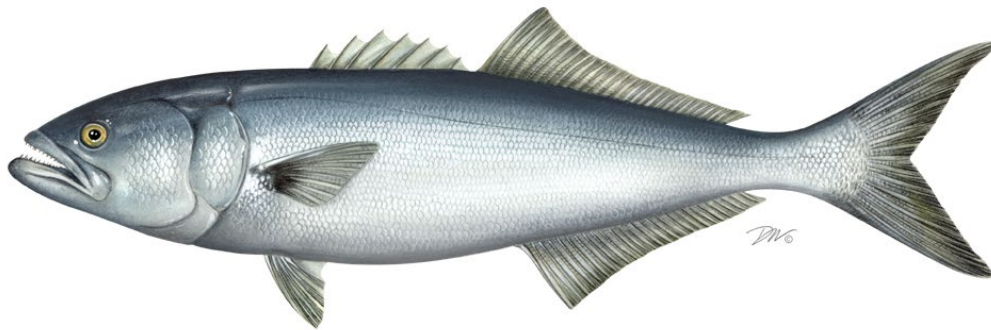


ATLANTIC STATES MARINE FISHERIES COMMISSION

REVIEW OF THE INTERSTATE FISHERY MANAGEMENT PLAN

FOR BLUEFISH
(Pomatomus saltatrix)

2022 FISHING YEAR



Prepared by the Plan Review Team
Drafted July 2023



Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Executive Summary

Bluefish from Maine through Florida are jointly managed by the Atlantic States Marine Fisheries Commission (ASMFC or Commission) in state waters (0-3 miles from shore) and the Mid-Atlantic Fishery Management Council (MAFMC or Council) in federal waters (3-200 miles from shore).

Based on the 2021 management track stock assessment bluefish are overfished, but are not experiencing overfishing relative to the updated biological reference points. The stock assessment incorporated data through 2019 and included calibrated estimates of recreational catch and effort from the Marine Recreational Information Program (MRIP). While not used for management advice, a bluefish research track assessment was reviewed in 2022 and made a number of notable data and model changes designed to improve the assessment and reduce uncertainty; a partial list includes: natural mortality was updated, recreational release mortality rate was updated, season/region length frequencies were used to calculate the dead discard component of the catch to account for regional and seasonal differences in fish size, the methods used to calculate the MRIP catch per angler index were changed, age length keys were changed, and the primary assessment model was changed from the Age-Structured Assessment Program (ASAP) to the Woods Hole Assessment Model (WHAM). The interested reader can find more details in the assessment document available on the [NMFS data portal](#). An updated management track stock assessment for bluefish was peer reviewed in June of 2023 and will be reviewed by the Council's Science and Statistical Committee (SSC) in July. This new assessment incorporated data through 2022 and found the stock to be not overfished, however not fully rebuilt to the biomass target, and not experiencing overfishing.

2022 recreational bluefish harvest was estimated at 6.35 million fish weighing 11.35 million pounds (Tables 3 and 4). Recreational dead releases were estimated at 2.44 million fish based on the new recreational release mortality rate estimate of 9.4%. 2022 recreational landings were below the recreational harvest limit (RHL) of 13.89 million pounds and 2022 commercial bluefish landings were recorded at approximately 2.14 million pounds, which falls below the quota of 3.54 million pounds (Table 2). Total harvest of 13.50 million pounds in 2022 represents a new time series low compared to the previous time series low of 14.76 million pounds reached in 2021 (Table 4).

In 2022, all states implemented management programs consistent with the intent of Amendment 1, Amendment 2, and Addendum I to the Bluefish Fishery Management Plan (FMP) (as updated in August 2021). Maine, South Carolina, and Georgia requested *de minimis* status for 2023. Maine, South Carolina, and Georgia all qualify for *de minimis* status because their commercial landings in 2022 were less than 0.1% of the coastwide commercial landings estimate.

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2021 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 2 (2021), Amendment 1 (1998); Addendum II (2022), 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, Plan Development Team, and Stock Assessment Working Group MAFMC: Bluefish Committee, Monitoring Committee, Advisory Panel, Fishery Management Action Team, 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 or Council) in October 1989. It was the first FMP developed jointly by an interstate commission and a federal fishery management council. In 2022, bluefish were managed under Amendment 1, Amendment 2, and Addendum I to the FMP.

Approved in October 1998 and implemented in 2000, the goal of Amendment 1 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 (Council). ASMFC's Technical Committee (TC) and MAFMC's Bluefish Monitoring Committee (MC) conduct annual plan monitoring, which is reviewed jointly by the Council's and Board's Bluefish Advisory Panels (AP), all committee recommendations are then provided to the Board and Council for review. A working group, as constituted through the Northeast Fisheries Science Center (NEFSC) and Northeast Region Coordinating Council process, 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 IV.

In August 2021, the Board approved Amendment 2 to the Bluefish FMP. The Amendment updated the FMP goals and objectives, initiated a rebuilding plan, established new allocations between the commercial and recreational sectors, implemented new commercial allocations to the states, revised the process for quota transfers between sectors, and revised how the management plan accounts for management uncertainty. The Amendment became effective on January 1, 2022.

The Board and the Council initiated Amendment 2 in December 2017 to consider revisions to the commercial and recreational fisheries allocations and the state-specific commercial allocations. In 2019, a management track stock assessment for bluefish indicated the stock was overfished, and the Board and Council subsequently incorporated the rebuilding plan in the Amendment.

Given the stock's overfished condition, Amendment 2 established a 7-year rebuilding plan to be achieved through a constant fishing mortality approach. The Amendment also revised sector allocations, increasing the recreational allocation from 83% to 86% of the acceptable biological catch (ABC) and decreasing the commercial allocation from 17% to 14%. Catch data from 1981-2018 were used as the basis for sector allocations since this time series captures the cyclical nature of the fishery, while providing each sector with sufficient access to the resource considering historical usage.

Amendment 2 revised state-by-state commercial allocations to better reflect the current distribution of the stock and the needs of the states' commercial fisheries. The Amendment allocated a baseline quota of 0.1% to each state, and then allocated the rest of the commercial quota based on landings data from 2009 to 2018 (see Table 1). Recognizing that several states would lose quota during a time when the coastwide commercial quota was already at an historic low, the Amendment phased-in the allocation changes over 7 years in order to reduce

short-term economic impacts to the affected commercial fishing industries. The Board and Council also agreed to review state allocations within 5 years of implementation.

Amendment 2 updated the sector transfer process to allow for quota transfers in either direction between the commercial and recreational sectors. Previously, quota could only be transferred from the recreational sector to the commercial fishery. The transfers are now capped at 10% of the acceptable biological catch for a given year.

The Amendment also revised the goals and management objectives of the FMP:

Goal 1: Conserve the bluefish resource through stakeholder engagement to maintain sustainable recreational fishing and commercial harvest.

Objective 1.1: Achieve and maintain a sustainable spawning stock biomass and rate of fishing mortality.

Objective 1.2: Promote practices that reduce release mortality within the recreational and commercial fishery.

Objective 1.3: Maintain effective coordination between the National Marine Fisheries Service, Council, and Commission and its member states by promoting compliance and to support the development and implementation of management measures.

Objective 1.4: Promote compliance and effective enforcement of regulations.

Objective 1.5: Promote science, monitoring, and data collection that support and enhance effective ecosystem-based management of the bluefish resource.

Goal 2: Provide fair and equitable access to the fishery across all user groups throughout the management unit.

Objective 2.1: Ensure the implementation of management measures provides fair and equitable access to the resource across all groups within the management unit.

Objective 2.2: Consider the economic and social needs and priorities of all groups that access the bluefish resource in the development of new management measures.

Objective 2.3: Maintain effective coordination with stakeholder groups to ensure optimization of economic and social benefits.

Finally, Amendment 2 modified the management uncertainty tool within the FMP to a sector-specific approach. It allows the Commission and Council to apply a buffer to either sector, in the form of a reduction to the corresponding harvest limit, to account for management uncertainty during specifications. While this tool has not been used often, the modified approach allows managers to better target areas of uncertainty within one sector without reducing the quota or harvest limit in the other sector.

In June 2022, the Policy Board approved changes to the recreational fisheries management programs for summer flounder, scup, black sea bass, and bluefish. The changes include a new process for setting recreational measures (bag, size, and season limits) and modifications to the recreational accountability measures. The Policy Board adopted the new process through

Addendum II to the Bluefish FMP. However, the new process will not be implemented for bluefish until the stock is declared rebuilt. Approval of this new process is part of a broader long-term effort by both the Council and Commission to improve recreational management of these four species. The new management program aims to provide greater stability and predictability in recreational measures from year-to-year while accounting for uncertainty in recreational catch estimates. Details on the new process may be found [here](#). Given Addendum II will sunset in 2026, the Council and Commission have begun work on the replacement Addendum through the formation of a PDT and a Fishery Management Action Team (FMAT). The PDT and FMAT have begun work on the new Addendum, with the goal of implementation by the end of the 2026 sunset period for Addendum II.

2022 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, 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 commercial and recreational annual catch limits (ACLs), where 14% of the ABC is allocated to the commercial sector ACL and 86% to the recreational sector ACL. The FMP defines ACLs as equal to the ABC, and when combined, the ACLs are equal to or less than an overfishing limit (OFL). The stock's OFL is a catch level that corresponds to the stock's maximum sustainable yield, which is determined through the most recent stock assessment. After accounting for management uncertainty, the resulting value provides 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 or the commercial fishery is not expected to land its respective TAL, then at the discretion of the Board and Council, quota may be transferred between sectors, not to exceed 10% of the ABC. The final commercial quota is then allocated to the states of Maine through Florida with the percentage allocations based on average commercial landings during 2009-2018. The state-specific shares are detailed in Table 2.

II. Status of the Stock

Based on the 2021 management track stock assessment conducted by NEFSC, bluefish are overfished, but were not experiencing overfishing in the terminal year of the assessment, 2019. Spawning stock biomass (SSB) in 2019 was estimated to be 211 million pounds, which is 95% of the SSB threshold of 222 million pounds (Figure 1). Fishing mortality in 2019 was estimated to be 0.172, below the fishing mortality threshold (FMSY PROXY= F35% =0.181). Although fishing

mortality was below the threshold in 2018 and 2019, fishing mortality exceeded the updated threshold every year from 1985 to 2017. The largest recruitment in the time series occurred in 1989 at 98 million fish, and the lowest recruitment was in 2016 at 29 million fish. Recruitment over the last 10 years has varied around the time series average of 46 million fish (NEFSC 2021).

The bluefish fishery is currently in a 7-year rebuilding plan. The rebuilding plan uses a constant fishing mortality approach, and progress will be reviewed every other year through management track stock assessments. A research track stock assessment, which can incorporate larger revisions to the stock assessment model, was peer reviewed in December 2022 and a new management track assessment was peer reviewed in June 2023. Results of the new management track assessment will be presented to the SSC in July of 2023. The 2023 assessment incorporated data through 2022 and found the stock to be not overfished and not experiencing overfishing, however not fully rebuilt to the biomass target. Additionally, the new management track assessment recalculated $F_{rebuild}=0.183$ as opposed to the previous $F_{rebuild}$ of 0.166. More information about the assessment is available through the [NMFS data portal](#).

III. Status of the Fishery

From 2013-2022, recreational catch (harvest plus fish caught and released) of bluefish in U.S. waters of the Atlantic coast averaged 39.60 million fish annually (Table 3). In 2022, recreational catch was estimated at 32.28 million fish which is a 15% increase relative to 2021. In 2022, recreational anglers harvested an estimated 6.35 million fish weighing 11.35 million pounds (5,150 metric tons). Harvest during 2018-2022 was exceptionally low compared to the ten-year average of 21.39 million pounds (Table 4). The 2022 average weight of landed fish is 1.79 pounds, which is larger than the ten-year average of 1.70 pounds. The majority of the recreational harvest (pounds) came from New York (29%), Florida (19%), and North Carolina (14%). In 2022, recreational dead releases (9.4% of released alive fish) were estimated at 2.44 million fish (Table 3). In 2022, the recreational release mortality rate for bluefish changed from 15% of discarded fish to 9.4% based on an analysis of the literature and updated information since the last stock assessment. Figure 2 displays trends in recreational harvest, catch, and releases over the 1985-2022 time series.

From 1985-1999, annual commercial landings of bluefish in U.S. waters of the Atlantic coast averaged 11.31 million pounds (5,129 metric tons). After the implementation of the Amendment 1 quota system, from 2000-2022 commercial landings of bluefish have averaged 5.48 million pounds (2,485 metric tons) annually (Figure 3). In 2022, commercial landings were 2.14 million pounds (972 metric tons), a decrease of 11% relative to 2021 landings and a 39% underage of the 2022 commercial quota (3.54 million pounds). The majority of commercial landings came from North Carolina (40%), New York (17%), Massachusetts (12%), and Rhode Island (11%). Commercial dead discards are considered negligible and were not included in the 2021 management track assessment; however, bluefish assessments since 2022 are incorporating commercial dead discards in order to better understand their quantity and trends over time.

IV. Status of Research and Monitoring

Many states, as well as the NEFSC, 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, New York, New Jersey, Maryland, Virginia, and South Carolina (SEAMAP) provide indices of juvenile bluefish abundance for stock assessments, and Virginia (NEAMAP), Chesapeake Bay Multispecies Monitoring and Assessment Program (ChesMMAAP), NEFSC, and North Carolina provide indices of adult abundance. Year class strength is monitored through a number of fishery-independent surveys (NEFSC 2022). Although not included in the 2022 research track assessment, Massachusetts, Connecticut, Delaware, Georgia, and Florida also maintain indices of abundance from surveys that encounter bluefish.

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 NOAA Fisheries. Recreational catch and harvest are 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. In February 2021, the Board revised the sampling requirement threshold to any state with greater than 4% of the coastwide removals (defined as the sum of recreational and commercial landings and dead discards) for the period 2010-2019. This added Florida to the states required to collect samples. In addition, the 50 fish sample seasonal requirement was changed to a target, while maintaining the 100 fish annual sampling requirement. The [TC report from September 2020](#) outlines more details regarding state-by-state sampling targets for reference.

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 available to fulfill this requirement. In 2022, most states were able to collect the minimum of 100 age samples (Table 5), and all states made a good faith effort to collect 50 age samples from both spring and fall. Florida collected 185 samples, but has not yet aged the samples. Rhode Island made an effort to collect 100 samples, but fell shy of the requirement collecting a total of 34 samples (34 ages and 14 lengths). In Rhode Island, bluefish samples are typically collected through the for-hire fleet. However, only 7 samples were received in 2022. Rhode Island attempted to supplement the for-hire samples through the commercial fishery, but still fell short of the 100 samples. In 2023, Rhode Island plans to incentivize sample collection from the for-hire fleet through the distribution of bluefish hats.

V. 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. In 2022, the recreational fishery was allocated 86% of the ACL, and 14% was allocated to the commercial fishery. In 2022, the coastwide commercial quota was allocated to the states via state-specific percentage shares based on landings from 2009-2018 (Table 2).

The 2022 ACL was 25.26 million pounds (11,458 metric tons), the commercial quota was 3.54 million pounds (1,606 metric tons), and the RHL was 13.89 million pounds (6,260 metric tons). 2022 commercial bluefish landings were recorded at approximately 2.14 million pounds, which falls below the quota. 2022 recreational landings were 11.35 million pounds, which does not exceed the RHL of 13.89 million pounds. NOAA Fisheries has not yet released their final catch accounting data for 2022, but the sum of 2022 recreational and commercial landings and dead discards is expected to fall below the fishery-level ACL. Therefore, federal accountability measures will not be triggered for 2022. 2022 state-specific commercial shares and landings, and initial 2023 state-specific shares are listed in Table 2.

Law Enforcement Reporting:

States are asked to report and summarize law enforcement cases that occurred the previous season in annual compliance reports. In 2022, reported law enforcement cases (e.g., the number of warnings and citations) remain low and were similar to those reported in previous years.

VI. Implementation of FMP Compliance Requirements for 2022

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 for 2022:

- Each state must restrict the possession of bluefish to no more than three fish per day for recreational anglers and five fish per day for those fishing with for-hire operators, 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, North Carolina, and Florida.
- Each state is required to implement and maintain a permit system for commercial fishermen, commercial dealers and for-hire operators who land, sell, and catch fish in state waters.
- 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 2022 consistent with the intent of the Interstate Fishery Management Plan (ISFMP) for Bluefish (Amendments 1 and 2, and Addendum I). With the exception of Georgia, all states implemented the recreational measures of 3 fish for private anglers and 5 fish for for-hire operators. In December 2021, the Board determined that Georgia's proposal to enact a closure during wave 2 (March-April), implement a 15 fish bag limit, and a minimum size of 12 inches was conservationally equivalent to the coastwide recreational measures.

While not all states were able to meet the 100 fish biological sampling requirement and complete all fishery independent monitoring, every state made a good faith effort to do so. Rhode Island only collected a total of 34 samples (34 ages and 14 lengths) due to the for-hire fleet working on species other than bluefish. Rhode Island Division of Marine Fisheries staff have indicated that there will be an emphasis on bluefish sampling in 2023 and greater incentives for for-hire fleet participation. Refer to Table 5 for state monitoring and reporting requirements, Table 6 for fishery regulations by state in 2022, and Table 2 for commercial quota monitoring and harvest.

Maine, South Carolina, and Georgia requested *de minimis* status for 2022. 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 2).

VII. Plan Review Team Comments and Recommendations

- The PRT noted that in 2022, the recreational release mortality rate was changed from 15% to 9.4%, yet many states included the old rate in state compliance reports. In 2023 and beyond, states should incorporate the new mortality rate of 9.4% into annual compliance reports. Additionally, this information should be included in future compliance report reminders sent by Commission staff.
- Rhode Island made an attempt to collect the required 100 biological samples, but failed to do so with only 34 samples collected. Rhode Island purchased hats with embroidered bluefish on them to incentivize anglers to donate racks for biological sampling in 2023. As of this report, RI has already distributed hats and has conducted outreach to anglers to emphasize the importance of these samples. As a result, the state has already obtained ~ 50 samples for 2023.
- In the future, the PRT is interested in examining how commercial dead discards, although <1% of total removals, could impact a state's compliance with the Bluefish FMP due to commercial dead discards not being estimated on a state-by-state bases. Additionally, the PRT recommends that future Bluefish FMP Reviews include commercial dead discards in commercial landings tables and figures.

- Maine, South Carolina, and Georgia requested and meet the requirements for *de minimis* status for 2023.
- The PRT found that all states implemented regulations consistent with the intent of Amendment 1, Amendment 2, and Addendum I of the Bluefish ISFMP.

VIII. Research Recommendations

- The PRT recommends that the Board strongly encourages states to develop or expand recreational release length data collection programs, taking advantage of existing software and technology as possible. Generating reliable discard length data from recreational anglers, especially from southern states, could greatly improve the robustness of stock assessments moving forward. This is especially important since release length frequencies are now stratified by region when calculating the weight of dead released fish and the current protocol is to borrow fish from the timeseries when sample size is less than 30 fish.
- The PRT also supports pursuing the research recommendations identified by the 2022 research track assessment for bluefish. Information regarding these recommendations can be found in the research track assessment report located on the [NMFS data portal](#).

IX. References

- Atlantic States Marine Fisheries Commission (ASMFC). 2011. Proceedings of the Atlantic States Marine Fisheries Commission Bluefish Ageing Workshop. ASMFC, Alexandria, VA. 26p
- Atlantic States Marine Fisheries Commission (ASFMC). 2021. Amendment 2 to the Bluefish Fishery Management Plan; *Bluefish Allocation and Rebuilding Amendment*.
- Fisheries of the Northeastern United States. Atlantic Bluefish Fishery; Revised 2022 and Projected 2023 Specifications and Recreational Management Measures. 50 CFR Part 648. Vol 87, No. 22. Wednesday, February 2, 2022.
- Fisheries of the Northeastern United States. Atlantic Bluefish Fishery; 2023 Specifications. 50 CFR Part 648. Vol 87, No. 244. Wednesday, December 21, 2022.
- Mid-Atlantic Fishery Management Council (MAFMC) and Atlantic States Marine Fisheries Commission (ASFMC). 1998. Amendment 1 to the Bluefish Fishery Management Plan.
- Mid-Atlantic Fishery Management Council (MAFMC) and Atlantic States Marine Fisheries Commission (ASFMC). 2012. Addendum 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
- Northeast Fisheries Science Center. 2021. Atlantic Bluefish Management Track Assessment for 2021. 11 p. Prepublication copies prepared for use by Fishery Management Council staff and SSC. Available at <https://www.mafmc.org/ssc-meetings/2021/july21-23>.

X. Tables

Table 1. Revised state allocation percentages of the bluefish commercial quota based on 2009-2018 landings data with a minimum default allocation of 0.1%. Previous allocations are provided for comparison purposes.

State	Previous Allocations Under Amendment 1	Revised Allocations to be Phased in Over 7 Years
Maine	0.67%	0.11%
New Hampshire	0.41%	0.22%
Massachusetts	6.72%	10.12%
Rhode Island	6.81%	9.61%
Connecticut	1.27%	1.09%
New York	10.39%	19.76%
New Jersey	14.82%	13.85%
Delaware	1.88%	0.49%
Maryland	3.00%	1.92%
Virginia	11.88%	5.87%
North Carolina	32.06%	32.03%
South Carolina	0.04%	0.10%
Georgia	0.01%	0.10%
Florida	10.06%	4.78%

Table 2. 2022 and 2023 state-specific shares of commercial bluefish quota and 2022 harvest in weight (lbs.). Landings data source: state compliance reports. C = landings values are confidential.

State	% of Federal Quota*	2022 Initial Quota	2022 Transfers	2022 Final Quota	2022 Landings	Overages	% Quota Used	% Coastwide Total	2023 Initial Quota
ME	0.59%	20,819.00	-15000	5,819	C	0	C	C	21,807
NH	0.39%	13,655.00		13,655	C	0	C	C	15,331
MA	7.20%	254,748.00		254,748	253,550	0	99.5%	11.7%	329,578
RI	7.21%	254,956.00	127,500	382,456	240,504	0	62.9%	11.1%	326,165
CT	1.24%	43,885.00		43,885	41,660	0	94.9%	1.9%	52,094
NY	11.72%	414,693.00	82,500	497,193	360,582	0	72.5%	16.6%	560,031
NJ	14.68%	519,158.00	-85,000	434,158	204,976	0	47.2%	9.4%	623,295
DE	1.68%	59,442.00		59,442	6,711	0	11.3%	0.3%	63,572
MD	2.85%	100,698.00	-30,000	70,698	10,282	0	14.5%	0.5%	115,409
VA	11.02%	389,802.00	-80,000	309,802	153,378	0	49.5%	7.1%	435,625
NC	32.06%	1,133,855.00		1,133,855	872,041	0	76.9%	40.1%	1,374,077
SC	0.04%	1,590.00		1,590	C	0	C	C	2,344
GA	0.02%	805.00		805	0	0	0.0%	0.0%	1,544
FL	9.31%	329,137.00		329,137	28,500	0	8.7%	1.3%	366,585
TOTAL^	100%	3,537,096	0	3,537,096	2,172,392	0	61%		4,287,109

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

* State allocation percentages are associated with the 2022 fishing year. 2023 state allocations may differ according to the 7-year phase-in process for revised allocations under Amendment 2.

Table 3. Estimated bluefish recreational harvest (A + B1), releases (B2), dead releases (9.4% of B2), total catch (A+B1+B2), and total removals (Harvest + Dead Releases) in numbers of fish by marine recreational anglers, 2013 to 2022. Source: MRIP. These estimates may differ from MRIP estimates depending on query date (data queried June 2023).

Year	Total Catch (A+B1+B2)	Harvest (A+B1)	Released (B2)	Dead Releases (9.4% of B2)	Total Removals (Harvest + Dead Releases)
2013	53,494,663	19,975,050	33,519,613	3,150,844	23,125,894
2014	55,093,765	21,510,651	33,583,114	3,156,813	24,667,464
2015	42,148,962	13,725,106	28,423,856	2,671,842	16,396,948
2016	42,528,745	14,899,722	27,629,023	2,597,128	17,496,850
2017	42,163,131	13,845,805	28,317,326	2,661,829	16,507,634
2018	30,928,703	10,245,711	20,682,992	1,944,201	12,189,912
2019	38,631,937	12,137,291	26,494,646	2,490,497	14,627,788
2020	30,681,825	9,336,221	21,345,604	2,006,487	11,342,708
2021	28,069,018	6,090,890	21,978,128	2,065,944	8,156,834
2022	32,283,618	6,353,078	25,930,540	2,437,471	8,790,549
Average	39,602,437	12,811,953	26,790,484	2,518,306	15,330,258

Table 4. Bluefish Commercial Landings and Recreational Harvest (A + B1) by weight (metric tons, pounds), 2013-2022. Source: ACCSP Data Warehouse (personal correspondence with Joseph Myers), 2023 state compliance reports and MRIP. Estimates may differ from source websites depending on query date (commercial data queried May 2023; recreational data queried June 2023).

Year	Commercial		Recreational (A + B1)		Total	
	MT	Pounds	MT	Pounds	MT	Pounds
2013	1,977	4,359,166	15,603	34,398,329	17,580	38,757,495
2014	2,251	4,962,921	12,267	27,044,276	14,518	32,007,197
2015	1,917	4,226,300	13,653	30,098,649	15,570	34,324,949
2016	1,946	4,289,401	10,957	24,155,304	12,902	28,444,705
2017	1,876	4,136,503	14,548	32,071,433	16,424	36,207,936
2018	1,105	2,435,814	6,020	13,270,862	7,125	15,706,676
2019	1,359	2,996,323	7,056	15,555,889	8,415	18,552,212
2020	1,112	2,450,557	6,160	13,581,217	7,272	16,031,774
2021	1,090	2,402,027	5,607	12,361,982	6,697	14,764,009
2022	972	2,143,892	5,150	11,354,536	6,123	13,498,428
Average	1,561	3,440,290	9,702	21,389,248	11,263	24,829,538

Table 5. Status of compliance with monitoring and reporting requirements, 2022 (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 processed 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 (107)	Y
RI	Juvenile, Adult	Y	Rec and Com harvest, Age Samples	Y (34)	Y**
CT	Juvenile, Adult	Y	Rec and Com harvest, Age Samples	Y (172)	Y
NY	Juvenile	Y	Rec and Com harvest, Age Samples	Y (184)	Y
NJ	Juvenile, Adult	Y	Rec and Com harvest, Age Samples	Y (251)	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 (297)	Y
NC	Adult	Y	Rec and Com harvest, Age Samples	Y (1210)	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, Age Samples	Y (185)	Y

*granted *de minimis* for 2022 fishing season

**Rhode Island did not meet the sampling requirement, but made very reasonable efforts to collect 100 samples. The state has a plan in place for 2023 to increase participation in for-hire sector sampling.

Table 6. Fishery regulations by state, 2022. 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	Private/Shore 3 fish; For-hire 5 fish	January 1 - September 30	None	No Restrictions	July 1 - Sept 30
MA	Private/Shore 3 fish; For-hire 5 fish	All year	None	16" minimum size; 5,000 lbs/day or trip (whichever is longer)	All year
RI	Private/Shore 3 fish; For-hire 5 fish	All year	None	18" min size limit; 1000 lbs/bi-week (January 1 - April 30), 6000 lbs/wk (May 1 - November 15), 500lbs/week (November 16- December 31)	All year
CT	Private/Shore 3 fish; For-hire 5 fish	All year	None	9" min size limit; 1200 lbs/trip	All year
NY	Private/Shore 3 fish; For-hire 5 fish	All year	None	9" min size; Trip Limit: 1,000 lbs (January - April); 350 lbs (May - December)	All year
NJ	Private/Shore 3 fish; For-hire 5 fish	All year	None	9" min size	Closed to H&L from January 1 - June 15 and August 8 - December 31
DE	Private/Shore 3 fish; For-hire 5 fish	All year	None	No Restrictions	All year

MD	Private/Shore 3 fish; For-hire 5 fish	All year	8" min size	8" min size	All year
PRFC	Private/Shore 3 fish; For-hire 5 fish	All year	8" min size	Trip limits after 80% of VA-MD quota is landed	All year
VA	Private/Shore 3 fish; For-hire 5 fish	All year	None	No Restrictions	All year
NC	Private/Shore 3 fish; For-hire 5 fish	All year	None	No Restrictions	All year
SC	Private/Shore 3 fish; For-hire 5 fish	All year	None	No directed fishery	All year
GA	15 fish	Jan 1 - Feb 29; May 1 - Dec 31	12" min size	12" min size; 15 fish	All Year
FL	3 fish	All year	12" min size	12" minimum size; 7,500 lbs/day	All year

XI. Figures

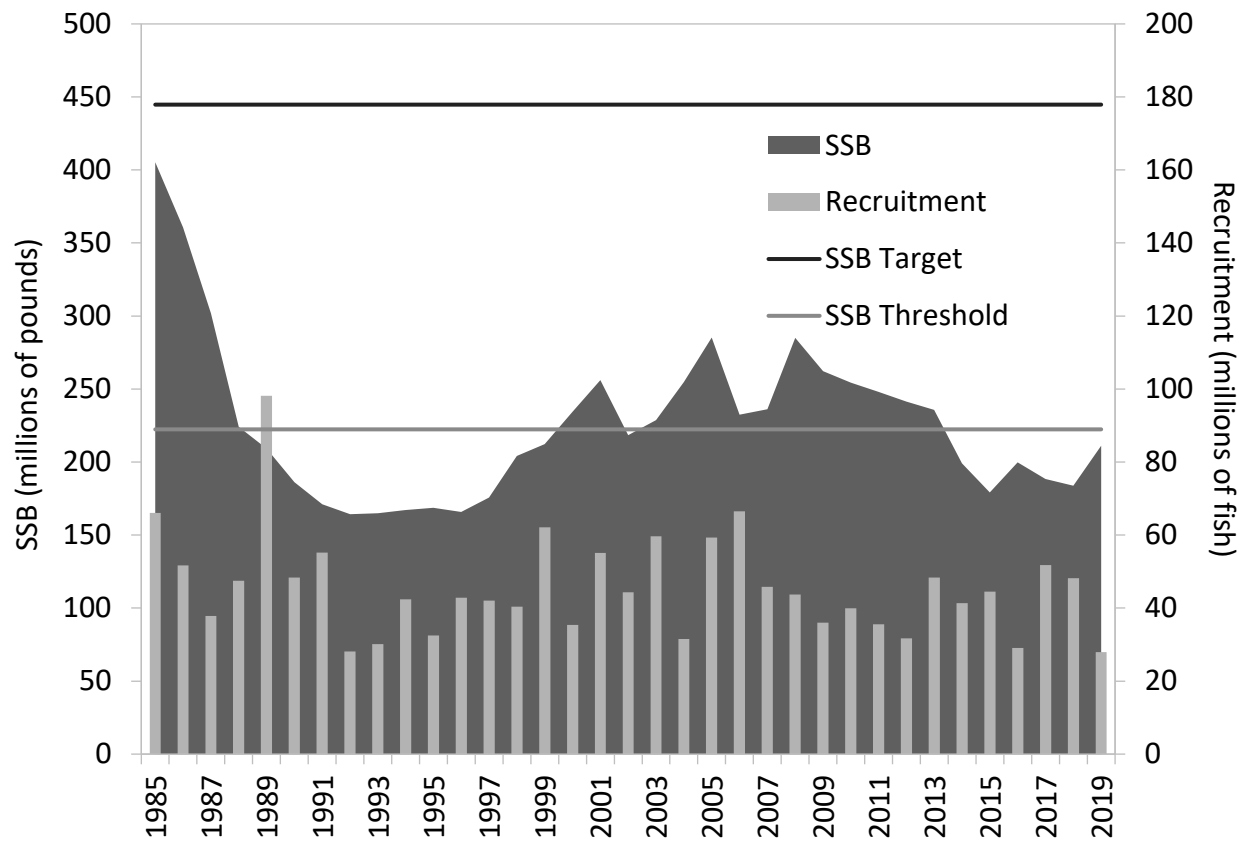


Figure 1. Bluefish spawning stock biomass and recruitment. Source: 2021 Management Track Assessment Prepublication Report, Northeast Fisheries Science Center.

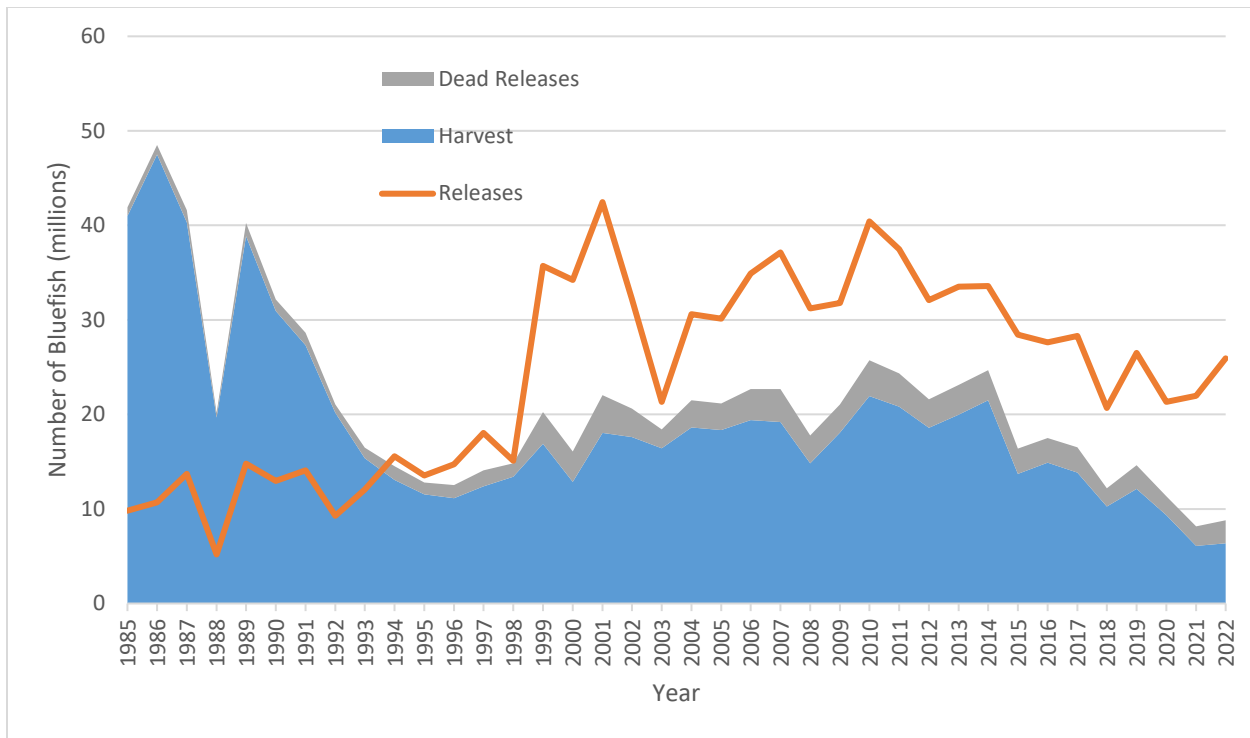


Figure 2. Estimated recreational bluefish harvest (A + B1), releases (B2) and dead releases by recreational anglers in numbers of fish, 1985-2022. Note: Harvest and dead releases are additive. Dead releases are estimated at the new recreational release mortality rate of 9.4%. Source: MRIP. Estimates may differ from source websites depending on query date (data queried June 2023).

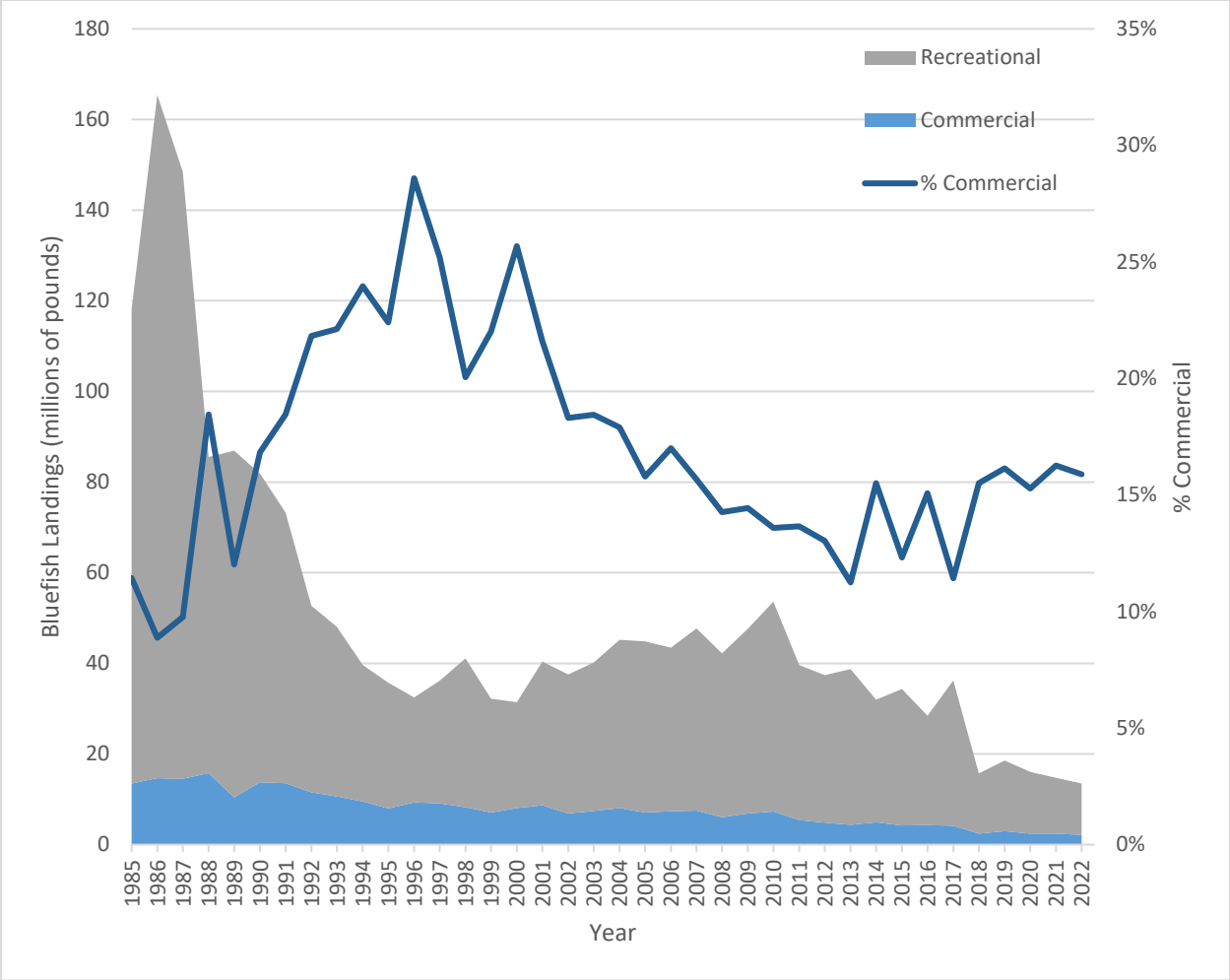


Figure 3. Bluefish recreational harvest and commercial landings by weight, 1985-2022. Source: ACCSP Data Warehouse (personal correspondence with Joseph Myers), 2023 state compliance reports, and MRIP. Estimates may differ from source websites depending on query date (commercial data queried May 2023).