

**REVIEW OF THE  
ATLANTIC STATES MARINE FISHERIES COMMISSION'S  
FISHERY MANAGEMENT PLAN FOR  
ATLANTIC STRIPED BASS  
(*Morone saxatilis*)**



**2004 FISHING YEAR**

**Board Approved:**

**Prepared by the Striped Bass Plan Review Team:**

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## **I. Status of the Fishery Management Plan**

<u>Date of FMP Approval:</u>	Original FMP: October 1981
<u>Amendments:</u>	Amendment 5: March 1995 (active through 2003) Amendment 6: February 2003 (active January 2004)
<u>Management Unit:</u>	Migratory stocks of Atlantic striped bass from Maine through North Carolina
<u>States With Declared Interest:</u>	Maine - North Carolina, including Pennsylvania
<u>Additional Jurisdictions:</u>	District of Columbia, Potomac River Fisheries Commission

Active Boards/Committees: Striped Bass Management Board, Advisory Panel, Technical Committee, Stock Assessment Subcommittee, Tagging Subcommittee, Plan Review Team, and Plan Development Team

Jurisdictions with a declared interest in striped bass are Maine through North Carolina, including Pennsylvania, the Potomac River Fisheries Commission, and the District of Columbia. Under the Atlantic Striped Bass Conservation Act (P.L. 98-613), implementation of the FMP is mandatory. Implementation of the FMP is monitored by the Commission's Striped Bass Management Board (Board) and Striped Bass Plan Review Team (PRT). Amendment 6 to the FMP was approved in February 2003 but not fully implemented until January 1, 2004. Consequently regulations in 2003 were influenced by both Amendments 5 and 6.

Under Amendment 5, the standard minimum size for Atlantic striped bass was 20 inches in the bays and estuaries and 28 inches along the coast. In coastal jurisdictions, the standard recreational regulations were two fish per day and a 365-day fishing season. No annual harvest quotas or caps were mandated for the recreational fishery. Commercial fisheries were regulated through the same minimum size standards as the recreational fishery. In 2003, the Amendment 6 coastal commercial quotas prevail and the quotas were restored to the average reported commercial landings from 1972-1979. Delaware's coastal commercial quota is the exception and remained at the level allocated in 2002 (193,447 pounds).

States are granted the flexibility to deviate from these standards by submitting proposals for review by the Striped Bass Technical Committee and Advisory Panel and contingent upon the approval of the Management Board. Alternative proposals must be "conservationally equivalent" to the management standards, which has resulted in a wide variety of regulations among states (see Tables 6 and 7). These management measures were intended to maintain the fishing mortality rate (F) at or below the target F (0.31).

Since 1995, three addenda were approved to perpetuate the Amendment 5 standards from 1997 through 2000. Based on the 1999 stock assessment the Striped Bass Management Board developed Addendum IV to reduce fishing mortality on age 8 and older striped bass. Addendum IV detailed the required management measures for each state in 2000 and 2001 to achieve the

necessary 14% reduction in the fishing mortality rate. In 2000, many states implemented changes to their management programs, but some states were already more conservative than the standards established in Amendment 5 and therefore were not required to make any reductions for 2000.

The 2000 stock assessment indicated that no additional reductions in fishing mortality were necessary to reduce the pressure on age 8 and older striped bass during the 2001 fishing year. This information prompted the Management Board to initiate the development of Addendum V in 2000. Addendum V established the management standards for 2001 and 2002 and allowed states to either maintain their current striped bass fishery regulations or implement regulations comparable to those in place for 1998 and 1999.

Amendment 6 was implemented in February of 2003 and maintains the management program in place for 2002, except for the coastal commercial fishery and producer areas other than Chesapeake Bay. As stated above, states were able increase the coastal commercial quota to the average landings reported during 1972-1979. With the Board's approval, some states (NH, MA, and CT) increased the recreational creel limit to two fish with the minimum size limit of 28 inches to comply with Amendment 6.

Under Amendment 5 and its subsequent addenda, the Exclusive Economic Zone (EEZ) remained closed to the harvest and possession of striped bass by both commercial and recreational fishermen. A recommendation was made in Amendment 6 to re-open federal waters to commercial and recreational fisheries.

## **II. Status of the Stocks**

The estimate of total abundance for January 1, 2005 from the ADAPT VPA is 65.3 million age-1 and older fish. This estimate is about 1.2 million fish lower than the 2004 abundance but 10% higher than the average stock size for the previous five years. Population estimates were calculated for the first time this year from tag based F estimates using the catch equation. The 2004 population estimate of age 3+ fish was 48.5 million fish that is roughly 8 million fish higher than the 2003 estimate. This estimate is higher than the ADAPT VPA estimate of 39.2 million age 3+ fish at the beginning of 2004.

The abundance of older fish (age 13+ from the ADAPT VPA) in the stock has also increased from 382,000 fish at the beginning of 2003 to 547,000 fish on January 1, 2005.

The female spawning stock biomass for 2004 is estimated at 54.8 million pounds which is above the recommended biomass threshold of 30.9 millions pounds (13,956 mt) and the target SSB of 38.6 million pounds (17,500 mt). SSB has declined by 9% since 2002 when it peaked at 60.6 million pounds.

Recruitment of the 2004 cohort for all stocks combined is 12.7 million age-1 fish, which is close to the average age-1 recruitment observed since the stocks were declared recovered in 1995

Based on VPA results, average age 8-11 fishing mortality in 2004 is estimated at  $F=0.40$  which is below the Amendment 6 threshold of 0.41 but exceeds the target of 0.30. However, it is the consensus of the Technical Committee members that this is likely an overestimate of the 2004  $F$  given the uncertainty with the terminal year estimate from the VPA and the systematic positive bias observed in the retrospective analysis. The 2003 value of  $F$  from this year's VPA is 0.29, which is substantially lower than the terminal year  $F$  from last years VPA run of 0.62. This is due not only to the addition of another years worth of data but also due to the modified suite of tuning indices used in the this years VPA and the inclusion of wave 1 (Jan./Feb.) estimates of recreational harvest mortality from NC and VA for 1996 – 2004 (see Data and Uncertainty section below).

The 2004 tagged based estimates of  $F$  using, stock-specific, model-based estimates of fishing mortality and a constant  $M$  of 0.15, were as follows. For fish greater than 28 inches, the coast-wide average  $F$  was estimated as 0.29 and specific tagging program values ranged from 0.02 in the New York ocean haul survey (NYOHS) to 0.31 in the Maryland (MD) tagging program. This value was similar to the VPA  $F$  weighted by  $N$  value for age 7-11 fish of 0.32. For fish greater than 18 inches, the coast-wide average  $F$  was 0.29 and specific tagging program values ranging from 0.06 in the Virginia spawning stock (VARAP) program to 0.68 in the New Jersey Delaware Bay (NJDEL) program. This tag-based  $F$  estimate was greater than the VPA  $F$  weighted by  $N$  value for age 3-11 fish of 0.15.

The 2004 tagged based estimates of  $F$  using, stock-specific, catch-equations for fish greater than 28 inches, indicated the coast-wide average  $F$  was 0.14, and specific tagging program values ranged from 0.09 in the VARAP program to 0.26 in the Delaware and Pennsylvania (DE-PA) tagging program. These  $F$  estimates were less than the VPA  $F$  weight by  $N$ , for age 7-11 fish, of 0.32. For fish greater than 18 inches, the coast-wide average was 0.11, and specific tagging program  $F$  estimates that ranged from 0.05 in three different programs to 0.17 in the MD program. This tag-based  $F$  estimate is similar to the VPA  $F$  weighted by  $N$  value for age 3-11 fish of 0.15.

Chesapeake Bay fishing mortality in 2004 is estimated as  $F=0.16$  by the direct enumeration study. This  $F$  represents mortality during the June 2003 – June 2004 period, so it is not directly comparable to the average, weighted (by  $N$ ) VPA calendar-year  $F$  on age 3-8 striped bass that is equal to 0.12.

### **III. Status of the Fishery**

Total catch in numbers including landings and discards increased from 3.9 million fish in 2002 to 5.2 million fish in 2004, a 33.3 % increase in losses since implementation of Amendment 6. The 2004 catch was also above the 1997-2003 average of 4.36 million fish. Ages 3 to 7 represented 59%, and ages 8+ represented 36% of the total catch in 2004. The strong 1996, 2000, and 2001 year-classes dominated the catch, accounting for 41% of total catch. Total catch of age 8+ fish increased from 1.4 million fish in 2002 to 1.8 million fish in 2004 (the highest level recorded in the time series) and the proportion of 8+ fish in the catch increased to 36% in 2004 from 30% in 2003.

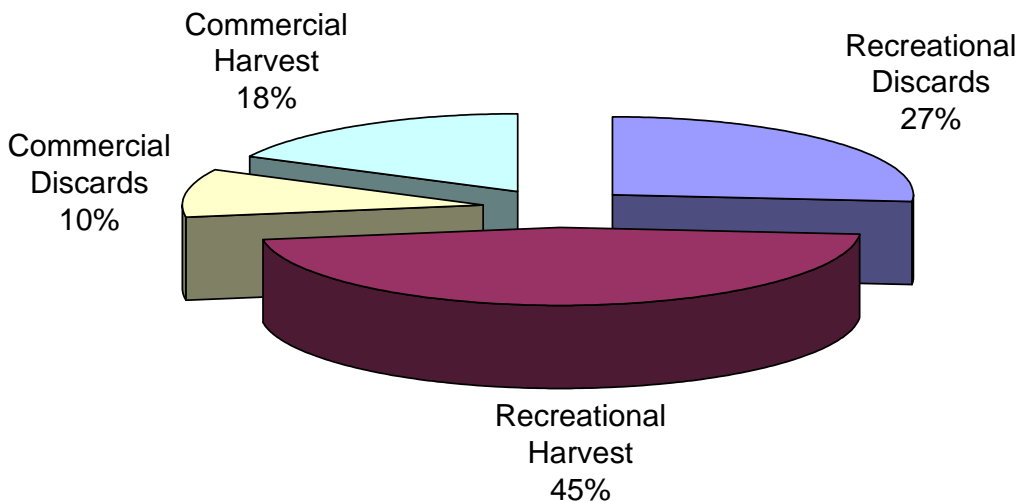
Recreational harvest (2.4 million fish) and discards (17.2 million fish) accounted for 72.5% of the total 2004 catch. Virginia recreational fisheries harvested 19.6% of total recreational

landings, followed by New Jersey (17.7%), Massachusetts (17.1%), Maryland (13.2%), North Carolina (13.2%), and NY (10.2%). The remaining states each landed 5% or less of the total recreational landings.

Estimates of Wave 1 (January-February) recreational harvest in North Carolina and Virginia from 1996-2004 were included in the catch at age for the first time this year. The estimates ranged from 7,544 in 2000 to 177,288 fish during 2004 in North Carolina and 5,985 fish in 1996 to 155,616 fish in 2004 in Virginia. These Wave 1 harvest estimates represented between 2% and 14% of the total coast-wide recreational harvest during those years.

Commercial harvest (0.91 million fish) and discards (0.51 million fish) accounted for 27.5% of the total 2004 catch. Maryland commercial fisheries harvested 50.8% of the total commercial landings, followed by VA (16.3%), PRFC (10.1%), NY (7.8%), and MA (6.7%). The remaining states each landed 4% or less of the total commercial landings.

**Figure 1. 2004 Striped Bass Total Catch (5.2 million fish).**



**Table 1. Striped Bass Landings and Discards (numbers of fish) from 2002-2004**

	Recreational Fishery		Commercial Fishery		Total Catch
	Harvest	Discard Losses	Harvest	Discard Losses	
<b>2002</b>	1,828,367	1,118,538	654,062	168,201	3,769,168
<b>2003</b>	2,405,707	1,168,907	865,689	262,078	4,702,381
<b>2004</b>	2,381,823	1,373,430	907,328	518,847	5,181,428

#### **IV. Status of Assessment Advice**

The Atlantic striped bass coastwide stock assessment was peer reviewed by the 36<sup>th</sup> Stock Assessment Workshop/Stock Assessment Review Committee (SAW/SARC) in 2002 (NEFSC 2003). In addition to reviewing the results of the stock assessment, the SARC was asked to comment specifically on the model configuration of the VPA and provide advice on the plus grouping, oldest true age for fishing mortality, and the use of all striped bass fishery independent surveys. In the Stock Assessment Report for 2002, the Striped Bass Technical Committee, Stock Assessment Subcommittee, and Tagging Subcommittee have attempted to address the issues and advice provided by the SARC. The fully recruited F calculated in the 2002 assessment was based on ages 8-11 to conform to the biological reference points in Amendment 6. Consequently, the F estimate is not directly comparable with age 5-11 Fs used in previous assessments, effectively reporting fishing mortality has exceeded the target since 1997. The SAW/SARC will peer review the next Atlantic striped bass stock assessment in 2007.

#### **V. Status of Research and Monitoring**

The management plan requires several jurisdictions to implement fishery dependent monitoring programs for striped bass. Table 5 summarizes state compliance with the fishery dependent and independent monitoring requirements. All jurisdictions with commercial fisheries (Massachusetts, Rhode Island, New York, Delaware, Maryland, Virginia, PRFC and North Carolina) are required to define the catch composition (age, length, sex) of these fisheries. Jurisdictions with significant commercial fisheries (Massachusetts, New York, Maryland, Virginia, and PRFC) are required to collect catch and effort data. Jurisdictions with significant recreational fisheries (Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Maryland, Virginia and PRFC) are required to follow specific guidelines for supplementing MRFSS collection of catch composition data and catch and effort information from these fisheries.

In addition to fishery dependent monitoring programs, the management program requires several states to monitor the striped bass population independent of the fishery. Juvenile abundance indices are determined by Maine, New York, New Jersey, Maryland, Virginia, and North Carolina. Spawning stock sampling is performed by New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, and North Carolina. Tagging is conducted by state and federal agencies to determine survivorship and migration patterns in the coastal migratory stock (NMFS, USFWS, Massachusetts, New York, New Jersey, Delaware, Maryland, Virginia, and North Carolina).

## VI. Status of Management Measures and Issues

### *Status of Amendment 6*

In 2003, the striped bass interstate fishery management program was in transition with the approval of Amendment 6 in February 2003. Effective with the approval of the FMP, the coastal commercial quota for striped bass increased to the state's historic average landings during the 1972-1979 base period, with a few exceptions. The coastal commercial quotas are specified in Amendment 6. States could take advantage of the increase immediately as long as the states maintained a minimum size limit of 28 inches or sought conservation equivalency for a smaller size limit.

The implementation deadline for the remainder of the Amendment 6 striped bass management program was January 1<sup>st</sup>, 2004. States could implement new regulations with Board approval prior to January 2004. New Hampshire, Massachusetts, and Connecticut changed their 2003 recreational regulations to the Amendment 6 standard, a 2 fish bag limit and minimum size of 28 inches. The remainder of the states maintained their regulations, complying with the management measures in Amendment 5 (reinforced through Addendum 5) or the more conservative management measures implemented through Addendum 4, which reduced fishing mortality on age 8 and older fish.

During 2003 and through the present, the NOAA Fisheries maintains a ban on all striped bass fishing activity and possession of striped bass in the Exclusive Economic Zone (EEZ) with the exception of a defined route to and from Block Island in Rhode Island.

### *Coastal Commercial Quota Overages*

Massachusetts exceeded its 2003 quota, so their 2004 coastal commercial quota was reduced. North Carolina exceeded the quota for the 2002-2003 winter fishery, so the quota for the 2003-2004 winter fishery was reduced by the amount of the 2002-2003 overage. Massachusetts exceeded the adjusted 2004 coastal commercial quota, resulting in another penalty, which adjusted the 2005 quota to 1,094,962 pounds (Table 2). Rhode Island exceeded their 2004 coastal commercial quota by 1,597 pounds, for an adjusted 2005 coastal commercial quota of 242,028 pounds. Maryland also exceeded their 2004 coastal commercial quota, and their 2005 quota was adjusted to 125,931 pounds to compensate for the overage.

**Table 2. Coastal Commercial Quota Overages & Adjusted Quotas (in pounds).**

	Amendment 6 Quota Allocation	2004 Quota	2004 Harvest	Overage	2005 Quota	2005 Harvest	Overage	2006 Quota
MA**	1,159,750	1,141,191**	1,206,305	64,788	1,094,962			
RI	243,625	243,625	245,204	1,597	242,028			
NY*	1,061,060	828,293	741,668	0	828,293			
NJ+	321,750	321,750	81,870	0	321,750			

### ***Chesapeake Bay Spring Trophy Fishery***

In December 2003, the Atlantic Striped Bass Management Board approved a new methodology to establish the annual quota for the Chesapeake Bay spring trophy fishery. Every year, the Chesapeake Bay states must submit a harvest report for the current year's spring trophy fishery and propose a new quota for the subsequent year. The cap on the trophy fishery is based on the number of age 8+ striped bass in the population as determined annually by the ADAPT VPA output. In 2005, the Chesapeake Bay spring trophy fishery harvested 65,664 fish, exceeding the adjusted quota by 38,910 fish. The overage in 2005 will be deducted from the 2006 quota. The Chesapeake Bay jurisdictions propose a quota of 54,266 fish adjusted by the 2005 overage to result in an adjusted quota of 15,356 fish for the 2006 spring trophy fishery. Table 3 summarizes the caps, harvest, overages, and adjusted quotas from 2004-2006.

**Table 3. Chesapeake Bay Spring Trophy Fishery (in numbers of fish)**

	<b>2004</b>	<b>2005</b>	<b>2006</b>
<b>Quota</b>	40,624	40,624	55,208
<b>Previous year overage</b>	13,900	4,680	29,720
<b>Adjusted quota*</b>	26,724	35,944	25,488
<b>Harvest</b>	31,404	65,664	
<b>Overage</b>	4,680	29,720	

\*Quota minus previous year overage

### ***Law Enforcement***

The Law Enforcement Report noted an increase number of cases involving fishermen targeting striped bass in the EEZ, despite the continued prohibition on striped bass fishing activity and possession of striped bass in federal waters. During the spring ASMFC LEC meeting, NMFS law enforcement agreed to coordinate a coast wide effort to increase enforcement, penalties and education to reduce the illegal harvest of striped bass in the EEZ. A number of the cases throughout state waters involved possession of undersize striped bass, over the bag or size limit,



illegal use of bait, fishing during a closed season and license violations. LEC reported that the increased number of cases is not a reflection of the enforceability of the FMP, rather a high priority to enforce this significant recreational and commercial fishery.

### ***Juvenile Abundance Indices***

In response to the suite of management triggers introduced in Amendment 6, the PRT summarizes the results from the juvenile abundance indices. The PRT would recommend action to the Management Board if any JAI were to show recruitment failure for three consecutive years in a row. Recruitment failure is defined as a JAI lower than 75% of all other values in the dataset. The juvenile abundance indices in New Jersey and Virginia indicate that the 2004 year class is above the time series average. The 2004 Hudson River YOY index was below the long term average, and the 2004 Maryland YOY index did not differ significantly from the time series average. While overall recruitment declined slightly in 2004, recruitment is still high, therefore no management action is necessary based on the JAIs.

### ***Albemarle/Roanoke Striped Bass FMP***

The Commission's Interstate FMP for Atlantic Striped Bass requires North Carolina to inform the Commission of changes to the Albemarle-Roanoke Striped Bass FMP. While the Commission's approval of North Carolina's management plan is not required, North Carolina must adhere to the compliance criteria in Amendment 6. After the Technical Committee's review, the PRT determined the new FMP complies with the mandatory components of Amendment 6.

The management plan was last revised in 1994, so the updated FMP explores harvest options and identifies management measures and research needs to promote recovery of striped bass stock in the central and southern area. It defines both the Albemarle Sound management area and the Roanoke River management area. Because this stock is managed independently from the coastal migratory stock, it contains a separate target fishing mortality rate ( $F_{target} = 0.22$  and threshold spawning stock biomass (400,000 pounds). The annual total allowable catch is allocated to the three fisheries; 25% to the Roanoke River recreational fishery, 25% to the Albemarle Sound recreational fishery and 50% to the Albemarle Sound commercial fishery. The FMP implements overage penalties for future overages, but specifies no overage penalties would be applied to the Roanoke River overages from 1994-2002 due to a significant underage in 2003. The FMP addresses habitat and environmental issues, catch and release mortality in hook and release fisheries, discards in the multispecies gillnet fishery, enforcement of creel limits, and maintains the Albemarle Sound Management Area boundary line.

## **VI. Annual State Compliance**

Based on the annual state compliance reports, the Plan Review Team determined that each state/ jurisdiction implemented a management program that was approved by the Striped Bass Management Board for the 2004 fishing year and was consistent with the requirements of Addendum V to Amendment 5 and Amendment 6 (Tables 6 and 7).

Amendment 5 had several compliance requirements as part of the Interstate striped bass management program including both monitoring and regulatory requirements that are enforceable through the Atlantic Striped Bass Conservation Act. The monitoring requirements for each jurisdiction are summarized in *Section V* of this report. Compliance with these requirements is summarized in Table 5. The PRT found all states carried out the required monitoring programs and implemented the mandatory regulatory requirements in the 2004 fishing year.

Amendment 5 also required states to submit semi-annual law enforcement activity reports (which was changed to an annual report through Addendum IV). These reports, in a standardized format, detail the effort and success involved in enforcing striped bass regulations in each jurisdiction. For the 2004 fishing year, the states submitted their law enforcement reports to the Commission's Law Enforcement Coordinator and one Law Enforcement Report was submitted on behalf of all the states in the striped bass management unit. The striped bass law enforcement report is summarized in *Section VI* of this report.

**Table 4. Status of compliance with monitoring and reporting requirements.**  
(Y = compliance standards met, N = compliance standards not met, N/A = not applicable)

State	Fishery-independent monitoring	Fishery-dependent monitoring	Annual reporting
ME	Y	N/A	Y
NH	N/A	N/A	Y
MA	Y	Y	Y
RI	N/A	Y	Y
CT	N/A	Y	Y
NY	Y	Y	Y
NJ	Y	Y	Y
PA	Y	N/A	Y
DE	Y	Y	Y, no Excel workbook
MD	Y	Y	Y
PRFC	N/A	Y	Y
DC	N/A	N/A	Y
VA	Y	Y	Y
NC	Y	Y	Y

## VII. Recommendations

### Regulatory Recommendations

All of the jurisdictions with a declared interest in the management of Atlantic striped bass had regulations in place for the 2004 fishing year that were in compliance with Addendum V to

Amendment 5 to the Interstate Fishery Management Plan for Atlantic striped bass or the coastal commercial quotas specified in Amendment 6.

1) The 2004 coastal commercial quota for Massachusetts, Rhode Island, and Maryland should be lowered by the amount over the 2004 allocation (Table 2).

2) North Carolina already compensated for the 2003 quota overage of 1,643 pounds. The 2004 winter fishery landed less than the amount allocated for the season. North Carolina has the full Amendment 6 allotment for the 2005 winter fishery.

3) The 2005 Chesapeake Bay Spring Trophy quota should be reduced by 38,910 fish (Table 3). The PRT recommends the approval of the proposed 2005 quota reduced by the overage (15,356 fish).

### **Management Recommendations**

The Amendment 6 management triggers do not require action if the fishing mortality exceeds  $F_{target}$  but is below  $F_{threshold}$  and above the biomass thresholds. Using the newly re-estimated value for the abundance of the 1995 female spawning stock biomass, the population is not considered overfished. The Technical Committee finds it reasonable to believe that the fishing mortality rate on the mixed coastal migratory stock has met or exceeded target  $F$  each year since 1997, but can not estimate whether it was exceeded in 2004 due to the uncertainty in the ADAPT VPA and tagging analyses. The Technical Committee determined that the fishing mortality rate on the mixed coastal migratory stock is not exceeding the threshold fishing mortality rate.

### **Research Recommendations**

#### **STOCK ASSESSMENT AND POPULATION DYNAMICS**

##### ***High Priority***

- Conduct analysis on current state and federal fishery dependent and independent monitoring programs to determine which, if any, accurately reflect population status.
- Develop method to integrate VPA and tagging models to produce a single estimate of  $F$  and stock status.
- Evaluate alternative catch at age models for striped bass.
- Examine reporting rates by commercial and recreational fishermen using high reward tags.
- Develop studies to provide information on gear-specific discard mortality rates and to determine the magnitude of bycatch mortality, including factors that influence their magnitude and means of reducing or eliminating this source of mortality. Additionally, increase sea sampling of commercial fisheries to better estimate levels of discards.
- Review relationship between tag-based survival estimates and VPA estimate of mortality in a management framework.
- Develop maturity ogive applicable to coastal migratory stock.
- Develop methods for combining tag results from programs releasing fish from different areas on different dates.

- Examine potential biases associated with the number of tagged individuals, such as gear-specific mortality (associated with trawls, pound nets, gill nets, and electrofishing), tag-induced mortality, and tag loss.

### ***Medium Priority***

- Improve methods for determining population sex ratio for use in estimates of spawning stock biomass and biological reference points.
- Develop refined and cost-efficient coastal monitoring regime for striped bass stocks.
- Quota calculation methods should be refined which allow better estimates among various components of the fishery.
- Examine methods to estimate annual variation in natural mortality.
- Examine trend models with simulated tagging data.
- Examine causes of different survival estimates among programs estimating similar segments of the population.
- Evaluate truncated matrices and covariate-based tagging models.
- Examine differences between R/M exploitation and survival rates.

### ***Low Priority***

- An evaluation of the overfishing definition should be made relative to uncertainty in biological parameters.
- Simulation models should be developed to look at the implications of overfishing definitions relative to development of a striped bass population that will provide “quality” fishing. Quality fishing must first be defined.
- Examine issues with time saturated tagging models for the  $\geq 18$  inch length group.

## **RESEARCH AND DATA NEEDS**

### ***High Priority***

- Continue in-depth analysis of migrations, stock compositions, etc. using mark-recapture data.

### ***Medium Priority***

- Continue to conduct research to determine limiting factors affecting recruitment and possible density implications.
- Evaluate the percentage of fishermen using circle hooks.
- Conduct study to calculate the emigration rates from producer areas now that population levels are high and conduct multi-year study to determine inter-annual variation in emigration rates.

### ***Low Priority***

- Determine inherent viability of eggs and larvae.
- Additional research should be conducted to determine the pathogenicity of the IPN virus isolated from striped bass to other warm water marine species, such as flounder, menhaden, shad, largemouth bass and catfish.

**Table 5. Summary of Atlantic Striped Bass Recreational Regulations for 2003 & 2004 and Approved Changes for 2005.**  
**Shaded cells indicate regulatory changes from the previous fishing year.**

\* All regulations are subject to change. Readers should contact their state fisheries offices for detailed regulations.

STRIPED BASS RECREATIONAL REGULATIONS							
States & Jurisdictions	2003 Fishing Year			2004 Fishing Year			FY 2005
	Seasonal Quota (lbs)	Size & Bag Limit	Open Season	Seasonal Quota (lbs)	Size & Bag Limit	Open Season	changes?
Maine	none	1 fish 20"-26" or 1 fish above 40"	H&L only All Year spawn areas: 5.1 - 11.30 & C&R only 5.1 - 6.30	none	1 fish 20"-26" or 1 fish above 40"	H&L only All Year spawn areas: 5.1 - 11.30 & C&R only 5.1 - 6.30	
New Hampshire	none	2 fish 28" min; 1 of which can be >40"	All Year	none	2 fish 28" min; 1 of which can be >40"	All Year	
Massachusetts	none	2 fish 28" min	All Year	none	2 fish 28" min	All Year	
Rhode Island	none	2 fish 28" min	All Year	none	2 fish 28" min	All Year	
Connecticut	none	2 fish 28" min	All Year	none	2 fish 28" min	All Year	
New York Hudson  Ocean Charter/Delaware	none	1 fish 18" min	3.15 - 11.30	none	1 fish 18" min	3.15 - 11.30	
	none	1 fish 28" min	4.15 - 12.15	none	2 fish 28" min	4.15 - 12.15	
	none	2 fish 28" min	All Year	none	2 fish 28" min	All Year	
New Jersey  Bonus Program	none	1 fish 24" - 28" 2nd fish above 28"	Intra-coastal: 3.1 - 12.30 DE River spawning area: 1.1 - 3.31 and 6.1 - 12.31	none	1 fish 24"-28"; 2nd fish >=34"	Intra-coastal: 3.1 - 12.30 DE River spawning area: 1.1 - 3.31 and 6.1 - 12.31	
	321,750	28" min, need tag	All Year	321,750	28" min, need tag	All Year	
Pennsylvania	none	1 fish 24" - 28" 2nd fish above 28"	All Year Tidal DE: March, 6.1 - 12.31	none	2 fish 28"	All Year Tidal DE: 3.1-3.31, 6.1 - 12.31	
Delaware	none	1 fish 24" - 28" 2nd fish above 28"	All Year DE River spawning area: 1.1 - 3.31 and 6.1 - 12.31	none	2 fish 28"	All Year DE River spawning area: 1.1 - 3.31 and 6.1 - 12.31	
Maryland Trophy  Summer/Fall  Ocean	part of 30,000 fish Bay cap	1 fish/day 28" min	4.19 - 5.15	26,754 fish	1 fish/day 28" min	4.16 - 5.15	15,356 fish
	2,617,941	5.16 - 5.31: 2 fish 18" - 28" or 1 fish 18" - 28" 2nd fish above 28"; Brewer Channel to MD/VA line only 6.1 - 12.15: same - all areas open		2,617,941	5.16 - 5.31: 2 fish 18" - 28" or 1 fish 18" - 28" 2nd fish above 28"; Brewer Channel to MD/VA line only 6.1 - 12.15: same - all areas open		
	none	2 fish 28" min	All Year	none	2 fish 28" min	All Year	

**Table 5 continued. Summary of Atlantic Striped Bass Recreational Regulations for 2003 & 2004 and Approved Changes for 2005. Shaded cells indicate regulatory changes from the previous fishing year.**

\* All regulations are subject to change. Readers should contact their state fisheries offices for detailed regulations.

States & Jurisdictions	2003 Fishing Year			2004 Fishing Year			FY 2005
	Seasonal Quota (lbs)	Size & Bag Limit	Open Season	Seasonal Quota (lbs)	Size & Bag Limit	Open Season	changes?
Washington DC	none	2 fish 18" - 36"	5.1 - 7.31 & 9.1 - 11.14	none	2 fish 18" - 36"	5.1 - 11.19	
PRFC Trophy Summer/Fall	part of 30,000 fish Bay cap	1 fish 28" min	4.19 - 5.17	part of 30,000 fish Bay cap	1 fish 28" min	4.16 - 5.14	
	800,000	2 fish 18" min, 1 can be >28"	5.16 - 12.31	800,000	2 fish 18" min, 1 can be >28"	5.15 - 12.31	
Virginia Spring Trophy Fall Ocean	1,701,748	2 fish 18" - 28"	5.16 - 6.15	1,364,154	2 fish 18" - 28"	5.16 - 6.15	1,504,927
	part of 30,000 fish Bay cap	1 fish 32" min	5.1 - 5.15	part of 30,000 fish Bay cap	1 fish 32" min	5.1 - 5.15	
	1,701,748	2 fish 18" min	10.4 - 12.31	1,364,154	2 fish 18" min	10.4 - 12.31	1,504,927
	none	2 fish 28" min	1.1 - 3.31 & 5.16 - 12.31	none	2 fish 28" min	1.1 - 3.31 & 5.16 - 12.31	
North Carolina Albemarle Roanoke Ocean	Spring: 68,500 Fall: 68,500	2 fish 18" min	Wed, Fri, Sat, Sun	Spring: 68,750 Fall: 68,750	2 fish 18" min	Wed, Fri, Sat, Sun; 7 days/week 12.2-12.31	
	137,500	2 fish 18" min no fish 22" - 27"	Zone 1: 3.15 - 4.30 Zone 2: 3.1 - 4.15	137,500	2 fish 18" min no fish 22" - 27", 1 fish above 27"	Zone 1: 3.15 - 4.30 Zone 2: 3.1 - 4.15	
	none	2 fish 28" min	All Year	none	2 fish 28" min	All Year	

**Table 6. Atlantic Striped Bass Commercial Fishery Regulations for 2003 & 2004 and Approved Changes for 2005.**

\* All regulations are subject to change. Readers should contact their state fisheries offices for detailed regulations.

States & Jurisdictions	2003 Fishing Year			2004 Fishing Year			2005 Fishing Year
	Commercial Quota (lbs)	Size Limit	Season	Commercial Quota (lbs)	Size Limit	Season	Changes?
Maine							
New Hampshire							
Massachusetts	1,036,880**	34" min; 40 fish/day	7.6 - 8.10; no landings Thurs-Sat	1,141,517	34" min	7.11 - 8.10; 5 fish/day on Sun, 30 fish/day Tues-THurs	1,094,962 lbs.** Season Open 7.12
Rhode Island	<b>Total: 240,377*</b> Trap: 96,151 H&L: 144,226	Traps: 28" min  H&L: 34" min	Traps: 1.1 to 8.26 90% 8.27 - 12.31 10% of quota H&L: 6.1 - 8.26, 4fish/day, 75% 10.1 - 12.31, 3 fish/day, 25%	<b>Total: 245,204</b> Trap: 97,450 H&L: 146,175	Traps: 28" min  H&L: 34" min	Traps: 1.1 to 8.26 90% 8.27 - 12.31 10% of quota H&L: 6.1 - 8.26, 4fish/day, 75% 10.1 - 12.31, 3 fish/day, 25%	quota:242,028**
Connecticut							
New York (Hudson)							
Ocean	828,293	24"-36"	7.1 - 12.15	828,293	24"-36"	7.1 - 12.15	
New Jersey							
Pennsylvania							
Delaware	193,447	20" min	Gillnet: 3.1 - 4.30 & 11.1 - 12.30 H&L: 9.1 - 12.31 Spawning Areas: 1.1 - 3.31 & 6.1 - 12.31	193,447	28" min except Spring gillnet fishery in DE Bay & Nanticoke River = 20" min	Gillnet: 2.15 - 5.31 & 11.15 - 12.30 H&L: 4.15 - 12.31 Spawning Areas: 1.1 - 3.31 & 6.1 - 12.31	Gillnet season: 2.15-5.31 & 11.15-12.30 H&L season: 4.15-12.31
Maryland***	<b>Total: 1,935,000</b> Gillnet: 833,788 H&L: 417,460 LbNet/Haul Seine: 683,750	18" - 36"	Gillnet: 1.1-2.28 & 12.1 - 12.30 H&L: 6.17 - 12.27 Lb Net/Haul Seine: 6.2 - 12.10	<b>Total: 2,066,322</b> Gillnet: 884,961 H&L: 646,185 LbNet/Haul Seine: 468,250	18" - 36"	Gillnet: 1.1-2.28 & 12.1 - 12.31 H&L: 6.14 - 12.30 Lb Net: 6.1 - 11.30 Haul Seine: 6.7-11.30	decreased Baywide quota, increased MD commercial Chesapeake Bay quota
Ocean**	126,936	24"	All Year	125,931	24"	1.1-4.30, 5.9-5.31, 11.1-12.31	
Washington DC							
PRFC***	800,000	18" - 28"/36"	All gears have a season	800,000	18" - 28"/36"	All gears have a season	decreased Baywide quota
Virginia***	1,701,748	18" min 28" max	2.1 - 12.31 Max Size: 3.26 - 6.15	1,379,665**	18" min 28" max	2.1 - 12.31 Max Size: 3.26 - 6.15	quota: 1,504,927 minus 2004 overage of 125,262 = 1,379,665
Ocean	184,853	28"	2.1 - 12.31	184,853	28"	2.1 - 12.31	
North Carolina	269,998*	1.6 - 3.19: 18" min, 5 fish/operation 3.20 - 4.14: 18" min, 10 fish/operation 10.27 - 12.31: 18" min, 5 fish/operation		<b>271,332**</b>	1.6 - 3.19: 18" min, 5 fish/operation 3.20 - 4.14: 18" min, 10 fish/operation 10.27 - 12.31: 18" min, 5 fish/operation		quota: 275,000 minus 2004 overage of 3,668 = 271,332
Albemarle/ Roanoke							
Ocean	480,000	28"	Seasons based on gear	480,480	28"	Seasons based on gear	

\* Overage in 2002, required a reduction in 2003 quota.

\*\* Overage in 2003, required a reduction in 2004 quota.

\*\*\* Baywide Quota: 2003: 10,500,000 lbs; 2004: 8,417,000 lbs

- NY quota is less than Am6 value b/c of slot limit, cons equiv.

- MD quota is less than Am6 value b/c of lower size, cons equiv.

Changes from 2003 to 2004