed to the shift in peak landings toward the summer/fall period in recent years.

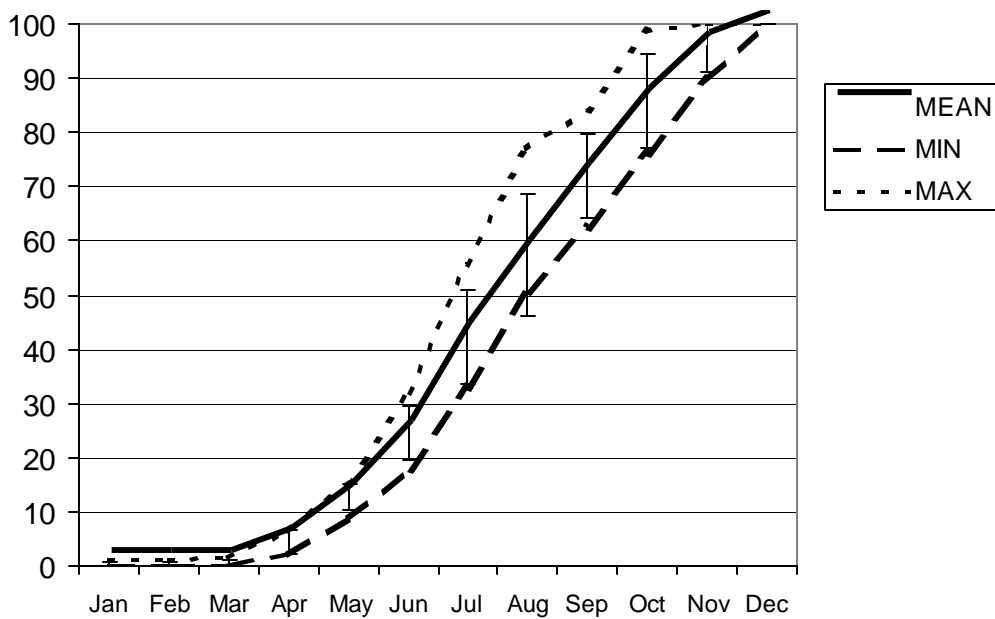
Figure 4 shows landings for the entire Gulf of Maine since 1960. Over this period, landings exceeded 60,000 mt ten times, and 70,000 mt (the TAC for Area 1A and 1B combined) three times, most recently in 1997 (70,170 mt). However, in 2000, directed fishing in Area 1A was stopped by closure when 95 percent of the 60,000 mt TAC was reached, about one month before the traditional end of the season.

Area 1A Cumulative Monthly Percentage of Landings  
1976-1996



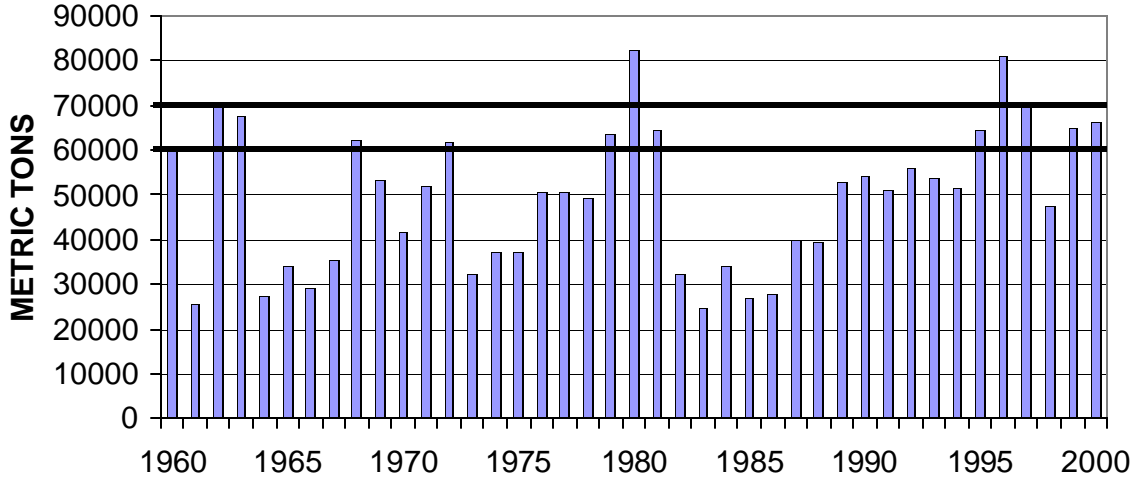
**Figure 2 Area 1A cumulative monthly percent of total herring landings, 1976 – 1996, showing mean, standard deviation, minimum, and maximum.**

Area 1A Cumulative Monthly Percentage of Landings  
1996-2000



**Figure 3 Area 1A cumulative monthly percent of total herring landings, 1996-2000, showing mean, standard deviation, minimum and maximum.**

**Gulf of Maine Landings  
1960-2000**



**Figure 4 – Gulf of Maine herring landings, 1960 – 2000 (Area 1A and 1B combined). Bold lines show Area 1A and combined TACs for 2001 and 2002 (60,000 mt and 70,000 mt, respectively)**

In 2000, the first year the 60,000 mt TAC was in effect, Area 1A landings from January through May were 8,497 mt. June through December landings were 50,843 mt. Average landings for these periods in previous years (1996-1999) were 7,584 mt for January through May (highest landings of 9,080 mt occurred in 1999) and 55,673 mt for June through December (highest landings of 64,769 mt occurred in 1996). April and May Area 1A landings in 2000 were 1,339 mt and 7,076 mt, respectively. Average April and May area 1A landings from 1996-1999 were 2,596 mt and 4,723 mt, respectively.

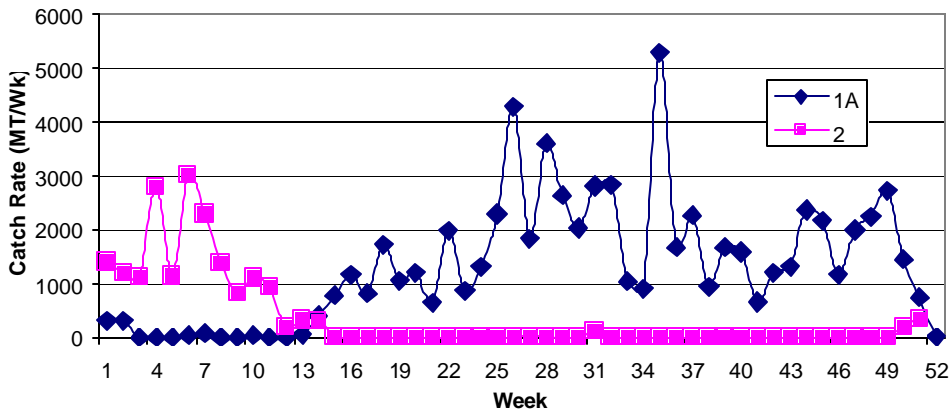
Based on preliminary data obtained through the Interactive Voice Reporting (IVR), landings from Area 1A in 2001 reached the 6,000 mt point in early May, 13,219 mt by June 2 and 23,929 mt by July 7. There were no January 2001 landings but February and March landings were 2,166 mt and 1,338 mt, respectively. Area 1A landings have never been higher than 200 mt in these two months during 1996 to 2000. April 2001 landings were 2,021 mt which is near the average for that month. However, May 2001 landings were 8,296 mt which is significantly higher than the average and is the highest May landings for the 1996-2001 period.

The increase in January through May 1A landings in 2001 may be attributed to a change in the migratory patterns of fish (movement from Area 2 to Area 1A), a behavioral response by fishermen to the early closure in 2000, or both. Distinguishing these effects is difficult when other incentives are present (e.g., fishing where abundance is high regardless of the area). Thus, while seasonal quotas in an open access fishery provide an

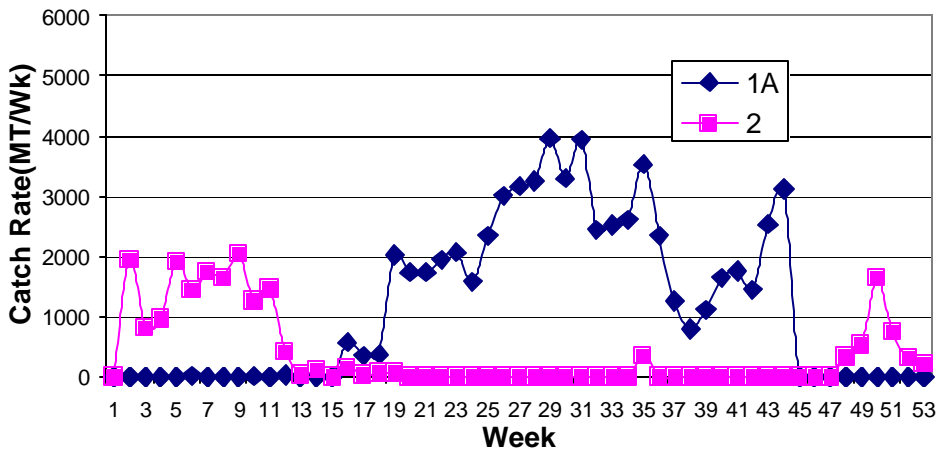
incentive for vessels to fish as hard as possible early in the season before the TAC is reached, other factors may mitigate or mask this effect.

The increase in Area 1A landings during the spring, 2001 is likely attributable to an earlier than usual movement of fish from Area 2. Historically, landings from Area 2 drop off as landings in Area 1A increase, the timing of which depends on the movement of fish out of Area 2 into Area 1A. Figure 5 compares catch rates between Areas 2 and 1A for the past three years, showing this pattern. Recognizing this relationship between Area 1A and Area 2 landings is important in understanding the trends in the fishery because the formula used to calculate the management area TACs includes an assumption that 20 percent of the Area 2 catch during the January – April period are fish from the Gulf of Maine (Area 1A) spawning component.

Catch rate by week 1999\*



Catch rate by Week 2000



Catch Rate by Week 2001

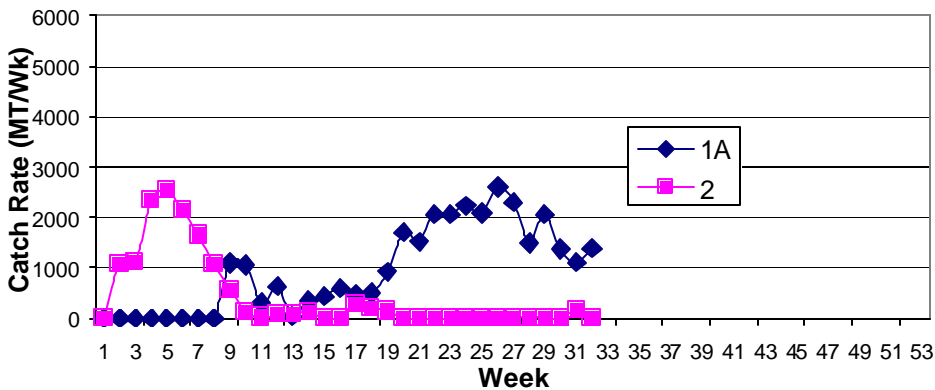
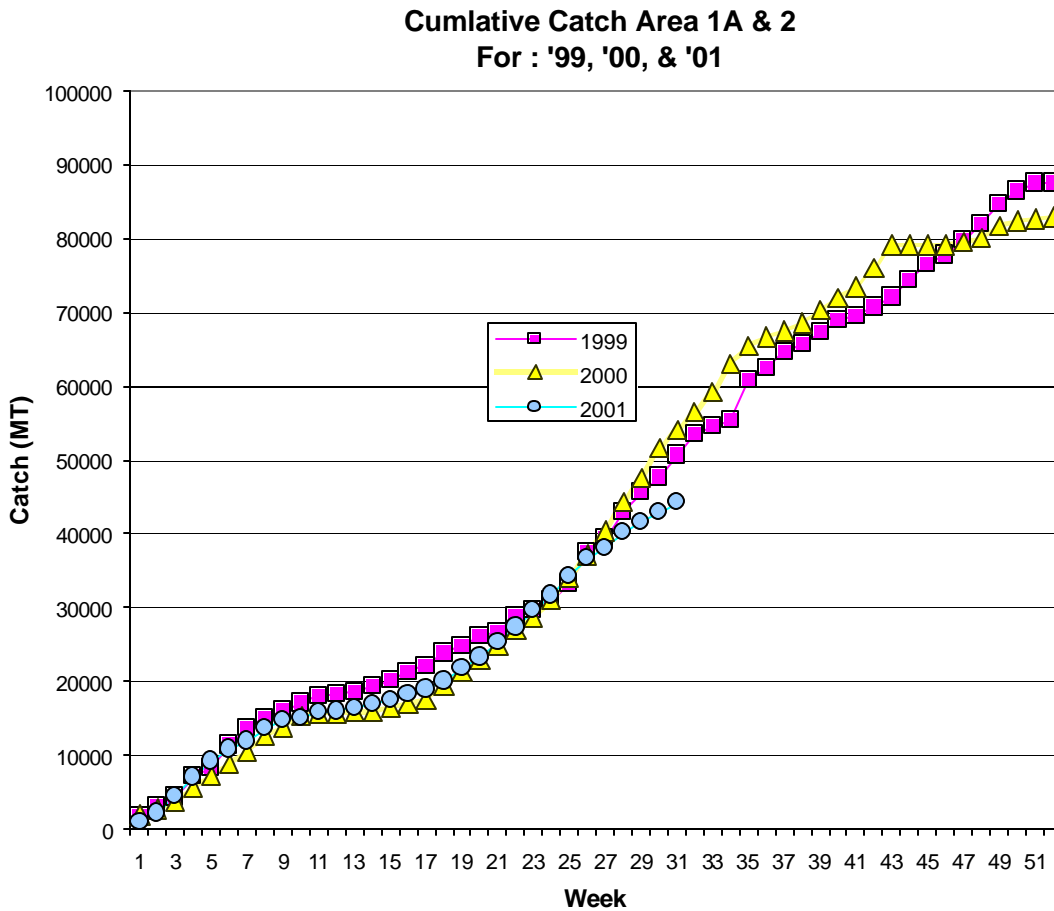


Figure 5 Catch rates by Week, 1999-2002, based on IVR data, for Areas 1A and 2.

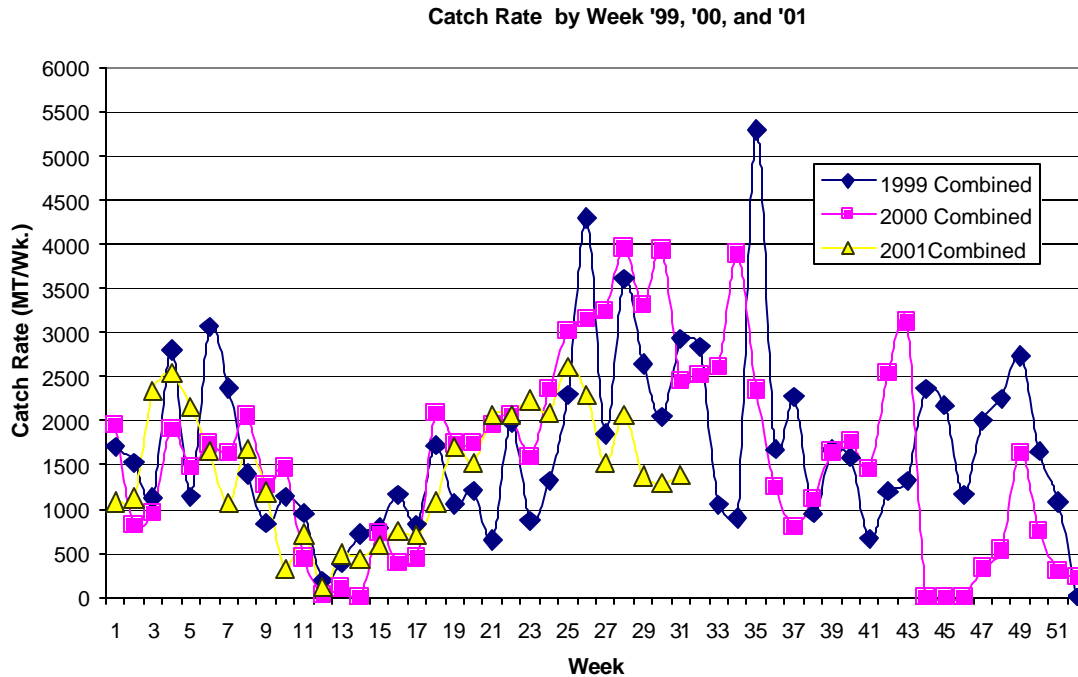
Even though Area 1A landings for the months of January through May 2001 were 63% higher than in 2000 (13,821 mt), preliminary data show that combined landings from Areas 1A and 2 for 2001 are about the same as in 2000 and about 10 percent below 1999 (see Figure 6). June landings from Area 1A were approximately 9,200 mt, which is about average. The pace of landings from Area 1A slowed further during July, when landings were about 6,000 mt, which is about 5,000 mt less than the 1996-2000 average. The shift in landings and catch rates from Area 1A to Area 3 is probably due to a combination of factors, including the relative availability of herring, the impact of effort controls (mandatory days out of the fishery) implemented by the states, and the apparent influx of dogfish.



**Figure 6 Cumulative weekly landings from Areas 1A and 2 combined, 1999-2001.**

Figure 7 shows the combined catch rates of vessels fishing in Areas 1A and 2 during 1999-2001. These data shows that catch rates for 2001 are roughly equivalent to the preceding years until June, when they dropped off from the trend. If, as anticipated under a quota/closure management system, vessels were intensifying their effort, and making efficiency-enhancing capital investments, then catch rates would be expected to increase in the most recent year, suggesting that there are other factors than simply the existence

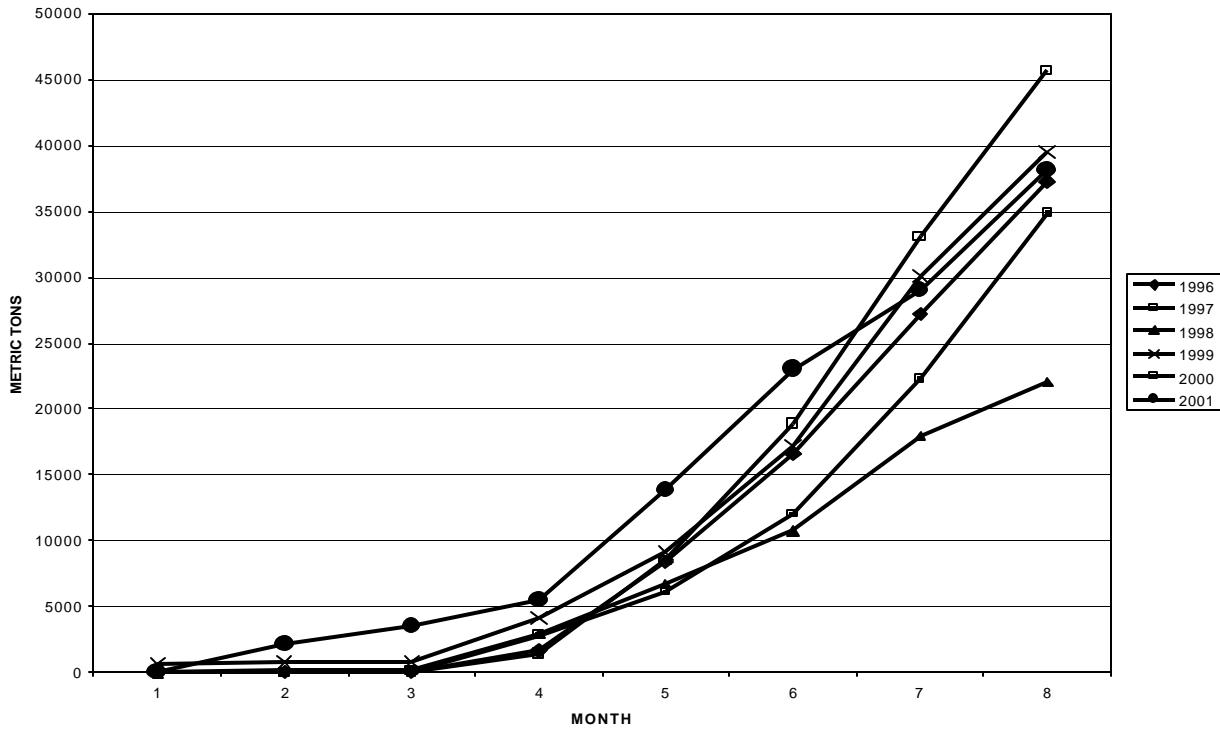
of a quota that affect fishermen's behavior and their decisions on where, when and how to fish.



**Figure 7 Area 1A and Area 2 combined catch rates by week, 1999-2000.**

A clearer indication of a race to fish would have been 1A landings and catch rates continuing to increase through the summer of 2001, and exceeding prior years' rates. However, as shown in the previous figures and in Figure 8, landings and catch rates since June, 2001 from Area 1A have continued to lag pace of the previous two years. While this trend may partly be attributable to the states implementing a three-day-per-week moratorium on landing fish from Area 1A on July 6, it may also be a matter of vessels simply fishing where the greatest availability of fish and profitability are. As shown in Table 4, Area 3, preliminary landings for June - August, 2001, were 15,769 mt, far exceeding the landings in recent years. For comparison, the states implemented the three-day-per-week moratorium on August 1, 2000.

Cumulative 1A Landings



**Figure 8 Cumulative Area 1A landings, 1996 – 2001 through August. 2001 data is preliminary, based on IVR, while other years are based on VTR.**

YEAR	JUNE	JULY	AUGUST	TOTAL
1996	0	0	0	0
1997	948	2,581	0	3,529
1998	3,360	3,988	3,845	11,193
1999	1,460	290	92	1,842
2000	0	418	3,289	3,707
2001 (Prelim.)	569	8,000	7,200	15,769

**Table 4 Area 3 landings for June and July, 1996-2001 (2001 landings are preliminary)**

While not all vessels can fish in Area 3, due to distance from shore and sea conditions, the fact that effort has shifted out of Area 1A decreases the likelihood that the quota will be reached before the end of the season. When fish become more available in Area 1A, the inshore vessels may have the opportunity to harvest them later in the season, as intended. If catch rates become competitive with offshore catch rates, some vessels currently fishing in Area 3 may also shift their effort back into Area 1A to take advantage of the cost savings. In that case, competition to harvest the available quota may intensify, and the inshore fishery may still end prematurely.

If the proposed action were in effect this year, approximately 7,000 mt of herring landings would have been deferred from May until after June 1. This calculation does not consider changes in fishing strategy that fishermen may adopt in anticipation of a closure in May, if one were in effect. On the other hand, if the fish remain in Area 2 later in the winter, landings from Area 1A will likely be below this year's pace, resulting in a later closure.

The data suggest that the proposed action will likely result in a closure of the fishery sometime during May, but not in April. If the trend toward later landings continues, then a closure would occur later or not at all. On the other hand, if the trend reverses and landings prior to June increase, as the 2000 data and preliminary 2001 data suggest, then the closure would occur earlier. The Council's proposal to set the seasonal quota on an annual basis, however, provides flexibility to respond to changes in the seasonal pattern of the fishery on a short-term basis, thereby minimizing the quota's impacts.

Thus, while recent data does not fully corroborate the expected result of an open-access quota, as discussed in Section 4.2.1, over the long term, splitting of the TAC by season creates the environment for an additional seasonal derby, resulting in two closures rather than one. However, numerous public comment from both harvesters and purchasers of herring indicate that a closure in the spring is preferable to one in the fall due to both demand and product quality factors. One possible result of creating an additional derby is the increase in market supply fluctuations. The expected impacts of these are discussed below.

If vessels race to catch the available seasonal quota, Area 1A landings will be high early in the season and low (no landings except for trips of 2,000 pounds or less) at the end. Processing plants may experience wider fluctuations in supply during these times. The ability of the fleet to maintain supply from other areas (not all vessels can safely reach offshore areas and those that can will do so at a higher cost) or for processing plants to obtain fish from Canada will determine the extent of any shortages. Peaks will be determined by the severity of the race for fish early in the TAC season, and significant peaks in supply may require expanding plant capacity. Whatever plant capacity is available for handling peak loads must then sit idle when supplies are low.

If the flow of product, particularly to the bait market, is interrupted by a closure, lobster fishermen would seek bait substitutes. Options include other species such as menhaden, racks (skeletons from processed fish) or artificial bait. Herring caught during the open season and frozen, as well as herring imported from other areas would also be available. Since the lobster fishery, and the commensurate demand for bait, does not usually start until after June, this issue (of a May closure) may not be significant. In fact, the purpose of the proposed action is to make more herring available during the peak season, by limiting the amount harvested during the off-season.

Another result of disrupted product flow to markets is the incentive to build freezer capacity. If the building of freezer capacity is in response to market fluctuations rather

than the development of new markets, then net national benefits are reduced because these excess productive resources could be applied elsewhere in the economy. On the other hand, freezer capacity may actually smooth out the flow of product to the market by purchasing herring when it is available, and selling it when fresh product flows have slowed or stopped. Such slowdowns may occur as a result of a regulation (spawning closure, quota closure, effort controls) or as a result of natural events (movement of fish, periods of severe weather), or a combination of the two.

Supply fluctuations theoretically are expected to cause fluctuations in price. However, historical landings data show that the price of herring does not appear to vary with supply. This is likely due to there being available bait substitutes, fish from Canada or other areas, and frozen product.

One of the results, common in other fisheries where there is a race to fish, is referred to as “input stuffing”. In this situation, as vessel owners form strategies to get to the fish before competitors, they spend money on vessel, gear, electronics, and other improvements to increase throughput. They may even invest in transport vessels. From the perspective of net national benefits, excess productive resources are diverted to fishing rather than being used for other more productive purposes.

The proposed action will most likely have the greatest impact on vessels that are unable to fish in other areas during a closure in May. Because of their limitations, these are the same vessels that are most impacted by a closure in October/November under the annual quota system currently in effect. Of the vessels that would be affected by a May closure in Area 1A (because they have landed more than one metric ton from the area during May), however, nearly all fish in other areas during the year, suggesting that these vessels will be less impacted by a closure than vessels constrained to fishing exclusively in Area 1A. Because of their ability to fish in other areas, these vessels would also be less impacted by a closure during the fall.

In 2000, eleven vessels landed more than one metric ton from Area 1A during May on 104 trips. All of those vessels also fished in other areas during the year, suggesting that if 1A were to close, they could fish elsewhere (if the fish are available). In 1999, 14 vessels landed more than one metric ton, on 78 trips, 12 of which also fished in other areas during the year. These data suggest that, if fish is available outside of Area 1A during a May closure, the affected vessels would be able to fish in other areas, mitigating any potential impact of the closure. Vessels constrained to fish in Area 1A, those most likely to be impacted by a closure, have only a minimal amount of activity during May, and would be less impacted by a closure during that month than during October or November, when fishing activity by those vessels is the highest. Furthermore, as noted earlier, comment from both harvesters and purchasers of herring indicate a closure in May is preferable to a closure later in the year due to both demand and product quality factors.

The question of whether the proposed action, which will create two quotas, and potentially two closures, has a greater economic impact than a single quota/closure requires examination of the particular circumstance of the herring fishery. If the quota is

reached under single-quota system, the fishery will close sometime during the October-November period, at a time when the demand for lobster bait is still high. Under the proposed two-quota program, the initial closure will take place before June, probably in May, at time when demand for lobster bait is low, and the quality of fish is poor (the fish are full of feed). Fishermen, bait dealers and lobster fishermen have all commented in support of a May closure rather than a fall closure. Likewise, comments from the sardine cannery sector suggest that this is a better time to close the fishery and conduct annual plant maintenance. Overall, the total amount of herring landed is the same under the two systems.

### **4.3 Social impacts**

The assessment of social impacts of the proposed action, other than those closely connected with the economic impacts discussed in the previous section, is based primarily on public comments received during discussion on limited entry in the fishery. As noted in the 2000 SAFE Report, little additional information on relevant social factors has been collected since the submission of the FMP. However, some recent research on fishing communities/port profiles may improve that situation when the work is completed. In the Report, the PDT noted a “lack of analysis of herring fishing communities and other social factor analysis, including a description of the nature of social relationships among herring fishermen, dealers, processors, truckers, and other fishing communities. . . . There is also a lack of analysis of the impact of the FMP on social factors and a systematic method for predicting the impact of future management regulations on social groups and fishing communities.”

The Council received numerous public comments on the specified problem both during the development of the current proposal and during the scoping process on the limited entry/controlled access proposals. Based on the comments, the proposed action will likely contribute to reducing the impact of the FMP (particularly the annual quota system) on traditional participants in the fishery, both at-sea and shoreside, by enabling inshore vessels to continue fishing and providing bait to some remote communities throughout the lobster season.

Under the current annual quota system, many in the industry have stated that there will be a loss of traditional infrastructure and market relationships due to competition in delivering product. They feel that the race to harvest Area 1A fish first results in market inefficiencies with a glut of fish followed by a closure, rather than a steady flow of product to meet current demand. Vessel owners and dealers both have stated that the cost of transition to more competitive alternative strategies (switching gear types, increasing vessel size, or purchasing expanded transport/storage infrastructure) may exceed profitability margins. As a result, many of these traditional participants fear that they will be put out of business.

As new markets for herring develop, the problem in Area 1A may become more acute due to increased competition for the lowest cost fish. On the other hand, if the demand for herring for use as lobster bait declines, the scale of the current problem would also be reduced. Such a decline is plausible for several reasons, such as regulations to reduce

lobster fishery effort, or the availability of substitutes (for example, menhaden or groundfish racks, artificial baits, and Canadian imports). The preferred alternative, which enables the Council to set the seasonal quotas on an annual basis will provide the maximum flexibility to respond to such changing circumstances as they arise.

Many of the vessel owners, as well as a representative of the sardine canneries, have stated that the product quality during the spring is less desirable as the fish are full of feed. They indicated that a closure during this period would not adversely affect their operations, and they would use the closure as an opportunity to do annual vessel or plant maintenance.

#### **4.4 Habitat impacts**

A comprehensive description of the physical environment and assessment of the impacts to habitat resulting from most fishing practices is presented in the Atlantic Herring Fishery Management Plan and the relevant sections of the Omnibus Essential Fish Habitat (EFH) Amendment. The alternatives and action proposed in this framework adjustment will not increase any adverse impacts on essential fish habitat (EFH) resulting from fishing activity.

Reductions in fishing effort are one mechanism known to minimize the potential adverse impacts on habitat associated with fishing practices by reducing the frequency and intensity of fishing gear use. Modifications of fishing gear which reduces the weight of fishing gear or the amount of fishing gear in contact with the bottom, is another mechanism known to reduce potential adverse impacts on habitat associated with certain fishing activities. Measures that do not directly reduce fishing effort, but rather manage how the effort is distributed among the fishing industry or the size class of fish targeted by the industry, such mesh size restrictions, minimum fish size restrictions, bycatch reduction methods, or monitoring programs are generally not expected to have a direct effect on the habitat of the region.

##### **4.4.1 Framework 1 Preferred Alternative**

A full description of this alternative and the rationale for selecting this alternative are provided in Section 3.0 of this document. Since this action does not propose to change the total annual quota, but rather simply to reallocate portions of the total annual quota to distinct times of the year, the overall annual fishing effort in Area 1A is not expected to change. This proposed action is not expected to have any effect on habitat, above or below the current levels of effects to habitat that may be associated with the herring fishery, for two reasons:

- (1) The Code of Federal Regulations, Title 50, Part 648.2 defines midwater trawl gear as “trawl gear that is designed to fish for, is capable of fishing for, or is being used to fish for pelagic species, *no portion of which is designed to be or is operated in contact with the bottom at any time*” (emphasis added). In this same section, purse seine gear is defined as “an encircling net with floats on the top edge, weights and a purse line on the bottom edge, and associated

gear, or any net designed to be, or capable of being, used in such fashion.” The Omnibus EFH Amendment states that the “majority (92%) of herring are harvested using purse seines and midwater trawls and both gear types are believed to cause minimal, if any, adverse impacts to any type of EFH.” The Council is aware of no new information which would change this conclusion about the potential adverse effects associated with these gear types.

- (2) There will be no change to the overall effort in the herring fishery as a result of the proposed action. The only change will be a temporal shifting of fishing effort between the two seasonal periods that may result in a concentration of fishing effort in one period relative to the other and relative to the baseline conditions in the fishery. Because there would be no change in the overall fishing effort in this area (Area 1A), there would be no change in the amount of any impacts to any EFH that may result from the prosecution of the herring fishery. Thus, the conclusion of the Council stated in the Omnibus EFH Amendment still holds and “it is not believed that any measures are needed to conserve EFH from herring fishing-related activities.”

#### **4.4.2 Habitat assessment**

- A. Description of the proposed action -- See Section 3.0 for a description of the proposed action. The activity described by this proposed action, Atlantic herring fishing, occurs throughout the U.S. EEZ. The area affected by the proposed action in the Atlantic herring fishery has been identified as EFH for species managed by the FMPs for Atlantic Surf Clam and Ocean Quahog; Northeast Multispecies; Atlantic Sea Scallop; Summer Flounder, Scup and Black Sea Bass; Atlantic Mackerel, Squid and Butterfish; Bluefish; Atlantic Billfish; Spiny Dogfish; Monkfish; and Atlantic Tunas, Swordfish and Sharks.
- B. Analysis of the effects of the proposed action - The proposed action will not directly impact current levels of fishing activity in the U.S. EEZ generally, and in Area 1A, specifically. Fishing gear utilized to harvest Atlantic herring has not been shown to have an adverse impact to the EFH of any species (see Section 4.0 of the Omnibus EFH Amendment). The nature of the action proposed herein is to simply allocate a portion of the current annual total allowable catch to the January - May for Area 1A. This allocation will not have any adverse impacts on the EFH of any managed species.
- C. Conclusions -- The annual specifications proposed under this action have no potential adverse effects on the EFH of any species managed by the New England, Mid-Atlantic or South Atlantic Fishery Management Councils. Because there are no potential adverse impacts associated with this action, no EFH consultation is required.
- D. Proposed mitigation -- None required.

## 4.5 Protected species

A complete list of potentially affected protected species (marine mammals, sea turtles and shortnose sturgeon), including those that are threatened and endangered, or proposed to be listed as threatened or endangered, was provided in the Atlantic Herring Fishery Management Plan. Species of particular concern in this action are identified separately below. Their status and that of other threatened and endangered species, including species descriptions and summary information on their biology, was discussed in the September 27, 1999 Biological Opinion for the Atlantic Herring FMP. Other information is contained in the Biological Opinions for the Northeast Multispecies, Monkfish and Dogfish FMPs issued in June, 2001.

Further details about marine mammal species inhabiting the action area may be found in stock assessment reports prepared by NMFS pursuant to Section 117 of the Marine Mammal Protection Act (MMPA). The fifth and most recent in the series, *U.S. Atlantic and Gulf of Mexico Marine Mammal Stock Assessments – 2000* (Waring *et.al.* 2000), contains updates to 28 of 60 Atlantic and Gulf of Mexico assessments. The revised stock assessment reviews include 15 strategic and 13 non-strategic stocks. Additionally, information on human interactions (fishery and ship strikes) affecting right, humpback, fin and minke whales stocks was re-reviewed and updated.

Information on sea turtle status is contained in the 1995 and 1997 status reviews of listed turtles prepared jointly by NMFS and the U.S. Fish and Wildlife Service (NMFS and USFWS 1995).

### 4.5.1 Threatened and Endangered Species of Particular Concern

*North Atlantic Right Whales* - The North Atlantic right whale population, which numbers less than 300 animals ranges from wintering and calving grounds in the southeastern U.S. to summer feeding grounds in New England, the northern Bay of Fundy and the Scotian Shelf. New England waters are a primary feeding ground. Principal prey items include copepods in the genera *Calanus* and *Pseudocalanus*, although they may feed on similar-sized zooplankton and other organisms. Feeding efficiency may depend on the ability of whales to find and exploit dense zooplankton patches. Sources of mortality include ship strikes and entanglement in fixed fishing gear. Considered to be the most endangered whale in the world, the current death rate far exceeds the birth rate in the western North Atlantic population. An increasing calving interval, the relatively large number of female right whales killed and human-related mortality make the probability of right whale extinction in the next 100 years very high (NMFS 2000).

Protection for the right whale is provided principally through the Atlantic Large Whale Take Reduction Plan (ALWTRP) first implemented in 1997. A final rule was published in the *Federal Register* on February 16, 1999 which closed critical habitats during right whale season to lobster and gillnet gear, prohibited certain fishing practices, identified gear modification, created a network to respond to entangled whales, funded gear

research to develop technological solutions to reduce entanglements, and improved outreach efforts to inform fishermen about the problems of right whale entanglements. Further gear requirements were implemented as part of the plan in February, 2001.

*Sea Turtles* – The loggerhead (threatened), the most abundant turtle species in North Atlantic waters, congregates in warm eddies to forage when temperatures reach 20 degrees C (Morreale et al. 1992) and migrates southward in the fall as water temperatures cool. They occur commonly throughout the inner continental shelf from Florida through Cape Cod, Massachusetts and may be found in a wide range of habitats including open ocean, continental shelves, bays, lagoons, and estuaries (NMFS and USFWS, 1995). Since they are limited by water temperatures, sea turtles are found in Virginia as early as April, but do not usually appear on the northern summer foraging grounds until June. The large majority leave the Gulf of Maine by mid-September as water temperatures cool but may remain in the area until as late as November and December (Epperly *et al.* 95; Keinath 1993; Shoop and Kenney 1992).

Loggerhead turtles are primarily benthic feeders, opportunistically foraging on crustaceans and mollusks. Under certain conditions they may also scavenge fish, particularly if they are easy to catch (e.g., caught in nets) (NMFS and USFWS, 1991). Although they are typically thought of as a coastal species, larger loggerheads may also be found along the continental shelf.

They are captured in fixed pound-net gear in Long Island Sound, in pound nets and trawls in the summer flounder and other finfish fisheries in the mid-Atlantic and Chesapeake Bay, in gillnet fisheries in the mid-Atlantic and elsewhere, in fisheries for monkfish and spiny dogfish, and in gillnets in the Northeast sink gillnet fishery.

The leatherback (endangered) is the largest living turtle, ranges farther than any other turtle species, and exhibits broad thermal tolerances. Recent declines have been seen in the number of leatherbacks nesting worldwide (NMFS and USFWS 1995). The status of the leatherback population in the Atlantic is difficult to assess since major nesting beaches occur over broad areas within tropical waters outside the United States. The nesting population within jurisdiction is presumed to be stable. Although numbers at some nesting beaches (e.g. St. Croix, Florida, Puerto Rico) are increasing, other nesting assemblages in the U.S. Virgin Islands have been extirpated, including assemblages in other areas of the Caribbean such as St. John and St. Thomas. Primary nesting beaches outside of U.S. jurisdiction, in the Suriname-French Guiana trans-boundary region, have been declining since 1992.

They are predominantly a pelagic species and feed on jellyfish, cnidarians, and tunicates. A 1979 aerial survey of the outer Continental Shelf from Cape Hatteras, NC to Cape Sable, Nova Scotia showed leatherbacks to be present throughout the area with the most numerous sightings made from the Gulf of Maine south to Long Island. However, evidence from tag returns and strandings in the western Atlantic suggests that adults engage in routine migrations between boreal, temperate and tropical waters (NMFS and USFWS, 1992). Of the turtle species common to the area, leatherback turtles seem to be

the most susceptible to entanglement in lobster gear. Entanglement in pot gear set for other species of shellfish and finfish have also been documented. It is unclear how leatherbacks become entangled in such gear. They are also taken in trawl, gillnet, and longline gear in the north Atlantic (NMFS 2000).

Adult and juvenile Kemp's ridley and more rarely green turtles (both endangered), also inhabit the action area. Ridleys found in mid-Atlantic waters are primarily post-pelagic juveniles averaging 40 centimeters in carapace length, and weighing less than 20 kilograms (Terwilliger and Musick, 1995). Next to loggerheads, they are the second most abundant sea turtle in Virginia and Maryland waters, arriving in these areas during May and June (Keinath et al., 1987; Musick and Limpus, 1997). In the Chesapeake Bay, ridleys frequently forage in shallow embayments, particularly in areas supporting submerged aquatic vegetation (Lutcavage and Musick 1985; Bellmund et al., 1987; Keinath et al., 1987; Musick and Limpus 1997). A similar pattern is found for ridley's that forage during the summer months around Long Island, NY and Cape Cod, MA. With the onset of winter and the decline of water temperatures, ridley's migrate south to warmer waters (USFWS and NMFS, 1992), and are predominantly found in shallow coastal embayments along the Gulf Coast during the fall and winter.

In the western Atlantic green sea turtles range from Massachusetts to Argentina, including the Gulf of Mexico and Caribbean, but are considered rare north of Cape Hatteras. They use mid-Atlantic and, to a lesser extent, northern areas of the western Atlantic coast as important summer developmental habitat. These encompass estuarine and coastal waters as far north as Long Island Sound, Chesapeake Bay, and North Carolina sounds, and south throughout the tropics (Musick and Limpus 1997). Green turtles appear to prefer marine grasses and algae in shallow bays, lagoons and reefs, but also consume jellyfish, salps, and sponges. Like loggerheads and Kemp's ridleys, green sea turtles are temperature dependent. Turtles that use northern waters during the summer return to southern waters in autumn as water temperatures decline.

*Shortnose Sturgeon* – Shortnose sturgeon are benthic fish that mainly occupy the deep channel sections of large rivers. They can be found in large rivers along the western Atlantic coast from St. Johns River, Florida (possibly extirpated from this system), to the Saint John River in New Brunswick, Canada. The species is considered to be anadromous although individuals have been captured in otter trawl gear on the continental shelf.

*Atlantic Salmon* - The recent ESA-listing for Atlantic salmon covers the wild population of Atlantic salmon found in rivers and streams from the lower Kennebec River north to the U.S.-Canada border. These include the Dennys, East Machias, Machias, Pleasant, Narraguagus, Ducktrap, and Sheepscot Rivers and Cove Brook. Atlantic salmon are an anadromous species with spawning and juvenile rearing occurring in freshwater rivers followed by migration to the marine environment. Juvenile salmon in New England rivers typically migrate to sea in May after a two to three year period of development in freshwater streams, and remain at sea for two winters before returning to their U.S. natal rivers to spawn from mid October through early November. While at sea, salmon

generally undergo an extensive northward migration to waters off Canada and Greenland. Data from past commercial harvest indicate that post-smolts overwinter in the southern Labrador Sea and in the Bay of Fundy.

The numbers of returning wild Atlantic salmon within the Gulf of Maine Distinct Population Segment (DPS) are perilously small with total run sizes of approximately 150 spawners occurring in 1999 (Baum 2000). The capture of Atlantic salmon has occurred in commercial fisheries, usually in otter trawl or gillnet gear, or during research/survey operations.

#### **4.5.2 Other Species of Concern**

*Harbor Porpoise* - Harbor porpoise are widely dispersed from New Jersey to Maine but generally are more abundant in the western Gulf of Maine and move northward to the Bay of Fundy in the summer. During the October-December and April-June periods they are widely dispersed from New Jersey to Maine. The most common cetacean species caught in commercial fishing gear in the Northeast, this species is the subject of a Take Reduction Plan (TRP) implemented by NMFS in December 2, 1998. To reduce takes, the plan targets multispecies gillnet, as well as monkfish, dogfish and mid-Atlantic coastal gillnet fisheries. TRP requirements include the use of acoustic deterrents ("pingers") on nets according to specified protocols, time/area closures and gear modifications.

#### **4.5.3 Impacts of the Herring Fishery**

Impacts of the herring fishery on endangered, threatened and other protected species were discussed in the FMP as well as in the Herring FMP Biological Opinion (BO). The BO notes that the amount of monitoring of this fishery is minimal, and the degree to which existing coverage has tracked the current fishery or incidental take patterns is unknown. Only indirect evidence from other fisheries supports the potential for interactions, although takes of whales, sea turtles and sturgeon have been recorded in the action area in one or more of the gear types used in the herring fishery.

Takes of sea turtles in the herring fishery have been reported anecdotally, but at this writing, none have been conclusively documented. Work on this issue is ongoing at the NMFS/NEFSC to continue to evaluate this question in addition to undertaking a review of all fisheries in the western Atlantic for which observer data is available.

#### **4.5.4 Impacts of the Proposed Action and Alternatives**

*Proposed Action* - The conversion of the herring fishery into one that is regulated by an FMP was determined to benefit threatened, endangered and other protected species by imposing a regulatory framework on the harvest of Atlantic herring. Additionally, the use of management areas as the basis for TAC distribution may provide a benefit to protected resources generally, and particularly to harbor porpoise during the June through November period as discussed in the FMP.

The action proposed in Section 3.0 is in keeping with this conclusion in that it does not alter the biological status of the herring resource. As noted earlier in this document, while

herring is underutilized on a fishery-wide basis, it is considered fully utilized in Area 1A. The Council proposes to split the season primarily so that the majority of the Area 1A quota will be available during the summer and fall seasons when commercial demand is highest. The action would potentially avoid an early closure of the Area 1A fishery while distributing the resource over a longer timeframe.

*Alternatives* – Under the status quo the Council would not submit the proposed change to the timing of the harvest of the Area 1A TAC. The seasonal quota scenario has been approved by the ASMFC, however, and would take effect anyway as a state landings regulation/prohibition under the ASMFC rules. Impacts to protected resources, then would be similar to those described under the proposed action.

Additional alternatives were considered and rejected or consideration was delayed, as in the case of a limited entry program. A change to the fishing year start date is not likely to affect protected species unless it precipitates a change to the management measures which have been discussed and evaluated as referenced above. Effort controls in the form of days out of the fishery would benefit protected species in they were proposed as a mechanism to slow the harvest of the resource over time, potentially enhancing the availability of prey species for marine mammals. This alternative was rejected at the time of the FMP submission for safety, enforcement and other reasons. A recalculation of the TAC would have uncertain impacts on protected resources. As was discussed earlier in the document, the Herring PDT expressed concern over this proposal because of the scientific uncertainty with the assumptions in the formula and potential risks to the Gulf of Maine spawning component. Setting seasonal TACs on a percentage basis would have uncertain impacts, depending on the timing, TAC levels and the presence of protected species that utilize herring as a prey species such as harbor porpoise, as well as humpback and fin whales.

Neither the proposed action nor the alternatives considered are expected to affect right whale critical habitat which was designated in 1994 to protect important right whale foraging areas in the Great South Channel and Cape Cod Bay.

#### 4.5.5 References

- Bellmund, S.A., J.A. Musick, R.A. Byles, J.A. Kenaith, and D.E. Barnard. 1987. Ecology of sea turtles in Virginia. Special Scientific Report No. 118 to the National Marine Fisheries Service. Contract No. NA80FAC-00004, July 1987.
- Epperly, S.P., J. Braun, and A. Veishlow. 1995. Sea turtles in North Carolina waters. *Conserv. Biol.* 9:384-394.
- Kenaith, J.A. 1993. Movements and behavior of wild and head-started turtles. Ph.D. Diss. College of William and Mary, Gloucester Point, VA. 206 pp.
- Kenaith, J.A., J.A. Musick, and R.A. Byles. 1987. Aspects of the biology of Virginia's sea turtles: 1979-1986. *Virginia Journal of Science.* 38 (4):329-336.
- Lutcavage, M., and J.A. Musick. 1985. Aspects of the biology of sea turtles in Virginia. *Copeia.* 1985: 449-456.
- Morreale, S.J., A.B. Meylan, E.A. Standora, and S.S. Sadove. 1992. Annual occurrence and winter mortality of Lepidochelys kempfi and other marine turtles in New York waters. *J. of Herpetology.* 26(3):301-308.
- Musick, J.A. and C.J. Limpus. 1997. Habitat utilization and migration in juvenile sea turtles. In: P.L. Lutz, and J.A. Musick (eds.), *The biology of sea turtles.* CRC Press, Inc., Boca Raton, Florida. pp. 137-163.
- National Marine Fisheries Service (NMFS). 2000. Endangered Species Act section 7 consultation on the Atlantic Herring Fishery Management Plan. Biological Opinion. September 27, 1999.
- National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1991. Recovery plan for the U.S. population of loggerhead turtle. National Marine Fisheries Service. Washington, D.C.
- National Marine Fisheries Service and U.S. Fish and Wildlife Service. 1995. Status reviews for sea turtles listed under the Endangered Species Act of 1973. National Marine Fisheries Service, Silver Spring, MD, 139pp.

Shoop, C.R. and R.D. Kenney. 1992. Seasonal distributions and abundance of loggerhead and leatherback sea turtles in the waters of the northeastern United States. *Herpetol. Monogr.* 6:43-67.

Terwilliger, K. and J.A. Musick (co-chairs), Virginia Sea Turtle and Marine Mammal Conservation Team. 1995 Management plan for sea turtles and marine mammals in Virginia. Final report to the National Oceanic and Atmospheric Administration. 56 pp.

U.S. Fish and Wildlife Service and National Marine Fisheries Service. 1992. Recovery plan for the Kemp's ridley sea turtle (*Lepidochelys kempii*). NMFS, St. Petersburg, Florida.

Waring, G. T., J.M. Quintal, S. L. Swartz, Editors; with contributions from N. B. Barros, P. J. Clapham, T. V.N. Cole, C. P. Fairfield, L. J. Hansen, K. D. Mullen, D. K. Odell, D. L. Palka, M.C. Rossman, U. S. Fish and Wildlife Service, R.S. Wells, and C. S. Young. 2000. U.S. and Gulf of Mexico marine mammal stock assessments -- 2000. NOAA Tech. Mem. NMFS-NE-162, 303 pp.

## **5.0 Environmental Assessment (NEPA)**

This section addresses the requirements of the National Environmental Policy Act (NEPA) that Federal agencies consider all reasonably foreseeable environmental effects of their proposed actions and involve and inform the public in the decision making process. The Council submitted an Environmental Impact Statement (EIS) with the FMP in March, 1999. The Council also submitted an EA for the 2002 annual specifications on June 21, 2001. This EA incorporates by reference the information in the EIS, particularly Section E.6.0, Affected Environment, and Section E.7.0, Environmental Consequences. Section E.6.0 contains information on the physical environment, namely the Gulf of Maine, Georges Bank and the Middle Atlantic, as well as the biological environment, including a description of the age and growth, and stock distribution of herring, and the economic and social environment, including descriptions of both the recreational and commercial fishing sectors of the herring fishery. Section E.7.0 describes various management alternatives contemplated in the EIS, including annual specifications and their potential impacts on the environment. The purpose of this EA is to determine whether significant environmental impacts will occur as a result of the proposed changes to the regulations and 2002 quota for Area 1A.

The EIS prepared for the FMP and submitted to NMFS in 1999 contains a description of the fishery and discussions of biological, economic, social and community factors which are referenced in this document. The purpose and need for the action is discussed in Section 2.0, and a description of the proposed action and alternatives is provided in Section 3.0 of this document.

### **5.1 Determination of significance**

Based on guidance in Section 6.01(b) of NOAA Administrative Order NAO 216-6, May 20, 1999, and the analysis of impacts in Section 4.0 of this document, the proposed 2002 specifications are deemed not significant. The action does not change the amount of

harvest allowed from Area 1A. This specification will not materially change the impact of the fishery on the human environment from what was analyzed in the EIS for the FMP.

Based on the public comments the Council received when considering this proposal, the action is also not controversial. While the Council did receive some opposing comment that the proposed action may affect future fishing activities, as foreign markets for herring expand, it responded by adopting the most flexible alternative that would allow it to adjust the seasonal quotas as needed. The Council considers the proposed action to be consistent with the stated goal of the FMP to “provide for the orderly development of the offshore and inshore fisheries, taking into account the viability of current participants in the fishery.”

## **5.2 Finding of no significant impact (FONSI)**

In view of the analysis presented in this document and in the EIS for the Atlantic Herring Fishery Management Plan, 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 Procedures for Implementing the National Environmental Policy Act, May 20, 1999. Accordingly, the preparation of a Supplemental Environmental Impact Statement for the proposed action is not necessary.

---

Assistant Administrator for  
Fisheries, NOAA

---

Date

## **6.0 Endangered Species Act and Marine Mammal Protection Act**

### **6.1 Endangered Species Act (ESA)**

Section 7 of the Endangered Species Act requires federal agencies conducting, authorizing or funding activities that affect threatened or endangered marine species to ensure that those effects do not jeopardize the continued existence of listed species. NMFS has concluded that the Atlantic Herring FMP and the prosecution of the herring fishery is not likely to jeopardize their continued existence. (See the Biological Opinion dated September, 17, 1999.) The proposed action is not expected to alter this conclusion.

### **6.2 Marine Mammal Protection Act (MMPA)**

The Council has reviewed the impacts of the Atlantic Herring FMP on marine mammals and concludes that this management action is consistent with the provisions of the MMPA and will not alter measures in place to protect the species likely to inhabit the management unit.

## **7.0 Regulatory Impact Review and Initial Regulatory Flexibility Analysis**

This section provides the analysis and conclusions to address the requirements of Executive Order 12866 and the Regulatory Flexibility Act (RFA). Since many of the requirements of these mandates duplicate those required under the Magnuson-Stevens

Act and NEPA, this section contains references to other appropriate sections of this document. The following sections provide the basis for concluding that the proposed action is not significant under E.O. 12866 and will not have a significant economic impact on a substantial number of small entities under the RFA.

## **7.1 Regulatory Impact Review (E.O. 12866)**

This section contains the required elements for determination of whether the proposed action is significant under E.O. 12866.

### **7.1.1 Description of management objectives**

The goals and objectives of the management plan are stated on Section 2.3 of the Atlantic Herring FMP. The proposed action is consistent with, and does not modify those goals and objectives.

### **7.1.2 Description of the fishery**

Section 4.0 of the FMP contains a detailed description of the fishery. The 2000 SAFE Report contains an updated description of the fishery using the best and most current data available.

### **7.1.3 Statement of the problem**

The problem being addressed is described in Section 1.2 of this document, and the purpose and need for this action is stated in Section 2.1.

### **7.1.4 Description of the alternatives**

Section 3.0 of this document contains a description of the alternatives considered, including a “no-action” alternative.

### **7.1.5 Economic analysis**

Section 4.2 of this document contains the economic analysis of the proposed action and alternatives.

### **7.1.6 Determination of significance under E.O. 12866**

NMFS 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.*

The proposed action will not have an effect on the economy in excess of \$100 million. The closure of Area 1A, if one occurs under the proposed action, may affect short-term revenues or profits of vessels that would otherwise continue to fish in that area in the spring. But revenues lost during the spring closure may be recouped when the fishery opens in June and extends through November (rather than closing prior to the end of the

season). The proposed action does not reduce the annual amount of fish available to vessels fishing for herring. While the cost of fishing offshore is higher due to the fuel required, profits may or may not be negatively affected depending on the relative catch rates. In many cases, profitability of fishing offshore exceeds that of fishing in Area 1A, as evident from the presence of offshore fishing activity prior to reaching the closure in Area 1A. The proposed action is not expected to have any adverse impacts on the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local or tribal governments or communities. In fact, the proposed action is intended to minimize adverse impacts of the current quota system on competition and local communities.

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

The proposed action will not create a serious inconsistency with or otherwise interfere with an action taken or planned by another agency, and in fact, will resolve an inconsistency that will exist if the proposed action is not implemented. Failing to take action will create a serious inconsistency with the states' regulations implemented under the ASMFC Interstate Fisheries Management Plan for Atlantic Herring. NMFS is responsible for supporting ASMFC plans under the Atlantic Coastal Fisheries Cooperative Management Act, and federal plans under the Magnuson-Stevens Act.

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 will not materially alter the budgetary impact of entitlements, grants, user fees or loan programs, or the rights and obligations of their participants.

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 does not raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in E.O. 12866.

## **7.2 Initial Regulatory Flexibility Analysis (RFA)**

The following sections contain analyses of the effect of the proposed action on small entities. Even though the Council is recommending that the proposed action be published as a final rule, and, therefore, not required to complete an initial regulatory flexibility analysis (IRFA), it is conducting the analysis so that it, and members of the public, have a better understanding of the action's regulatory impacts. To that end, it will follow the standard IRFA format. Under §603(b) of the RFA, each IRFA is required to address:

1. reasons why the agency is considering the action
2. the objectives and legal basis for the proposed rule

3. the kind and number of small entities to which the proposed rule will apply
4. the projected reporting, recordkeeping and other compliance requirements of the proposed rule, and
5. all Federal rules that may duplicate, overlap or conflict with the proposed rule.

### **7.2.1 Reasons for considering the action**

The purpose and need for this action to implement changes to the fishery management plan for Atlantic Herring is described in Section 2.0 of this document.

### **7.2.2 Objectives and legal basis for the action**

The regulations implementing the Atlantic Herring FMP at 50 CFR 648.206 (c) authorize the Council to adjust the management measures if needed to achieve the goals and objectives of the management plan. The Council is availing itself of this regulatory provision, considering that the one of the goals of the FMP is to “provide for the orderly development of the offshore and inshore fisheries, *taking into account the viability of current participants in the fishery*”, (emphasis added) and that one of the goals of this action is to allocate a majority of the quota in Area 1A to that part of the year when current participants in the fishery are most dependant on the fishery. Furthermore, one of the objectives of the FMP is to “implement management measures in close coordination with other Federal and state FMPs”. The proposed action will align a major part of the Federal management plan with regulations implemented by the states under the ASMFC Interstate Management Plan for Atlantic Herring. Not implementing the proposed action, or implementing other alternatives would result in an inconsistency between the state and federal rules.

### **7.2.3 Description and number of small entities to which the rule applies**

All of the affected businesses (fishing vessels and wholesalers of herring) qualify as small entities under the standards described in NMFS guidelines. Section 2.2.1 of the 2000 SAFE Report describes and enumerates the number of vessels in the herring fishery. Section 2.2.2 and 2.2.3 describe the dealers and processors, respectively. The proposed action will only materially impact a subset of the herring vessel fleet, namely those vessels that fish in Area 1A and land more than 2,000 pounds of herring per trip, and the dealers and processors that purchase fish from those vessels. In 2000, 125 vessels were permitted to catch more than 500 mt of herring for the year (Category 1) and 1,526 vessels were permitted to catch less than 500 mt. In 2000, according to the SAFE Report (Table 14, page 26), 22 vessels averaged more than 2,000 pounds of herring per trip in Area 1A. Of the 22 vessels that averaged more than 2,000 pounds per trip in 2000, eleven landed more than 2,000 pounds on at least one trip during May and would potentially be impacted by the proposed action if a closure occurred on May 1. All of these vessels also fished in other areas during the year, suggesting that the impact of the proposed action can be mitigated by fishing in those other areas if a closure is implemented, provided fish are available. Since the overall quota is not being reduced, these vessels can recoup any revenues lost during May by fishing in the June – December period.

Information on dealers and processors is incomplete, particularly with regards to the subset of dealers and processors purchasing herring from vessels fishing in Area 1A during May or April. However, since vessels fishing in other areas can sell fish to those dealers and processors, the impact of the proposed action is not likely to be significant. Those dealers and processors who have freezer capacity will also be able to sell their stored product to make up for any shortfall of fresh product from Area 1A.

#### **7.2.4 Reporting, recordkeeping and other compliance requirements**

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

#### **7.2.5 Duplication, overlap or conflict with other Federal rules**

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

#### **7.2.6 Economic impacts on small entities resulting from the proposed action**

Section 4.2 of this document contains the economic analysis of the proposed action. As noted, only those vessels that fish in Area 1A and land more than 2,000 pounds per trip are likely to be affected. Depending on the availability of fish in other areas, all of those vessels will be able to continue fishing during any Area 1A closure. Since the overall quota is not being reduced, revenues can be recouped when the area reopens and the fishery is extended further into the fall. Other vessels, particularly that do not have the ability to fish in other areas, and are negatively impacted by a closure of Area 1A when the annual quota is reached under the current regulations, will benefit by the extension of the season as a result of additional quota being made available during the June – December period.

While overall vessel revenues and costs will not be significantly affected because the proposed action merely moves quota from one period to another, more desired period, the proposed action may not provide the most cost effective solution to the problem being addressed. A system that allows the market to determine the flow of product, rather than the regulation, could minimize costs associated with product fluctuations under a fishery managed solely by quota, costs such as excess freezer or harvest capacity. However, these alternatives would take a longer time to develop and implement, particularly since they would likely involve limited entry or controlled access or allocation of rights, and would not address the problem in the immediate future. The Council is still considering other long-term solutions but recognizes the needs expressed by the industry to address the problem for the upcoming fishing years until another long-term solution is put in place.

The efficacy of the proposed action over the long term depends on whether effort directed at the Area 1A fishery increases in the future. If it does, the benefits of the proposed action will be offset by the increased effort, as the quota will likely be caught before the end of the season. Those vessels that cannot fish in other areas will once again be closed out of the fishery prematurely. To address the long-term issues, the Council is considering other alternatives, including but not limited to a controlled access program. Implementation of a controlled access or limited entry program, however, requires the

preparation of a plan amendment and associated environmental documents, and may take one or more years to implement, necessitating the current action to address the immediate problem.

#### **7.2.7 “Significance” evaluation criteria**

NMFS’ guidelines specify two criteria to be used for evaluating whether a proposed action is significant: disproportionality and profitability. The proposed action does not have a disproportional effect on the profits, costs or revenues of small entities relative to large entities. The proposed action provides opportunity to small entities to increase revenues and profits by making more of the quota available to these entities during the season when they engage in the fishery. The proposed action does not change the annual quota, and, therefore, the annual revenues that can be derived from the Area 1A fishery.

#### **7.2.8 “Substantial number” evaluation criteria**

NMFS’ guidelines state that “a rule may be determined to affect a substantial number of small entities if the rule is controversial, impacts more than just a few entities, or affects the structure of the regulated industry even though only a small number of entities may be impacted”. As noted in Section 4.2, eleven and fourteen vessels landed more than one metric ton from Area 1A during May, 2000 and 1999, respectively. These vessels could be impacted by a closure of the area. However, since all of these potentially affected vessels, except two during 1999 also fished in other areas during the year (demonstrating their ability to fish outside of Area 1A), the impact is expected to be minimal. Often, the increased cost of fishing offshore is offset by the higher catch rates, as evident by the presence of fishing offshore before the Area 1A quota is reached. Even if the federal rule is not implemented, these vessels will be affected by the state regulations implementing the same seasonal quota as proposed in this action. The proposed action is not likely to affect the structure of the regulated industry, and, in fact, is designed to preserve some elements of the current industry, namely the small vessels and onshore entities, including communities, dependent on those vessels’ landings during the lobster season.

### **8.0 Coastal Zone Management Act**

The Council has made an initial determination that the proposed action is consistent to the maximum extent practicable with the approved coastal management programs of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, and North Carolina. This determination is being submitted for review by the responsible state agencies under §307 of the Coastal Zone Management Act concurrent with the submission of the proposed action to NMFS for review and implementation.

### **9.0 Paperwork Reduction Act**

This action does not contain a collection-of-information requirement for purposes of the Paperwork Reduction Act.