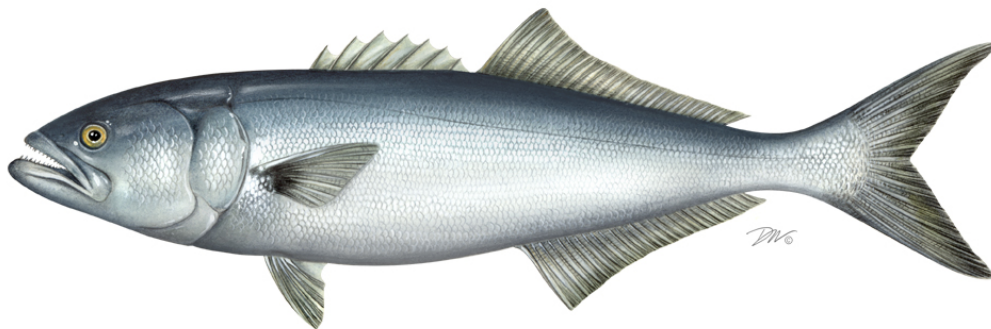


**2018 REVIEW OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
FISHERY MANAGEMENT PLAN FOR**

**BLUEFISH
(*Pomatomus saltatrix*)**

2017 FISHING YEAR



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Executive Summary

Bluefish from Maine through Florida are jointly managed by the Mid-Atlantic Fishery Management Council and the Atlantic States Marine Fisheries Commission under Amendment 1 and Addendum I to the interstate Fishery Management Plan.

A benchmark stock assessment was peer reviewed by the 60th Stock Assessment Review Committee in June 2015. The benchmark assessment was approved by the Management Board and Council for management use. The benchmark assessment concluded that the U.S. bluefish population is not overfished and overfishing is not occurring relative to the new biological reference points defined in the assessment. An assessment data update is scheduled for 2018 and an operational assessment may be completed in 2019.

2017 recreational bluefish harvest was estimated at 3.01 million fish weighing 9.52 million pounds. Recreational dead discards were estimated at 788,080 million fish. 2017 commercial bluefish landings were estimated at 4.13 million pounds. Each sector harvested under its respective harvest limit and quota. Rhode Island requested and received three commercial transfers in 2017.

In 2017, all states implemented management programs consistent with the intent of Amendment 1 and Addendum I to the ISFMP. Maine, South Carolina and Georgia requested *de minimis* status for 2018. Maine, South Carolina, and Georgia all qualify for *de minimis* status because their commercial landings in 2017 were less than 0.1% of the coastwide commercial landings estimate.

Table of Contents

Table of Contents iii

I. Status of the Fishery Management Plan 1

II. Status of the Stock..... 2

III. Status of the Fishery 3

V. Status of Research and Monitoring..... 4

VI. Status of Management Measures and Issues..... 5

VII. Current State-by-State Implementation of FMP Compliance Requirements 5

VIII. Prioritized Research Needs..... 6

IX. Plan Review Team Comments and Recommendations 7

X. References 7

XI. Tables 9

XII. Figures..... 15

2017 REVIEW OF THE ASMFC FISHERY MANAGEMENT PLAN FOR BLUEFISH (*Pomatomus saltatrix*)

I. Status of the Fishery Management Plan

<u>Date of FMP Approval:</u>	1989
<u>Amendments:</u>	Amendment 1 (1998); Addendum I (2012)
<u>Management Unit:</u>	Migratory stocks of bluefish in U.S. state and federal waters of the western North Atlantic
<u>States with Declared Interest:</u>	Maine through Florida, excluding Pennsylvania and the District of Columbia
<u>Active Committees:</u>	ASMFC: Bluefish Management Board, Technical Committee, Advisory Panel, Plan Review Team, and Stock Assessment Subcommittee MAFMC: Demersal and Coastal Migratory Species Committee, Monitoring Committee, Advisory Panel, and Scientific and Statistical Committee

The Fishery Management Plan (FMP) for bluefish was adopted by the Atlantic States Marine Fisheries Commission (ASMFC or Commission) and the Mid-Atlantic Fishery Management Council (MAFMC) in October 1989. It was the first FMP developed jointly by an interstate commission and a federal fishery management council.

Bluefish is currently managed under Amendment 1 to the FMP approved in October 1998 and implemented in 2000. The goal of the Amendment is to conserve the bluefish resource along the Atlantic coast, specifically to:

1. Increase understanding of the stock and fishery
2. Provide highest availability of bluefish to U.S. fishermen while maintaining, within limits, traditional uses of bluefish
3. Provide for cooperation among the coastal states, the various regional marine fishery management councils, and federal agencies involved along the coast to enhance the management of bluefish throughout its range
4. Promote compatible management regulations between State and Federal jurisdictions
5. Prevent recruitment overfishing
6. Reduce the waste in both the commercial and recreational fisheries.

States and jurisdictions with a declared interest in the bluefish FMP include all ASMFC member states and jurisdictions, with the exception of Pennsylvania and the District of Columbia. Management issues are addressed jointly through the ASMFC Bluefish Management Board (Board) and the MAFMC Demersal and Coastal Migratory Species Committee (Council). The MAFMC's Bluefish Technical Monitoring Committee (MC) conducts annual plan monitoring,

which is reviewed jointly by the Council's and Board's Bluefish Advisory Panels (AP), and all committee recommendations are then provided to the Board and Council for review. A working group comprised of members from the Commission's Bluefish Stock Assessment Subcommittee (SAS), the Commission's Bluefish Technical Committee (TC), and the MC addresses stock assessment matters. The Board may implement changes to the FMP in state waters through the adaptive management process. The TC, Plan Review Team (PRT), Plan Development Team (PDT), and AP provide technical and industry advice to the Board throughout the adaptive management process.

In February 2012, the Board approved Addendum I to Amendment 1 to the Bluefish FMP. The Addendum establishes a coastwide biological monitoring program to improve the quantity and quality of information available for use in bluefish stock assessments. A summary of these findings from the most recent year are found in Section V.

Annual Fishery Specifications

Commercial and recreational bluefish harvests are managed via sector-specific landings limits (i.e., a coastwide commercial fishery quota and a recreational harvest limit, or RHL). The Council's Scientific and Statistical Committee (SSC) and Bluefish MC annually review the best available information and make fishery specification recommendations to the Council and Board for the subsequent fishing year. Recommendations include commercial quota, RHL, research set-aside (RSA), and other management measures such as minimum size limits and bag limits. The Council and Board meet jointly (typically in August) to consider the SSC's and MC's fishery specification recommendations and formalize commercial and recreational catch limits, and other management measures.

Annual fishery specification recommendations are typically developed as follows: final commercial quota and RHL recommendations are derived from an annual catch limit (ACL), which the FMP defines as equal to the allowable biological catch (ABC), and is in turn equal to or less than an overfishing limit (OFL). After accounting for management uncertainty, 17% of the ACL is allocated to the commercial sector and 83% to the recreational sector; these are the commercial and recreational annual catch targets (ACTs). Discard estimates are deducted from ACTs to derive commercial and recreational total allowable landings (TALs). If the recreational fishery is not projected to land its TAL (by comparison of the recreational landings estimate from the previous year), then quota may be transferred from the recreational to the commercial sector, not to exceed a commercial quota of 10.5 million pounds (the average commercial landings during the period 1990-1997). The final commercial quota is then allocated to the states of Maine through Florida based on average commercial landings during 1981-1989. The state-specific shares are detailed in Table 5.

II. Status of the Stock

The 2015 benchmark stock assessment for bluefish was peer reviewed at the 60th SAW/SARC and was approved by the Board and Council for management use. The biological reference points from SARC 41 were based on maximum sustainable yield (MSY). MSY reference points

require a reliable stock-recruitment relationship and the 2015 SAS determined that this relationship is poorly defined for bluefish. Therefore, for SAW 60, spawning potential ratio (SPR) reference points were used as a proxy for MSY reference points. $F_{40\%SPR}$ was selected at SAW 60 as the F_{MSY} proxy for the overfishing threshold. This threshold was modified by the SSC to $F_{35\%SPR}$, noting that $F_{40\%SPR}$ might be inappropriate for bluefish, a highly productive species. The biomass target (SSB_{MSY} proxy) was established by projecting the population forward until an equilibrium spawning stock biomass was reached (NEFSC 2015).

The results of the 2015 benchmark assessment indicate that bluefish are not overfished and overfishing is not occurring. Spawning stock biomass (SSB) in 2014 (Figure 1) was estimated at 191 million pounds which is below the SSB target (223 million pounds) but above the SSB threshold (112 million pounds). Although variable across the time series, recruitment (age-0 fish) has increased from 16.74 million fish in 2012 to 29.61 million fish in 2014 (Figure 1). Fishing mortality (F) in 2014 (Figure 2) was estimated to be 0.16 which is below the F threshold ($F_{35\%SPR}=0.19$). It is anticipated that an operational assessment¹ will be completed in 2019 using the recalibrated MRIP estimates for recreational metrics.

III. Status of the Fishery

From 1985-2017, recreational catch (harvest plus fish caught and released) of bluefish in U.S. waters of the Atlantic coast averaged 16.6 million fish annually (Table 1 and Figure 3)². In 2017, recreational catch was estimated at 8.7 million fish which is a 33% decrease relative to 2016. In 2017, recreational anglers harvested an estimated 3.01 million fish weighing 9.52 million pounds (4,318 metric tons), equating to 98.6% of the 2017 RHL of 9.65 million pounds (Table 1, Table 2, and Figure 4). This represents a decrease relative to 2016 harvest in terms of number of fish (30%), but only a marginal decrease by weight (0.2%), indicating that bluefish harvested recreationally in 2017 were considerably larger than those harvested in 2016. The majority of the recreational harvest (number of fish) came from New Jersey (29%), North Carolina (17%), and New York (16%). In 2017, recreational dead discards (15% of B2) were estimated at 788,080 fish (Table 1).

From 1985-1999, annual commercial landings of bluefish in U.S. waters of the Atlantic coast averaged 11.3 million pounds (5,125 metric tons). After the implementation of the Amendment 1 quota system, from 2000-2017 commercial landings of bluefish have averaged 6.3 million pounds (2,861 metric tons) annually (Table 2 and Figure 4). In 2017, commercial landings were estimated at 4.13 million pounds (1,873 metric tons), a decrease of 3.7% relative to 2016 landings and a 52% underage of the 2017 commercial quota (8.54 million pounds). The majority

¹ An operational assessment uses an existing model with limited changes, but adds new data to existing data sources. These assessments provide stock status, and involve an integrated peer review with select fishery council science committee members. This type of assessment is intermediate between an update assessment and a benchmark assessment (Source: <https://www.nefsc.noaa.gov/groundfish/operational-assessments-2017/>).

²All recreational data included in this report are derived from MRIP data released prior to the July 2, 2018 estimate recalibration based on the new Fishing Effort Survey (FES). New MRIP estimates will be incorporated into an operational assessment in 2019 for management use.

of commercial landings came from North Carolina (37%), Rhode Island (16%), New York (17%), Massachusetts (9%) and New Jersey (7%). Commercial dead discards are considered negligible.

V. Status of Research and Monitoring

Many states, the National Marine Fisheries Service (NMFS), the Northeast Area Monitoring and Assessment Program (NEAMAP), and the Southeast Area Monitoring and Assessment Program (SEAMAP) conduct fishery-independent surveys. New Hampshire, Rhode Island, Connecticut, New York, New Jersey, Maryland, Virginia, and South Carolina (SEAMAP) provide indices of juvenile bluefish abundance for stock assessment, and Connecticut, New Jersey, Virginia (NEAMAP), and North Carolina provide indices of adult abundance. Year class strength is monitored through a number of fishery-independent surveys (NEFSC 2015). Although not included in the 2015 benchmark assessment (NEFSC 2015), Massachusetts, Delaware, Georgia and Florida also maintain indices of abundance from surveys that encounter bluefish. Refer to Table 3 for status of monitoring efforts by state in 2017.

Commercial landings information is collected by most states from dealer or fisherman reporting programs, which is provided to the Atlantic Coastal Cooperative Statistics Program's (ACCSP) Standard Atlantic Fisheries Information System (SAFIS). Fishermen fishing in federal waters are required to report their landings to NMFS. North Carolina and Virginia are the only states that significantly sample bluefish commercial fisheries for size and age composition of the catch. Recreational catch and harvest is monitored by the Marine Recreational Information Program (MRIP).

Addendum I to Amendment 1 (2012) implemented a biological monitoring program to enhance age and length data used in bluefish stock assessments. Under Addendum I, states that accounted for more than 5% of total coastwide bluefish harvest (recreational and commercial combined) for the 1998-2008 period are required to collect a minimum of 100 bluefish ages (50 from January through June, 50 from July through December). Those states are Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Virginia, and North Carolina. Age samples are primarily collected from fishery-dependent sources (e.g., party/charter boats, fishing tournaments and volunteer anglers), although samples collected from fishery-independent sources are sometimes utilized as needed to fulfill this requirement. In 2017, most of these states were able to collect the minimum of 100 age samples (Table 3), and all states made a good effort to collect 50 age samples from both spring and fall. Two states, Rhode Island and New York, collected just under 100 samples, 98 and 95 respectively. Some states (e.g., Rhode Island and Connecticut) noted difficulties collecting samples during the season before July 1st (bluefish are typically unavailable in Long Island Sound before July). South Carolina also reported 128 age samples collected by personnel of the SEAMAP-SA coastal trawl survey, and four (18) from the South Carolina Inshore Finfish Monitoring program.

As prescribed in the addendum, following the end of the first year of the sampling program, the TC reviewed the sampling design and evaluated the optimal geographic range and sample size for bluefish age data. The TC found the sampling program design to be satisfactory. However,

additional TC reviews may be warranted as the program continues, especially in light of the difficulties expressed by some states to collect samples before July.

VI. Status of Management Measures and Issues

The Board and Council recommend adjustments to the commercial quota and RHL annually using the specification setting process detailed in Amendment 1 (Section 3.1.1.6) and in Section I of this report. The recreational fishery is allocated 83% of the ACL, and 17% is allocated to the commercial fishery. The coastwide commercial quota is allocated to the states via state-specific percentage shares based on landings from 1981-1989.

The 2017 ACL was 20.64 million pounds (9,363 metric tons); after a transfer of 5,033,101 pounds from the recreational to commercial sector, the commercial quota was 8.54 million pounds (3,874 metric tons) and the RHL was 9.65 million pounds (4,377 metric tons). In 2017, neither sector exceeded their respective quota or harvest limit, therefore no federal accountability measures have been triggered for 2018. 2017 state-specific shares and landings, and initial 2018 state-specific shares are listed in Table 5.

In 2017, Rhode Island requested commercial quota transfers totaling 150,338 pounds. Rhode Island received an additional 26% relative to its initial quota (Table 5). The donor states were New Jersey, Virginia, and North Carolina.

The PRT notes that the current 83/17 sector-specific quota allocation was based on the proportion of recreational and commercial landings for the period 1981-1989 (ASMFC 1998). However, due to sector transfers described in Section I under "*Annual Fishery Specifications*," on average commercial landings have accounted for 33% of total removals from 1990-2017, and as much as 46% in 1999 (Figure 4). In 2017, the proportion of commercial landings was 30%.

Reasons for the aforementioned transfers may include changes in the distribution of prey species resulting in changes in the distribution and availability of bluefish, regulatory changes and distribution shifts of other commercially important species, changes in market conditions, variables pertaining to the productivity of the bluefish stock, or other factors. The MAFMC and ASMFC have initiated an amendment process that will involve a comprehensive review of the Bluefish Fishery management Plan's sector-based allocations, commercial allocations to the states, transfer processes, as well as FMP goals and objectives, and any other issues highlighted by the Council and Commission through the scoping process.

VII. Current State-by-State Implementation of FMP Compliance Requirements

These states and jurisdictions are required to comply with the provisions of the Bluefish FMP: Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey,

Delaware, Maryland, Potomac River Fisheries Commission, Virginia, North Carolina, South Carolina, Georgia, and Florida. The following are specific FMP compliance requirements:

- Each state must restrict the possession of bluefish by recreational anglers to no more than fifteen fish per day, or have an ASMFC-approved equivalent conservation program.
- Each state must restrict its commercial fishery to the quota adopted under procedures specified in the FMP.
- These states are required to collect a minimum of 100 age samples per Addendum I to Amendment 1: Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Virginia, and North Carolina.
- States must submit annual compliance reports verifying that the above listed FMP requirements have been implemented. Compliance reports should also include an overview of permitting requirements for commercial and party/charter vessels and commercial dealers.

Based on the annual state compliance reports, the PRT determined all states and jurisdictions implemented a management program in 2017 consistent with the intent of the ISFMP for Bluefish (Amendment 1 and Addendum I). All states implemented a recreational possession limit not exceeding 15 fish per person, however, Rhode Island and New York were unable to collect the 100 required biological samples; several states were unable to acquire 50 age samples in the spring¹ (MA, RI, CT, NY). States appear to be making good faith efforts to acquire samples; as noted below, the TC should periodically review the adequacy of the biological sampling plan. Refer to Table 3 for state monitoring and reporting requirements, Table 4 for fishery regulations by state in 2017, and Table 5 for commercial quota monitoring and harvest.

Maine, South Carolina, and Georgia requested *de minimis* status for 2018. Maine, South Carolina, and Georgia qualify for *de minimis* status because their commercial landings from the most recent year were less than 0.1% of the coastwide commercial landings estimate (Table 5).

VIII. Prioritized Research Needs

The following research recommendations were identified at the 60th SAW/SARC:

High Priority

1. Determine whether NC scale data from 1985-1995 are available for age determination; if available, re-age based on protocols outlined in ASMFC (2001); if re-aging results in changes to age assignments, quantify the effects of scale data on the assessment.
2. Develop additional adult bluefish indices of abundance (e.g., broad spatial scale longline survey or gillnet survey).
3. Expand age structure of SEAMAP index.

¹ This appears to be largely due to timing of migrating fish being unavailable prior to July.

Moderate Priority

4. Investigate species associations with recreational angler trips targeting bluefish (on a regional and seasonal basis) to potentially modify the MRIP index used in the assessment model.
5. Explore age- and time-varying natural mortality from, for example, predator-prey relationships; quantify effects of age- and time-varying mortality on the assessment model.
6. Continue to evaluate the spatial, temporal, and sector-specific trends in bluefish growth and quantify their effects in the assessment model.
7. Continue to examine alternative models that take advantage of length-based assessment frameworks. Evaluate the source of bimodal length frequency in the catch (e.g., migration, differential growth rates – also multiple cohorts as noted by the PRT).
8. Modify thermal niche model to incorporate water temperature data more appropriate for bluefish in a timelier manner [e.g., sea surface temperature data & temperature data that cover the full range of bluefish habitat (SAB and estuaries)].

IX. Plan Review Team Comments and Recommendations

- The PRT found that all states implemented regulations consistent with the intent of Amendment 1 and Addendum I of the Bluefish Interstate FMP.
- Maine, South Carolina and Georgia requested and meet the requirements for *de minimis* status for 2017.
- The TC should periodically review the effectiveness of the Addendum I sampling design and evaluate the optimal geographic range and sample size for bluefish age data.
- The PRT notes that Massachusetts, Rhode Island and New York have received quota transfers in recent years (though only RI did in 2017), and that the commercial fishery has accounted for 33% of the coastwide harvest (commercial landings plus recreational harvest), on average, since 1990.
- The PRT recommends adding language to the annual compliance report reminder memo about including an overview of permitting requirements for commercial and party/charter vessels and commercial dealers in annual compliance reports.
- The PRT notes that the MAFMC and ASMFC have initiated an amendment process that will involve a comprehensive review of the Bluefish Fishery Management Plan's sector-based allocations, commercial allocations to the states, transfer processes, as well as FMP goals and objectives, and any other issues highlighted by the Council and Commission through the scoping process.

X. References

Mid-Atlantic Fishery Management Council (MAFMC) and Atlantic States Marine Fisheries Commission (ASMFC). 1998. Amendment 1 to the Bluefish Fishery Management Plan.

Northeast Fisheries Science Center. 2015. 60th Northeast Regional Stock Assessment Workshop (60th SAW) Assessment Summary Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc. 15-07; 36 p. doi: 10.7289/V5D21VKV

Fisheries of the Northeastern United States. Atlantic Bluefish Fishery; 2015 Final Atlantic Bluefish Specifications. 50 CFR Part 648. Vol 80, No. 151. Thursday, August 6, 2015.

Fisheries of the Northeastern United States. Atlantic Bluefish Fishery; 2014 Final Atlantic Bluefish Specifications. 50 CFR Part 648. Vol 79, No. 119. Friday, June 20, 2014.

XI. Tables

Table 1. Estimated bluefish recreational harvest (A + B1), releases (B2), dead discards (DD; 15% of B2), total catch (A+B1+B2), and total removals (Harvest+DDs) in numbers of fish by marine recreational anglers, 2007 to 2017. Source: MRIP. These estimates may differ from MRIP estimates depending on query date (Data queried June 25, 2018).

Year	Total Catch (A+B1+B2)	Harvest (A+B1)	Released (B2)	DDs (15% of B2)	Total Removals (Harvest + DD)
2007	24,815,049	8,644,146	15,006,420	2,250,963	10,624,863
2008	20,879,315	6,847,629	13,290,567	1,993,585	8,657,736
2009	14,493,953	5,401,481	8,450,232	1,267,535	6,461,777
2010	16,746,826	6,248,480	10,051,309	1,507,696	7,598,527
2011	15,213,810	5,219,606	9,630,257	1,444,539	6,505,930
2012	14,781,365	5,643,975	8,587,312	1,288,097	6,811,379
2013	15,432,234	6,018,343	8,097,800	1,214,670	6,958,640
2014	17,195,058	6,092,017	10,214,824	1,532,224	7,407,997
2015	11,359,189	4,155,492	6,746,280	1,011,942	5,008,745
2016	13,047,451	4,584,515	7,355,898	1,103,385	5,404,605
2017	8,702,682	3,120,542	5,253,864	788,080	3,801,748
Average	15,696,994	5,634,202	9,334,978	1,400,247	7,034,449

Table 2. Bluefish Commercial Landings and Recreational Harvest (A + B1) by weight (metric tons, pounds), 2007-2017. Source: SAFIS and MRIP. Estimates may differ from source websites depending on query date (2017 commercial data queried June 29, 2018; recreational data queried June 25, 2018).

Year	Commercial		Recreational (A + B1)		Total	
	MT	Pounds	MT	Pounds	MT	Pounds
2007	3,390	7,474,642	9,871	21,760,882	13,261	29,235,524
2008	2,731	6,020,096	8,978	19,793,321	11,709	25,813,418
2009	3,119	6,877,128	6,565	14,472,305	9,684	21,349,434
2010	3,304	7,284,417	7,411	16,339,283	10,716	23,623,698
2011	2,454	5,409,347	5,215	11,497,371	7,669	16,906,718
2012	2,212	4,876,858	5,372	11,842,303	7,584	16,719,161
2013	1,977	4,359,166	7,468	16,464,369	9,445	20,823,535
2014	2,251	4,962,921	4,743	10,455,687	6,994	15,418,609
2015	1,917	4,225,765	5,297	11,677,909	7,214	15,899,008
2016	1,945	4,288,726	4,327	9,538,528	6,272	13,826,648
2017	1,873	4,128,715	4,318	9,519,745	6,191	13,648,459
Average	2,470	5,446,162	6,324	13,941,494	8,795	19,387,656

Table 3. Status of compliance with monitoring and reporting requirements, 2017 (Y = compliance standards met, N = compliance standards not met, NA = not applicable).

State/ Jurisdiction	Fishery-independent monitoring		Fishery-dependent monitoring		Annual Reporting Status
	Survey(s)	Status	Type(s)	Status (num. of age samples)	
ME	NA	NA	Rec and Com harvest	NA	Y
NH	Juvenile	Y	Rec and Com harvest	NA	Y
MA	Juvenile	Y	Rec and Com harvest, Age Samples	Y (112)	Y
RI	Juvenile, Adult	Y	Rec and Com harvest, Age Samples	Y (98)	Y
CT	Juvenile, Adult	Y	Rec and Com harvest, Age Samples	Y (125)	Y
NY	Juvenile	Y	Rec and Com harvest, Age Samples	Y (95)	Y
NJ	Juvenile, Adult	Y	Rec and Com harvest, Age Samples	Y (120)	Y
DE	Juvenile, Adult	Y	Rec and Com harvest	NA	Y
MD	Juvenile	Y	Rec and Com harvest	NA	Y
PRFC	Juvenile	Y	Rec and Com harvest	NA	Y
VA	Juvenile, Adult	Y	Rec and Com harvest, Age Samples	Y (462)	Y
NC	Adult	Y	Rec and Com harvest, Age Samples	Y (662)	Y
SC*	NA	NA	Rec and Com harvest	NA	Y
GA*	NA	NA	Rec and Com harvest	NA	Y
FL	Juvenile, Adult	Y	Rec and Com harvest	NA	Y

*granted *de minimis* for 2017 fishing season

Table 4. Fishery regulations by state, 2017. Minimum size are in total length (TL) except for GA and FL are in fork length (FL).

State/ Jurisdiction	Recreational			Commercial	
	Bag Limit	Season	Size Limit	Trip and Size Limit	Open Season
ME	3 fish	All year	None	No Restrictions	All year
NH	10 fish	All year	None	No Restrictions	July 1 - Sept 30
MA	10 fish	All year	None	5,000 lbs/day or trip (whichever is longer)	All year
RI	15 fish	All year	None	12" min size; 500 lbs/wk (1.1- 4.30,11.12-12.31) 6,000 lbs/wk (5.1-11.11)	All year
CT	10 fish	All year	None	9" min size; 1,200 lbs/trip	All year
NY	15 fish	All year	Only 10 fish <12"	9" min size; Trip Limit: 2,000 lbs (Jan- April); 500 lbs (May-Aug); 1,000 lbs (Sept-Dec)	All year
NJ	15 fish	All year	None	9" min size	Closed to H&L from 1.1-6.15 and 8.8-12.31
DE	10 fish	All year	None	No Restrictions	All year
MD	10 fish	All year	8" min size	8" min size	All year
PRFC	10 fish	All year	8" min size	Trip limits after 80% of VA- MD quota is landed	All year
VA	10 fish	All year	None	No Restrictions	All year
NC	15 fish	All year	Only 5 fish > 24"	No Restrictions	All year
SC	15 fish	All year	None	No directed fishery	All year
GA	15 fish	All year	10" min size	10" min size; 15 fish	All Year
FL	10 fish	All year	12" min size	12" min size; 7,500 lbs/day	All year

Table 5. 2017 state-specific shares of commercial bluefish quota and estimated harvest. Landings data source: SAFIS (query date: June 29, 2018). C = landings values are confidential.

State	% of Federal Quota	2017 Initial Quota*	2017 Transfers	2017 Final Quota	2017 Landings	Overages	% Quota Used	% Coastwide Total	2018 Initial Quota
ME	0.6685	57,105		57,105	0	0	0%	0%	48,424
NH	0.4145	35,408		35,408	C	C	C	C	30,025
MA	6.7167	573,755		573,755	364,770	0	63.4%	8.9%	486,539
RI	6.8081	581,563	150,338	731,901	647,257	0	88.4%	15.7%	493,160
CT	1.2663	102,036**		108,170	42,539	0	39.3%	1.0%	91,727
NY	10.3851	887,118		887,118	709,163	0	79.9%	17.2%	752,268
NJ	14.8162	1,265,633	-50,000	1,215,633	305,552	0	25.1%	7.4%	1,073,245
DE	1.8782	160,440		160,440	10,040	0	6.3%	0.2%	136,052
MD	3.0018	256,420		256,420	37,035	0	14.4%	0.9%	217,442
VA	11.8795	1,014,773	-338	1,014,435	201,616	0	19.9%	4.9%	860,518
NC	32.0608	2,738,704	-100,000	2,638,704	1,544,015	0	58.5%	37.4%	2,322,397
SC	0.0352	3,007		3,007	C	C	C	<0.1%	2,550
GA	0.0095	812		812	C	C	C	<0.1%	688
FL	10.0597	859,322		859,322	266,728	0	31%	6.5%	728,697
TOTAL[^]	100	8,542,230	0	8,542,230	4,128,715	0	48%		7,243,726

[^] totals in table may not match listed quotas due to rounding

*accounts for a mid-season transfer of 5,033,101 pounds from the recreational to commercial sector (effective March 10, 2017), and any quota overages from the previous season

**accounts for 2016 overage of state-specific commercial quota by 6,134 pounds

Table 6. 2017 state commercial quota bluefish transfers. These transfers were made as quota adjustments and a safe harbor adjustment. Data source: Federal Register.

State	Total Transfer Amount (lbs)
ME	0
NH	0
MA	0
RI	+150,338
CT	0
NY	0
NJ	-50,000
DE	0
MD	0
VA	-338
NC	-100,000
SC	0
GA	0
FL	0

XII. Figures

Figure 1. Bluefish spawning stock biomass (SSB), 1985-2014. Source: SAW 60 Assessment report, 2015.

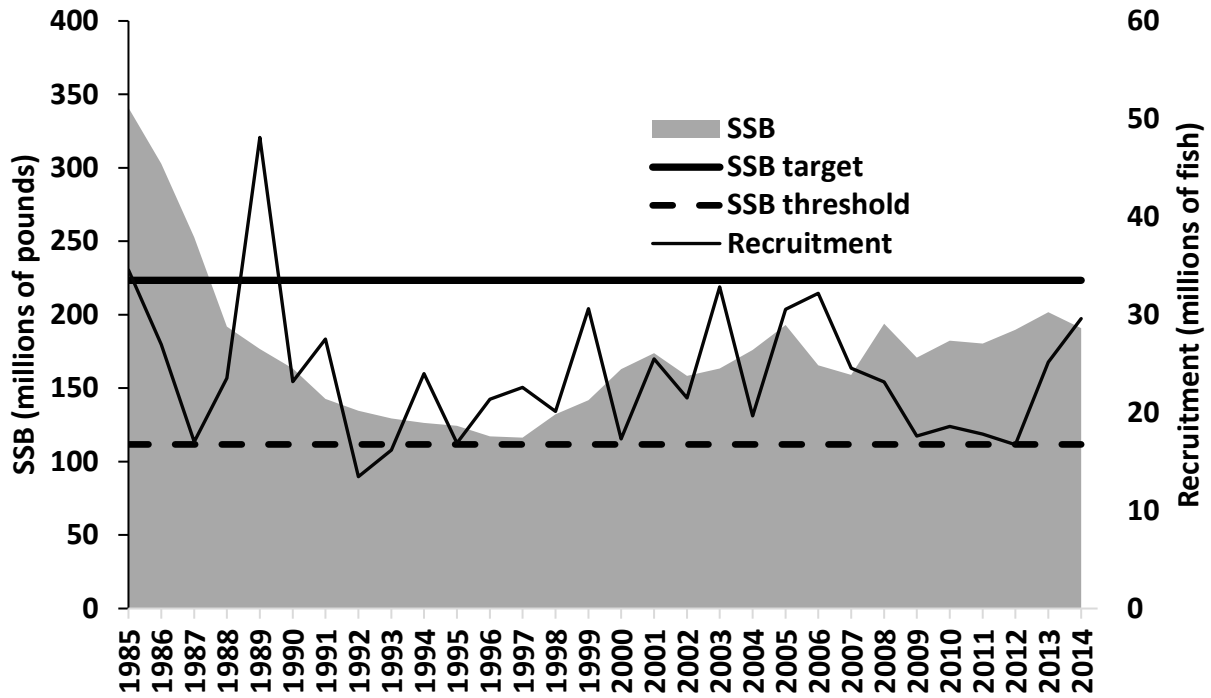


Figure 2. Bluefish fishing mortality (F), 1985-2014. Source: SAW 60 Assessment report, 2015.

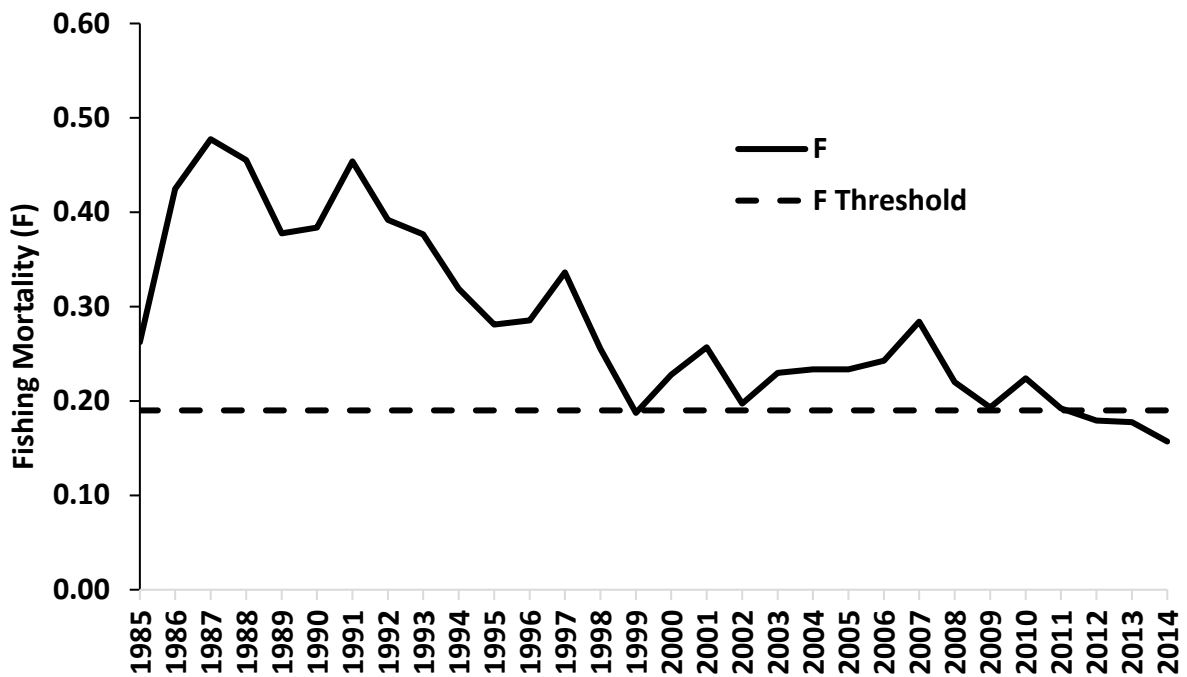


Figure 3. Estimated recreational bluefish harvest (A + B1), releases (B2) and dead discards by recreational anglers in numbers of fish, 1985-2017. Source: MRIP. Estimates may differ from source websites depending on query date (2017 data queried June 26, 2018).

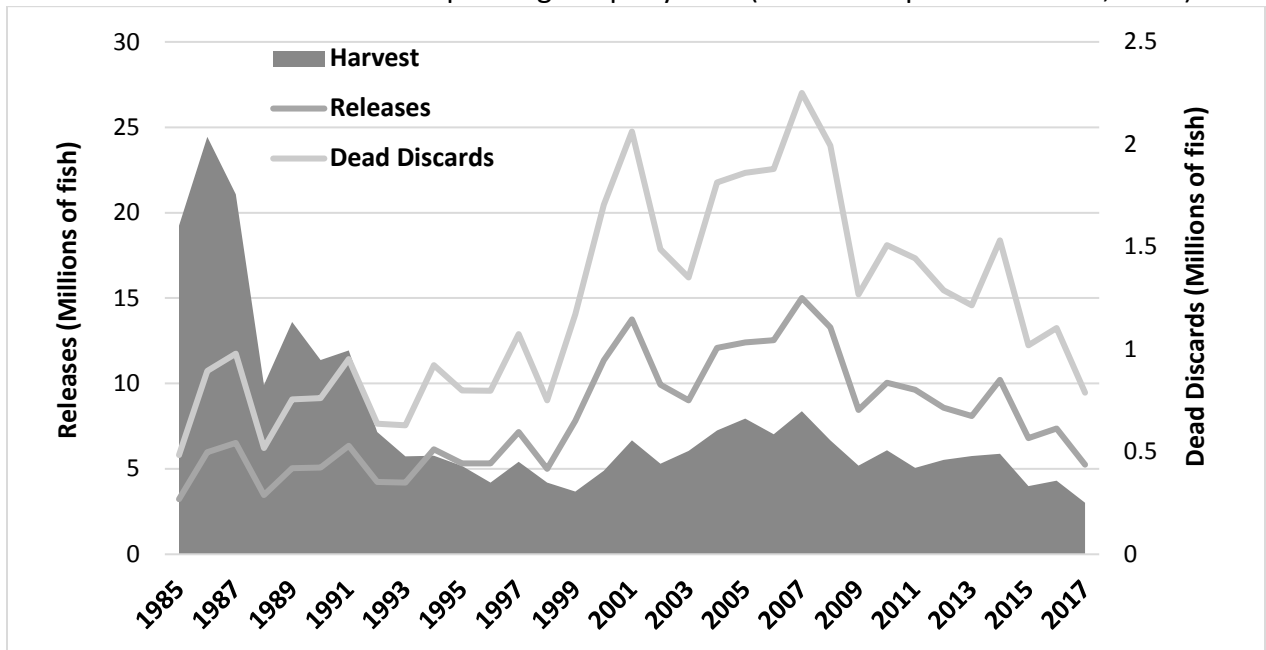


Figure 4. Bluefish recreational harvest and commercial landings estimates by weight, 1985-2017. Source: SAFIS and MRIP. Estimates may differ from source websites depending on query date (2017 data queried June 26, 2018).

