July 27, 2015

Douglas Grout, Striped Bass Management Board Chairman
ASMFC
1050 N. Highland Street
Suite 200 A-N
Arlington, VA 22201

Dear Chairman Grout,

I am writing regarding the Technical Committee report (dated July 20, 2015) that was included in the final Summer Meeting materials and addressed the Atlantic Striped Bass Harvest Reduction Estimate for the 2015 Fishing Season. I reviewed the report and my conclusion is that it is not accurate and incorrectly indicates that the state options will meet the 25% harvest reduction called for in Addendum IV.

The TC was tasked with trying to determine the anticipated harvest reduction for the coastal states given the 2015 harvest reduction options that were adopted by the states. In reviewing the state harvest reduction percentages for the recreational sector, in all cases where states adopted the 1@28" option the TC utilized the 31% harvest reduction which originally appeared as Option B1 in the Draft Addendum. The Draft Addendum harvest reduction percentages were **not state specific** reduction estimates, but were **coastal estimates** based on the assumption that **all jurisdictions would adopt** the specific option listed. Only by evaluating the new harvest reductions against the old regulations by state can you derive an accurate overall harvest reduction projection. At the very least the TC report should have noted that the assumptions for the 31% were no longer valid and that the percentage was overstated.

Due to the tight time constraints the Management Board permitted the states to incorporate one of the B options and use the percentages shown in the Draft Addendum even though the assumptions were no longer valid. States that did not choose one of the B options were required and did submit their state specific harvest reductions.

I am not a statistician but it seems highly unlikely that a state like NY that adopted 1@28 regulation would have the same anticipated harvest reductions as other states where 2013 striped bass regulations were different. There must be some variation in the reduction percentages.

- NY coastal goes FROM 1@28" + 1>40" and 2@28 for the for-hire sector TO 1@28
- MA goes FROM 2@28" TO 1@28"
- ME goes FROM 1 fish @20 – 26” OR ≥40” TO 1@28"
- NH goes FROM 1 fish @28–40” & 1 fish >28”TO 1@28"

Each state cannot be at a 31% harvest reduction. The report indicates a 25.6% reduction overall. This has to be incorrect and when you factor in an analysis that assumes 100% compliance (which we all know is overstated). It appears that the states' options, when combined, will fall short of the intended 25% harvest reductions called for in Addendum IV.

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My request to the Striped Bass Management Board is that they task the Technical Committee to come up with the actual projected harvest reduction forecast for the states that adopted the 1@28" regulation. The overall reduction should then be recalculated and made public.

In my opinion, the TC should have ensured that present regulations were appropriately measured against each states' 2013 regulations. Furthermore it would be useful in the management of striped bass if the TC calculates a 10 year average of non-compliance and factors this in as well. In this way, we will have a better measure of what the states and the ASMFC have actually signed up for.

The public and the Striped Bass Management Board deserves to have an actual projection that is based on data that is as accurate as possible.

I appreciate your time and attention.

Sincerely,

Ross Squire
1@32 Pledge
Fishing Advisory Board: NY State Parks
President, Traditional Surfcasters

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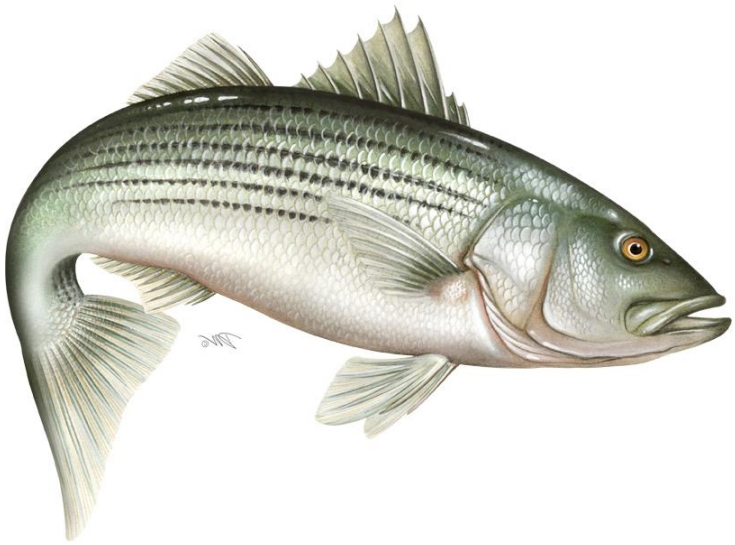
2015 REVIEW OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
FISHERY MANAGEMENT PLAN FOR

ATLANTIC STRIPED BASS
(Morone saxatilis)

2013 AND 2014 FISHING SEASONS



Atlantic Striped Bass Plan Review Team
Charlton Godwin, North Carolina Division of Marine Fisheries
Wilson Laney, US Fish and Wildlife Service
Gary Shepherd, National Marine Fisheries Service
Max Appelman, Atlantic States Marine Fisheries Commission, Chair

Prepared July 28, 2015

Executive Summary

Atlantic Striped Bass from Maine through North Carolina are managed under Amendment 6 and Addenda I-IV to the Interstate Fishery Management Plan.

A benchmark stock assessment was peer reviewed by the 57th Stock Assessment Review Committee in July 2013. The 2013 benchmark assessment was approved by the Management Board for management use in October 2013. Addendum IV to Amendment 6 was approved by the Board in October 2014, and implemented prior to the start of the 2015 fishing season. The addendum contained new fishing mortality reference points, and required coastal and Chesapeake Bay states/jurisdictions to reduce removals by 25 and 20.5%, respectively, in order to reduce F to a level at or below the new target.

Total Striped Bass harvest in 2014 is estimated at 2.53 million fish or 30.0 million pounds, which is a 7% decrease by weight and a 12% decrease by number from 2013. The recreational fishery harvested 1.78 million fish (24.06 million pounds) in 2014, while the commercial fishery harvested 766,298 fish (5.94 million pounds). Dead discards from the recreational fishery are estimated at 655,429 fish.

In 2013 and 2014, all states implemented management programs consistent with Amendment 6 and Addenda I-IV. All but one state harvested below their costal commercial quota in 2013. Massachusetts exceeded their quota by 6,591 pounds resulting in an effective quota of 1,153,159 for 2014. All commercial state fisheries harvested below their coastal commercial quotas in 2014. The Chesapeake Bay quota in 2014 was 8.65 million pounds and was not exceeded. In 2015, all commercial fisheries will be allotted quotas as listed in Addendum IV to Amendment 6.

All states have implemented monitoring programs consistent with Amendment 6. Requirements vary by state, and may include monitoring commercial and/or recreational catch, effort, and catch composition, monitoring commercial tagging programs, and performing juvenile abundance surveys, spawning stock surveys, and tagging programs.

For the 2015 review of JAIs the analysis evaluates the 2012, 2013, and 2014 JAI values. No state's JAI met the criteria for recruitment failure, but every state's JAI analysis except Maine has had at least one value within the last three years fall below the Q1 threshold

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I. Status of the Fishery Management Plan

Date of FMP Approval:	Original FMP – 1981
Amendments:	Amendment 1 – 1984 Amendment 2 – 1984 Amendment 3 – 1985 Amendment 4 – 1989; Addendum I – 1991, Addendum II – 1992, Addendum III – 1993, Addendum IV – 1994 Amendment 5 – 1995; Addendum I – 1997, Addendum II – 1997, Addendum III – 1998, Addendum IV – 1999, Addendum V – 2000 Amendment 6 – 2003; Addendum I – 2007, Addendum II – 2010, Addendum III – 2012, Addendum IV – 2014
Management Unit:	Migratory stocks of Atlantic Striped Bass from Maine through North Carolina
States With Declared Interest:	Maine - North Carolina, including Pennsylvania
Additional Jurisdictions:	District of Columbia, Potomac River Fisheries Commission, National Marine Fisheries Service, United States Fish and Wildlife Service
Active Boards/Committees:	Atlantic Striped Bass Management Board, Advisory Panel, Technical Committee, Stock Assessment Subcommittee, Tagging Subcommittee, Plan Review Team, and Plan Development Team

The Atlantic States Marine Fisheries Commission (Commission) developed a fisheries management plan (FMP) for Atlantic Striped Bass in 1981 in response to declining juvenile recruitment and landings. The FMP recommended increased restrictions on commercial and recreational fisheries, such as minimum size limits and harvest closures on spawning grounds. Two amendments were passed in 1984 recommending additional management measures to reduce fishing mortality. To strengthen the management response and improve compliance and enforcement, the Atlantic Striped Bass Conservation Act (P.L. 98-613) was passed in late 1984, which mandated the implementation of Striped Bass regulations passed by the Commission, and gave the Commission authority to recommend to the Secretaries of Commerce and Interior that states be found out of compliance when they failed to implemented management measures consistent with the FMP.

The first enforceable plan, Amendment 3, was approved in 1985, and required size regulations to protect the 1982 year class, which was the first modest size cohort since the previous decade. The objective was to increase size limits to allow at least 95% of the females in the cohort to spawn at least once. Smaller size limits were permitted in producer areas than along the coast. Several states, beginning with Maryland in 1985, opted for a more conservative approach and imposed a total moratorium on Striped Bass landings for several years. The amendment contained a trigger mechanism to reopen the fisheries when the 3-year moving average of the Maryland juvenile abundance index (JAI) exceeded an arithmetic mean of 8.0. That level was attained with the recruitment of the 1989 year class.

Consequently, Amendment 4 was adopted to allow state fisheries to reopen in 1990 under a target fishing mortality (F) of 0.25, which was half the estimated F needed to achieve maximum sustainable yield (MSY). The amendment allowed an increase in the target F once spawning stock biomass (SSB) was restored to levels estimated during the late 1960s and early 1970s. The dual size limit concept was maintained, and a recreational trip limit and commercial season implemented to reduce the harvest to 20% of that in the historic period of 1972-1979. The amendment and its four addenda aimed to rebuild the resource, rather than maximize yield.

In 1995, coastal Striped Bass were declared restored by the Commission, and Amendment 5 was adopted to increase the target F to 0.33, midway between the existing F target (0.25) and $F_{MSY,}$ which was revised to 0.40. Regulations were developed to allow 70% of the historic harvest and achieve the target F, although states were allowed to submit proposals for alternative regulations that were conservationally equivalent. From 1997-2000, a series of five addenda were implemented to respond to the latest stock status information. The Albemarle/Roanoke stock of Striped Bass, currently assessed independently by the State of North Carolina and managed under a separate North Carolina's Fishery Management Plan, was declared restored in 1997.

In 2003, Amendment 6 was adopted to address five limitations within the management program: 1) potential inability to prevent the Amendment 5 exploitation target from being exceeded; 2) perceived decrease in availability or abundance of large Striped Bass in the coastal migratory population; 3) a lack of management direction with respect to target and threshold biomass levels; 4) inequitable effects of regulations on the recreational and commercial fisheries, and coastal and producer area sectors; 5) and excessively frequent changes to the management program. Amendment 6 was fully implemented by January 1, 2004, and completely replaced all previous Commission plans for Atlantic Striped Bass.

The goal of Amendment 6 is to perpetuate, through cooperative interstate management, migratory stocks of Striped Bass; to allow commercial and recreational fisheries consistent with the long-term maintenance of a broad age structure, a self-sustaining spawning stock; and also to provide for the restoration and maintenance of their essential habitat. In support of this goal, the following objectives are included:

- Manage Striped Bass fisheries under a control rule designed to maintain stock size at or above the target female spawning stock biomass level and a level of fishing mortality at or below the target exploitation rate.
- Manage fishing mortality to maintain an age structure that provides adequate spawning potential to sustain long-term abundance of Striped Bass populations.
- Provide a management plan that strives, to the extent practical, to maintain coastwide consistency of implemented measures, while allowing the States defined flexibility to implement alternative strategies that accomplish the objectives of the FMP.
- Foster quality and economically viable recreational, for-hire, and commercial fisheries.
- Maximize cost effectiveness of current information gathering and prioritize state obligations in order to minimize costs of monitoring and management.

- Adopt a long-term management regime that minimizes or eliminates the need to make annual changes or modifications to management measures.
- Establish a fishing mortality target that will result in a net increase in the abundance (pounds) of age 15 and older Striped Bass in the population, relative to the 2000 estimate.

Amendment 6 modified the F targets and thresholds, and introduced a new set of biological reference points (BRPs) based on females spawning stock biomass (SSB), as well as a list of management triggers based on the BRPs. (The targets and thresholds were updated in 2008; see Sections II and IV for more information.) The coastal commercial quotas for Striped Bass were restored to 100% of the states' average landings during the 1972-1979 historical period, except for Delaware's coastal commercial quota, which remained at the level allocated in 2002. In the recreational fisheries, all states were required to implement a two fish bag limit with a minimum size limit of 28 inches, except for the Chesapeake Bay fisheries, fisheries that operate in the Albemarle Sound and Roanoke River, and states with approved alternative regulations. The Chesapeake Bay and Albemarle/Roanoke regulatory programs were predicated on a more conservative F target than the coastal migratory stock, which allowed these jurisdictions to implement separate seasons, harvest caps, and size and bag limits as long as they remain under that F target. No minimum size limit can be less than 18 inches under Amendment 6. The same minimum size standards regulate the commercial fisheries as the recreational fisheries, except for a minimum 20 inch size limit in the Delaware Bay spring gillnet fishery.

States are permitted the flexibility to deviate from these standards by submitting proposals for review by the Striped Bass Technical Committee, Advisory Panel, and Plan Review Team and contingent upon the approval of the Management Board. A state may request a change only if it can demonstrate that the action is "conservationally equivalent" to the management standards or will not contribute to the overfishing of the resource. This practice has resulted in a variety of regulations among states (see Tables 1 and 2).

In 2007, Addendum I was implemented to establish a bycatch monitoring and research program to increase the accuracy of data on Striped Bass discards and also recommend development of a web-based angler education program.

In May 2009, the Management Board initiated the development of an addendum to consider options to roll over unused coastal commercial quota up to fifty percent, and approved sending the draft addendum out for public comment in August 2009. In November 2009, the Board voted for status quo management in regards to unused quota rollover.

In February 2010, the Management Board initiated the development of an addendum to consider options to increase the coastal commercial quota. The Board approved the draft addendum for public comment in May 2010, with the addition of an option to consider adopting a Technical Committee recommendation to revise the JAI management trigger. Adopting the Technical Committee recommendation would modify the definition of recruitment failure, such that each index would have a fixed numerical value indicating failure, rather than one that changes from year to year. The Board approved Addendum II, and the revised JAI management triggers, in November 2010. The new definition of recruitment failure is a value that is below 75% of all values in a fixed time series appropriate to each juvenile abundance index.

In 2012, Addendum III was approved by the Board. This addendum requires all states and jurisdictions with a commercial fishery to implement a commercial harvest tagging program. The addendum was initiated in response to significant poaching events in the Chesapeake Bay and aims to limit illegal harvest of Striped Bass.

The Board approved Addendum IV in 2014 in response to the 2013 benchmark assessment which indicates a steady decline in spawning stock biomass since the mid-2000s. The Addendum establishes new fishing mortality reference points (F target and threshold), and required coastal states to reduce removals in order to reduce F to a level at or below the new target (i.e., 25% reduction from 2013 removals for the coastal fishery and 20.5% reduction from 2012 removals for Chesapeake Bay fishery). Additionally, since the Albemarle/Roanoke stock is thought to contribute minimally to the coastwide complex, Addendum IV differs management of the Albemarle/Roanoke stock to the State of North Carolina using stock-specific BRPs approved by the Management Board.

The Exclusive Economic Zone (EEZ) has been closed to the harvest and possession of Striped Bass since 1990, with the exception of a defined route to and from Block Island in Rhode Island. A recommendation was made in Amendment 6, and submitted to the Secretary of Commerce, to re-open federal waters to commercial and recreational fisheries. Starting in July 2003 and continuing for several years, National Marine Fisheries Service (NMFS) took steps in the rulemaking process to consider the proposal. In September 2006, NMFS concluded that it would be imprudent to open the EEZ to Striped Bass fishing and chose not to proceed further in its rulemaking. Specifically, NMFS concluded that: 1) it could not be certain, especially after taking into account the overwhelming public perception that large trophy sized fish congregate in the EEZ, that opening the EEZ would not increase effort and lead to an increase in mortality that would exceed the threshold, and 2) both the Commission's and NMFS' ability to immediately respond to an overfishing and/or overfished situation is a potential issue, particularly given the timeframe within which Amendment 6 was created, and given the lag time in which a given year's data is available to management (71 FR 54261-54262). Additionally, in October 2007, President George W. Bush issued an Executive Order (E.O. 13449) prohibiting the sale of Striped Bass (and red drum) caught within the EEZ. The Order also requires the Secretary of Commerce to encourage management for conservation of the resources, including State designation as gamefish where the State determines appropriate under applicable law, and to periodically review the status of the populations within US jurisdictional waters. The 2011 report (submitted in 2012) is the most recent report to Congress on the status of the Striped Bass population (NOAA 2012). The 2015 Striped Bass Report to Congress is scheduled for completion at the end of August.

II. Status of the Stocks

Atlantic Striped Bass Stocks

The 2013 benchmark stock assessment was completed by the 57th Stock Assessment Workshop (SAW) and peer reviewed by the Stock Assessment Review Committee (SARC) in July 2013. Based on recommendations by the 47th SAW/SARC in 2007, the statistical catch-at-age (SCA) model in the benchmark assessment was generalized to allow specification of multiple fleets, different stock-recruitment relationships, and year- and age-specific natural mortality rates, among

other things. For this assessment, new fishing mortality (F) reference points were chosen to link the target and threshold F with the target and threshold female spawning stock biomass (SSB). The 2013 assessment, and the new F reference points, were approved by the Board for management use at its October 2013 meeting. The 2013 SCA model was used to estimate fishing mortality, abundance, and spawning stock biomass of Striped Bass during 1982-2012. Based on results of the 2013 benchmark assessment, and comparison to the biological reference points below, Atlantic Striped Bass are not overfished and are not experiencing overfishing.

	Female Spawning Stock Biomass	***Fully-Recruited Fishing Mortality***
Threshold	SSB_{1995} = 57,626 metric tons	F_{msy} = 0.22
Target	$SSB_{threshold}$ x 1.25 = 72,032 metric tons	0.18 (Chesapeake Bay and coastal stocks)

The SCA model estimated female spawning stock biomass (SSB) at 58,238 metric tons (MT) in 2012 which is above the SSB threshold (57,626mt) but well below the target (72,032) (Figure 1). The 2012 estimate of SSB was a decrease from the 2011 estimate of 61,972 MT and SSB estimates have continued to decrease from the time series maximum of 78,544 MT in 2003. Recruitment estimated in the SCA model as age-1 abundance was 140.4 million fish in 2012, which is a 31% increase from the 2011 estimate (106.9 million fish). The 2012 estimate is the first estimate above the 1994-2004 average (120.8 million fish) since 2004 (Figure 2). The average estimated recruitment during 2005-2012, the time period representing the last year that SSB was estimated above the target, was 85.6 million fish. The 2004 recruitment estimate (2003 year class) remains the second largest recruitment estimate since 1982 at 157.5 million fish. The SCA model estimated the 2012 fishing mortality rate (F) on age 8–11 fish to be F=0.19, which is below the fishing mortality threshold but above the target (Figure 3).

Overall, the conclusion is that spawning stock abundance has declined since the 2003 time series high. The decrease in abundance is reflected in a declining trend of coastwide catch from 2007 to present (Figure 4), particularly in recreational discards comprised of smaller fish. Despite the decline in abundance, the spawning stock in 2012 remained relatively high due to the growth and maturation of the 2003 year class and the accumulation of spawning stock biomass from prior year classes.

Albemarle Sound/Roanoke River Striped Bass Stocks

The most recent Albemarle Sound/Roanoke River (A/R) stock assessment (data through 2012) utilized the ASAP3 statistical catch at age model. The NC-specific assessment was peer reviewed and approved for management use, as recommended by the Technical Committee, by the Atlantic Striped Bass Management Board at their August 2014 meeting. The model incorporated all commercial and recreational harvest and discard data from the Albemarle Sound and Roanoke River Management Areas (ASMA and RRMA), as well as abundance data for the A/R stock from fishery independent surveys conducted by North Carolina Division of Marine Fisheries (NCDMF) and North Carolina Wildlife Resources Commission (NCWRC) staff.

Results from the assessment indicated the stock is not overfished or experiencing overfishing relative to A/R specific biological reference points below.

(A/R) Reference Point	Fishing Mortality (F)	Spawning Stock Biomass (pounds)	Total Allowable Landings pounds (pounds)
Target	0.33	969,496	305,762
Threshold	0.41	785,150	325,905

Although the stock is not overfished, female spawning stock biomass has declined steadily since its peak in 2003, and is estimated at 835,462 pounds, just above the threshold of 772,588 pounds. A/R Striped Bass experienced a period of unusually strong recruitment (number of age-1 fish entering the population) from 1994-2001 followed by a period of lower recruitment from 2002-2013 (Figure 5). Total stock abundance reached its peak in the late 1990s and has declined gradually since, averaging about 1.5 million fish in recent years. Additionally, fishing mortality is estimated at 0.34, just above the target of 0.33 (Figure 6).

Overall, the trends in the A/R stock are quite similar to the Atlantic Striped Bass stocks described above, with a steady decline in female SSB since 2003. An update of the A/R stock assessment with data through 2014 will begin in August 2015.

III. Status of the Fishery

Total Striped Bass commercial and recreational harvest in 2014 (excluding harvest from within the Albemarle Sound and Roanoke River) is estimated at nearly 30.0 million pounds or 2.53 million fish (Figures 7 and 8; Tables 3 - 6). This is a 7% decrease by weight and a 12% decrease by number from 2013. The commercial and recreational fisheries harvested 20 and 80%, respectively by weight, and 30 and 70% by number in 2014.

The commercial fishery (coastal and Chesapeake Bay combined) landed 5.94 million pounds in 2014, slightly higher than landings in 2013 (5.82 million pounds). The Chesapeake Bay jurisdictions accounted for 65% the 2014 commercial landings by weight (pounds); Maryland landed 32%, Virginia landed 23%, and PRFC landed 10%. Additional landings came from Massachusetts (19%), New York (9%), Rhode Island (4%), Delaware (3%), and New Jersey (<1%). Total commercial dead discards were estimated at 931,391 fish, indicating increased catch of sub-legal sized fish.

The total coastal commercial harvest in 2014 was 2.36 million pounds, which was a 7% decrease from the 2013 coastal landings of 2.53 million pounds. The total Chesapeake Bay commercial harvest in 2014 was 3.58 million pounds, which is a 9% increase from the 2013 harvest of 3.29 million pounds.

In 2014, the recreational fishery (coastal and Chesapeake Bay combined) landed an estimated 1.78 million fish (24.1 million pounds). This was a 16% decrease from 2013 landings by number (2.12 million fish) and a 9% decrease by weight (26.4 million pounds). The coastal recreational harvest was 20.33 million pounds. The recreational Chesapeake Bay-wide harvest was 3.73 million pounds and represents nearly a 48% increase in Chesapeake harvest from 2013 (2.52 million pounds).

Recreational releases were estimated at 7.28 million fish in 2014, which is a 15% decrease from 2013 (8.54 million fish), but a 40% increase from 2012 (5.19 million fish) (Figure 6; Table 7). The 2014 recreational catch estimate of 9.07 million fish is the 4th lowest on record since 1995, and represents a 65% decline from the peak in 2006 (26.13 million fish; Figure 9). Anglers are keeping more of the fish they catch in recent years or catching fewer sub-legal fish. The proportion of catch that is released was 80% in 2014. Using a 9% post-release mortality rate, recreational dead discards are estimated to be 655,429 fish in 2014. Total recreational removals (harvest and dead discards combined) in 2014 was 2.44 million fish, which is a 15% decrease from 2013 (2.89 million fish). Maryland landed the largest percentage of the coastwide recreational harvest in number of fish (33%), followed by New York (23%), Massachusetts (16%), New Jersey (13%), and Rhode Island (6%). The remaining states each landed 5% or less of the 2014 recreational landings by number of fish.

Albemarle Sound and Roanoke River Management Areas
Total commercial and recreational harvest in the ASMA and RRMA in 2014 was 121,956 pounds (31,114 fish). Commercial harvest in the ASMA was 71,372 pounds (14,258 fish). Recreational harvest in the ASMA was 16, 867 pounds (5,528 fish), while recreational harvest in the RRMA was 33,717 pounds (11,058 fish). The majority of harvest was fish three – six years old.

IV. Status of Assessment Advice

The 2013 Atlantic Striped Bass benchmark stock assessment was peer reviewed at the 57th SAW/SARC, and approved by the Board for management use in October 2014. The SARC acknowledged that the stock assessment team (i.e., the Technical Committee, Tagging Subcommittee, and the Stock Assessment Subcommittee) was able to address several of the recommendations from the last benchmark assessment peer reviewed at the 46th SAW in 2007 (NEFSC 2013a, NEFSC 2013b). Most notably, the stock assessment team re-estimated target and threshold F that link with the target and threshold SSB, and made progress in addressing the spatial dynamics of the stock by splitting total removals into three "fleets;" an ocean fleet, a Chesapeake Bay fleet and a commercial discard fleet. Other improvements include incorporating error in the catch estimation into the model, re-evaluating key parameters including natural mortality, release mortality rates, and tag reporting rates, improving SCA model fit diagnostics, incorporating the stock-recruit relationship into the SCA and reference point models, and exploring different models for selectivity in the plus age group. The 2013 SCA model also directly incorporates ageing error based on the assessment team's work on scale-otolith comparisons.

Additionally, the SARC identified high priority items for consideration in future assessments including continued improvement of the spatial modeling of the stock, and incorporating tagging data.

The Technical Committee's next Atlantic Striped Bass stock assessment update will be available for review by the Board at its November 2015 meeting. The next benchmark stock assessment for Striped Bass is scheduled for 2018.

V. Status of Research and Monitoring

Amendment 6 and its Addenda I-III set the regulatory and monitoring measures for the coastwide Striped Bass fishery in 2013 and 2014.

The management plan requires certain jurisdictions to implement fishery-dependent monitoring programs for Striped Bass. All jurisdictions with commercial fisheries or substantial recreational fisheries are required to define the catch and effort composition of these fisheries. Additionally, all states and jurisdictions with a commercial fishery must implement a commercial tagging program pursuant to Addendum III to Amendment 6.

The management plan also requires certain states to monitor the Striped Bass population independent of the fisheries. Juvenile abundance indices are required from Maine (Kennebec River), New York (Hudson River), New Jersey (Delaware River), Maryland (Chesapeake Bay tributaries), Virginia (Chesapeake Bay tributaries), and North Carolina (Albemarle Sound). Spawning stock sampling is mandatory for New York (Hudson River), Pennsylvania (Delaware River), Delaware (Delaware River), Maryland (Upper Chesapeake Bay and Potomac River), Virginia (Rappahannock River and James River), and North Carolina (Roanoke River and Albemarle Sound). Amendment 6 requires NOAA Fisheries, USFWS, Massachusetts, New York, New Jersey, Maryland, Virginia, and North Carolina to continue their tagging programs, which provide data used to determine survivorship and migration patterns.

VI. Status of Management Measures and Issues

Coastal Commercial Quota

In 2014, one state had a coastal commercial quota lower than their Amendment 6 allocation due to quota overages in 2013 (Massachusetts exceeded their quota by 6,591 pounds resulting in an effective quota of 1,153,159). In 2014, all states' coastal commercial harvests were below their coastal commercial quota. Addendum IV coastal commercial quotas will be implemented for 2015, as listed in Table 8.

Chesapeake Bay Quota

Amendment 6 includes a separate management program for the Chesapeake Bay due to the size availability of Striped Bass in this area. Based on the previous target fishing mortality rate of F=0.27, Maryland, Virginia, and the Potomac River Fisheries Commission (PRFC) annually establish a bay-wide quota for resident fish using the Harvest Control Model (Table 9). In 2014, the bay-wide quota was 8,652,527 pounds. Shares are allocated to Maryland, the PRFC, and Virginia based on historical harvest, and each jurisdiction then allocates portions of the quota to its recreational and commercial fisheries. In 2014, the bay-wide harvest was 7,303,699 pounds and within the quota.

Chesapeake Bay Spring Trophy Fishery

Recreational fishermen in the Chesapeake Bay are permitted to take adult migrant fish during a limited seasonal fishery, commonly referred to as the Spring Trophy Fishery. From 1993 to 2007 the fishery operated under a quota. Beginning in 2008, the Board approved non-quota management until stock assessment indicates that corrective action is necessary to reduce F on the coastal stock. After several years of varying size limits in Maryland and the Potomac River to account for quota

overages, a 28 inch size limit has been in place since 2008; Virginia's trophy fish size limit has been higher at 32 inches. The trophy season in Virginia is also shorter.

In 2014, the estimate of migrant fish harvested during the trophy season was 38,921 fish (38,910 fish in Maryland and 11 fish in Virginia [2015 state compliance reports]) and represents a 20% decrease from 2013. Harvest of migrant Striped Bass in the spring fishery in 2014 was below the average over the last 5 years (2009-2013; 42,765 fish). In Maryland in 2014, charter boats harvested 32% while private anglers harvested 68% of the total.

Wave-1 Recreational Harvest Estimates

Evidence suggests that North Carolina, Virginia, and possibly other states have had sizeable wave-1 (January/February) recreational Striped Bass fisheries beginning in 1996 (NEFSC 2013b). The Marine Recreational Information Program (MRIP), formerly the Marine Recreational Fisheries Statistics Survey (MRFSS), has sampled for Striped Bass in North Carolina during wave-1 since 2004. Other states are not currently covered during wave-1.

However, Striped Bass distributions on their overwintering grounds during January through February has changed significantly since the mid-2000s. The migratory portion of the stocks has been well offshore in the EEZ off Virginia and North Carolina (up to 27 miles) in recent years. North Carolina has reported zero striped bass landings in the ocean for 2012-2014.

Juvenile Abundance Indices

Amendment 6 requires the following states to conduct Striped Bass young-of-year juvenile abundance index (JAI) surveys on an annual basis: Maine for the Kennebec River; New York for the Hudson River; New Jersey for the Delaware River; Maryland for the Maryland Chesapeake Bay tributaries; Virginia for the Virginia Chesapeake Bay tributaries; and North Carolina for the Albemarle Sound/Roanoke River stock. Refer to Figure 10 for the results of the juvenile abundance surveys.

The Striped Bass Technical Committee (TC) annually reviews trends in all required JAIs. Under Amendment 6, recruitment failure was defined as a value that was lower than 75 percent of all the other values in the dataset for three consecutive years. This methodology created a constantly moving value with each additional year of data. Under the new definition of recruitment failure, per Addendum II to Amendment 6, recruitment failure is defined as a value that is below 75% (the first quartile, or Q1) of all values in a fixed time series appropriate to each JAI. If any survey's JAI falls below their respective Q1 for three consecutive years, then appropriate action should be recommended by the TC to the Management Board. The Management Board is the final arbiter in all management decisions.

For the 2015 review of JAIs the analysis evaluates the 2012, 2013, and 2014 JAI values. No state's JAI met the criteria for recruitment failure, but every state's JAI except Maine has had at least one value within the last three years fall below the Q1 threshold (Figure 10).

The JAI for the Hudson River was below its Q1 threshold for 2012 and 2013, but well above average for 2014. Similarly the Delaware River JAI was below its Q1 threshold in 2012, slightly above the Q1 in 2013, and well above average for 2014. The Maryland Chesapeake Bay JAI was near zero in 2012, followed by the past two years' value near the long-term average. The Virginia

Chesapeake Bay JAI showed a similar trend with the 2012 value below its Q1 and the 2013 and 2014 values above the survey's long-term average. North Carolina's JAI for the Albemarle Sound/Roanoke River stock was near its Q1 threshold in 2012, below its Q1 and near zero in 2013, and the 2014 value well above average, ranking 9th in the sixty-year time series.

Albemarle/Roanoke Striped Bass FMP

The Interstate FMP for Atlantic Striped Bass requires North Carolina to inform the Commission of changes to Striped Bass management in the Albemarle Sound/Roanoke River (A/R) System. North Carolina must adhere to the compliance criteria in Amendment 6. After a Technical Committee review, the PRT previously determined that North Carolina's FMP complies with the mandatory components of Amendment 6.

Estuarine Striped Bass *(Morone saxatilis)* in North Carolina are currently managed under Amendment 1 to the North Carolina Estuarine Striped Bass Fishery Management Plan (FMP) and its subsequent revision (NCDMF 2014). It is a joint plan between the North Carolina Marine Fisheries Commission (NCMFC) and the North Carolina Wildlife Resources Commission (NCWRC). Amendment 1, adopted in 2013, lays out separate management strategies for the Albemarle/Roanoke (A/R) stock and the largely non-migratory Central and Southern stocks in the Tar/Pamlico, Neuse, and Cape Fear rivers. Management programs in Amendment 1 utilize annual total allowable landings (TAL), daily possession limits, open and closed harvest seasons, gill net mesh size and yardage restrictions, seasonal attendance requirements, barbless hook requirements in some areas, minimum size limits, and slot limits to maintain a sustainable harvest and reduce regulatory discard mortality in all sectors. Amendment 1 also maintains the stocking regime in the Central and Southern systems and the harvest moratorium on Striped Bass in the Cape Fear River and its tributaries (NCDMF 2013). Striped Bass fisheries in the Atlantic Ocean of North Carolina are managed under ASMFC's Amendment 6 and subsequent addenda to the Interstate FMP for Atlantic Striped Bass.

In response to the results of the 2013 benchmark A/R Striped Bass stock assessment that indicated fishing mortality was above its target, the NCMFC approved a Revision to Amendment 1 in November 2014 (NCDMF 2014). The revision reduced the Total Allowable Landings (TAL) for the A/R stock from 550,000 pounds to 275,000 pounds, to be split evenly between the commercial and recreational sectors. Stock assessment projections indicated a TAL of 275,000 pounds would maintain fishing mortality and spawning stock at their respective targets and provide a sustainable harvest. The Central and Southern stocks continue to be managed under a 25,000 pounds commercial TAL, daily possession limits and a closed summer season to control recreational harvest, and a total harvest moratorium in the Cape Fear River and its tributaries.

Law Enforcement Reporting

No law enforcement cases were described in the 2014 and 2015 compliance reports, however, that does not necessarily imply that no Striped Bass law enforcement violations occurred in 2013 and 2014. Staff is working with the Law Enforcement Committee to compile law enforcement citations, if any, for the 2016 FMP review.

VII. Annual State Compliance

Based on the annual state compliance reports, the Plan Review Team (PRT) determined that each state/jurisdiction implemented a management program for 2013 and 2014 that was approved by the Striped Bass Management Board and was consistent with the requirements of Amendment 6. Refer to Tables 1 and 2 for 2014 Striped Bass fishing regulations by state.

Amendment 6 includes compliance requirements for monitoring programs (summarized in *Section V*). Compliance with these requirements is summarized in Table 11. The PRT found that all states carried out the required monitoring programs in the 2013 and 2014 fishing year. No monitoring program changes were documented in the 2014 or 2015 compliance reports, or provided via personal communication.

Addendum III to Amendment 6 includes compliance requirements for monitoring commercial fishery tagging programs. The PRT found that all states implemented commercial tagging programs consistent with the requirements of Addendum III. Table 10 describes each state's program requirements.

The following management program changes were documented for the 2014 season:

- MD- The 2014 commercial fishery was transitioned to an ITQ system. A small number of commercial fishermen opted out of the ITQ fishery and are regulated under the old system with a portion of the quota set aside, referred to as the "Common Pool."
- MA- The 2014 commercial season did not open until June 24, and harvesting was allowed on Monday and Thursday only with a daily bag limit of 2 fish for those with rod-reel or individual permits, or 15 fish for those with boat permits.

VIII. Recommendations

Research Recommendations

Fishery-Dependent Priorities
High

- Continue collection of paired scale and otolith samples, particularly from larger Striped Bass, to facilitate development of otolith-based age-length keys and scale-otolith conversion matrices.[1]

Moderate

- Develop studies to provide information on gear specific discard morality rates and to determine the magnitude of bycatch mortality.[2]
- Improve estimates of Striped Bass harvest removals in coastal areas during wave 1 and in inland waters of all jurisdictions year round.
- Evaluate the percentage of fishermen using circle hooks.[3]

Fishery-Independent Priorities
Moderate

- Develop a refined and cost-efficient, fisheries-independent coastal population index for Striped Bass stocks.

- The PRT recommends the SBTC be tasked with exploring whether the Cooperative Winter Tagging Cruise, NEAMAP, and/or NMFS Trawl Survey datasets would prove useful in this respect.

Modeling / Quantitative Priorities

High

- Develop a method to integrate catch-at-age and tagging models to produce a single estimate of F and stock status.[4]
- Develop a spatially and temporally explicit catch-at-age model incorporating tag based movement information.[5]
  - The PRT recommends that the SAS be tasked with reviewing recent published literature examining tag-based movement information to see if they would contribute to the development of such a model (e.g., Callihan et al. 2014)
- Review model averaging approach to estimate annual fishing mortality with tag based models. Review validity and sensitivity to year groupings.[6]
- 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.[7]
- Develop field or modeling studies to aid in estimation of natural mortality or other factors affecting the tag return rate.

Moderate

- Develop maturity ogives applicable to coastal migratory stocks.
- Examine methods to estimate annual variation in natural mortality.[8]
- Develop reliable estimates of poaching loss from Striped Bass fisheries.
- Improve methods for determining population sex ratio for use in estimates of SSB and biological reference points.
- Evaluate truncated matrices and covariate based tagging models.

Low

- Examine issues with time saturated tagging models for the 18 inch length group.
- Develop tag based reference points.

Life History, Biological, and Habitat Priorities

High

- Continue in-depth analysis of migrations, stock compositions, etc. using mark-recapture data.[9]
- Continue evaluation of Striped Bass dietary needs and relation to health condition.[10]
- Continue analysis to determine linkages between the mycobacteriosis outbreak in Chesapeake Bay and sex ratio of Chesapeake spawning stock, Chesapeake juvenile production, and recruitment success into coastal fisheries.

Moderate

- Examine causes of different tag based survival estimates among programs estimating similar segments of the population.

- Continue to conduct research to determine limiting factors affecting recruitment and possible density implications.
- 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

- Determine inherent viability of eggs and larvae.
- Conduct additional research to determine the pathogenicity of the IPN virus isolated from Striped Bass to other warm water marine species, such as flounder, menhaden, shad, and largemouth bass.

Management, Law Enforcement, and Socioeconomic Priorities

Moderate

- Examine the potential public health trade-offs between the continued reliance on the use of high minimum size limits (28 inches) on coastal recreational anglers and its long-term effects on enhanced PCB contamination among recreational stakeholders.[11, 13]
- Evaluate Striped Bass angler preferences for size of harvested fish and trade-offs with bag limits.

Habitat Recommendations

- Passage facilities should be designed specifically for passing Striped Bass for optimum efficiency at passing this species.
- Conduct studies to determine whether passing migrating adults upstream earlier in the year in some rivers would increase Striped Bass production and larval survival, and opening downstream bypass facilities sooner would reduce mortality of early emigrants (both adult and early-hatched juveniles).
- All state and federal agencies responsible for reviewing impact statements and permit applications for projects or facilities proposed for Striped Bass spawning and nursery areas shall ensure that those projects will have no or only minimal impact on local stocks, especially natal rivers of stocks considered depressed or undergoing restoration.[11]
- Federal and state fishery management agencies should take steps to limit the introduction of compounds which are known to be accumulated in Striped Bass tissues and which pose a threat to human health or Striped Bass health.
- Every effort should be made to eliminate existing contaminants from Striped Bass habitats where a documented adverse impact occurs.
- Water quality criteria for Striped Bass spawning and nursery areas should be established, or existing criteria should be upgraded to levels that are sufficient to ensure successful Striped Bass reproduction.
- Each state should implement protection for the Striped Bass habitat within its jurisdiction to ensure the sustainability of that portion of the migratory stock. Such a program should include: inventory of historical habitats, identification of habitats presently used, specification of areas targeted for restoration, and imposition or encouragement of measures to retain or increase the quantity and quality of Striped Bass essential habitats.
- States in which Striped Bass spawning occurs should make every effort to declare Striped Bass spawning and nursery areas to be in need of special protection; such declaration should be accompanied by requirements of non-degradation of habitat quality, including minimization

of non-point source runoff, prevention of significant increases in contaminant loadings, and prevention of the introduction of any new categories of contaminants into the area. For those agencies without water quality regulatory authority, protocols and schedules for providing input on water quality regulations to the responsible agency should be identified or created, to ensure that water quality needs of Striped Bass stocks are met.[12]

- ASMFC should designate important habitats for Striped Bass spawning and nursery areas as HAPC.
- Each state should survey existing literature and data to determine the historical extent of Striped Bass occurrence and use within its jurisdiction. An assessment should be conducted of those areas not presently used for which restoration is feasible.

Footnotes

- [1] The Fish and Wildlife Service has archived otolith samples from known-age (CWT-tagged), stocked fish, for which scale ages were derived as well. These fish were collected during past Cooperative Winter Tagging Cruises and the otoliths, once aged, will increase our sample size, and since these are known-age fish, will also allow an examination of extent that which reader error affects both otolith age, and scale age.
- [2] Literature search and some modeling work completed.
- [3] Work ongoing in New York through the Hudson River Angler Diary, Striped Bass Cooperative Angler Program, and ACCSP e-logbook.
- [4] Model developed, but the tagging data overwhelms the model. Issues remain with proper weighting.
- [5] Model developed with Chesapeake Bay and the rest of the coast as two fleets. However, no tagging data has been used in the model.
- [6] Work ongoing by Striped Bass Tagging Subcommittee to evaluate the best years to use for the IRCR and the periods to use for the MARK models.
- [7] Gear specific survival being examined in Hudson River.
- [8] Ongoing work by the Striped Bass Tagging Subcommittee
- [9] Ongoing through Cooperative Winter Tagging Cruise and Striped Bass charter boat tagging trips. See Cooperative Winter Tagging Cruise 25 Year Report, in preparation.
- [10] Plans for a stomach content collection program in the Chesapeake Bay by the Chesapeake Bay Ecological Foundation.
- [11] Ongoing in New York.
- [12] Significant habitat designations completed in the Hudson River and New York Marine Districts.
- [13] Samples collected from two size groups ($\geq$ 28 inches and 20-26 inches) in Pennsylvania and processed by the Department of Environmental Protection to compare contamination of the two size groups.

Plan Review Team Recommendations

- The PRT found that all states implemented regulations consistent with Amendment 6 and Addenda I-III of the Atlantic Striped Bass FMP, and recommends the Board accept the 2015 FMP Review of the 2013 and 2014 fishing seasons.
- The PRT recommends that all states submit commercial tagging reports no later than 60 days prior to the start of the first commercial fishery in that state or jurisdiction, as described in Addendum III to Amendment 6.
- No states requested *de minimis* status at this time.

IX. References

Atlantic States Marine Fisheries Commission (ASMFC). 2013. Update of the Striped Bass stock assessment using final 2012 data. A report prepared by the Atlantic Striped Bass Technical Committee. 74 p. Arlington, VA.

ASMFC. 2015. Atlantic Striped Bass Annual Compliance Reports.

Callihan, J. L., Godwin, C. H., Buckel, J. A. 2014. Effect of demography on spatial distribution: movement patterns of the Albemarle Sound-Roanoke River stock of Striped Bass (*Morone saxatilis*). Fish. Bull. 112:131-143.

Mroch, R., and C.H. Godwin. 2014. Stock Status of Albemarle Sound-Roanoke River Striped Bass. North Carolina Division of Marine Fisheries, Morhead City, North Carolina.

Northeast Fisheries Science Center. 2013a. 57th Northeast Regional Stock Assessment Workshop (57th SAW) Assessment Report. US Dept Commer. Northeast Fish Sci Cent Ref Doc. 13-14; 39 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026

NEFSC. 2013b. 57th Northeast Regional Stock Assessment Workshop (57th SAW) Assessment Report. US Dept Commer. Northeast Fish Sci Cent Ref Doc. 13-16; 967 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026

National Oceanic and Atmospheric Administration (NOAA). 2012. 2011 Biennial Report to Congress on the Progress and Findings of Studies on Striped Bass Populations. Washington (DC): US Department of Congress, NOAA National Marine Fisheries Service. 38 p.

X. Figures

Figure 1. Striped Bass spawning stock biomass (SSB) estimates from 1982-2012, and biological reference points. Source: Update of the Striped Bass Stock Assessment (ASMFC 2013).

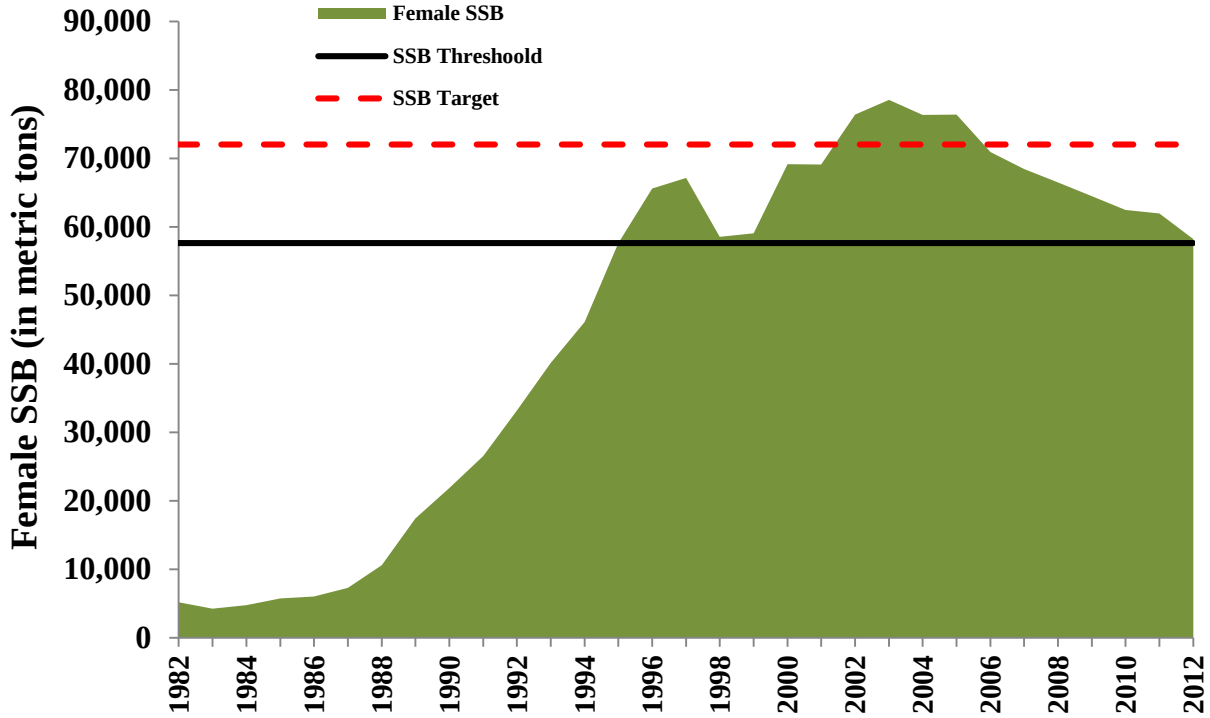


Figure 2. Striped Bass abundance and recruitment estimates from 1982-2012. Source: Update of the Striped Bass Stock Assessment (ASMFC 2013).

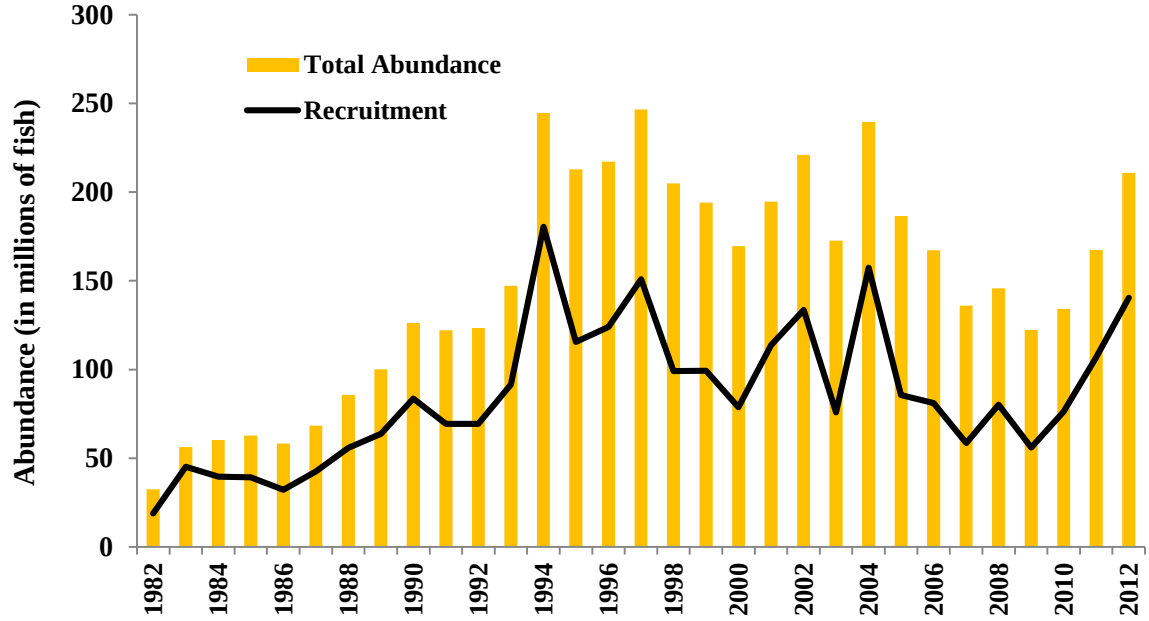


Figure 3. Striped Bass fishing mortality (F) estimates from 1982-2012 from the statistical-catch-at-age (SCA) model and biological reference points. Source: Update of the Striped Bass Stock Assessment (ASMFC 2013).

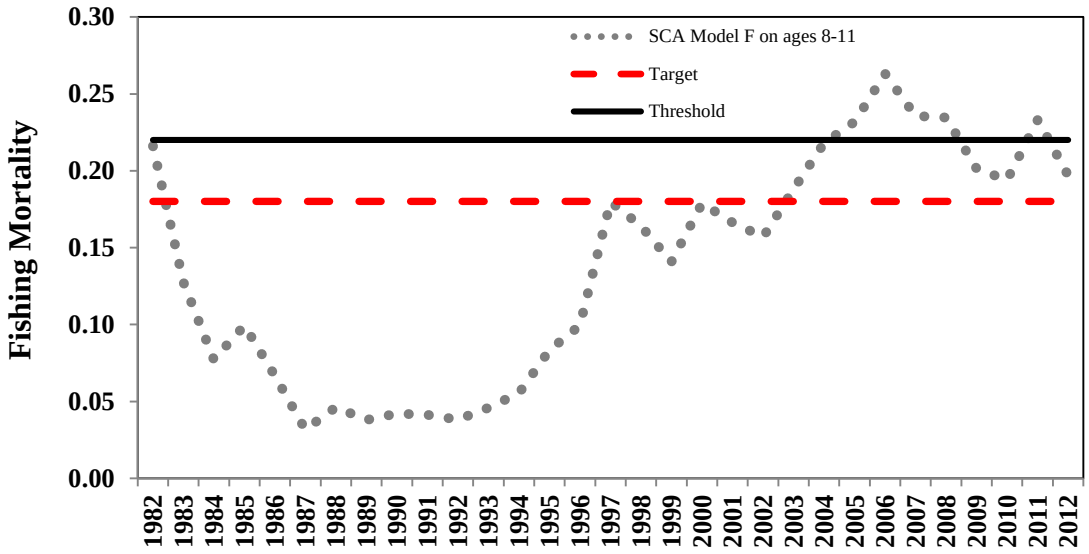


Figure 4. Coastwide catch in millions of fish by sector from 1982-2014.

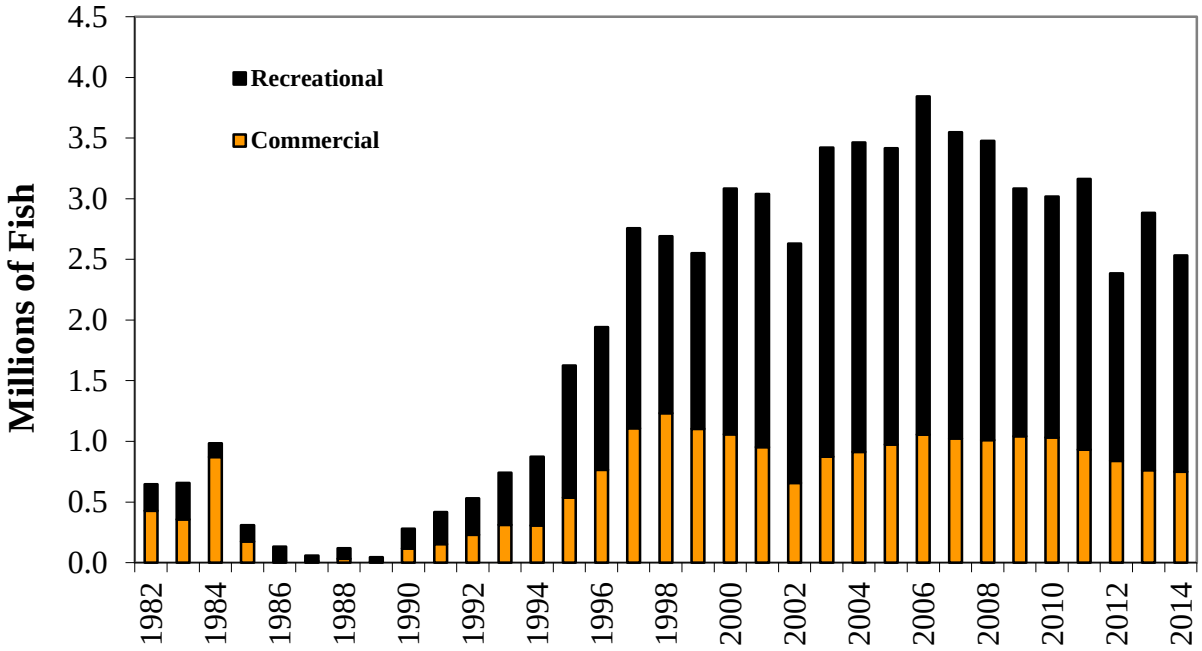


Figure 5. Albemarle/Roanoke Striped Bass female spawning stock biomass and recruitment (abundance of age-1). Source: Stock Status of Albemarle Sound-Roanoke River Striped Bass, 2014.

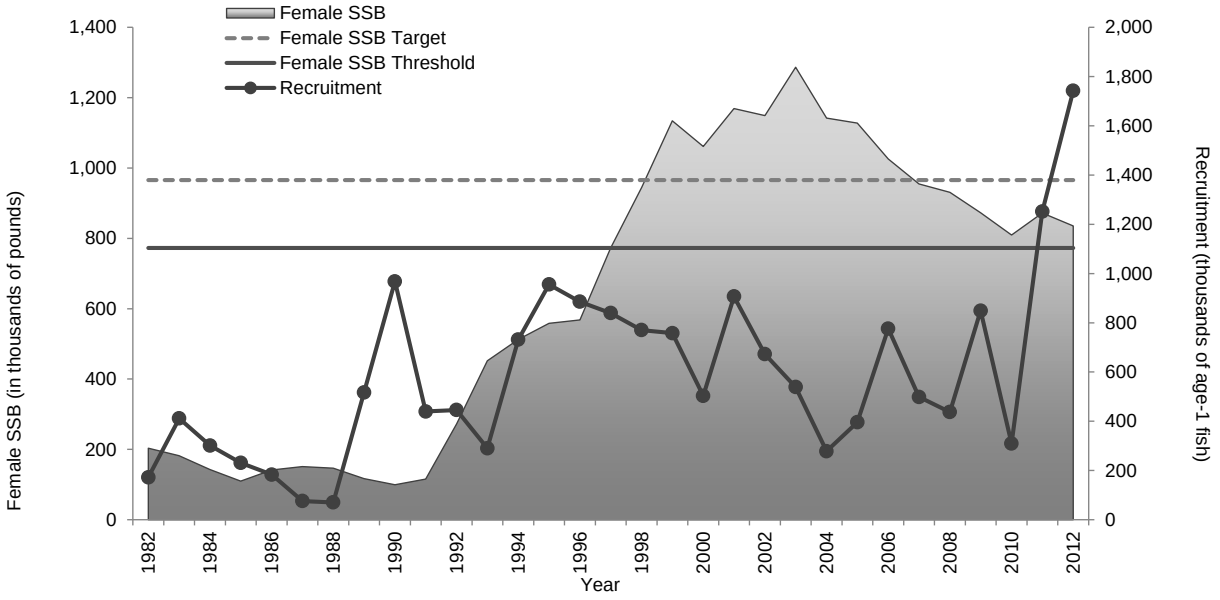


Figure 6. Albemarle/Roanoke Striped Bass total stock abundance and fishing mortality. Source: Stock Status of Albemarle Sound-Roanoke River Striped Bass, 2014.

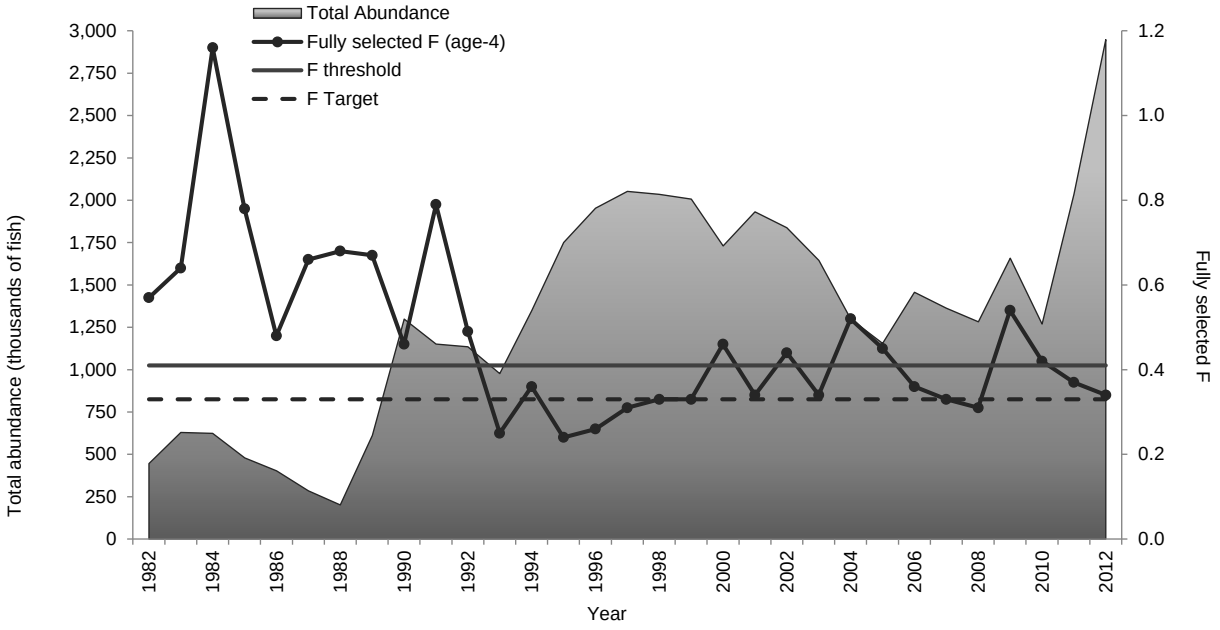


Figure 7. Commercial landings, in numbers, of migratory Striped Bass, by state, 1990–2014.
Note: All harvests are based on the calendar year. MD and VA harvests include Chesapeake Bay harvest. NC is Atlantic Ocean only. ME, NH, DC, and PA do not have a commercial fishery and do not use their commercial quota. NC and NJ do not have a commercial fishery; commercial quota used for a small-scale Striped Bass Bonus Program equating to ~0.08% of commercial landings (not included in figure). Source: Annual State Compliance Reports.

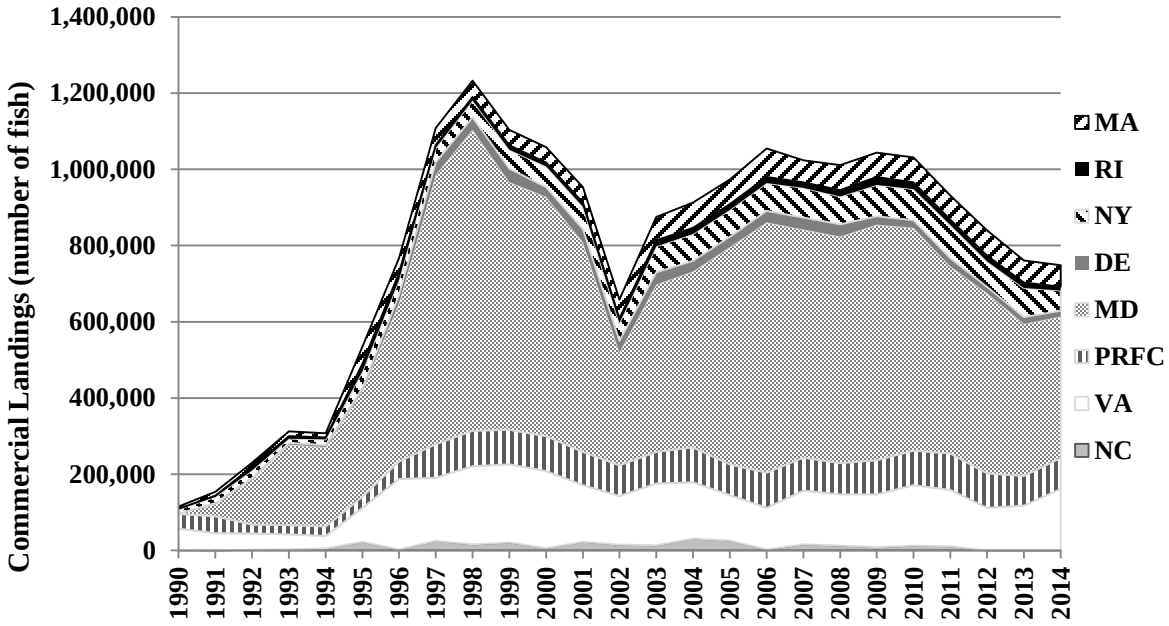


Figure 8. Commercial landings, in pounds, of migratory Striped Bass, by state, 1990 – 2014.
Note: All harvests are based on the calendar year. MD and VA harvests include Chesapeake Bay harvest. NC is Atlantic Ocean only. ME, NH, DC, and PA do not have a commercial fishery and do not use their commercial quota. CT and NJ do not have a commercial fishery; commercial quota used for a small-scale Striped Bass Bonus Program equating to ~0.08% of commercial landings (not included in figure). Source: Annual State Compliance Reports.

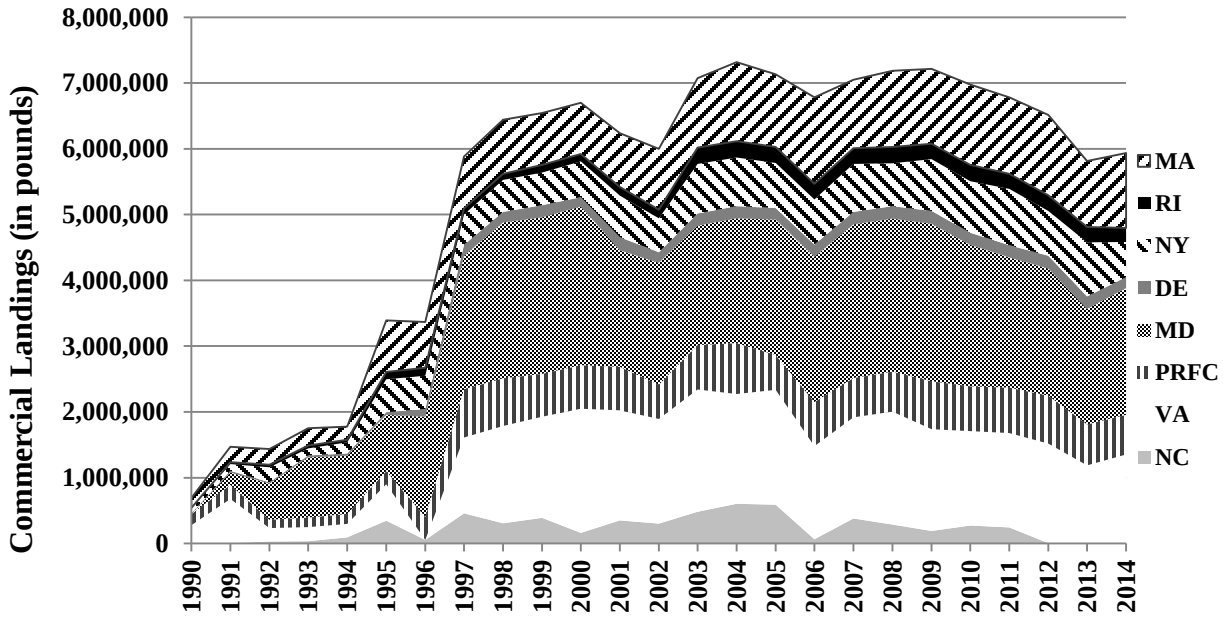


Figure 9. Recreational catch and the proportion of fish released, 1982-2014
Source: Marine Recreational Information Program (MRIP) queried June 26, 2015.

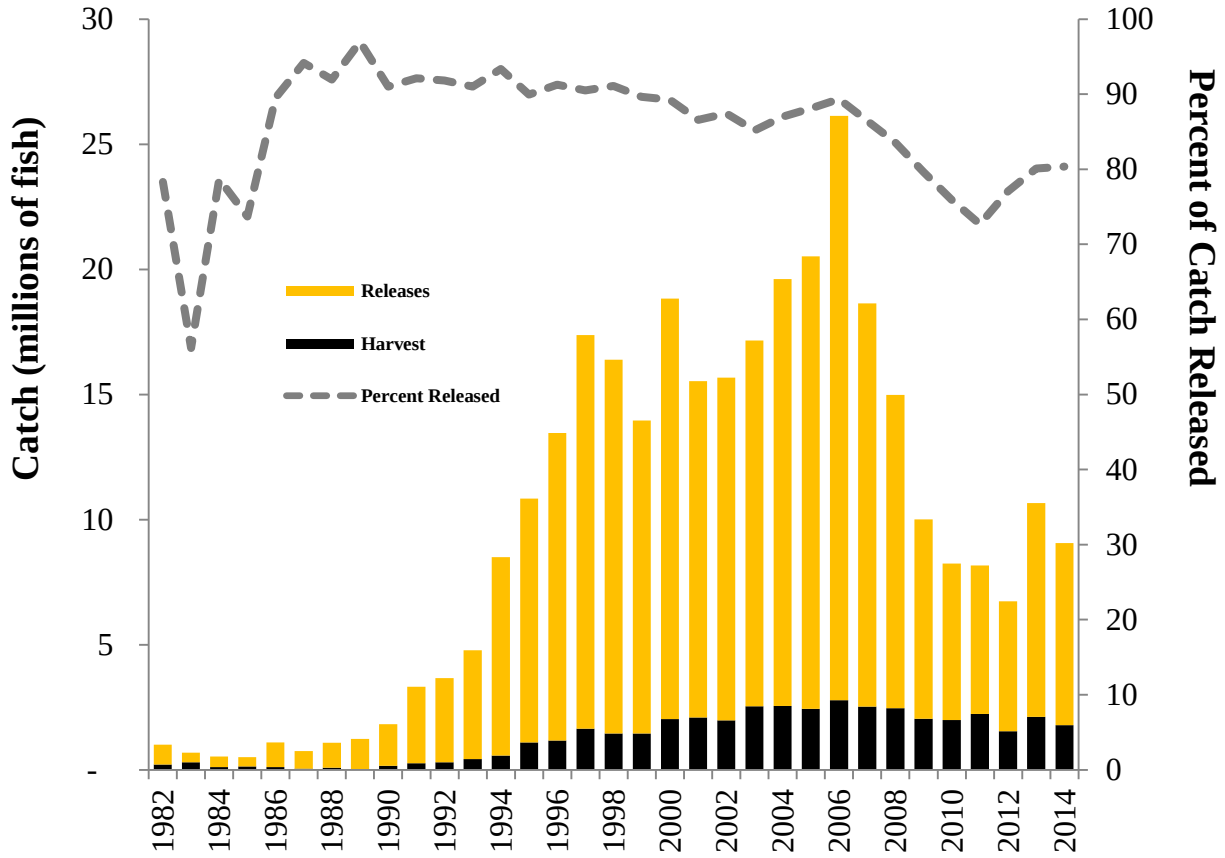
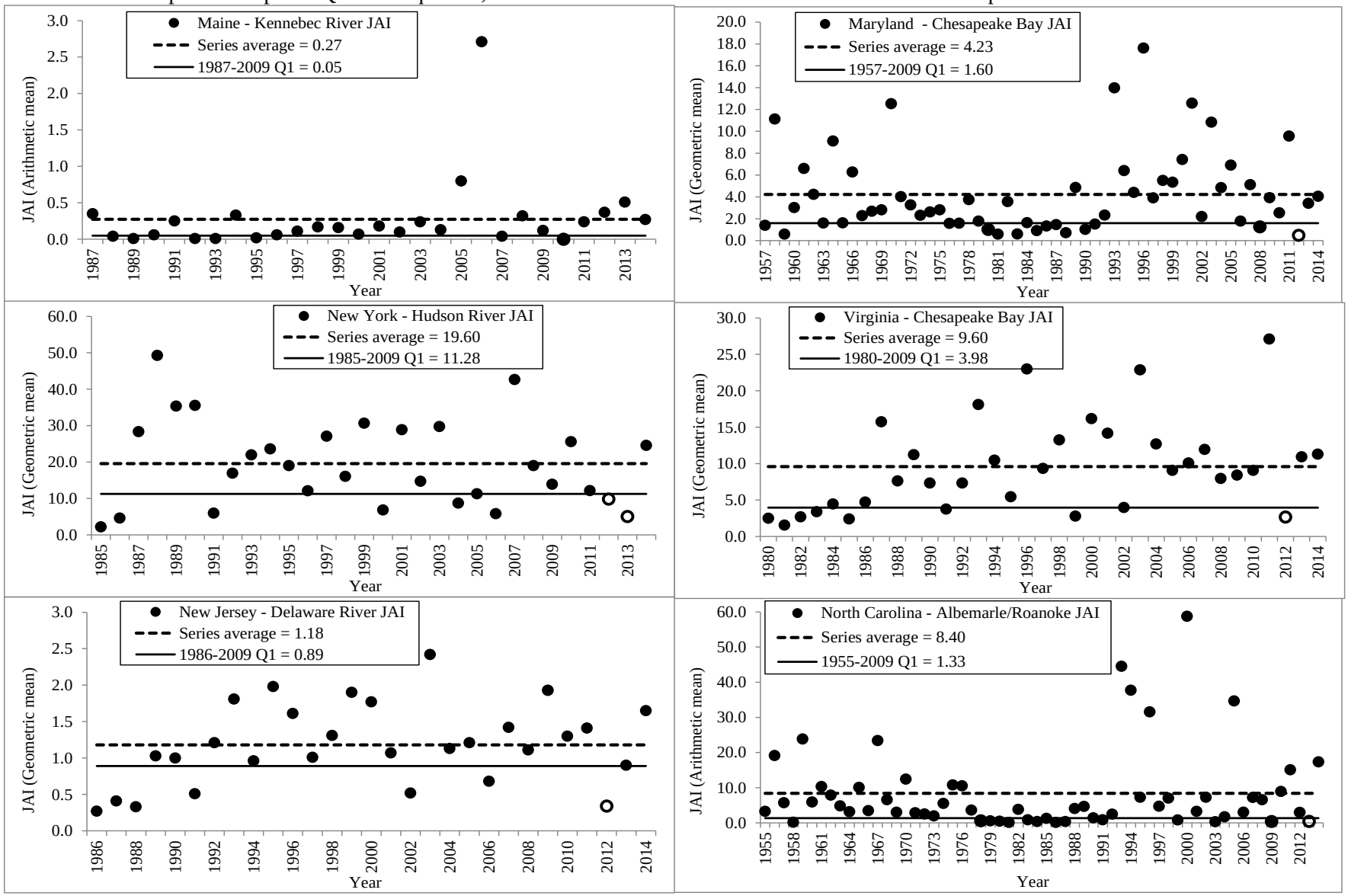


Figure 10. Juvenile abundance indices from Maine, New York, Jew Jersey, Maryland, Virginia, and North Carolina. Source: Annual State Compliance Reports. Q1 = first quartile, which is the value that is below 75% of all values in a specified time series.



XI. Tables

Table 1. Summary of Atlantic Striped Bass <u>Commercial</u> Regulations in 2014. Source: Annual State Compliance Reports.

STATE	SIZE LIMITS	SEASONAL QUOTA	OPEN SEASON
ME	Commercial fishing prohibited		
NH	Commercial fishing prohibited		
MA	34" min.	1,500,100 lb. (minus any overage from previous year) Hook & line only	6.23 until quota reached; 15 fish/day on with com. lobster permit; 2 fish/day with rod and reel permit (Striped Bass endorsement required for both permits)
RI	Floating fish trap: 26" min. General category (mostly rod & reel): 34" min.	Total: 239,963 lb. (minus any overage from previous year) Split 39:61 between trap and general category. Gill netting prohibited.	Trap: 1.1 until quota reached; if 80% quota harvested before 8.26, a 500 lb/trap/day limit is imposed; from 8.27–12.31, 10,000 lb. quota set-aside available. General Category: 6.8-8.31 or 75% quota; 9.8-12.31 or 100% quota; 5 fish/day Sun-Thu.
CT	Commercial fishing prohibited		
NY	24–36" Ocean only (Hudson River closed to commercial harvest)	828,293 lb. (minus any overage from previous year). Pound nets, gill nets (6-8"stretched mesh), hook & line.	7.1 – 12.15 Gill nets <6 or >8", 7 fish/trip; trawls 21 fish/trip. Gill nets prohibited in Great South, South Oyster, and Hempstead Bays.
NJ	Commercial fishing prohibited		
PA	Commercial fishing prohibited		
DE	20" minimum except 28" spring gillnet in DE Bay/River & Nanticoke River (5.5" max mesh & 0.28mm max twine)	193,447 lb. (minus any overage from previous year)	Gillnet: 2.15-5.31 (3.1-31 for Nanticoke) & 11.15-12.31; drift nets only 2.15-28 & 5.1-31; no fixed nets in DE River Hook and Line: 4.1–12.31 Except 4.1-5.31 closed spawning areas
MD	Bay and Rivers: 18–36" Ocean: 24" minimum	Bay and River: 1,925,421 lbs (part of Baywide quota) Gear specific quotas and landing limits Ocean: 126,396 lb. (minus any overage from previous year)	Bay Pound Net: 6.2-11.30, Mon-Sat Bay Haul Seine: 6.2-11.30, Mon-Fri Bay Hook & Line: 6.2-11.30, Mon-Thu Bay Drift Gill Net: 1.1-2.28, 12.2-12.31, Mon-Fri Ocean Drift Gill Net & Trawl: 1.1-4.30, 11.1-12.31, Mon-Fri

(Table 1 continued – Summary of commercial regulations in 2014)

STATE	SIZE LIMITS	SEASONAL QUOTA	OPEN SEASON
PRFC	18" min all year 36" max 2.15–3.25	1,317,473 lbs (part of Baywide quota)	Hook & line: 2.15-3.25, 6.1-12.31 Pound Net & Other: 2.15-3.25, 6.1-12.15 Gill Net: 1.1-3.25
DC	Commercial fishing prohibited		
VA	Bay and Rivers: 18" min, 28" max & complimentary gill net mesh size limit 3.26–6.15 Ocean: 28" minimum	Bay and Rivers: 1,402,326 lbs in 2014 (part of Baywide quota) Ocean: 184,853 lb. (minus any overage from previous year)	Bay and Rivers: 2.1-12.31 Ocean: 2.1-12.31
NC	Albemarle Sound: 18" Ocean: 28"	Albemarle Sound: 275,000 lb Ocean: 480,480 lb. (minus any overage from previous year) split 160,160 lbs each to beach seine, gill net & trawl	Albemarle Sound: 1.1-4.30, 10.1-12.31; daily trip limit ranging from 5 to 15 fish; Striped Bass cannot exceed 50% by weight of total finfish harvest; season and daily trip limits set by proclamation. Ocean: gear requirements; open days and trip limits for beach seine, gill net, and trawl set via proclamation

Table 2. Summary of Atlantic Striped Bass <u>Recreational</u> Regulations in 2014. Source: Annual State Compliance Reports.

STATE	SIZE LIMITS	BAG LIMIT	OTHER	OPEN SEASON
ME	20 – 26" OR ≥40"	1 fish	Hook & line only	All year, except spawning areas are closed 12.1 – 4.30 and catch and release only 5.1 – 6.30
NH	1 fish 28–40" & 1 fish >28"	2 fish	No netting; no gaffing; must be landed with head and tail intact; no culling	All year
MA	28" min	2 fish	Hook & line only	All year
RI	28" min	2 fish		All year
CT	28" min, except Connecticut River Bonus Program: 22-28"	2 fish, except CR Bonus: 1 fish	CR Bonus Quota: 4,025 fish	All year, except CR Bonus 5.1-6.30 (limited to I-95 bridge to MA border) Catch and release only in spawning areas 12.1-4.30
NY	Ocean Private: 1 fish 28-40" & 1 fish > 40" Ocean Charter: 28" min Hudson River: 18" min DE River: 28" min	Ocean: 2 fish Hudson R.: 1 fish DE River: 2 fish	Angling or spearing only	Ocean: 4.15 – 12.15 Hudson River: 3.16 – 11.30 Delaware River: All year
NJ	28" min	2 fish, plus 1 additional through Bonus Program	Bonus program quota: 321,750 lb. No netting. Non-offset circle hooks required 4.1-5.31 in DE River if using natural bait.	All year except 1.1-2.28 in intra-coastal waters plus 4.1-5.31 in lower DE River
PA	Non-tidal DE River: 28" min; Delaware Estuary: 28" min. except 20-26" from 4.1-5.31	2 fish		Year round
DE	28" min. except 20-26" from 7.1-8.31 in Del. River, Bay & tributaries	2 fish	Hook & line, spear (for divers) only. Circle hooks required in spawning season.	All year except 4.1-5.31 in spawning grounds (catch & release allowed)

(Table 2 continued – Summary of recreational regulations in 2014)

STATE	SIZE LIMITS	BAG LIMIT	OTHER	OPEN SEASON
MD	Susquehanna Flats (SF): 18-26” Chesapeake Bay Trophy: 28” min Chesapeake Bay Regular: 18” min with 1 fish > 28” Ocean: 28” min	SF: 1 fish Chesapeake Bay Trophy: 1 fish Chesapeake Bay Regular: 2 fish Ocean: 2 fish	SF: non-off set circle hook if baited hooks & gap>0.5” Chesapeake Bay Quota: 2,604,982 lbs (part of Baywide quota; includes Susquehanna Flats harvest, excludes trophy harvest)	SF: 5.16-5.31; catch & release only 1.1-5.3 Chesapeake Bay Trophy: 4.18-5.15 (most tributaries closed) Chesapeake Bay Regular: 5.16-12.15 (most tributaries closed until 6.1) Ocean: All year
PRFC	Trophy: 28” Regular: 18” min with 1 fish > 28”	Trophy: 1 fish Regular: 2 fish	Quota: 526,989 lbs. (part of Baywide quota; excludes trophy harvest)	Trophy: 4.18 -5.15 Regular: 5.16-12.31
DC	18” min with 1 fish > 28”	2 fish	Hook & line only	5.16-12.31
VA	Bay/Coastal Trophy: 32” min (28” Potomac tribs) CB Spring: 18-28”; 1 fish >32” CB Fall: 18–28”; 1 fish >34” Potomac Tribs: 18-28”; 1 fish >28” Ocean: 28”	Bay/Coastal Trophy: 1 fish CB Spring: 2 fish CB Fall: 2 fish Potomac Tribs: 2 fish Ocean: 2 fish	Hook & line, rod & reel, hand line only Chesapeake Bay Quota: 1,430,361lbs in 2012 (part of Baywide quota; excludes trophy harvest)	Bay Trophy: 5.1-6.15 (open 4.18 Potomac tribs) Coastal Trophy: 5.1-5.15 CB Spring: 5.16-6.15 (no fish >32” in spawning areas) CB Fall: 10.4-12.31 Potomac Tribs: 5.16-12.31 Ocean: 1.1-3.31, 5.16-12.31
NC	Roanoke River: 2 fish 18-22” OR 1 fish 18-22” and 1 fish >27” Albemarle Sound: 18” min. Ocean: 28” min	Roanoke River: 2 fish Albemarle Sound: 3 fish Ocean: 2 fish	Roanoke River quota: 137,500 lb. Albemarle Sound quota: 137,500 lb.	Roanoke River: 3.1 – 4.30 (single barbless hook required 3.1-6.30 from Roanoke Rapids dam downstream to US 258 bridge) Albemarle Sound: Spring 1.1 – 4.30; Fall 10.1-12.31 Ocean: All year

Table 3. Commercial harvest (pounds) of migratory Striped Bass by state, 1990-2014.
Source: Annual State Compliance Reports. Note: All harvests based on the calendar year. MD and VA harvests include Chesapeake Bay. NC is Atlantic Ocean only. Commercial harvest and sale prohibited ME, NH, CT, and NJ.

Year	ME	NH	MA	RI	CT	NY	NJ	DE	MD	PRFC	VA	NC	Total
1990		37	148,000	4,000		81,870		6,509	2,887	169,060	267,735	9,797	689,895
1991			235,000	28,000		105,163		21,079	191,066	216,755	668,454	6,186	1,471,703
1992			239,200	39,000		226,611		17,795	552,451	127,398	204,338	27,702	1,434,495
1993			262,600	40,000		109,362		28,032	916,764	142,742	213,665	36,463	1,749,628
1994			199,600	39,810		171,279		33,897	884,970	149,891	204,124	92,605	1,776,176
1995			782,000	113,461		500,784		38,198	856,568	198,478	557,741	343,707	3,390,937
1996			696,815	122,562		504,350		117,560	1,523,293	346,834		55,771	3,367,185
1997			785,942	96,519		460,762		165,978	2,030,061	731,114	1,153,743	458,524	5,882,643
1998			822,000	94,663		484,900		163,169	2,368,393	726,179	1,476,502	308,068	6,443,874
1999		33	788,171	119,679		491,790		187,096	2,377,393	653,266	1,538,220	389,454	6,545,102
2000			779,736	111,812		542,659		140,634	2,411,554	666,001	1,883,856	162,736	6,698,988
2001			815,054	129,654		633,095		198,802	1,774,758	658,676	1,675,469	350,280	6,235,788
2002			924,870	129,172		518,573		160,560	1,852,634	521,048	1,592,910	299,508	5,999,275
2003			1,055,439	246,312		753,261		188,419	1,813,727	676,574	1,856,831	482,123	7,072,686
2004		203	1,206,305	245,204		741,668		181,974	1,899,539	772,333	1,668,307	604,824	7,320,357
2005			1,104,737	242,303		689,821		173,815	2,055,558	533,456	1,746,247	588,601	7,134,538
2006			1,312,168	238,797		688,446		185,987	2,207,350	673,508	1,413,914	63,458	6,783,628
2007			1,040,328	240,627		729,743		188,668	2,336,886	599,261	1,534,799	380,380	7,050,692
2008			1,160,122	245,988		653,100		188,719	2,326,023	611,789	1,714,564	288,410	7,188,715
2009			1,138,291	234,368		789,891		192,311	2,394,620	727,197	1,549,145	189,995	7,215,818
2010			1,224,356	249,520		782,402		185,410	2,150,577	680,496	1,434,219	272,632	6,979,612
2011			1,163,865	228,163		854,731		188,620	1,976,473	694,151	1,434,636	242,600	6,783,239
2012			1,219,665	239,913		681,399		194,324	1,928,982	733,789	1,509,940	6,226	6,514,238
2013			1,004,459	231,280		823,801		191,424	1,755,712	623,792	1,185,736	0	5,816,204
2014			1,138,507	217,037		531,456		167,902	1,926,612	603,068	1,353,080	0	5,937,662

Table 4. Commercial harvest (numbers) of migratory Striped Bass by state, 1990-2014, and annual dead discard estimates.
Source: Annual State Compliance Reports. Note: All harvests based on the calendar year. MD and VA harvests include Chesapeake Bay. NC is Atlantic Ocean only. Commercial harvest and sale prohibited ME, NH, CT, and NJ.

Year	ME	NH	MA*	RI	CT	NY	NJ	DE	MD	PRFC	VA	NC	Total	*Dead Discards*
1990			5,927	784		11,784		698	534	38,884	56,222	803	115,636	*510,011*
1991			9,901	3,596		15,426		3,091	31,880	44,521	44,970	413	153,798	*327,167*
1992			11,532	9,095		20,150		2,703	119,286	23,291	42,912	1,745	230,714	*186,601*
1993			13,099	6,294		11,181		4,273	211,089	24,451	39,059	3,414	312,860	*347,839*
1994			11,066	4,512		15,212		4,886	208,914	25,196	32,382	5,275	307,443	*359,518*
1995			44,965	19,722		43,704		5,565	280,051	29,308	88,274	23,325	534,914	*515,454*
1996			38,354	18,570		39,707		20,660	415,272	46,309	184,495	3,151	766,518	*394,824*
1997			44,841	7,061		37,852		33,223	706,847	87,643	165,583	25,562	1,108,612	*216,745*
1998			43,315	8,835		45,149		31,386	790,154	93,299	204,911	16,040	1,233,089	*326,032*
1999			40,838	11,559		49,795		34,841	650,022	90,575	205,143	21,040	1,103,812	*236,619*
2000			40,256	9,418		54,894		25,188	627,777	91,471	202,227	6,480	1,057,712	*666,997*
2001			40,248	10,917		58,296		34,373	549,896	87,809	148,346	22,936	952,820	*310,900*
2002			48,926	11,653		47,142		30,440	296,635	80,300	127,211	15,784	658,091	*168,201*
2003			61,262	15,497		68,354		31,531	439,482	83,091	161,777	13,823	874,817	*261,974*
2004			66,556	15,867		70,367		28,406	461,064	91,888	147,998	31,014	913,160	*465,642*
2005			65,332	14,949		70,560		26,336	569,964	80,615	119,244	26,573	973,572	*798,544*
2006			75,062	15,429		73,528		30,212	655,951	92,288	109,396	2,799	1,054,664	*194,524*
2007			57,634	13,934		78,287		31,090	598,495	86,695	140,602	16,621	1,023,358	*606,599*
2008			65,330	16,616		73,263		31,866	594,655	81,720	134,603	12,903	1,010,955	*308,715*
2009			63,875	20,725		82,574		21,590	618,076	89,693	138,303	8,675	1,043,512	*611,944*
2010			65,277	17,256		81,896		19,830	584,554	90,258	159,197	12,670	1,030,938	*254,841*
2011			63,309	14,344		87,349		20,517	490,969	96,126	148,063	10,814	931,490	*617,457*
2012			66,394	14,953		66,897		15,738	472,517	90,616	111,891	323	839,329	*792,861*
2013			62,570	13,825		76,206		17,679	399,118	78,006	117,697	0	765,101	*525,581*
2014			60,619	10,468		52,903		14,894	370,661	81,429	175,324	0	766,298	*931,319*

* includes fish taken for personal consumption

Table 5. Recreational harvest (pounds) of migratory Striped Bass by state, 1990-2014

Source: MRIP queried June 26, 2015. Note: All harvests based on the calendar year. Estimates are for March to December, except for North Carolina. Maryland and Virginia harvests include Chesapeake Bay. North Carolina is Atlantic Ocean only.

Year	ME	NH	MA	RI	CT	NY	NJ	DE	MD	VA	NC	Total
1990	60,483	11,363	319,092	73,349	193,011	505,440	588,974	18,115	12,967	443,751	-	2,226,545
1991	58,177	6,731	440,605	496,723	125,309	1,053,589	643,571	25,501	456,954	333,743	3,091	3,643,994
1992	107,693	44,612	972,116	203,109	196,278	921,201	746,343	25,677	613,174	187,852	8,602	4,026,657
1993	11,953	28,115	1,113,446	292,428	400,067	1,575,938	874,296	52,540	794,853	505,742	1,701	5,651,079
1994	66,451	66,017	1,686,049	109,817	355,829	1,974,759	438,080	63,832	1,096,409	870,140	50,503	6,777,886
1995	45,933	67,992	1,504,390	436,058	671,647	3,296,025	3,141,222	175,347	2,057,450	955,822	73,663	12,425,549
1996	44,802	102,271	1,291,706	950,973	915,418	4,809,381	1,736,508	281,481	1,560,389	1,340,414	89,989	13,123,332
1997	185,178	206,904	2,891,970	927,919	920,465	4,449,564	821,784	232,186	1,962,947	2,813,471	301,683	15,714,071
1998	178,584	114,342	2,973,456	671,841	989,923	2,318,291	1,333,329	236,926	1,908,344	1,581,560	150,626	12,457,222
1999	98,623	84,255	1,822,818	886,666	824,031	3,171,344	3,342,372	100,541	1,137,940	1,741,857	268,026	13,478,473
2000	269,325	71,370	2,618,216	1,160,304	515,962	4,050,569	4,286,040	346,905	2,100,854	2,005,721	72,946	17,498,212
2001	290,233	223,072	3,644,561	1,138,974	628,044	2,996,805	5,341,867	382,498	2,072,943	2,140,713	284,449	19,144,159
2002	383,270	152,342	4,304,883	1,192,295	600,482	2,813,596	4,133,678	299,561	1,423,515	2,648,115	267,406	18,219,143
2003	253,910	281,549	5,120,554	1,502,455	1,537,899	4,687,685	4,545,515	303,909	2,975,437	2,789,745	772,981	24,771,639
2004	226,200	98,995	6,112,746	1,386,138	1,617,561	3,727,105	5,548,167	330,623	2,347,752	2,956,310	4,833,112	29,184,709
2005	381,058	281,114	5,097,821	1,732,581	2,173,638	5,537,432	5,958,454	286,777	4,612,417	1,996,840	2,164,859	30,222,991
2006	323,355	179,181	4,832,355	999,300	2,030,878	6,028,409	7,067,533	260,134	3,868,944	3,694,529	1,759,796	31,044,414
2007	232,328	68,142	5,136,580	1,584,354	1,468,499	7,913,817	3,718,451	99,800	3,504,041	2,392,258	876,707	26,994,977
2008	271,768	73,807	5,763,763	751,507	1,868,335	10,925,408	4,696,090	333,149	2,728,048	2,657,976	525,891	30,595,742
2009	329,064	113,705	4,786,895	1,123,434	835,970	5,004,604	4,238,319	275,410	4,278,145	1,791,058	160,922	22,937,526
2010	104,117	67,409	4,270,401	1,096,369	1,259,008	6,997,089	5,382,743	251,853	2,630,802	481,147	453,844	22,994,782
2011	91,705	370,798	3,504,522	1,257,302	758,623	8,969,762	6,197,026	241,149	2,640,309	1,160,914	2,042,981	27,235,091
2012	57,509	163,804	5,489,928	851,460	815,545	6,540,024	2,376,866	360,106	1,260,490	1,353,351	-	19,269,083
2013	102,437	233,039	4,193,416	3,043,251	2,286,969	8,624,422	4,945,069	253,062	2,203,319	526,306	-	26,411,290
2014	100,213	78,310	4,397,183	2,161,265	1,783,224	7,552,788	4,133,460	107,421	3,251,151	497,152	-	24,062,167

Table 6. Recreational harvest (numbers) of migratory Striped Bass by state, 1982- 2014

Source: MRIP queried June 26, 2015. Note: All harvests based on the calendar year. Estimates are for March to December except for North Carolina. Maryland and Virginia harvests include Chesapeake Bay. North Carolina is Atlantic Ocean only. The table includes wave 1 estimates of harvest (January-February) if MRIP estimated weight for wave 1.

Year	ME	NH	MA	RI	CT	NY	NJ	DE	MD	VA	NC	Total
1990	2,912	617	20,515	4,677	6,082	24,799	44,878	2,009	736	56,017	0	163,242
1991	3,265	274	20,799	17,193	4,907	54,502	38,300	2,741	77,873	42,224	391	262,469
1992	6,357	2,213	57,084	14,945	9,154	45,162	41,426	2,400	99,354	21,118	967	300,180
1993	612	1,540	58,511	17,826	19,253	78,560	64,935	4,055	104,682	78,481	264	428,719
1994	3,771	3,023	74,538	5,915	16,929	87,225	34,877	4,140	199,378	127,945	7,426	565,167
1995	2,189	3,902	73,806	29,997	38,261	155,821	254,055	15,361	355,237	149,103	11,450	1,089,182
1996	1,893	6,461	68,300	60,074	62,840	225,428	127,952	22,867	337,415	244,746	17,136	1,175,112
1997	35,259	13,546	199,373	62,162	64,639	236,902	67,800	19,706	334,068	518,483	96,189	1,648,127
1998	38,094	5,929	207,952	44,890	64,215	166,868	88,973	18,758	391,824	383,786	45,773	1,457,062
1999	21,102	4,641	126,755	56,320	55,805	195,261	237,010	8,772	263,191	411,873	65,658	1,446,388
2000	62,186	4,262	181,295	95,496	53,191	270,798	402,302	39,543	506,462	389,126	20,452	2,025,113
2001	59,947	15,291	288,032	80,125	54,165	189,714	560,208	41,195	382,557	355,020	58,873	2,085,127
2002	71,907	12,857	308,749	78,190	51,060	202,075	416,455	29,149	282,429	411,248	109,052	1,973,171
2003	57,765	24,878	407,100	115,471	95,983	313,761	391,842	29,522	525,191	455,812	127,727	2,545,052
2004	48,816	8,386	445,745	83,990	102,844	263,096	424,208	25,429	368,682	548,768	230,783	2,550,747
2005	83,617	24,940	340,743	110,490	141,290	376,894	411,532	20,438	533,929	293,161	104,904	2,441,938
2006	75,347	13,521	314,987	75,811	115,214	367,835	509,606	20,159	669,140	547,482	79,023	2,788,125
2007	53,694	6,348	315,409	101,400	118,549	474,062	289,656	8,465	765,169	353,372	37,376	2,523,500
2008	59,152	5,308	377,959	51,191	108,166	685,589	309,411	26,934	415,403	401,155	25,750	2,466,018
2009	62,153	8,587	344,401	71,427	60,876	356,311	283,024	19,539	501,845	326,867	5,650	2,040,680
2010	17,396	5,948	341,045	70,108	92,806	538,374	320,413	16,244	457,898	102,405	23,778	1,986,415
2011	18,105	32,704	255,507	88,635	63,288	674,844	393,194	18,023	445,171	146,603	94,182	2,230,256
2012	11,624	14,498	377,931	61,537	64,573	424,522	168,629	25,399	262,143	134,758	0	1,545,614
2013	23,143	17,657	298,945	218,236	143,373	490,855	345,008	19,520	477,295	118,686	0	2,152,718
2014	20,750	6,415	277,138	103,516	86,763	409,342	225,910	8,774	583,028	67,486	0	1,789,122

Table 7. Recreational releases (numbers) of migratory Striped Bass by state, 1982-2014, and annual dead discard estimates
Source: MRIP queried June 26, 2015. Note: All harvests based on the calendar year. MD and VA harvests include Chesapeake Bay. NC is Atlantic Ocean only.

Year	ME	NH	MA	RI	CT	NY	NJ	DE	MD	VA	NC	Total	*Dead Discards^*
1990	12,542	15,518	339,511	67,509	89,490	265,099	254,384	14,411	420,084	175,046	0	1,653,594	*148,823*
1991	67,490	6,559	448,735	30,975	301,476	756,663	166,198	38,334	1,036,011	208,350	256	3,061,047	*275,494*
1992	31,177	27,613	779,814	120,410	292,259	799,149	413,506	36,932	749,959	115,899	679	3,367,397	*303,066*
1993	373,064	14,979	833,566	100,993	271,318	694,107	308,253	89,543	1,556,848	100,374	1,524	4,344,569	*391,011*
1994	363,703	43,501	2,102,514	138,989	489,967	1,132,707	568,047	103,992	2,785,392	197,022	5,005	7,930,839	*713,776*
1995	505,758	285,486	3,280,882	356,324	507,124	1,209,585	694,889	115,363	2,401,277	370,949	16,225	9,743,862	*876,948*
1996	1,626,705	292,820	3,269,746	314,336	1,051,612	1,436,091	776,165	99,372	2,545,238	759,916	116,667	12,288,668	*1,105,980*
1997	1,417,976	279,298	5,417,751	606,746	722,708	1,018,892	736,734	130,073	4,019,987	1,232,323	135,853	15,718,341	*1,414,651*
1998	691,378	243,301	7,184,358	613,421	1,026,192	884,626	488,319	185,016	2,641,680	796,372	173,704	14,928,367	*1,343,553*
1999	649,816	145,730	4,576,208	360,121	704,025	1,228,628	1,152,682	105,696	2,387,615	940,755	263,445	12,514,721	*1,126,325*
2000	942,593	209,606	7,382,031	541,516	926,367	1,373,069	885,289	151,838	3,244,731	1,022,040	129,729	16,808,809	*1,512,793*
2001	870,522	164,336	5,410,899	377,474	1,107,707	824,278	965,650	162,677	2,890,054	620,947	49,953	13,444,497	*1,210,005*
2002	1,392,200	238,003	5,718,984	530,402	696,976	588,155	715,099	114,650	2,928,589	706,729	63,269	13,693,056	*1,232,375*
2003	846,708	260,167	4,361,710	448,707	843,037	1,083,808	925,885	169,012	4,652,800	970,554	48,945	14,611,333	*1,315,020*
2004	693,400	225,777	4,979,075	525,936	826,724	2,709,246	1,502,694	155,655	3,479,634	1,732,890	222,302	17,053,333	*1,534,800*
2005	2,985,203	572,633	3,988,679	633,871	1,761,628	1,412,191	1,218,893	251,049	3,855,552	1,295,768	103,432	18,078,899	*1,627,101*
2006	4,000,309	460,615	7,809,777	834,953	986,700	1,722,386	1,890,294	247,653	3,711,343	1,655,007	24,262	23,343,299	*2,100,897*
2007	1,115,068	257,372	5,331,470	677,851	984,638	1,677,717	1,789,294	248,689	3,064,928	949,158	13,838	16,110,023	*1,449,902*
2008	465,003	77,237	3,649,415	416,373	3,104,779	1,346,385	1,309,453	260,677	1,338,728	532,161	10,776	12,510,987	*1,125,989*
2009	263,512	57,443	2,282,601	398,686	1,161,278	1,073,467	800,510	145,586	1,423,332	358,991	5,407	7,970,813	*717,373*
2010	193,743	51,833	1,671,437	183,112	670,534	1,068,672	690,340	65,048	1,508,647	134,350	20,365	6,258,081	*563,227*
2011	142,505	98,693	973,192	214,302	612,367	1,506,080	884,013	110,085	1,127,511	153,582	110,150	5,932,480	*533,923*
2012	214,185	64,226	989,509	247,075	264,927	586,044	406,096	109,960	2,206,518	101,736	1,615	5,191,891	*467,270*
2013	422,598	84,015	1,691,026	826,280	778,250	989,783	1,107,218	83,494	2,387,277	168,989	1,057	8,539,987	*768,599*
2014	277,209	78,612	1,826,412	163,239	303,836	726,137	1,051,323	185,166	2,415,192	254,795	626	7,282,547	*655,429*

^ Dead discards are estimated by multiplying the number of released fish by a mortality rate of 9%.

Table 8. Coastal commercial quotas and harvests (in pounds). MA was the only state with overages in 2013 applied to the 2014 quota. All values in pounds.

State	Amendment 6 Quota	2014 Quota	2014 Harvest	Overage	2015 Quota (Addendum IV)
Maine*	250*	-	-	-	188
New Hampshire*	5,750*	-	-	-	4,313
Massachusetts	1,159,750	1,153,159	1,138,507	-	869,813
Rhode Island †[0]	243,625†	239,963	217,037	-	181,572
Connecticut**	23,750**	23,750	803	-	17,813
New York †	1,061,060†	828,293	531,456	-	795,795
New Jersey**	321,750**	321,750	3,653	-	241,313
Delaware	193,447	193,447	14,894	-	145,085
Maryland †[0]	131,560†	126,396	120,923	-	90,727
Virginia	184,853	184,853	183,668	-	138,640
North Carolina ~	480,480	480,480	-	-	360,360

* Commercial harvest/sale prohibited, with no re-allocation of quota.

** Commercial harvest/sale prohibited, with re-allocation of quota to the recreational fishery.

† Beginning in 2003, NY (892,293 lbs) and MD (126,396 lbs) quotas reduced due to conservation equivalency; Beginning in 2007, RI (239,963 lbs) quota reduced due to conservation equivalency.

[0] Addendum IV quota reduced through conservation equivalency for MD (90,727 lbs) and RI (181,572 lbs)

~ NC harvests and quotas are for the December 1 to November 30 fishing year.

Table 9. Chesapeake Bay Quotas and Harvests (pounds), 2014

2014	Jurisdiction	Quota	Harvest
Commercial Fisheries	Maryland	1,925,421	1,805,698
	Virginia	1,402,326	1,169,412
	PRFC	790,484	603,068
	Subtotal	4,118,231	3,578,178
Recreational Fisheries	Maryland	2,604,982	3,228,369
	Virginia	1,402,325	497,152
	PRFC	526,989	*
	Subtotal	4,534,296	3,725,521
Chesapeake Bay Total		8,652,527	7,303,699

Note: Recreational harvest in the Potomac River is included in Maryland and Virginia harvest estimates. Estimates of recreational harvest in Maryland do not include migratory fish harvested in the spring season. These fish are not counted against Maryland's portion of the Chesapeake Bay recreational quota. The 2014 migratory harvest is estimated at 38,921 fish. The PRFC recreational quota includes the charter boat quota of 65,874 pounds.

Table 10. Status of commercial Tagging Programs by state for 2013 and 2014. Quotas are presented in pounds.

State	MA^	RI	NY	DE	MD	PRFC	VA	NC
2013 Quota	997,869	239,693	828,293	192,570	1,773,138	635,623	1,414,963	480,480
Number of Tags Issued	N/A	19,184	87,330	24,000	860,340	83,063	212,100	0
Number of Participants	NA	34 dealers	465	231	1185	258	472	0
2014 Quota	1,153,159	239,963	828,293	193,447	2,051,817	724,610	1,587,179	480,480
Number of Tags Issued	92,460	12,611	81,024	24,075	653,560	79,290	239,600	0
Number of Participants	125 dealers	29 dealers	459	236	1089	253	465	0
Biological metric[0]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Limited Entry	No	Yes	Yes	Yes	Yes	Yes	Yes	No
Point of Tag	Sale	Sale	Harvest	Harvest and Sale	Harvest	Harvest	Harvest	Sale
Accounting of all tags?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tag Color Changes Annually?	Yes	Yes	No	Yes	Yes	Yes	Yes	No
# of Tag Colors	1	2	1	2	3*	7	2	3
Tag Color By (gear, season, area)	N/A	Gear	N/A	Fishermen/ Dealer	Fishery (ITQ/Common Pool) and Area	Gear	Area	Area
Year, state and unique ID on Tag	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Size Limit on Tag	Yes	No	No	No	No	No	Yes	No

^ MA was granted an extension through Addendum III and mandated to implement a commercial tagging program prior to start of 2014 fishing year.
* MD changed tag color scheme in 2014 from five to three which reflects commercial fishery transition to an ITQ system between 2013 and 2014 fishing seasons.
[0] Sates are required to allocate commercial tags to permit holders based on a biological metric. Most states used the average weight per fish from the previous year, or some variation thereof. Actual biological metric used is to be included in State Annual Commercial Tag Reports.

Table 11. Status of compliance with monitoring and reporting requirements, 2014
(JAI = juvenile abundance index survey, SSB = spawning stock biomass survey, tag = participation in coastwide tagging program, Y = compliance standards met, N = compliance standards not met, na = not applicable)

Jurisdiction	Fishery-independent monitoring		Fishery-dependent monitoring		Annual reporting
	Requirement(s)	Status	Requirement(s)	Status	Status
ME	JAI	Y	x	na	Y
NH	x	na	x	na	Y
MA	tag	Y	composition, catch & effort (C&R), tag program	Y	Y
RI	x	na	composition (C&R), catch & effort (R), tag program	Y	Y
CT	x	na	composition, catch & effort (R)	Y	Y
NY	JAI, SSB, tag	Y	composition, catch & effort (C&R), tag program	Y	Y
NJ	JAI, tag	Y	composition, catch & effort (R)	Y	Y
PA	SSB	Y	x	na	Y
DE	SSB, tag	Y	composition, catch & effort (C), tag program	Y	Y
MD	JAI, SSB, tag	Y	composition, catch & effort (C&R), tag program	Y	Y
PRFC	x	na	composition, catch & effort (C&R), tag program	Y	Y
DC	x	na	x	na	Y
VA	JAI, SSB, tag	Y	composition, catch & effort (C&R), tag program	Y	Y
NC	JAI, SSB, tag	Y	composition (C), tag program	Y	Y