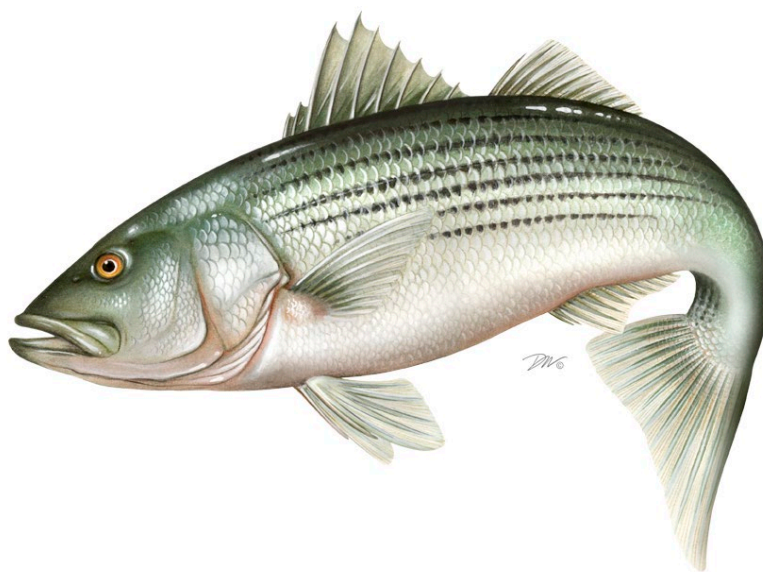


Atlantic States Marine Fisheries Commission

ADDENDUM III TO AMENDMENT 7 TO THE INTERSTATE FISHERY MANAGEMENT PLAN FOR ATLANTIC STRIPED BASS FOR PUBLIC COMMENT

***Total Length Measurement, Commercial Tagging Programs,
Maryland Chesapeake Bay Recreational Season Baseline***



November 2025



Sustainable and Cooperative Management of Atlantic Coastal Fisheries

Table of Contents

1.0 INTRODUCTION	1
2.0 OVERVIEW	2
2.1 Statement of the Problem.....	2
2.2 Background.....	3
2.2.1 Status of the Stock.....	3
2.2.2 Status of Management	6
2.2.3 Status of the Commercial Fishery.....	7
2.2.4 Status of the Recreational Fishery.....	11
2.2.5 Social and Economic Considerations	14
2.2.6 Seasonality of Recreational Catch and Effort	15
2.2.7 Equity Considerations for Ocean Regions and Chesapeake Bay Season Closures.....	21
2.2.8 Other Species Commonly Caught and Targeted in the Striped Bass Recreational Fishery	22
2.2.9 Examples of Recent Recreational Seasonal Closures: Maryland and North Carolina.....	23
2.2.10 Background on Total Length Measurement	26
2.2.11 Background on Maryland Chesapeake Bay Recreational Baseline Season.....	26
3.0 MANAGEMENT PROGRAM.....	28
3.1 Method to Measure Total Length of a Striped Bass	28
3.2 Commercial Tagging: Point of Tagging.....	28
3.3 Maryland Chesapeake Bay Recreational Season Baseline.....	28
4.0 COMPLIANCE SCHEDULE	29
REFERENCES	30
Appendix A.	31
2024 Management Measures by State	31
Appendix B.	35
Striped Bass Total Length Measurement Analysis	35
Appendix C.	36
Current State Regulatory Language Defining Point of Harvest or Point of Landing for Striped Bass Commercial Tagging	36
Appendix D.	37
State-Specific Recreational Seasonality Summary.....	37
Appendix E.....	39
Other Species Analysis and Figures.....	39

1.0 INTRODUCTION

Atlantic striped bass (*Morone saxatilis*) are managed through the Atlantic States Marine Fisheries Commission (Commission) in state waters (0–3 miles) and through NOAA Fisheries in federal waters (3–200 miles). The management unit includes the coastal migratory stock from Maine through North Carolina. State waters fisheries for Atlantic striped bass are managed under Amendment 7 to the Interstate Fishery Management Plan (FMP) and its Addenda. Harvesting and targeting striped bass in federal waters has been prohibited by NOAA Fisheries since 1990.

In December 2024, the Atlantic Striped Bass Management Board (Board) initiated Addendum III to Amendment 7 to support rebuilding the stock to its target spawning stock biomass level by 2029. The Board initiated the draft addendum via the following approved motion:

Move to initiate an addendum to support striped bass rebuilding by 2029 in consideration of 2024 recreational and commercial mortality while balancing socioeconomic impacts. Options should include, if needed, a range of overall reductions, consideration of recreational versus commercial contributions to the reductions, recreational season and size changes taking into account regional variability of availability, and no harvest versus no target closures. Final action shall be taken by the annual 2025 meeting to be in place for the 2026 recreational and commercial fisheries.

In February 2025, the Board requested a number of changes to the draft document, including

- options to achieve a 60% probability of rebuilding in addition to options for a 50% probability of rebuilding
- the development of recreational mode split options
- clarified that options should not consider changes to possession limits
- provided direction on the type of recreational size limits and scope of seasonal closure options to consider
- added an option to consider commercial tagging at the point of harvest instead of allowing states to choose between tagging at the point of harvest or point of sale
- added an option to consider standardizing the definition of ‘total length’ to address concerns about the lack of consistent measurement of striped bass for regulatory compliance, particularly within narrow slot limits.

In May 2025, the Board added an option to consider changing Maryland’s recreational season baseline. In August 2025, the Board added an option to consider commercial tagging by the first point of landing and removed the options to achieve a 60% probability of rebuilding, before approving it for public comment.

Addendum III, as approved by the Board in October 2025, establishes a definition of total length for measuring a striped bass, changes the point of tagging to the first point of landing for the commercial fishery, and allows Maryland to change its Chesapeake Bay recreational season baseline.

2.0 OVERVIEW

2.1 Statement of the Problem

Atlantic striped bass were declared overfished in 2019 and are subject to a rebuilding plan that requires the stock to be rebuilt to its spawning stock biomass target by 2029. The most recent stock projections estimate an increase in fishing mortality in 2025 due to the above average 2018 year-class entering the current recreational ocean slot limit, and there is concern about the lack of strong year-classes behind the 2018 year-class. After considering the severe economic consequences of a potential reduction, the low fishing mortality rate in 2024, and preliminary indications of even lower catch in 2025, the Board decided to maintain status quo recreational measures and commercial quotas.

The FMP's commercial tagging measures have been in place for over a decade. Currently, states with commercial fisheries choose whether to tag harvested fish at the point of harvest or the point of sale, or between those points, such as when the fish are landed. There are concerns that waiting to tag harvested fish until the point of sale could increase the risk of illegal harvest, so this addendum requires states to implement commercial tagging by the first point of landing with the goal of improving enforcement and compliance. This impacts three states that currently implement tagging at the point of sale (Massachusetts, Rhode Island, and North Carolina). However, differences among states' commercial management systems and how each state manages its current tagging program make it difficult to determine whether requiring the same type of tagging program across all states will decrease the risk of illegal harvest in every state.

Maryland's striped bass regulations have become increasingly complicated over time, including a complex suite of season closures throughout the year. In addition, the current understanding of release mortality rates and environmental stressors within Chesapeake Bay has resulted in some Maryland stakeholders' desire to adjust seasons to better take advantage of fishing opportunities when conditions are favorable to lower striped bass release mortality. This addendum considers a new recreational baseline season to simplify Maryland Chesapeake Bay regulations, which could help improve compliance and enforcement, as well as re-align access based on stakeholder input and release mortality rates. This new baseline would modify the duration and timing of various seasons throughout the year and is estimated to maintain the same level of removals as compared to 2024 levels (i.e., net neutral). The Board approved Maryland's ability to change its recreational season baseline if the state so chooses.

The FMP specifies size limit regulations in total length (TL), but it does not define a specific method for measuring TL. Consequently, current state regulations vary on how to measure a striped bass for regulatory compliance. There is concern that the lack of coastwide standards for the method of measurement is undermining the intended conservation, consistency, and enforceability of the size limits. In response, this addendum specifies that when measuring total length of a striped bass it must be a straight-line measurement with the upper and lower fork of the tail squeezed together. This definition applies to both sectors.

2.2 Background

2.2.1 Status of the Stock

Female spawning stock biomass (SSB) and fishing mortality (F) are estimated on a regular basis and compared to target and threshold levels (i.e., biological reference points) to assess the status of the striped bass stock. The 1995 estimate of female SSB is used as the SSB threshold because this is when the stock was declared recovered and important stock characteristics, such as an expanded age structure, were also reached by this year. The female SSB target is equal to 125% of the female SSB threshold. The associated F threshold and F target are calculated to achieve the respective SSB reference points in the long-term.

The most recent assessment was an update completed in 2024 with data through 2023, including a partial year of fishery data under the 2023 Emergency Action. The [2024 Stock Assessment Update](#) found the stock was not experiencing overfishing in 2023 ($F = 0.18$, below the threshold of 0.21 but above the target of 0.17) but remained overfished (female SSB = 191 million pounds, just below the threshold of 197 million pounds and below the target of 247 million pounds; Figure 1 and Figure 2). This was the same stock status as the prior 2022 Stock Assessment Update. Both the 2022 and 2024 assessments used the “low recruitment assumption” to calculate the reference points (per Amendment 7’s requirement under a tripped recruitment trigger), which resulted in a lower, more conservative F target and threshold compared to the 2018 benchmark assessment. Although below the threshold and considered overfished, female SSB in 2023 increased since the prior assessment and was still estimated to be well above SSB levels from the 1980s, when the stock was considered collapsed (Figure 1).

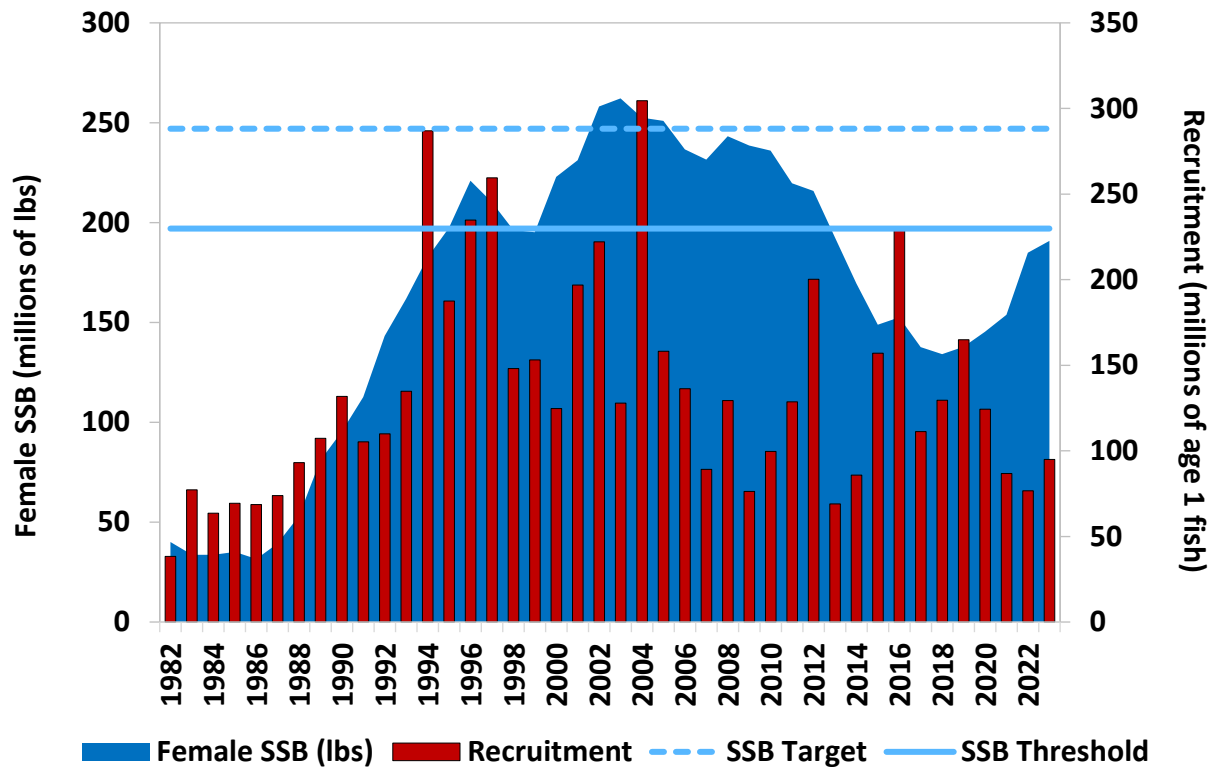


Figure 1. Atlantic striped bass female spawning stock biomass (blue) and recruitment (red), 1982-2023. Source: 2024 Stock Assessment Update.

The assessment also indicated a period of strong recruitment (numbers of age-1 fish entering the population) from 1994–2004, followed by a period of low recruitment from 2005–2011, although not as low as the period of stock collapse in the early 1980s (Figure 1). This period of low recruitment contributed to the decline in SSB that the stock has experienced since 2010. Recruitment of age-1 fish was high in 2012, 2015, 2016, and 2019 (corresponding to strong 2011, 2014, 2015, and 2018 year classes, respectively); however, estimates of age-1 striped bass were below the long-term average for seven of the last ten years.

The next stock assessment for striped bass is a benchmark stock assessment—in which the assessment input data and methods are fully re-evaluated—scheduled for peer review in Spring 2027. The 2027 Benchmark Stock Assessment will include data through 2025.

Stock projections were updated in May 2025 to estimate 2024 fishing mortality based on final 2024 recreational catch estimates from the Marine Recreational Information Program (MRIP) and initial 2024 commercial harvest estimates from the states.

The [Atlantic Striped Bass Technical Committee](#) (TC) reviewed assumptions about fishing mortality levels from 2025 through 2029 included in the projections. Under status quo management, 2025 fishing mortality is predicted to increase as the above average 2018 year-class enters the current recreational ocean slot limit, followed by a predicted decrease in fishing

mortality in 2026 as the 2018 year-class starts to grow out of that ocean slot limit with a lack of strong year classes following (Figure 2). For the 2025 increase, the TC determined the best assumption is a 17% increase from the 2024 level based on the observed 17% increase from 2021 to 2023 when part of the 2015 year-class was still in the newly reduced ocean slot limit. The TC noted the magnitude of increase may be overestimated since the 2018 year-class is not as strong as the 2015 year-class was. For 2026 through 2029, the TC determined the best assumption is a decrease back to the 2024 fishing mortality level in 2026 and maintain that level through 2029 noting this is a reasonable assumption under the same narrow slot limit with an above-average year-class growing out of the slot (Figure 2).

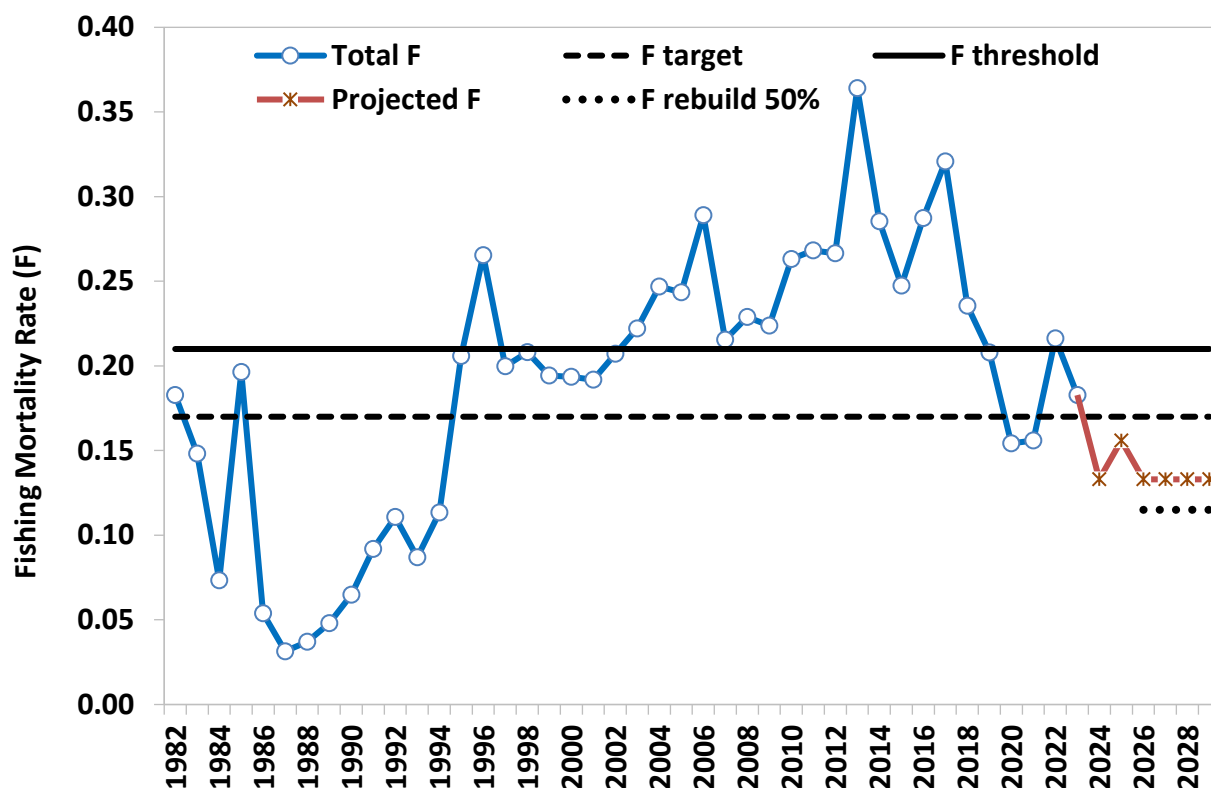


Figure 2. Atlantic striped bass fishing mortality from 1982-2023 from 2024 Stock Assessment Update (blue), estimated 2024 fishing mortality (orange), and projected fishing mortality for 2025-2029 (orange).

With the estimate of 2024 fishing mortality, the above assumptions about 2025-2029 fishing mortality under status quo management, and the same low recruitment assumption as the assessment, the projections estimate a 30% probability of being at or above the SSB target in 2029 (Figure 3). This would require a 12% reduction in 2026 removals to achieve the level of fishing mortality that would result in a 50% probability of SSB being at or above the SSB target in 2029 ($F_{rebuild\ 50\%}$) or an 18% reduction in 2026 removals to achieve the level of fishing mortality that would result in a 60% probability ($F_{rebuild\ 60\%}$). The TC continues to highlight

several major sources of uncertainty in the projections and the difficulty of predicting future fishing mortality rates.

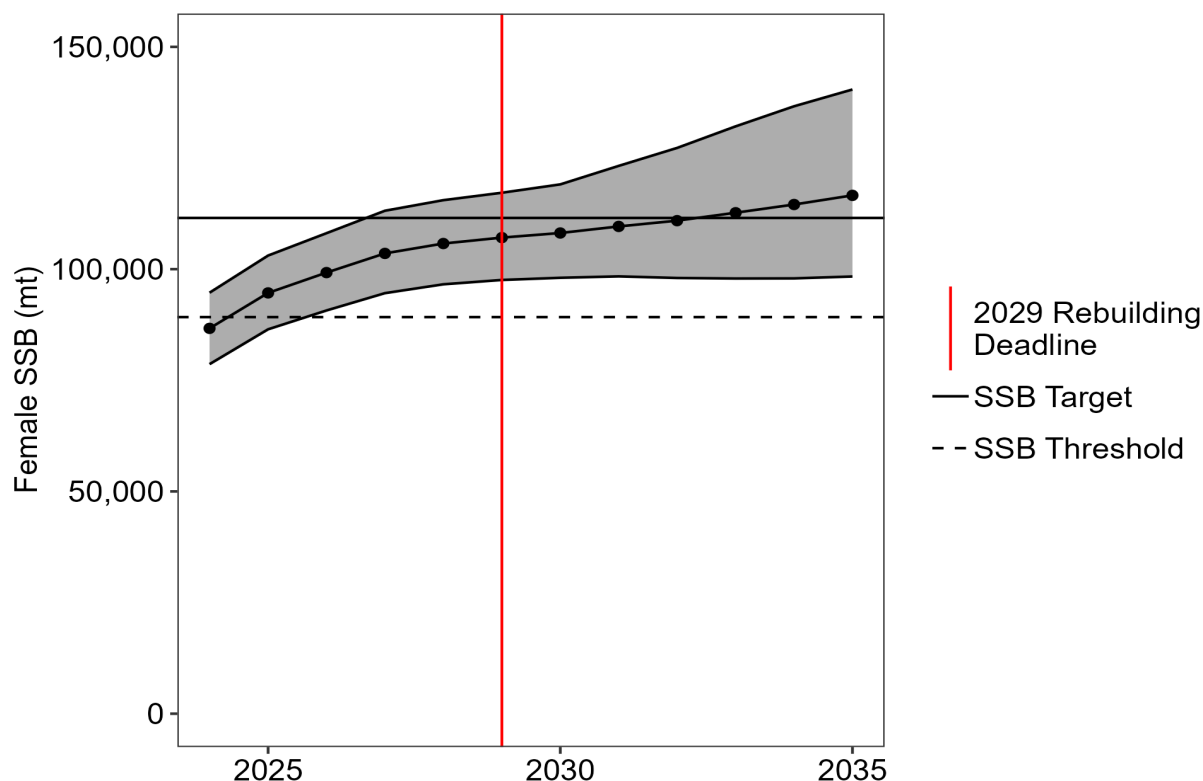


Figure 3. Female spawning stock biomass (SSB) trajectory based on Technical Committee assumptions about 2025-2029 fishing mortality under status quo management and using the same low recruitment assumption as the stock assessment. Shaded area indicates 95% confidence intervals.

In addition to the base projections described above, the Board requested sensitivity runs to provide additional context, including runs that extend the projections beyond 2029 and use a ‘very low’ recruitment assumption based on the most recent six years of very low recruitment. The base run uses the low recruitment assumption from the stock assessment (future recruitment drawn from 2008-2023) and indicates SSB will continue to increase after 2029 under the assumed fishing mortality rates. In the scenarios where future recruitment is drawn from the very low recruitment regime (2019-2024), SSB will begin to decline after 2030 as the 2015 and 2018 year-classes continue to die off due to natural and fishing mortality and are replaced by the weak 2019-2024 year-classes. The projected trajectory of SSB after 2029 varies depending on the recruitment scenario, with SSB continuing to increase after 2029 under the low recruitment regime and SSB declining after 2029 in the very low recruitment scenario.

2.2.2 Status of Management

Atlantic striped bass were declared overfished in 2019 and are subject to a rebuilding plan that requires the stock to be rebuilt to its spawning stock biomass target by 2029. In 2020, Addendum VI to Amendment 6 implemented management measures designed to achieve an

18% reduction in fishery removals to reduce fishing mortality. Those measures were in place until 2023, when the Board approved an emergency action in May of that year to change the recreational size limit in response to the unprecedented magnitude of 2022 recreational harvest, which was nearly double that of 2021, and associated updated stock rebuilding projections. Specifically, the Board's May 2, 2023 emergency action required all states to implement a 31-inch maximum size limit for their striped bass recreational fisheries (excluding Chesapeake Bay striped bass trophy fisheries) as soon as possible and no later than July 2, 2023, while maintaining all other measures. The 31-inch maximum size limit was intended to reduce harvest on the strong 2015 year-class. In effect, the emergency action reduced the ocean recreational slot from 28" to <35" to 28" – 31" and added a 31" maximum size to Chesapeake Bay's recreational measures. The emergency action was effective until May 1, 2024, at which point it was replaced by Addendum II to Amendment 7 measures.

Addendum II, approved in January 2024, was designed to reduce removals by 14% to support stock rebuilding. For the ocean recreational fishery, the Addendum implemented a 28" to 31" slot limit, 1-fish bag limit, and maintained 2022 season dates for all fishery participants; this maintained the same ocean recreational measures adopted under the 2023 emergency action. For Chesapeake Bay recreational fishery, the Addendum implemented a 19" to 24" slot limit, 1-fish bag limit, and maintained 2022 season dates for all fishery participants. For the commercial fishery, the Addendum reduced commercial quotas by 7% in both the ocean and Chesapeake Bay. To address concerns about recreational filleting allowances and compliance with recreational size limits, the Addendum established two requirements for states that authorize at-sea/shore-side filleting of striped bass: racks must be retained and possession limited to no more than two fillets per legal fish. Finally, to enable an expedited response process to upcoming stock assessments, the Addendum established a mechanism allowing the Board to respond to a stock assessment via Board action if the stock is not projected to rebuild by 2029 with a probability greater than or equal to 50%. All Addendum II measures were required to be implemented by the states no later than May 1, 2024.

2.2.3 Status of the Commercial Fishery

From 2020-2024, the commercial sector accounted for, on average, 13% of total removals per year in numbers of fish. The commercial fishery is managed by a quota system resulting in relatively stable landings since 2004 (Figure 4). There are two regional quotas; one for Chesapeake Bay and one for the ocean region, which includes other bays, inland rivers, and estuaries. In 2024, the ocean commercial striped bass quota was 2.2 million pounds with roughly 1.7 million pounds harvested in the ocean region. New York and Maryland (ocean) exceeded their state quotas in 2024. In Chesapeake Bay region, the 2024 commercial striped bass quota was 2.8 million pounds, and roughly 2.6 million pounds were harvested. While the full Chesapeake Bay quota was not exceeded, Maryland exceeded their portion of Chesapeake Bay quota. Refer to Appendix A for 2024 commercial fishery regulations by state, including size limits, trip limits, gear restrictions, and seasons.

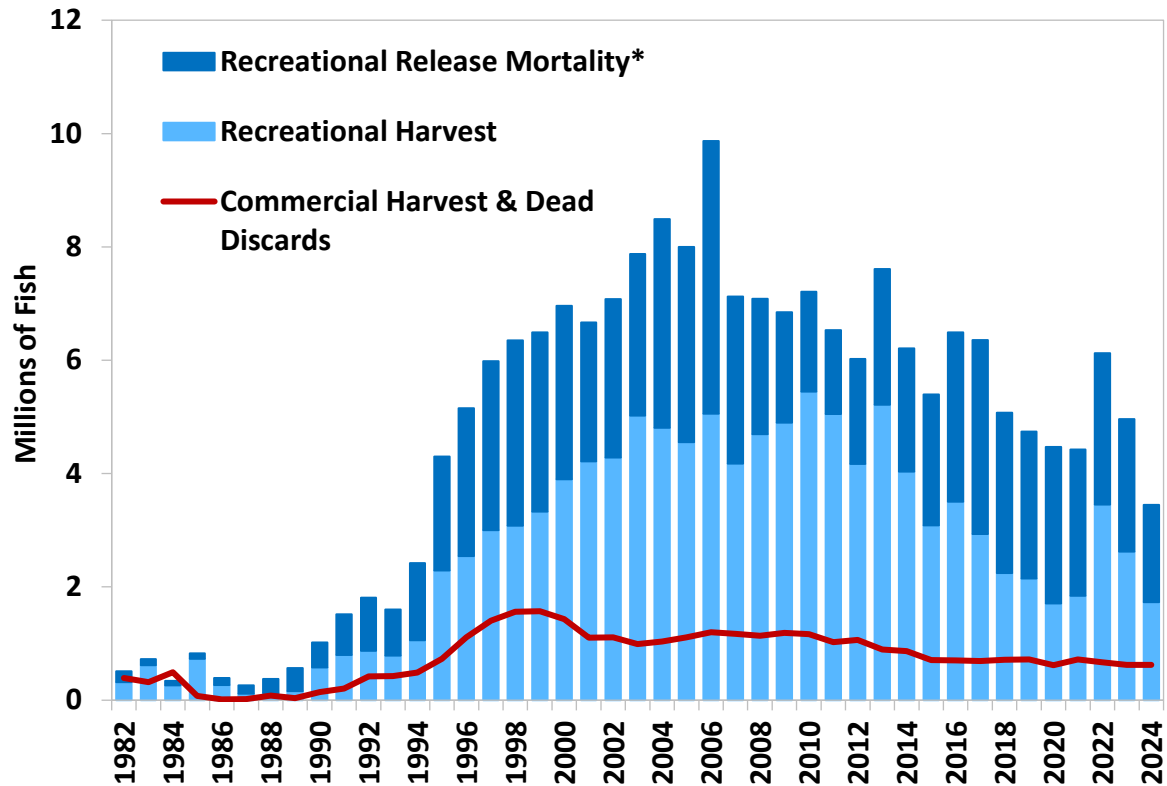


Figure 4. Atlantic striped bass commercial landings (line) and dead discards and recreational landings and release mortality (bars) from 1982-2024. *9% of fish released alive assumed to die from being caught. Source: 2024 Stock Assessment Update and State Compliance Reports.

The ocean region regularly underutilizes its cumulative commercial quota due to the lack of striped bass availability in some state waters (particularly North Carolina, which holds 13% of the ocean quota, yet has had zero ocean harvest since 2013) coupled with prohibitions on commercial striped bass fishing in Maine, New Hampshire, Connecticut, and New Jersey (which collectively share about 10% of the ocean commercial quota). The ocean commercial quota utilization was 76% in 2024, which was about the same as ocean quota utilization in 2021-2023. In the ocean, most states that allow commercial harvest utilized >96% of their ocean quota in 2024 with the exception of North Carolina which had zero ocean harvest.

In Chesapeake Bay, quota utilization in 2024 was about 94%, which was an increase from 2021-2023 quota utilization of 84%.

From 2004-2014, coastwide commercial landings averaged 6.8 million pounds per year. From 2015-2019, commercial landings decreased to an average of 4.7 million pounds due to implementation of reduced quotas through Addendum IV. From 2020-2024, coastwide commercial landings decreased again to an average 4.1 million pounds due to further reduced quotas through Addendum VI to Amendment 6 and Addendum II to Amendment 7.

Since 1990, commercial landings from the ocean fishery have accounted for an average 40% of total coastwide commercial landings by weight, with the other 60% coming from Chesapeake Bay. The proportion of commercial harvest coming from Chesapeake Bay is much higher in numbers of fish (roughly 80%) because fish harvested in Chesapeake Bay have a lower average weight than fish harvested in ocean fisheries.

Of total commercial harvest (combined ocean and Chesapeake Bay) by weight in 2024, Maryland landed 33%, Virginia landed 22%, Massachusetts landed 15%, and New York landed 14%. Additional harvest came from the Potomac River (10%), Delaware (3%), and Rhode Island (confidential).

Ocean commercial size limits, seasons, and gear types vary by state. Along the Atlantic coast, current legal minimum size ranges from 20" to 35". In general, lower minimum sizes exist in the Mid-Atlantic (where fish are primarily harvested by a combination of drift and anchor gill nets), while New England states have larger minimum sizes and predominantly use hook and line. In the ocean region, only New York currently has a commercial slot size with lower and upper bounds (26–38"). Chesapeake Bay commercial size limits and gear types are more uniform with an 18" minimum size for Bay states, although Maryland has a year-round maximum size (36") while the Potomac River Fisheries Commission (PRFC) and Virginia have seasonal maximum size limits of 36" and 28", respectively. All three Bay states use a combination of pound nets, gill nets, and hook/line gears.

How each state manages their commercial quota varies (e.g., some states manage their quota through an individual quota system), and one state (New Jersey) currently reallocates its commercial quota to the recreational sector through a quota-managed recreational bonus program.

Participation in each state's commercial fishery has varied over time (Table 1). There are likely several factors contributing to year-to-year participation in the fishery. These factors could include changes in available quota, state licensing and/or permitting, striped bass availability, other species availability, individual socioeconomic circumstances, changing demographics in the fishery, closed areas, and individual quota transfers/consolidation where applicable.

Table 1. Number of commercial harvesters landing striped bass by state from 2015-2024. Source: MADMF, RIDEM, NYSDEC, DENREC, MDDNR, PRFC, VMRC.

	MA	RI	NY	DE*	MD Ocean	MD Ches. Bay	PRFC	VA Ocean	VA Ches. Bay
2015	1,154	293	362	51	26	493	253	19	277
2016	1,233	267	370	45	23	494	253	18	267
2017	1,224	286	379	42	33	505	251	18	257
2018	1,308	269	345	41	33	464	215	19	260
2019	1,226	268	283	40	32	462	214	18	240
2020	658	231	346	38	44	414	204	18	218
2021	732	234	377	41	40	447	199	18	212
2022	1,038	256	376	40	41	419	209	17	231
2023	1,046	236	375	37	40	447	200	19	228
2024	940	261	377	37	43	415	187	17	230

*DE number of gill net harvesters only, which account for >99% of Delaware's commercial striped bass harvest.

Regarding commercial tagging, the FMP's commercial tagging measures have been in place since 2012 and allows states with commercial fisheries to choose whether to tag harvested fish at the point of harvest or the point of sale. One state currently specifies tagging between those points, at the point of landing, due to safety concerns raised by industry about tagging at point of harvest. Appendix C. lists current state definitions for tagging at point of harvest and point of landing.

Currently, three states implement tagging at the point of sale only: Massachusetts, Rhode Island, and North Carolina. There is concern that waiting to tag harvested fish until the point of sale increases the risk of illegal harvest. However, differences among states' commercial management systems and how each state manages its current tagging program (Table 2) make it difficult to determine whether requiring the same type of tag program across all states would decrease the risk of illegal harvest in every state.

To increase tag accountability, if harvesters or dealers do not return unused tags, most states with commercial tagging programs note the harvester or dealer is not able to receive the next season's tags or they receive a reduced number of tags until unused tags have been returned or a record of tag accounting/tag disposition has been submitted.

The Law Enforcement Committee (LEC) discussed point of tagging for striped bass commercial tagging programs at the [March 2025 LEC meeting](#) and [October 2025 LEC meeting](#). The LEC's most recent input from October 2025 noted that in general, the ability to inspect a commercial catch of striped bass at multiple points from take to consumption provides law enforcement the ability to be most effective in protection of the resource. Recent management measures in the ocean fishery have made the commercial take of striped bass more easily distinguished from a recreational take of striped bass. Management measures in the ocean fishery creating different size and possession limits between sectors gives law enforcement the ability to clearly define a commercial take from a recreational take while at sea and at the dock. This reduces

the enforcement concern in a point-of-sale tagging program. Tagging at point of sale or point of landing is less desirable for enforcement in states that are managed through individual quotas, and/or that allow for multiple commercial limits on board a vessel, or that have overlapping size limits between the commercial and recreational fishery. In these instances, states should strongly consider tagging at point of harvest.

Additional information on state commercial tagging programs is available in the [Striped Bass Commercial Tagging Ten-Year Review Report](#) completed in October 2025.

Table 2. State Tagging Program Key Characteristics

State	Tag at Point of Harvest or Sale	2024 Commercial Tags Issued	2024 Participants Receiving Tags	Individual Fishing Quotas
MA	Sale	51,240	129	No
RI	Sale	10,030	18 plus Confidential # Floating Fish Trap	No
NY	Harvest	59,502	379	Yes
DE	Landing*	17,300*	165 ⁺	Yes
MD	Harvest	441,000 [^]	805 [^]	Yes
PRFC	Harvest	87,713	263	Yes
VA	Harvest	188,700 [^]	362 [^]	Yes
NC	Sale**	0	0	No

* Delaware's number of tags listed are the tags issued to and used by harvesters to tag before the fish are landed. Tags are also issued to weigh stations where a second tag is attached to each striped bass, such that each fish has two tags.

+ Delaware's gill net fishery (111 licensees) account for >99% of Delaware's commercial striped bass harvest; the remaining licensees (54 in 2024) are hook-and-line only licensees that often choose to transfer their allocated tags to the gill net fishery.

[^]Initial number of Maryland and Virginia participants receiving tags and initial number of tags issued, which may change during the season due to quota transfers/leases and requests for additional tags.

** North Carolina has reported 0 commercial striped bass harvest from the ocean in over a decade. No tags were issued or used. Tags are on hand to issue if fish come inside three miles.

2.2.4 Status of the Recreational Fishery

The majority of striped bass fishery removals are from the recreational sector, accounting for 87% of total removals on average per year in numbers of fish from 2020-2024. The recreational fishery is managed by bag limits, minimum size or slot size limits, and closed seasons (in some states) to restrict harvest. Gear restrictions are also in place to increase the chance of survival after a striped bass is released alive in the recreational fishery. Recreational removals (harvest and release mortality) account for a vast majority (85-90% each year) of total striped bass fishery removals (recreational and commercial sectors combined).

Total Recreational Removals

Total recreational removals (harvest and release mortality) coastwide were estimated at 3.4 million fish in 2024, which is a 31% decrease from recreational removals in 2023 (Figure 4). This coastwide decrease in total recreational removals was a combination of a decrease in both harvest and live releases. Combined private vessel/shore modes accounted for 97% of ocean recreational striped bass removals in 2024, while for-hire components (charter and head boats) accounted for about 3% of ocean removals. In Chesapeake Bay, private vessels/shore modes accounted for 77% of Bay recreational removals in 2024, while for-hire modes accounted for 23%.

Live Releases

The vast majority of recreational striped bass catch (over 90%) is released alive either due to angler preference or regulation (i.e., closed season, undersized, oversized, or already caught the bag limit). The stock assessment assumes, based on previous studies, that 9% of fish that are released alive die as a result of being caught. In 2024, recreational anglers caught and released an estimated 19.1 million fish, of which 1.7 million are assumed to have died. This represents a 26% decrease in live releases coastwide from the 2023 level (Figure 4). By region in 2024, a reduction in live releases was observed in both the ocean and Chesapeake Bay, 26% and 29%, respectively.

Recreational Harvest

Recreational harvest in 2024 decreased to 1.7 million fish (15.3 million pounds) from the 2023 level of 2.6 million fish (23.9 million pounds), which is a 34% decrease by number (Figure 4). Relative to 2022 when recreational harvest spiked, 2024 harvest is 50% lower. By region, both the ocean and Chesapeake Bay saw a decrease in recreational harvest in 2024 relative to 2023, with the Bay seeing a larger reduction of 54% and the ocean seeing a 28% reduction. The larger reduction in recreational harvest in Chesapeake Bay could be attributed, at least partly, to the implementation of a Bay-wide 19"-24" slot limit in 2024 under Addendum II, and to the lack of strong year-classes available in the Bay in 2024. In the ocean, the size limit did not change between 2023 and 2024, but most of the remaining fish from the strong 2015 year-class (age-9 in 2024) had likely grown out of the narrow 28"-31" ocean slot limit by 2024, potentially contributing to the decrease. However, it is important to note that changes in effort can also impact harvest.

In 2024, New Jersey landed the largest proportion of recreational harvest in number of fish (36%), followed by New York (25%), Massachusetts (15%), and Maryland (13%). The proportion of coastwide recreational harvest in numbers from Chesapeake Bay has been the lowest since the stock recovered in the 1990s (20% in 2022, 22% in 2023, and 16% in 2024). This decrease in the proportion of recreational harvest from Chesapeake Bay in recent years, and therefore increased proportion of ocean recreational harvest, aligns with the availability of the strong 2015-year class in the ocean fishery in 2022-2023, implementation of a Chesapeake Bay-wide slot limit in 2024, and decrease in Maryland's for-hire bag limit from 2-fish to 1-fish in 2024. Additionally, as the last above average year-class (2018) move out of Chesapeake Bay after 2023, there are no strong year classes following.

For recreational harvest by mode, the magnitude of change from 2023 to 2024 differs between the for-hire modes and the private-shore modes by region. Private-shore harvest in 2024 decreased by 29% in the ocean and 60% in Chesapeake Bay. For-hire harvest in the ocean remained about the same as in 2023, while for-hire harvest in Chesapeake Bay decreased by 40% in 2024. The ocean saw larger decreases in these modes from 2022-2023, when recreational harvest decreased by 50% in the for-hire modes and 25% for the private-shore modes.

Recreational Effort

Similar to the change in recreational harvest, the number of trips directed at striped bass (primary and secondary target) also shows a larger reduction in the Bay as compared to the ocean (Figure 5). In 2024, the number of striped bass directed trips in Chesapeake Bay region decreased by about 40% relative to 2023, while the number of striped bass directed trips in the ocean decreased by about 10%. Overall, the total number of coastwide striped bass directed trips in 2024 decreased by 14% from 2023 and is the lowest number of directed trips in the past decade.

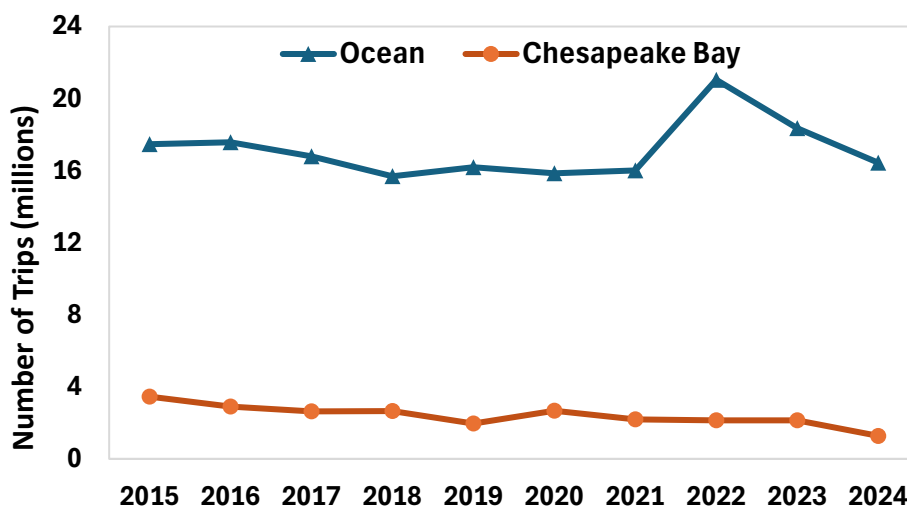


Figure 5. Number of striped bass directed trips (primary or secondary target) for the ocean in blue and Chesapeake Bay in orange from 2015-2024. Source: MRIP.

For directed trips by mode, private-shore directed trips in 2024 decreased by about 10% in the ocean and decreased by 42% in Chesapeake Bay. For-hire directed trips in the ocean in 2024 decreased by about 16%, while for-hire directed trips in Chesapeake Bay, approximated as the Inland area defined in MRIP, decreased by 13%. In Maryland specifically, the number of Maryland Chesapeake Bay for-hire trips catching striped bass are tracked via for-hire logbooks which indicate a 43% decrease from 2023 to 2024. Again, these data indicate larger reductions in recreational harvest and directed trips in Chesapeake Bay from 2023 to 2024. The ocean region saw larger reductions from 2022 to 2023.

Factors Contributing to Catch and Effort Trends

Overall, there are several factors that contribute to trends in recreational catch and effort, including management measures, year class availability, overall stock abundance, nearshore availability of bait and striped bass, and angler behavior. The relatively strong 2015-year class moving into the ocean and becoming available to the ocean slot (i.e., those 2015-year class fish surpassing 28-inches), was likely the primary driver of increased ocean recreational catch in 2022. The subsequent emergency action in 2023 intended to reduce harvest of the 2015-year class likely contributed to the harvest reduction observed in 2023. The 2015 year-class grew out of the ocean slot by 2024 (i.e., surpassing 31-inches) likely contributing to the decreases in ocean recreational catch in 2024. In Chesapeake Bay, a combination of the five-inch recreational slot limit implemented in 2024 and the lack of strong year classes available after the 2018 year-class moved into the ocean likely played a role. Angler effort and behavior are also important to consider. When more fish are available in the fishery, effort can often increase in response. When narrower size limits are in place or less fish are available in the fishery, anglers may change their behavior and level of effort.

2.2.5 Social and Economic Considerations

For the commercial sector, reductions in quota would likely reduce profits for striped bass commercial harvesters and may increase the consumer price of striped bass. The impacts of a quota reduction will vary depending on individual harvester circumstances, such as what portion of a harvester's current business is dependent on striped bass and the ability to switch to commercial fisheries for other species. Since there have been multiple striped bass commercial quota reductions in the past decade, harvesters may have already had to diversify their businesses and/or could eventually reach a point where harvesting striped bass is no longer profitable.

For the recreational sector, changes in seasonal closures, size and bag limits, and other measures affect important attributes of a recreational fishing trip, such as when during the year an angler is allowed to keep a fish. In turn, these changes in trip attributes will modify the utility (i.e., level of satisfaction) an angler expects to obtain from the fishing trip (McConnell et al. 1995, Haab and McConnell 2003). As a result, the angler may shift target species, modify trip duration or location, or decide not to take the trip and do something else instead. These behavioral responses lead to changes in directed fishing effort, with accompanying changes in harvest, fishing mortality, and angler welfare.

A reduction in effort could have a negative impact on the regional economy and businesses associated with the fishing industry for striped bass. This may only be a short-term response, and stock dynamics will dictate any longer-term effects on the resource and the angling community. Impacts on for-hire businesses will likely vary depending on individual business circumstances. If changes in seasonal closures or size limits reduce the number of striped bass trips for-hire businesses are able to book, the economic impacts will likely depend on whether the business can switch to target other species that are of interest to anglers. Managers have to weigh potential negative effects on anglers and businesses with potential long-term positive effects on the stock and future fishing experience.

Angler response to recreational seasonal closures is difficult to predict. There are two types of seasonal closures being considered: no-harvest and no-targeting. If striped bass harvest is prohibited during a closure, anglers could choose to catch-and-release striped bass, target another species, or choose not to fish at all. If targeting striped bass is prohibited, anglers could target another species or choose not to fish at all. Individual angler preferences and availability of other species are a few of many factors that would shape angler response to seasonal closures. See the following sections 2.2.6 through 2.2.8 for context on the seasonality of the recreational striped bass fishery and other species commonly caught and targeted with striped bass.

Research into striped bass anglers' preferences and behavior found that angler preferences vary. One study indicates the average striped bass angler prefers to catch and keep larger fish (Carr-Harris and Steinback 2020). Applying this to a 28" to 31" slot limit, anglers would likely prefer to keep a fish greater than 31" rather than having to release it, which means that in the short-term, a narrow slot limit like 28" to 31" may reduce effort (i.e., reduce trips) from those anglers seeking to bring fish home in the cooler. Conversely, any high minimum size or slot limit options (e.g., 37" to 40" slot) may be desirable for striped bass anglers who prefer to keep a larger fish, but this size limit would make it more difficult for shore anglers to catch a legal sized fish, given the smaller size of fish generally available inshore, which may also reduce effort and raise environmental justice issues.

To evaluate the effects of management options in the future, a bioeconomic model could be developed for striped bass to assess impacts of management options and feedback between fish stocks and angler decision-making, as currently done for other species such as summer flounder, scup, and black sea bass. Assessing the fishery impacts and potential success of proposed policy measures requires a predictive bioeconomic model that links angler participation and decision-making to changes in management measures, stock levels, and fishing conditions (Holzer and McConnell 2017, Lee et al. 2017). While there is some past striped bass work on angler preferences that could inform a potential bioeconomic model (Carr-Harris and Steinback 2020, Murphy et al. 2019), resources are needed to fully develop the economic component of the model to incorporate with the biological model. [Amendment 7](#) outlines those and other socioeconomic research needs.

2.2.6 Seasonality of Recreational Catch and Effort

Recreational catch, including harvest and live releases, were analyzed by state and wave to inform timing of state recreational fisheries throughout the year. MRIP data were pooled from 2021 through 2024 from Maine through North Carolina to identify commonalities between states regarding availability of fish (total catch), harvest, and effort (directed striped bass trips). Data from 2023 were not included in the ocean analysis due to the mid-year regulatory change from the ASMFC adopting the narrow 28" to 31" recreational slot limit through emergency action. North Carolina MRIP data were not included since North Carolina only attributes waves 1 and 6 ocean recreational catch to the ocean stock and that catch has been minimal (zero recreational harvest for several years, 2021-2022 releases were 0.1% of total ocean releases, zero 2024 releases). State-by-state descriptions of catch by wave are available in Appendix D.

For all states in the ocean fishery, total recreational catch was dominated by live releases (Table 3) and trips that caught striped bass are dominated by those only releasing striped bass (Table 4). It should be noted that North Carolina is the only state to conduct MRIP sampling in wave 1 (Jan-Feb). Massachusetts through Virginia conduct MRIP sampling from wave 2 (Mar-Apr) through wave 6 (Nov-Dec), while Maine and New Hampshire only conduct MRIP sampling from wave 3 through wave 5 (May-Oct).

Table 3. Percent of total striped bass catch that are live releases for each state and wave in the ocean region. Source: MRIP 2021-2022-2024 data.

Wave	ME	NH	MA	RI	CT	NY	NJ	DE	MD Ocean	VA Ocean	NC Ocean*
Wave 1 (Jan/Feb)	X	X	X	X	X	X	X	X	X	X	100%
Wave 2 (Mar/Apr)	X	X	100%	100%	100%	93%	91%	98%	100%	0%	0%
Wave 3 (May/June)	98%	98%	96%	95%	93%	87%	84%	100%	100%	100%	0%
Wave 4 (July/Aug)	97%	97%	91%	92%	92%	86%	97%	97%	100%	100%	0%
Wave 5 (Sep/Oct)	99%	96%	94%	95%	98%	81%	89%	100%	0%	0%	0%
Wave 6 (Nov/Dec)	X	X	100%	100%	100%	93%	87%	99%	100%	0%	100%

X indicates MRIP sampling does not occur during that wave.

*NC only considers striped bass caught in the ocean during waves 1 and 6 to be part of the coastal migratory stock.

Table 4. Proportion of trips landing striped bass and trips only releasing striped bass (i.e., no harvest) for all 2021-2024 trips that caught striped bass.

	% Trips Landing SB	% Trips Only Releasing SB
ME	9	91
NH	11	89
MA	20	80
RI	13	87
CT	12	88
NY	29	71
NJ	35	65
DE	4	96
MD Ocean	5	95
VA Ocean	0	100
MD Ches. Bay	29	71
VA Ches. Bay	23	77

In Maine and New Hampshire, peak catch (number of fish) and effort (millions of trips) occur in wave 4 (Jul-Aug) (Figure 6, Table 4).

Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Delaware all have some level of catch in waves 2 – 6 (Mar-Dec) (Figure 6). Peak catch and effort vary by state for Massachusetts, Rhode Island, and Connecticut. Massachusetts catch peaks in waves 3 – 4 (May-Aug), Rhode Island catch peaks in wave 3 (May-Jun), and both states have peak effort in wave 4 (Jul-Aug) (Figure 6, Table 5). Connecticut catch peaks in wave 2 (Mar-Apr) with effort peaking in wave 3 (May-June).

In the Mid-Atlantic states, availability occurs in waves 2 – 6 (Mar-Dec) with New York, New Jersey, and Delaware all having peak catch in wave 6 (Nov-Dec) and effort varying by state (Figure 6, Table 5). Effort in New York is consistent in waves 2 – 3 (Mar-Jun) and 5 – 6 (Sep-Dec). New Jersey effort is high in wave 2 (Mar-Apr) and peaks in wave 6 (Nov-Dec) and Delaware effort is high in wave 6 (Nov-Dec) and peaks in wave 2 (Mar-Apr). Peak catch and effort for Maryland and North Carolina in the ocean peak in wave 6 (Nov-Dec) while in Virginia, peak catch occurs in wave 4 (Jul-Aug) but peak effort occurs in wave 5 (Sep-Oct) for the ocean fishery. It should be noted that PSEs for Delaware through North Carolina can be relatively high.

Table 5. Proportion of each state’s directed striped bass trips by wave in the ocean region.
Source: MRIP data 2021-2022-2024.

Wave	ME	NH	MA	RI	CT	NY	NJ	DE	MD Ocean	VA Ocean	NC Ocean*
Wave 1 Jan/Feb	X	X	X	X	X	X	X	X	X	X	19%
Wave 2 Mar/Apr	X	X	5%	21%	23%	22%	27%	32%	11%	0%	0%
Wave 3 May/June	27%	25%	28%	23%	29%	22%	20%	22%	31%	0%	0%
Wave 4 July/Aug	47%	43%	39%	25%	19%	13%	4%	8%	3%	0%	0%
Wave 5 Sep/Oct	26%	32%	22%	19%	18%	20%	15%	9%	10%	54%	0%
Wave 6 Nov/Dec	X	X	6%	12%	10%	23%	34%	29%	45%	46%	81%

X indicates MRIP sampling does not occur during that wave.

*NC only considers striped bass caught in the ocean during waves 1 and 6 to be part of the coastal migratory stock.

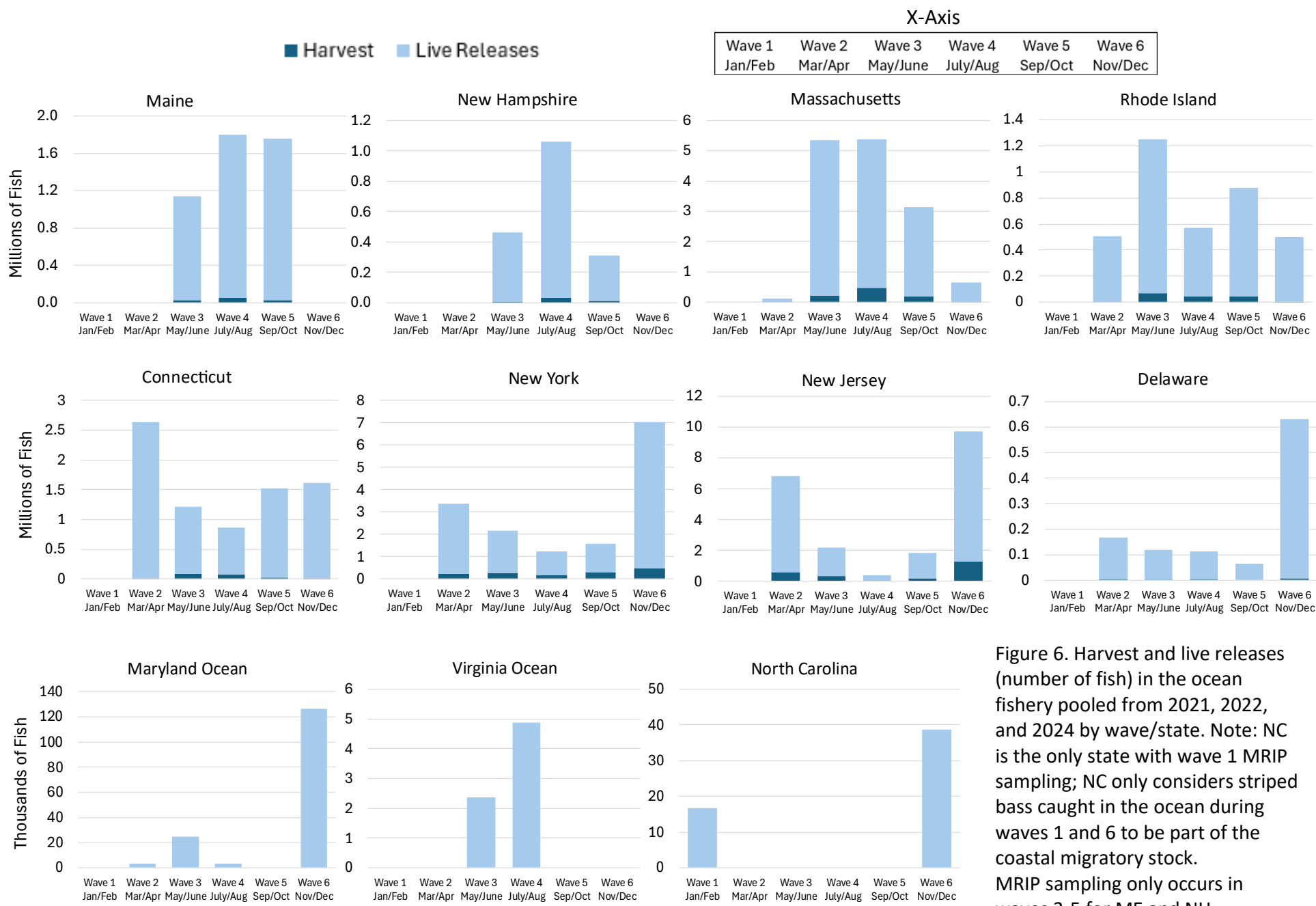


Figure 6. Harvest and live releases (number of fish) in the ocean fishery pooled from 2021, 2022, and 2024 by wave/state. Note: NC is the only state with wave 1 MRIP sampling; NC only considers striped bass caught in the ocean during waves 1 and 6 to be part of the coastal migratory stock. MRIP sampling only occurs in waves 3-5 for ME and NH.

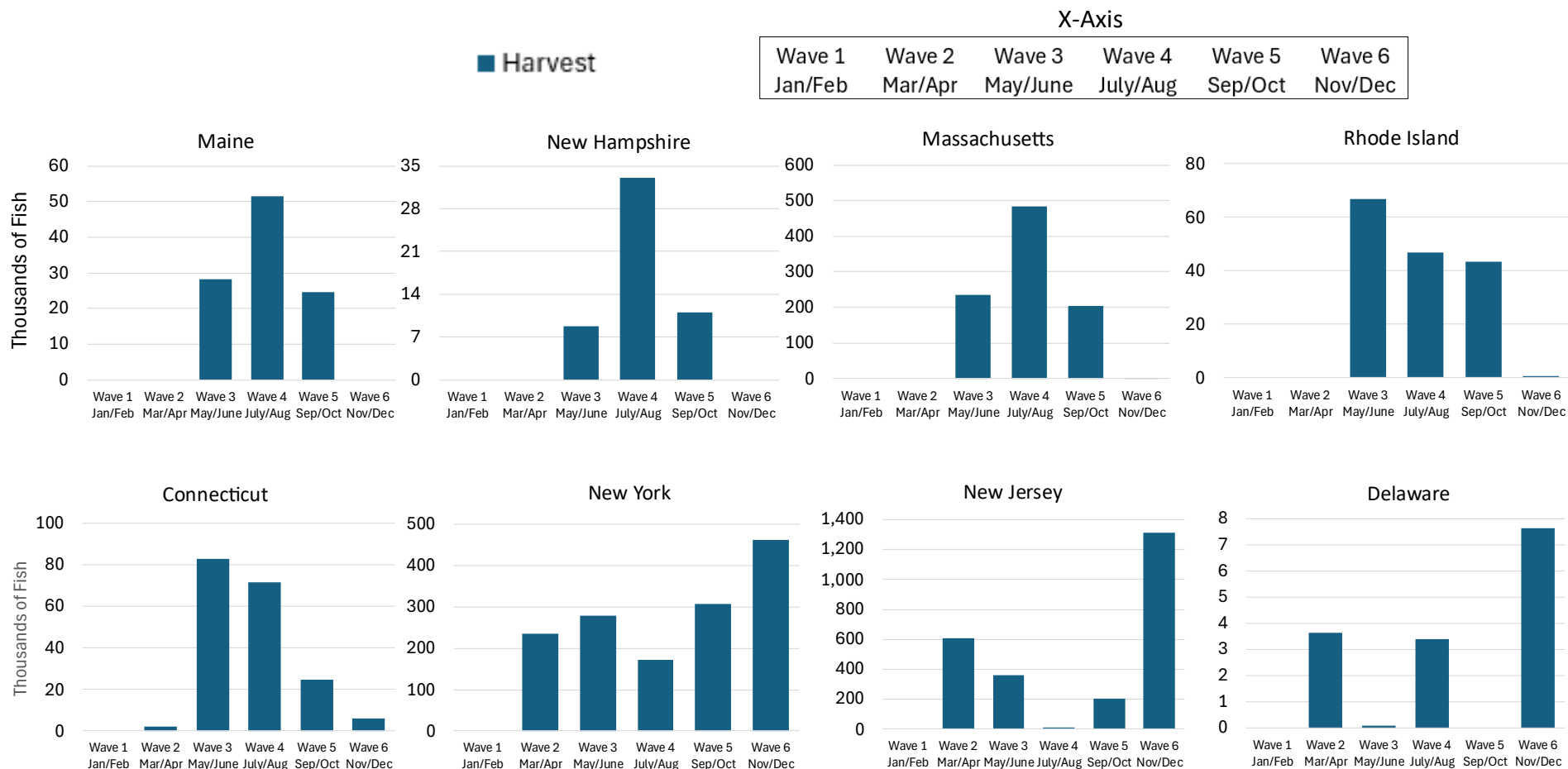


Figure 6. Harvest in the ocean fishery pooled from 2021, 2022, and 2024 by wave/state. Maryland Ocean, Virginia Ocean, and North Carolina have zero ocean harvest so are not shown. Note: NC is the only state with wave 1 MRIP sampling; NC only considers striped bass caught in the ocean during waves 1 and 6 to be part of the coastal migratory stock. MRIP sampling only occurs in waves 3-5 for ME and NH.

In Chesapeake Bay fish are available in waves 2 – 6 (Mar-Dec) with peak catch occurring in wave 6 (Nov-Dec) (Figure 8). Harvest and effort for Maryland and Virginia peak in wave 3 (May-Jun) and wave 6 (Nov-Dec), respectively (Figure 9, Figure 10). Note this analysis covers the time period after implementation of no-targeting closures for part of wave 2 (Mar-Apr) and wave 4 (Jul-Aug) in Maryland Chesapeake Bay; the timing of peak harvest and effort in Maryland Chesapeake Bay prior to these closures (pre-2020) may have been different.

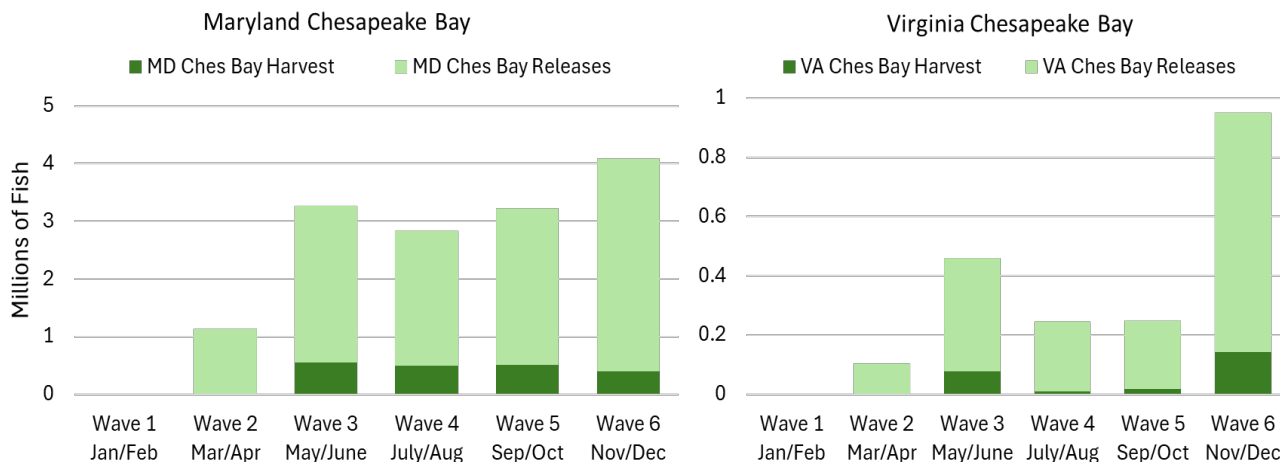


Figure 7. Recreational harvest (dark green) and live releases (light green) in the Chesapeake Bay (MRIP Inland for MD and VA) pooled from 2021-2024 by wave/state. Source: MRIP. Note: MRIP sampling does not occur during wave 1 in MD and VA.

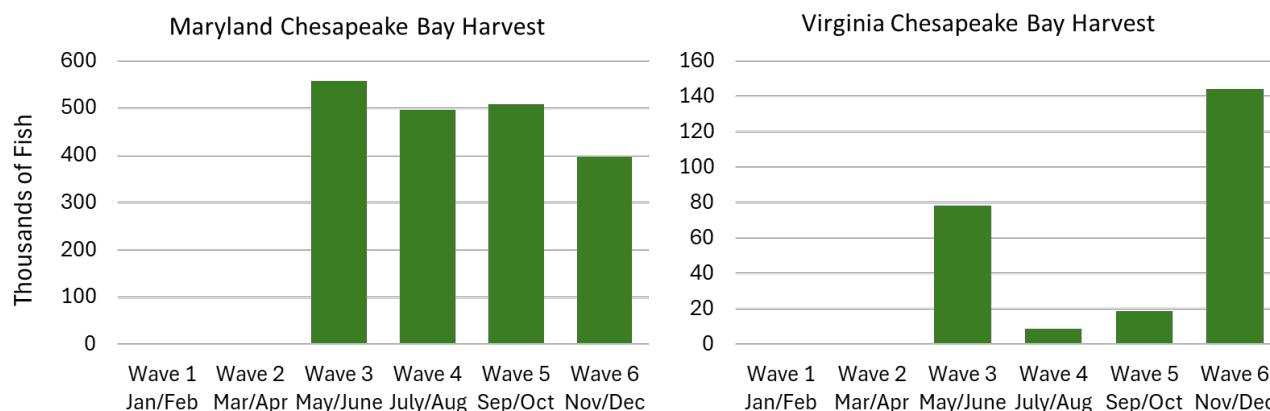


Figure 8. Recreational harvest in the Chesapeake Bay (MRIP Inland for MD and VA) pooled from 2021-2024 by wave/state. Source: MRIP. Note: MRIP sampling does not occur during wave 1 in MD and VA.

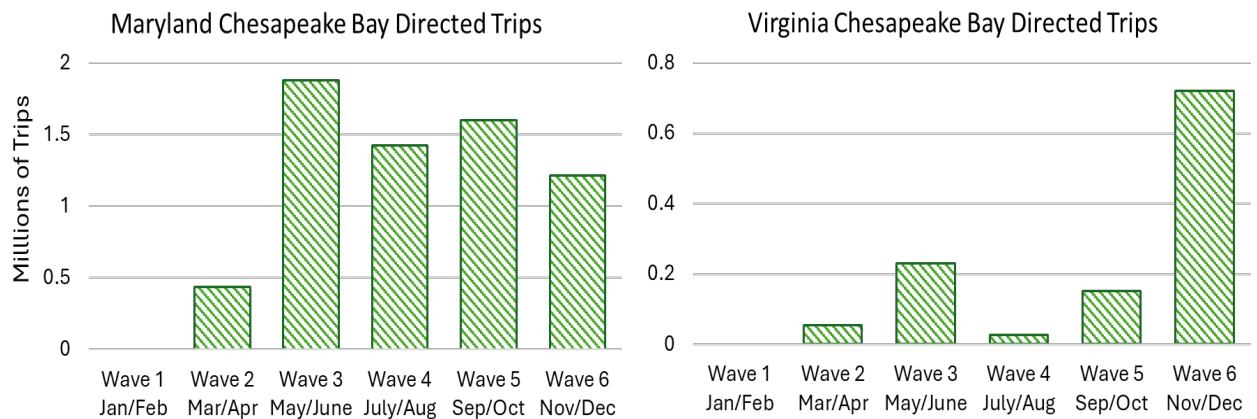


Figure 9. Striped bass directed trips (primary or secondary target) in the Chesapeake Bay (MRIP Inland for MD and VA) pooled from 2021-2024 by wave/state. Source: MRIP. Note: MRIP sampling does not occur during wave 1 in MD and VA.

2.2.7 Equity Considerations for Ocean Regions and Chesapeake Bay Season Closures

Ocean Regional Approach 1: Maine – Massachusetts and Rhode Island – North Carolina

Maine, New Hampshire, and Massachusetts all have the majority of their total catch (Figure 6), all of their harvest (Figure 7), and 89 – 100 % of their directed trips (Table 4) in waves 3 – 5 (May – Oct.). A seasonal closure (either no harvest or no targeting) in waves 1 (Jan-Feb), 2 (Mar-Apr), and/or 6 (Nov-Dec) for these states will not be impactful, therefore options in the draft addendum were limited to waves 3 – 5 (May – Oct.). All three states have their peak catch and harvest occurring wave 4 (Jul-Aug) however Massachusetts comprises 85% of harvest, 64% of releases, and 65% of total catch in wave 4 (Jul-Aug) for these states combined.

For the Rhode Island through North Carolina ocean region, total catch peaks in Rhode Island in wave 3 (May-Jun); CT in wave 2 (Mar-Apr); New York, New Jersey, Delaware, Maryland, and North Carolina in wave 6 (Nov-Dec); and Virginia in wave 4 (Jul-Aug). As peak total catch varies by state across four waves, a no-targeting closure in a single wave to reduce total removals in this region is likely to be inequitable. As a result, a closure across two waves, for example requiring all states to implement closures in wave 3 (May-Jun) and wave 6 (Nov-Dec), may be more effective in addressing equity concerns.

Harvest peaks in wave 3 (May-Jun) for Rhode Island and Connecticut; wave 6 (Nov-Dec) for New York, New Jersey, Delaware, and Maryland; with no ocean harvest occurring in either Virginia or North Carolina. As a result, a single-wave no-harvest closure for this region would not have equal impacts across all states. A no-harvest closure across two waves in this region could address inequity closures. For example, a no-harvest closure in waves 3 (May-Jun) and 6 (Nov-Dec) would impact all states in the region with Rhode Island and Connecticut being more impacted by the wave 3 (May-Jun) closure and New York, New Jersey, Delaware, Maryland, and North Carolina being more impacted by the wave 6 (Nov-Dec) closure.

Ocean Regional Approach 2: Maine – Rhode Island and Connecticut – North Carolina

Under this regional approach, Rhode Island would be shifted and included with the northern states of Maine, New Hampshire, and Massachusetts. However, unlike Maine, New Hampshire, and Massachusetts which have peak catch, harvest, and effort in wave 4 (Jul-Aug), Rhode Island peak catch and harvest occur in wave 3 (May-Jun) with nearly equal peak effort in waves 3 (May-Jun) and 4 (Jul-Aug). A no-targeting or no-harvest closure in a single wave under this region may not be equitable across all states. Additionally, by Rhode Island being included in this region, they would likely have a different seasonal closure than Connecticut, New York, and New Jersey. This may create challenges in the state waters around Block Island as anglers from Rhode Island through New Jersey fish in these waters and would be following different regulations. The Law Enforcement Committee noted concern about different seasons for states around Block Island Sound.

For Connecticut through North Carolina, inequities would likely still exist among these states with a single wave no-harvest or no-targeting closure for the same reasons outlined in Regional Approach 1.

Chesapeake Bay State Closures

In Chesapeake Bay, both Maryland and Virginia have peak catch in wave 6 (Nov-Dec) which could translate into an equitable single-wave no-targeting closure. Harvest in Maryland is consistent in waves 3 – 6 (May-Dec) with Virginia peak harvest occurring in wave 6 (Nov-Dec) followed by wave 3 (May-Jun). A single-wave no-harvest closure in these states could also be equitable depending on the wave chosen. It may be equitable for Maryland and Virginia to close during different waves based on existing closures that differ between the two states (e.g., Virginia is already closed for the entirety of wave 4 while Maryland sees some harvest and releases during that wave).

2.2.8 Other Species Commonly Caught and Targeted in the Striped Bass Recreational Fishery

Effects of striped bass seasonal closures on angler behavior are highly speculative, but a possible result of such closures could be anglers switching effort to other species. This analysis considers which species are often targeted on the same trip as striped bass and which species are often caught on trips that also catch striped bass. While this may provide some insight into which other species may be available to anglers if striped bass seasonal closures are implemented, it is important to note that some of these species are only co-targeted and caught with striped bass because anglers are already targeting striped bass. If anglers are no longer targeting striped bass, anglers may not necessarily switch to these other species. They may choose not to take the trip at all or switch to other species that are not commonly caught with striped bass.

Additionally, it is important to note that bait species are often part of the total catch caught on the same trip as striped bass (Table 6). For some states like Maine and New Hampshire, bait species comprise a majority of catch on trips that also caught striped bass. Anglers are likely targeting/catching bait to then use for targeting striped bass later in the trip. If that is the case,

implementation of striped bass seasonal closures may impact the catch of bait species as well during the closure period.

MRIP data from 2021 through 2024 for both the ocean fishery and Chesapeake Bay fishery were compiled by state and by wave to explore *a)* the top ten species reported as either primary or secondary targets on trips that also targeted striped bass, and *b)* the top ten species caught on trips that also caught striped bass. State-specific figures and a summary by region are available in Appendix E.

Table 6. For trips that caught striped bass, the percentage of total fish caught that were either striped bass, other non-bait species, or bait, by state summed for 2021-2024.

	% Striped Bass	% Other Non-Bait Species	% Bait Species
ME	43.4	3.2	53.3
NH	45.7	6.5	47.9
MA	57.1	15.5	27.5
RI	61.1	37.1	1.7
CT	57.5	32.4	10.1
NY	54.8	37.0	8.2
NJ	75.5	20.9	3.7
DE	43.0	55.1	1.9
MD Ocean	83.5	13.5	3.0
VA Ocean	24.2	75.8	0.0
MD Ches. Bay	42.6	49.8	7.6
VA Ches. Bay	34.9	58.4	6.7

2.2.9 Examples of Recent Recreational Seasonal Closures: Maryland and North Carolina

Striped bass seasonal closures have recently been implemented in Maryland’s Chesapeake Bay and North Carolina’s Albemarle Sound and Roanoke River. While the specific impacts of these closures may not be directly comparable to new closures considered in this addendum, particularly for the ocean, these closures provide insight into changes in effort and angler behavior. Several factors, including angler preferences (harvest or catch-and-release fishing), accessibility of fishing areas, and availability of other species, will contribute to any changes in catch and effort from a closure.

In Maryland Chesapeake Bay, as part of Maryland’s conservation equivalency program for Addendum VI to Amendment 6, striped bass no targeting closures were implemented starting in 2020 for April 1-30 (half of wave 2 (Mar-Apr)) and for 16 days during wave 4 (Jul-Aug). In 2020, the wave 4 (Jul-Aug) closure was August 16 through August 31, and from 2021 onward, the closure has been July 16 through July 31. In addition to these closures, Maryland implemented other recreational management changes at the same time, including a shortened trophy season (starting May 1 rather than the third Saturday of April) and reduced bag limit for

private boat and shore anglers (2 fish to 1 fish). The charter bag limit stayed at 2 fish for charter boat anglers if the charter boat was enrolled in the charter electronic reporting system.

MDDNR reviewed MRIP data for striped bass directed trips, harvest, and live releases in inland waters to compare effort and removals in wave 2 (Mar-Apr) and wave 4 (Jul-Aug) for the five years prior to the no targeting closures (2015-2019) to the four years since the no targeting closures were implemented (2020-2023). There was a decrease in directed fishing effort for striped bass in Maryland's Chesapeake Bay during those waves in the years since the closures were implemented. During wave 2 (Mar-Apr) when the month of April was closed to targeting, MRIP indicates a 67% decrease in striped bass directed trips in wave 2 (Mar-Apr) across all modes in the years since the closure was implemented. During wave 4 (Jul-Aug) when the summer season was closed to targeting for two weeks, MRIP indicates a 24% decrease in striped bass directed trips in wave 4 (Jul-Aug) across all modes in the years since the closure was implemented. An additional review of for-hire data collected by MDDNR through the FACTS reporting program indicates total for-hire trips decreased by 74% during the summer closure relative to the two weeks prior to the closure.

Harvest, live releases and total removals estimates also declined after Maryland's no targeting closures were implemented, particularly for private boat and shore modes. It is important to note that other factors (e.g., fish availability, year-class strength, and the private angler trip limit changing from 2 fish to 1 fish) are also contributing to these results. To reduce the effects of changing fish availability and year class strength, the proportions of directed trips, harvest, and live releases by wave were explored and also showed a decrease in directed fishing effort, harvest, and live releases after the no targeting closures were implemented. Further, the realized reductions from the closures met or exceeded the predicted reductions. Anglers reported targeting other Bay species more heavily during the closures, such as white perch, spot, and bluefish during the summer closure, as compared to prior to the closures when striped bass was the most targeted species.

In North Carolina, as part of the State's management of the Albemarle Sound-Roanoke River (A-R) striped bass stock, the recreational season has been shortened in recent years as a result of poor stock status. Most recently, a harvest moratorium was implemented in 2024. The most recent A-R stock assessment, the 2022 Stock Assessment Update (Lee et al. 2022), indicated the stock is overfished and overfishing is occurring along with very low juvenile recruitment for several consecutive years.

In response, North Carolina implemented multiple management changes including reducing the total allowable landings (TAL), implementing a slot limit, reducing creel limits, new gear restrictions, and shortening seasons. Over the past few years, the Roanoke River Management Area (RRMA) striped bass recreational season has changed from a two-month harvest season to fourteen days in 2021 (seven days in two separate zones), four days in 2022, and six days in 2023. The Albemarle Sound Management Area (ASMA) striped bass recreational harvest season closed earlier each year as the quota decreased and was reached sooner. In 2024, a harvest

moratorium for the commercial and recreational sectors in both management areas was implemented.

Since harvest restrictions shortening the recreational season have been implemented in the RRMA, effort during the traditional harvest period (March-April) has decreased. In the Upper Roanoke River, where there are few other species to target besides striped bass, effort decreased approximately 50% when the harvest season was shortened and decreased by another 50% with the full moratorium in 2024 (NCWRC unpublished data). Estimated number of angler trips targeting striped bass during March and April in the upper river averaged approximately 10,000 anglers from 2015 through 2020 but dropped to approximately 5,000 anglers in 2021 through 2023 and 2,300 anglers in 2024. Anglers participating in the Upper River fishery were assumed to be participating with the intent of harvesting a striped bass, not just catch-and-release.

In the Lower Roanoke River, although other species are available like catfish, white perch, sunfish, shad, or largemouth bass, striped bass targeted effort decreased more sharply than in the upper river when the season was shortened and there was minimal effort in 2024 with the moratorium. Lower river anglers targeting striped bass averaged approximately 12,000 trips per year from 2015-2020, but that effort decreased when the seasons were shortened (4,852 in 2021, 2,604 in 2022, and 3,110 trips in 2023). In 2024, only 244 targeted striped bass trips were estimated in the lower Roanoke River due to the harvest moratorium.

Effort during May, which is the typical catch-and-release season, on the upper Roanoke River has not shown the same decreases, likely in part due to different anglers participating in the different fisheries. Additionally, the number of guided trips has persisted due to the popularity of the catch-and-release fishery. The decrease in effort, along with a reduction in the daily creel limit from two fish to one fish, in the RRMA markedly decreased the number of striped bass landed in 2021-2023 (NCDMF 2024). However, the trend in the number of striped bass released in the RRMA remained similar to years with unrestricted seasons and is more related to availability and year class strength rather than effort.

In the ASMA, trip level effort during the traditional recreational harvest period (October through April) remains variable with the recent season restrictions. Like the RRMA, the number of for-hire trip intercepts in the ASMA has remained consistent as well as shore mode fishing; however, private boat intercepts have decreased approximately 30% from 2020-2021, 36% from 2021-2022, and 15% from 2022-2023 (NCDMF unpublished data). There was a decrease in the number of trips in 2023, but not to the same magnitude as the decrease in RRMA effort. However, even with the decrease in trips, the annual angler hour effort has not decreased. ASMA effort has historically varied year-to-year depending on striped bass abundance and year-class strength, and on the availability of other species like red drum and spotted sea trout. In general, there is a wider variety of species available in the Albemarle Sound than in the Roanoke River. However, if there is a combination of striped bass closures and low availability of other species in a particular year, that could contribute to lower effort and anglers may choose to fish somewhere else.

2.2.10 Background on Total Length Measurement

The Atlantic Striped Bass FMP has specified size limits in total length (TL) since the original FMP's approval in 1981 but does not define a specific method for measuring TL for regulatory compliance. This has resulted in inconsistent state regulations and is of developing interest since the adoption of mandatory maximum size limits in the recreational striped bass fishery. Some states require squeezing the upper and lower fork of the tail, some states allow angler discretion on whether to squeeze the tail, and some states require the tail be left natural or fanned out. The total length measurement that is obtained from a striped bass differs among these three orientations of the tail (i.e., squeezed, left natural, or forcibly fanned out), whereby pinching the tail makes the fish longer and fanning the tail makes the fish shorter compared to the natural length.

A recent analysis by the Massachusetts Division of Marine Fisheries to quantify the relationship between these different measurements indicated that while there is a minor difference between a natural and pinched tail measurement (estimated 0.29"), there is a more substantial difference between a natural and forcibly fanned tail measurement which also depends on fish size (e.g., a 32.38" fish measures 31" when the tail is forcibly fanned, difference of 1.38"; Appendix B.). Consequently, loosely defined methods of TL measurement or where anglers have discretion on whether to forcefully fan the tail to make the fish shorter can effectively allow harvest of striped bass that are over the maximum size limit. This undermines the intended conservation of the management measure. Additionally, the differences among the states' definitions of TL mean that some striped bass which must be released in certain states would be allowed to be retained in other states, which is contrary to the intended consistency of a coastwide size limit.

Further review of the states' regulatory definition of total length for striped bass demonstrated several other inconsistencies that may be of interest to address. First, not all states establish that the length measurement be taken as a straight line (as opposed to over the curve of the fish' body). Second, some states specify that the fish needs to be laid on its side and/or laid as flat as possible. Third, not all states specify that the mouth of the fish must be closed.

The Law Enforcement Committee supports consistent, specific, and easily understood language on how to measure striped bass TL, which would be especially beneficial in shared waterbodies where anglers may be fishing in multiple states' waters. Although standardizing the method of measuring TL would greatly improve consistency for regulatory compliance, there could be continued inconsistencies. For example, the rack of a fillet fish may measure slightly differently than the whole fish would have using the same method of measurement. The Law Enforcement Committee noted that filleted racks would be measured in the same manner as a whole fish. Additionally, the measurement may be inconsistent between types of measuring devices (i.e., using a measuring board vs. a measuring tape).

2.2.11 Background on Maryland Chesapeake Bay Recreational Baseline Season

Since 2015, Maryland has modified regulations for Chesapeake Bay recreational striped bass fishery seven times, with changes including size, bag limit, and season modifications as well as

gear and targeting restrictions. These changes have built off regulations that were previously in place for each action, resulting in newer regulations becoming increasingly complicated through time, including a complex suite of season closures throughout the year. In addition, the current understanding of release mortality rates and environmental stressors within Chesapeake Bay has resulted in some Maryland stakeholders' desire to adjust seasons to better take advantage of fishing opportunities when conditions are favorable to lower striped bass release mortality (i.e. cooler water with less hypoxia).

To simplify Maryland's Chesapeake Bay regulations to improve compliance and enforcement and re-align access based on stakeholder input and release mortality rates, this section considers a new recreational baseline season for the Maryland Chesapeake Bay. This new season baseline would only modify the duration and timing of various seasons throughout the year; this season baseline issue does not address changes to the size or bag limits. Additionally, the baseline options do not affect any of Maryland's spawning area closures that are in effect March through May. Those existing spawning area closures will remain in place, unchanged.

The Striped Bass Technical Committee (TC) accepted Maryland's methods for calculating the new season baseline and highlighted the uncertainty of predicting the change in effort associated with opening a currently closed season. The proposed new baseline proposes opening the current April no-targeting closure to allow catch and release. The proposed baseline assumes the number of trips per day will be the same as in 2024 while accounting for an increase in the number of releases per fish if catch-and-release is allowed. The TC noted that an increase in effort would be expected with a season opening from no-targeting to allowing catch and release; however, the TC agreed that it is very difficult to predict how much effort would increase, especially without an applicable historical reference period. In the past when April was open to fishing, there was harvest allowed for part of the month, not just catch-and-release fishing as proposed here. Additionally, effort has varied from year-to-year even under the same regulations. The TC could not develop a quantitative assumption about how effort would change when the season is opened from no-targeting to catch-and-release that was any more defensible than the assumption of constant effort, and so accepted the use of that assumption in this case.

There is also uncertainty around the effect of catch-and-release fishing on spawning success (from the proposed opening to catch-and-release in April) given the very limited information on this topic.

The proposed new recreational season baseline is estimated to maintain the same level of removals as compared to 2024 levels (i.e., net neutral compared to the current season). The new baseline season would 1) change the month of April from no-targeting to allowing catch-and-release; 2) change May 1-15 from no-targeting to allowing harvest; 3) shift the summer no-targeting closure from July to August and extend the closure from 16 days to 31 days; and 4) close the harvest fishery five days earlier in December.

3.0 MANAGEMENT PROGRAM

Addendum III includes management measures for the ocean and Chesapeake Bay fisheries. The striped bass ocean fishery (also referred to as “ocean region”) is defined as all fisheries operating in coastal and estuarine areas of the U.S. Atlantic coast from Maine through North Carolina, excluding Chesapeake Bay and Albemarle Sound-Roanoke River (A-R) management areas. The Chesapeake Bay fishery is defined as all fisheries operating within Chesapeake Bay. This document does not propose changes to the Albemarle Sound-Roanoke River fisheries, which are managed separately by North Carolina.

3.1 Method to Measure Total Length of a Striped Bass

The regulatory definition of striped bass total length measurement related to size limits includes the following elements: 1) squeezing the tail; and 2) a straight-line measurement. This applies to both the commercial and recreational sectors. States may implement the below language or submit alternative language that includes the two above elements in their implementation plans for Board consideration.

Total length means the greatest straight line length in inches as measured on a fish from the anterior most tip of the jaw or snout to the farthest extremity of the tail with the upper and lower fork of the tail squeezed together.

3.2 Commercial Tagging: Point of Tagging

This section amends Section 3.1.1 in Amendment 7.

Commercial tagging of a striped bass occurs by the first point of landing (i.e., before offloading and/or before removing the vessel from the water). If fishing from shore, tagging occurs immediately upon possession.

3.3 Maryland Chesapeake Bay Recreational Season Baseline

This section amends Section 3.1.1 in Addendum II to Amendment 7.

Maryland may choose to maintain its status quo Chesapeake Bay striped bass recreational season as specified by the FMP (maintain the same seasons that were in place in 2022) shown in Table 7 and the accompanying table note, or Maryland may implement the new recreational season in Table 7 calculated to be net neutral (i.e., not increase removals relative to 2024 levels). Maryland will notify the Board of the season chosen through its implementation plan. This Addendum will be updated to reflect Maryland’s decision as notified through its implementation plan.

Table 7. Maryland Chesapeake Bay status quo FMP season and new season baseline option.

Status Quo Season	New Baseline
Catch and Release Jan 1 – Mar 31	Catch and Release Jan 1 – Apr 30
No Targeting Apr 1 – May 15*	
Harvest May 16 – July 15	Harvest May 1 – July 31
No Target July 16-31	
Harvest Aug 1 – Dec 10	No Target Aug 1 – Aug 31
	Harvest Sep 1 – Dec 5
Catch and Release Dec 11 – Dec 31	Catch and Release Dec 6 – Dec 31

*Note for the Status Quo season: The FMP specifies that 2022 seasons must be maintained. Maryland’s 2022 Chesapeake Bay season included a trophy fishery from May 1-15, so Maryland can include a trophy season in their status quo season. Starting in 2024, Maryland decided to close its May 1-15 trophy season voluntarily, which is more conservative than the FMP requirements. It is Maryland’s decision whether to keep the trophy season closed if the status quo season is selected.

4.0 COMPLIANCE SCHEDULE

The implementation schedule for Addendum III to the Atlantic Striped Bass Interstate FMP is as follows:

- Total length definition (Section 3.1): state implementation plans are due by December 31, 2025. States to implement regulations by January 1, 2027.
- Maryland recreational season baseline (Section 3.3): state implementation plan is due by December 31, 2025.
- Commercial tagging (Section 3.2): state implementation plans are due by January 1, 2028. States to implement regulations by December 31, 2028.

REFERENCES

- Carr-Harris, A. and S. Steinback. 2020. Expected economic and biological impacts of recreational Atlantic striped bass fishing policy. *Front. Mar. Sci.* 6: 814, p.1-20.
- Haab, T.C. and McConnell, K.E. 2003. *Valuating Environmental and Natural Resources: The Econometrics of Non-Market Valuation*, Edward Elgar Publishing.
- Holzer, J. and K. McConnell. 2017. Risk Preferences and Compliance in Recreational Fisheries. *Journal of the Association of Environmental and Resource Economists*, 4(S1):1-35.
- Lee, L.M., C.J.C. Schlick, N. Hancock. C.H. Godwin, and J. McCargo (editors). 2022. *Assessment of the Albemarle Sound-Roanoke River Striped Bass (Morone saxatilis) stock in North Carolina, 1991–2021*. North Carolina Division of Marine Fisheries, NCDMF SAP-SAR2022-03, Morehead City, North Carolina. 98 p.
- Lee, M., S.R. Steinback, and K. Wallmo. 2017. Applying a bioeconomic model to recreational fisheries management: Groundfish in the northeast United States. *Marine Resource Economics* 32 (2): 191–216.
- McConnell, K.E. and Strand, I.E. and Blake-Hedges, L. 1995. Random Utility Models of Recreational Fishing: Catching Fish Using a Poisson Process. *Marine Resource Economics* 10, p.247-261.
- Murphy Jr., R., S. Scyphers, S. Gray, J.H. Grabowski. 2019. Angler attitudes explain disparate behavioral reactions to fishery regulations. *Fisheries* 44 (10): 475-487.
- NCDMF. 2024. 2023 Fishery Management Plan Review. North Carolina Division of Marine Fisheries, Morehead City, NC. p. 65-11.

Appendix A.
2024 Management Measures by State

Table A1. Summary of Atlantic striped bass **commercial** measures under Addendum II to Amendment 7 as of May 1, 2024. State implementation plans were approved in March 2024 and May 2024. Please refer to each state’s regulations for additional details.

STATE	SIZE LIMITS (TL) and TRIP LIMITS	ADDENDUM II QUOTA	OPEN SEASON
ME	Commercial fishing prohibited		
NH	Commercial fishing prohibited		
MA	35” minimum size; no gaffing undersized fish. 15 fish/day with commercial boat permit; 2 fish/day with rod and reel permit.	683,773 lbs. Hook & Line only.	6.18-9.30 (or when quota reached); open fishing days of Tuesday and Wednesday, with Thursday added on August 1 if >30% quota remains. Cape Cod Canal closed to commercial striped bass fishing.
RI	Floating fish trap: 26” minimum size unlimited possession limit until 80% of quota reached, then 500 lbs. per licensee per day	Total: 138,467 lbs., split 39:61 between the trap and general category. Gill netting prohibited.	4.1 – 12.31
	General category (mostly rod & reel): 34” min. Five (5) fish per person per calendar day, or if fishing from a vessel, five (5) fish per vessel per calendar day.		6.11-6.20; 7.9-12.31, or until quota reached. Closed Thursdays, Fridays, Saturdays, and Sundays throughout.
CT	Commercial fishing prohibited; bonus program in CT suspended indefinitely in 2020.		
NY	26”-38” size; (Hudson River closed to commercial harvest)	595,868 lbs. Pound Nets, Gill Nets (6-8”stretched mesh), Hook & Line.	5.15 – 12.15, or until quota reached. Limited entry permit only.
NJ	Commercial fishing prohibited; bonus program: 1 fish/permit at 24” to <28”	200,798 lbs.	5.15 – 12.31 (permit required)

STATE	SIZE LIMITS (TL) and TRIP LIMITS	ADDENDUM II QUOTA	OPEN SEASON
PA	Commercial fishing prohibited		
DE	Gill Net: 20" min in DE Bay/River during spring season. 28" in all other waters/seasons.	Gillnet: 132,501 lbs. Split between gill net and hook and line. No fixed nets in DE River.	Gillnet: 2.15-5.31 (2.15-3.30 for Nanticoke River) & 11.15-12.31; drift nets only 2.15-28 & 5.1-31; no trip limit.
	Hook and Line: 28" min		Hook and Line: 4.1-12.31, 200 lbs./day trip limit
MD	Chesapeake Bay and Rivers: 18-36" Common pool trip limits: Hook and Line - 250 lbs./license/week Gill Net - 300 lbs./license/week	1,344,216 lbs. (part of Bay-wide quota)	Bay Pound Net: 6.1-12.31 Bay Haul Seine: 1.1-2.28; 6.1-12.31 Bay Hook & Line: 6.1-12.31 Bay Drift Gill Net: 1.1-2.28, 12.1-12.31
	Ocean: 24" minimum	Ocean: 82,857 lbs.	1.1-5.31, 10.1-12.31
PRFC	18" min all year; 36" max 2.15-3.25	532,761 lbs. (split between gear types; part of Bay-wide quota)	Hook & Line: 1.1-3.25, 6.1-12.31 Pound Net & Other: 2.15-3.25, 6.1-12.15 <u>Gill Net</u> : 11.9.2021-3.25.2022 Misc. Gear: 2.15-3.25, 6.1-12.15
VA	Chesapeake Bay and Rivers: 18" min; 28" max size limit 3.15-6.15	914,555 lbs. (part of Bay-wide quota)	1.16-12.31
	Ocean: 28" min	116,282 lbs.	
NC	Ocean: 28" min	274,810 lbs. (split between gear types)	Seine fishery was not opened Gill net fishery was not opened Trawl fishery was not opened

Table A2. Summary of Atlantic striped bass **recreational** size limits, bag limits, and seasons under Addendum II to Amendment 7 as of May 1, 2024. State implementation plans were approved in March 2024 and May 2024. Please refer to each state’s regulations for gear/fishing restrictions in that state.

STATE	SIZE LIMITS (TL)/REGION	BAG LIMIT	OPEN SEASON
ME	28" to 31"	1 fish/day	All year, except spawning areas are closed 12.1-4.30 and C&R only 5.1-6.30
NH	28" to <31"	1 fish/day	All year
MA	28" to <31"	1 fish/day	All year
RI	28" to <31"	1 fish/day	All year
CT	28" to 31"	1 fish/day	All year
NY	Ocean and Delaware River: 28" to 31"	1 fish/day	Ocean: 4.15-12.15 Delaware River: All year
	Hudson River: 23" to 28"	1 fish/day	Hudson River: 4.1-11.30
NJ	28" to 31"	1 fish/day	Closed 1.1 – Feb 28 in all waters except in the Atlantic Ocean, and closed 4.1-5.31 in the lower DE River and tribs
PA	Upstream from Calhoun St Bridge: 28" to <31", 1 fish/day		All year
	Downstream from Calhoun St Bridge: 28" to <31", 1 fish/day* *except from 4.1-5.31: 22" to <26", 1 fish/day		All year. 1 fish/day at 22" to <26" slot from 4.1-5.31

STATE	SIZE LIMITS (TL)/REGION	BAG LIMIT	OPEN SEASON
DE	28" to 31"	1 fish/day	All year. C&R only 4.1-5.31 in spawning grounds. 20" to 24" slot from 7.1-8.31 in DE River, Bay & tributaries
MD	Ocean: 28" to 31"	1 fish/day	All year
	Chesapeake Bay and tribs^	C&R only	1.1-2.28, 3.1-3.31, 12.11-12.31
	Chesapeake Bay and tribs^	No targeting	4.1-5.15, 7.16-7.31
	Chesapeake Bay: 19" to 24" 1 fish/day^		5.16-5.31
	Chesapeake Bay and tribs: 19" to 24", 1 fish/day^		6.1-7.15, 8.1-12.10
PRFC	Summer/Fall: 19" to 24"		1 fish/day
DC	19" to 24"		1 fish/day
VA	Ocean: 28" to 31"		1 fish/day
	Bay Spring/Summer/Fall: 19" to 24"		1 fish/day
NC	Ocean: 28" to 31"		1 fish/day

^ MD Susquehanna Flats: C&R only 1.1-3.31 and 12.11-12.31; No targeting 4.1-5.31; 1 fish at 19"-24" slot 6.1-7.15 and 8.1-12.10; No targeting 7.16-7.31



The Commonwealth of Massachusetts

Division of Marine Fisheries

(617) 626-1520 | www.mass.gov/marinefisheries



MAURA T. HEALEY
Governor

KIMBERLEY DRISCOLL
Lt. Governor

REBECCA L. TEPPER
Secretary

THOMAS K. O'SHEA
Commissioner

DANIEL J. MCKIERNAN
Director

Appendix B.

Striped Bass Total Length Measurement Analysis

Ben Gahagan, Recreational Fisheries Program Leader

December 2024

To examine the implications of Massachusetts' current striped bass total length measurement definition—specifically, that anglers have discretion to either squeeze or leave fanned the upper and lower fork of the tail to measure the tail extremity—DMF biologists made a series of measurements on live and dead bass in the fall of 2024. During the annual USFWS striped bass tagging effort off Cape Cod, Recreational Fisheries Program staff took measurements from 413 striped bass with the tail naturally fanned (i.e., the tail was not manipulated to increase spread) and with the tail pinched. Age and Growth Project staff took measurements from 80 striped bass that were collected in the Recreational Rack data collection program. With these striped bass, measurements were made with the tail spread to the greatest extent possible and pinched. All measurements were rounded to the nearest 0.5 cm and then converted to inches.

The collected data were analyzed to create relationships between the three length types (pinched, natural fan, and forced fan) so that pinched lengths and predicted lengths for natural and forced fanning could be used to evaluate the potential increase in harvestable size due to current measurement regulations. Relative to a natural fanned length, pinching slightly increased the measured length while forcing the fan produced a larger decrease in measured length. Additionally, the increase in pinched length was almost constant as fish size increased while the decrease from forcing the caudal apart grew larger with fish size. Taken in combination, the ability to pinch or forcefully fan the caudal fin expands the current three-inch slot limit, relative to a natural fanned-length, by at least 1.67" (27.71" – 32.38"; Figure B1).

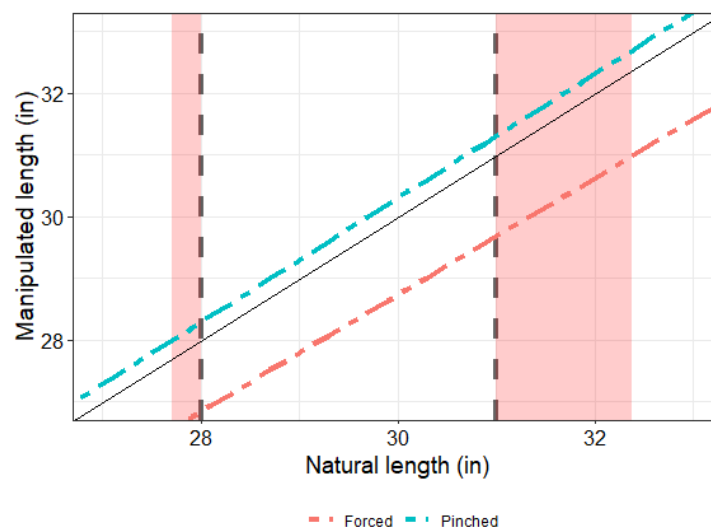


Figure B1. Potential increase in slot size (shaded red) by allowing both pinched (teal dashed line) and forced fanning (orange dashed line) measures for striped bass. A 1:1 line (thin black line) is provided for reference.

Appendix C.

Current State Regulatory Language Defining Point of Harvest or Point of Landing for Striped Bass Commercial Tagging

New York: Immediately after removing said striped bass from their gear and prior to attending another piece of gear

Delaware: Before landing or putting on shore

Maryland: (1) Immediately to a striped bass harvested by hook and line; (2) Within 200 yards of the pound net to a striped bass harvested from a pound net; or (3) Before removing a striped bass from a boat or removing a boat from the water, to a striped bass harvested by any other gear.

Potomac River Fisheries Commission: As soon as feasible and in no event shall any commercially caught striped bass be removed from the Potomac River or from the boat at the point of landing, whichever occurs first, without said tag being permanently affixed. The words “as soon as feasible” as used herein shall mean for the i) Commercial Hook & Line fishery – as soon as the fish is taken and before it is put into the cooler or storage area; ii) Pound Net fishery – as soon as the fish are taken and before the boat leaves the net site; and iii) Gill Net fishery – as soon as each separate piece of net is fished and before the boat leaves the net site.

Virginia: At the place of capture, and before leaving the place of capture

Appendix D.

State-Specific Recreational Seasonality Summary

Recreational catch (harvest and live releases) was analyzed by state and wave with MRIP data pooled from 2021, 2022, and 2024 for the ocean and 2021, 2022, 2023, and 2024 for Chesapeake Bay. Massachusetts through Virginia conduct MRIP sampling from wave 2 (Mar-Apr) through wave 6 (Nov-Dec), while Maine and New Hampshire only conduct MRIP sampling from wave 3 through wave 5 (May-Oct). North Carolina is the only state to conduct MRIP sampling in wave 1 (Jan-Feb).

Maine

Fish are caught in waves 3 – 5 (May-Oct) with total catch peaking in waves 4 – 5 (Jul-Oct). Wave 4 (Jul-Aug) and wave 5 (Sep-Oct) total catch are nearly equal in magnitude with their combined total catch making up 76% of total catch for Maine. Harvest in Maine peaks in wave 4 (Jul-Aug) at 49% followed by wave 3 (May-Jun) at 27% and wave 5 (Sep-Oct) at 25%.

New Hampshire

Fish are caught in waves 3 – 5 (May-Oct) with total catch peaking in wave 4 (Jul-Aug) and making up 58% of total removals for New Hampshire. Harvest in New Hampshire peaks in wave 4 (Jul-Aug) at 63% followed by wave 5 (Sep-Oct) at 21% and wave 3 (May-Jun) at 17%.

Massachusetts

Fish are caught in waves 2 – 6 (Mar-Dec) with total catch peaking in waves 3 – 4 (May-Aug). Wave 3 (May-Jun) and wave 4 (Jul-Aug) total catch are nearly equal in magnitude with their combined total catch making up 73% of total catch for Massachusetts. Harvest in Massachusetts peaks in wave 4 (Jul-Aug) at 52% followed by wave 3 (May-Jun) at 26% and wave 5 (Sep-Oct) at 22%.

Rhode Island

Fish are caught in waves 2 – 6 (Mar-Dec) with total catch peaking in wave 3 (May-Jun) making up 34% of total catch for Rhode Island. Harvest in Rhode Island peaks in wave 3 (May-Jun) at 42% followed by wave 4 (Jul-Aug) at 30% and wave 5 (Sep-Oct) at 27%. Rhode Island does have wave 6 (Nov-Dec) harvest, but the magnitude is trivial and comprises < 0.5% of the total harvest for Rhode Island.

Connecticut

Fish are caught in waves 2 – 6 (Mar-Dec) with total catch peaking in wave 2 (Mar-Apr) making up 34% of total catch for Connecticut. Harvest in Connecticut peaks in wave 3 (May-Jun) at 44% followed by wave 4 (Jul-Aug) at 38%, wave 5 (Sep-Oct) at 13%, and wave 6 (Nov-Dec) at 3%.

New York

Fish are caught in waves 2 – 6 (Mar-Dec) with total catch peaking in wave 6 (Nov-Dec) making up 46% of total catch for New York. Harvest in New York also peaks in wave 6 (Nov-Dec) at 32% followed by wave 5 (Sep-Oct) at 21%, wave 3 (May-Jun) at 19%, wave 2 (Mar-Apr) at 16%, and wave 4 (Jul-Aug) at 12%.

New Jersey

Fish are caught in waves 2 – 6 (Mar-Dec) with total catch peaking in wave 6 (Nov-Dec) making up 46% of total catch for New Jersey. Harvest in New Jersey also peaks in wave 6 (Nov-Dec) at 53% followed by wave 2 (Mar-Apr) at 24%, wave 3 (May-Jun) at 14%, wave 5 (Sep-Oct) at 8%, and wave 4 (Jul-Aug) at 1%.

Delaware

Fish are caught in waves 2 – 6 (Mar-Dec) with total catch peaking in wave 6 (Nov-Dec) making up 58% of total removals for Delaware. Harvest in Delaware also peaks in wave 6 (Nov-Dec) at 52% followed by wave 2 (Mar-Apr) at 25%, wave 4 (July-Aug) at 23%, and wave 3 (May-Jun) at 1%. Delaware has no wave 5 (Sep-Oct) harvest and although the wave 3 (May-Jun) harvest is 1%, that equates to < 100 fish for Delaware.

Maryland Ocean

Fish are caught in wave 2 (Mar-Apr), wave 3 (May-June), wave 4 (Jul-Aug), and wave 6 (Nov-Dec). Total catch peaks in wave 6 (Nov-Dec) making up 78% of total catch for Maryland Ocean. Total catch are entirely live releases with no harvest occurring in Maryland Ocean.

Virginia Ocean

Fish are caught in wave 3 (May-Jun) and wave 4 (Jul-Aug) with total catch peaking in wave 4 (Jul-Aug) making up 67% of total catch for Virginia Ocean. Total catch are entirely live releases with no harvest occurring in Virginia Ocean.

North Carolina

North Carolina only considers striped bass caught in the ocean during waves 1 (Jan-Feb) and 6 (Nov-Dec) to be part of the coastal migratory stock. Total catch peaked in wave 6 (Nov-Dec) making up 70% of wave 1 and 6 ocean catch for North Carolina. Total catch is entirely live releases with no harvest in the ocean during these waves for several years. 2021-2022 live releases were 0.1% of total ocean releases and 2024 releases were zero.

Maryland Chesapeake Bay

Fish are caught in waves 2 – 6 (Mar-Dec) with total catch peaking in wave 6 (Nov-Dec) making up 28% of total catch for Maryland. Harvest in Maryland is similar across waves 3 – 6 (May-Dec) with peak harvest in wave 3 (May-Jun) at 28% followed by wave 5 (Sep-Oct) at 26%, wave 4 (Jul-Aug) at 25%, and wave 6 (Nov-Dec) at 20%.

Virginia Chesapeake Bay

Fish are caught in waves 2 – 6 (Mar-Dec) with total catch peaking in wave 6 (Nov-Dec) making up 47% of total catch for Virginia. Harvest in Virginia peaks in wave 6 (Nov-Dec) at 57% followed by wave 3 (May-Jun) at 32%, 5 (Sep-Oct) at 7%, and wave 4 (Jul-Aug) at 4%.

Appendix E.

Other Species Analysis and Figures

MRIP data from 2021 through 2024 for both the ocean fishery and Chesapeake Bay fishery were compiled by state and by wave to explore *a)* the top ten species reported as either primary or secondary targets on trips that also targeted striped bass, and *b)* the top ten species caught on trips that also caught striped bass. This section summarizes results for species most commonly targeted/caught with striped bass.

New England: species targeted on trips that also targeted striped bass

In New England, waves 4 (Jul-Aug) and 5 (Sep-Oct) tend to have the highest diversity of species co-targeted with striped bass. In Maine and New Hampshire, a majority of trips targeting striped bass and trips where striped bass are caught, are also targeting/catching bait species. When fishing in the ocean, anglers from Maine and New Hampshire often target groundfish, but will actively look for opportunistic fishing (striped bass and bluefish) if they happen upon them working a school of baitfish. Most anglers supply their own bait and will begin their trip fishing for baitfish. This is why a large proportion of the total catch on trips where striped bass are caught in Maine and New Hampshire is baitfish, mainly Atlantic mackerel and Atlantic menhaden. In Maine and New Hampshire, when bait fish are removed from the analysis, pollock is the majority of non-bait catch.

Aside from baitfish in Maine and New Hampshire, bluefish is the most co-targeted species with striped bass in New England across most waves. Both scup and summer flounder are reported as targeted in Massachusetts through Connecticut, and in higher proportions as you move southward. Black sea bass is reported as targeted with higher proportion in waves 3-5 (May-Oct) in Rhode Island and Connecticut, but only during waves 3 (May-Jun) and 4 (Jul-Aug) in Massachusetts. Rhode Island and Connecticut have similar trends in proportions of reported targeted species, with some notable variation in the proportion of reported targeting of tautog between the waves. Tautog is targeted in relatively small proportion in all waves in Massachusetts.

New England: species caught on trips that also caught striped bass

In New England, waves 2 (Mar-Apr) and 6 (Nov-Dec) generally show minimal amounts of other species caught with striped bass, with most other species being caught consistently during waves 3-5 (May-Oct). Bluefish, black sea bass, summer flounder, and scup are commonly caught from Massachusetts through Rhode Island on trips where striped bass is also caught from waves 3 -5 (May-Oct). During waves 2 – 6 (Mar-Dec) in Massachusetts, Atlantic mackerel, is caught in the highest proportions compared to other species. Atlantic mackerel is not reported south of Rhode Island, with the dominant bait species switching to Atlantic menhaden south of this state.

Mid-Atlantic: species targeted on trips that also targeted striped bass

Overall, there is high variability of reported targeted species throughout the Mid-Atlantic states with some notable overlap occurring between neighboring states. From New York through

Maryland, bluefish remains the dominant species that is reported as targeted on trips that also target striped bass. Bluefish are reported as targeted in all states in all waves, except Maryland which only reports co-targeting in some waves. Summer flounder are reported as targeted in New York through Delaware in relatively large proportions during waves 3-5 (May-Oct), and during wave 2 (Mar-Apr) in New York. Black sea bass are only reported as targeted in notable proportions in New York and New Jersey, although both in relatively low proportion compared to other species. During wave 6 (Nov-Dec) all states have a relatively high proportion of trips targeting tautog, particularly Delaware.

Mid-Atlantic: species caught on trips that also caught striped bass

Bluefish are caught in all the Mid-Atlantic states on trips that also caught striped bass. New York and New Jersey both have the highest proportion of catch as black sea bass and bluefish through most waves. These states also both have notable catches of summer flounder and tautog in waves 3-6, with the addition of scup in New York and white perch in New Jersey during this timeframe. Summer flounder are caught in small amounts in Delaware, and only during wave 4 (Jul-Aug) in Maryland. Similar to the New England states, there is notable variation in tautog catch between states and waves, however, tautog are caught in all states New York through Delaware during wave 6 (Nov-Dec). White perch are caught during all waves in both New Jersey and Delaware, which may be catch in Delaware Bay.

Chesapeake Bay: species targeted on trips that also targeted striped bass

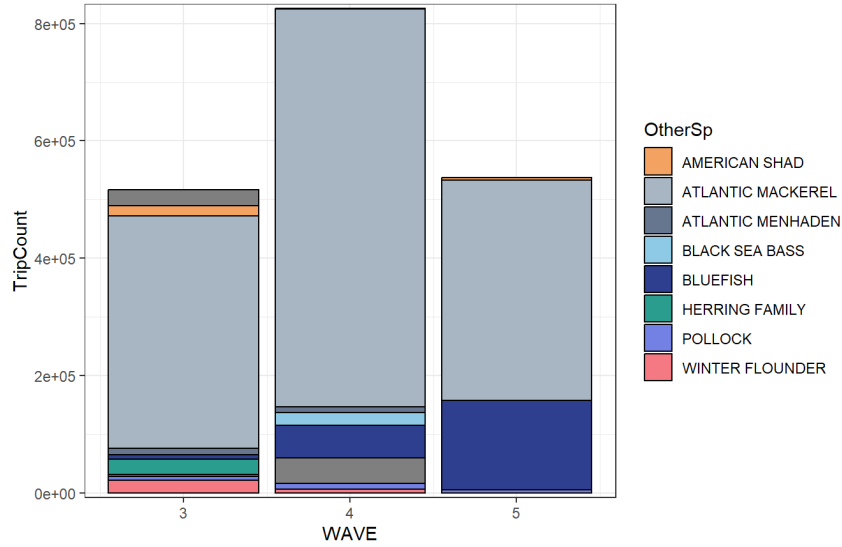
White perch and red drum are commonly targeted with striped bass in Chesapeake Bay, with white perch being reported more frequently in Maryland and red drum more frequently in Virginia. Blue catfish are targeted in significant proportion during waves 3-6 (May-Dec) in both states. Spot are targeted in relatively large proportion in Maryland during waves 3-5 (May-Oct), although this is likely the result of being used as bait while fishing for striped bass. Overall, Maryland has more variety of species that are reported as targeted with striped bass in each wave than in Virginia, though part of that may be due to the striped bass recreational fishery being closed in the summer and early fall in Virginia.

Chesapeake Bay: species caught on trips that also caught striped bass

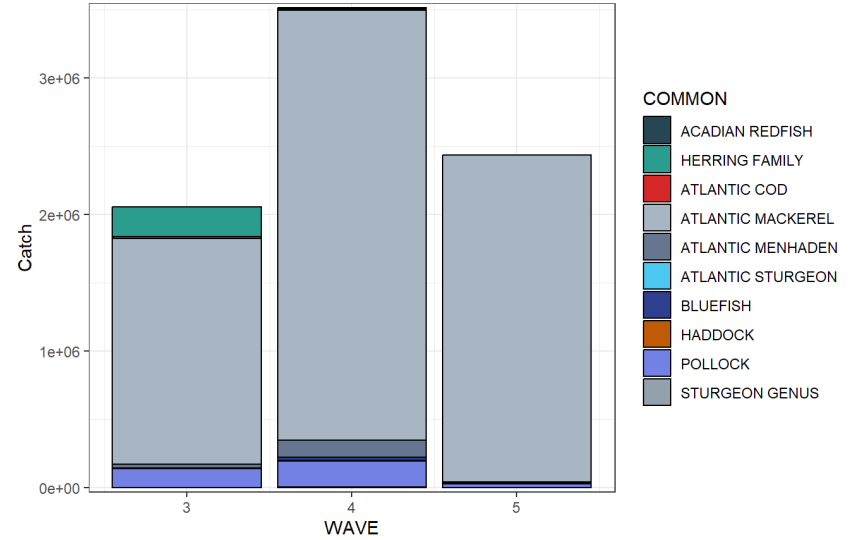
White perch are caught during all waves in Maryland with particularly high catch during waves 3 -5 (May-Oct). Virginia had white perch reported for waves 2 -6 (Mar-Dec), but at much lower proportions than what was seen in Maryland. Blue catfish were caught, but at relatively low proportions in both states for all waves except wave 2 (Mar-Apr) in Virginia. Atlantic croaker made up a large proportion of total catch in Virginia for waves 3 (May-Jun) and 4 (July-Aug). Spotted sea trout were caught in small proportions in Maryland during waves 4 (Jul-Aug) and 5 (Sep-Oct) but it was caught during all waves in Virginia with the highest proportion during waves 5 (Sep-Oct) and 6 (Nov-Dec). Red drum catch was low in Maryland but increased in Virginia from waves 3 – 6 (May-Dec). In both Maryland and Virginia, waves 3 -5 (May-Oct) show greater diversity in total catch than compared to waves 2 (Mar-Apr) and 6 (Nov-Dec).

Maine

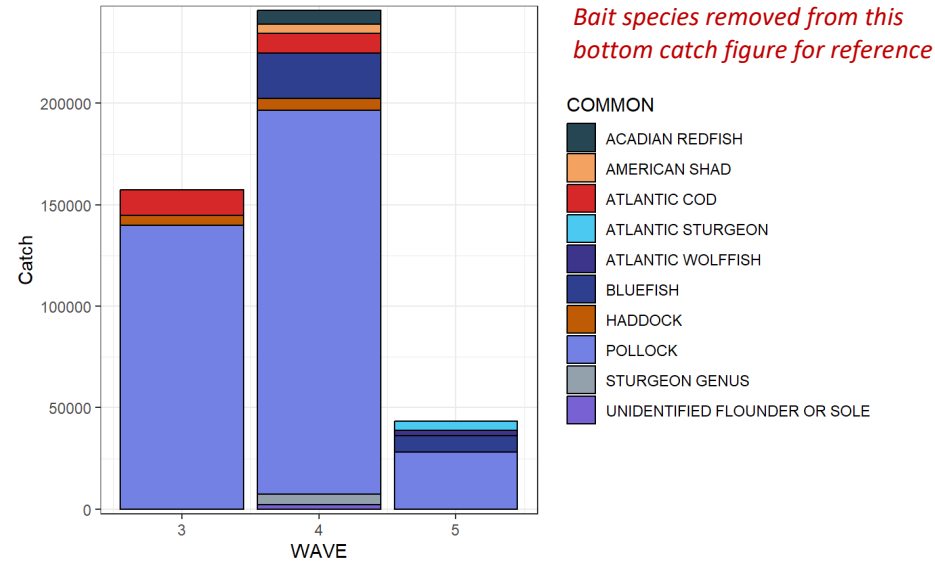
Top 10 Species Targeted with Striped Bass
by Wave (2021-2024): ME



Top 10 Species Caught (Total Catch) with Striped Bass
by Wave (2021-2024): ME

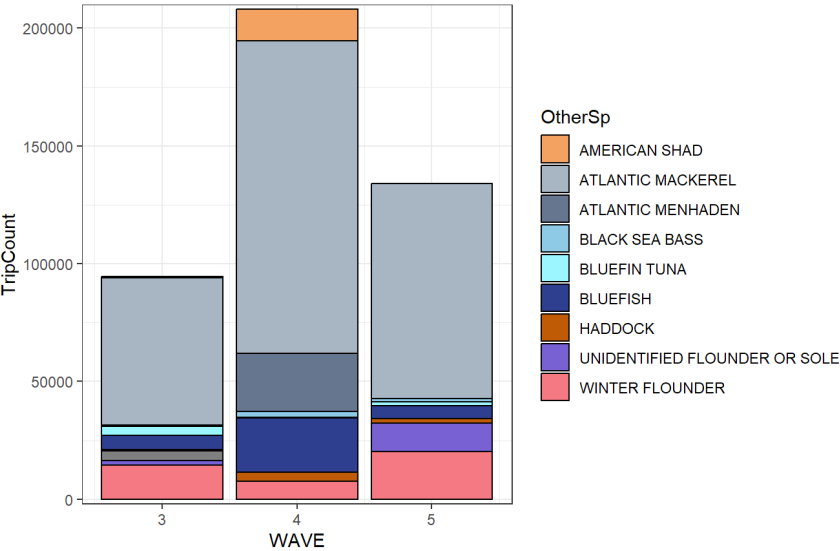


Top 10 Species Caught (Total Catch) with Striped Bass
by Wave (2021-2024): ME

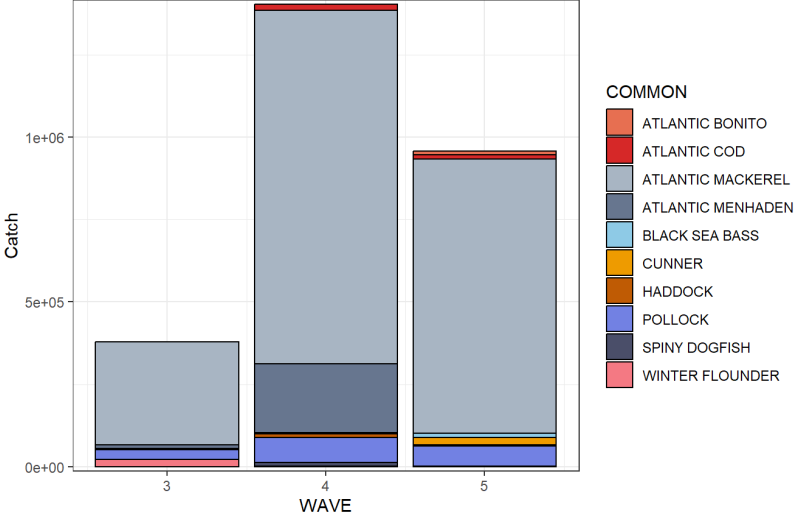


New Hampshire

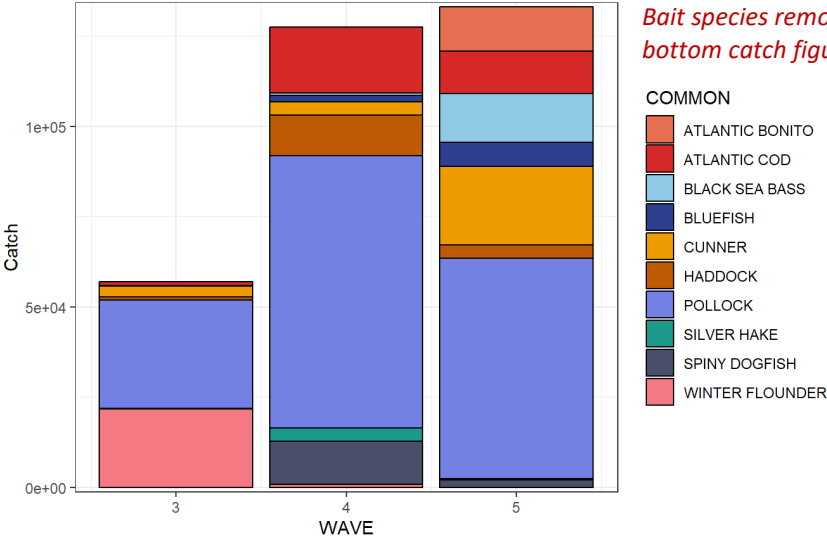
Top 10 Species Targeted with Striped Bass
by Wave (2021-2024): NH



Top 10 Species Caught (Total Catch) with Striped Bass
by Wave (2021-2024): NH

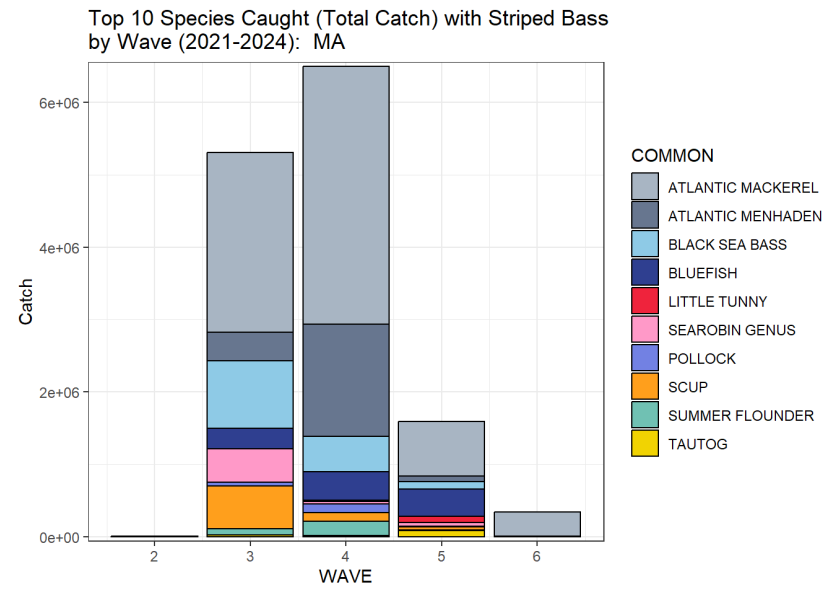
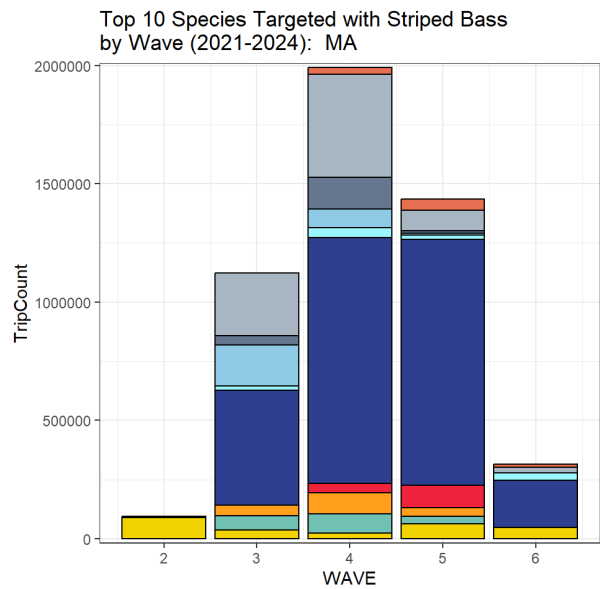


Top 10 Species Caught (Total Catch) with Striped Bass
by Wave (2021-2024): NH

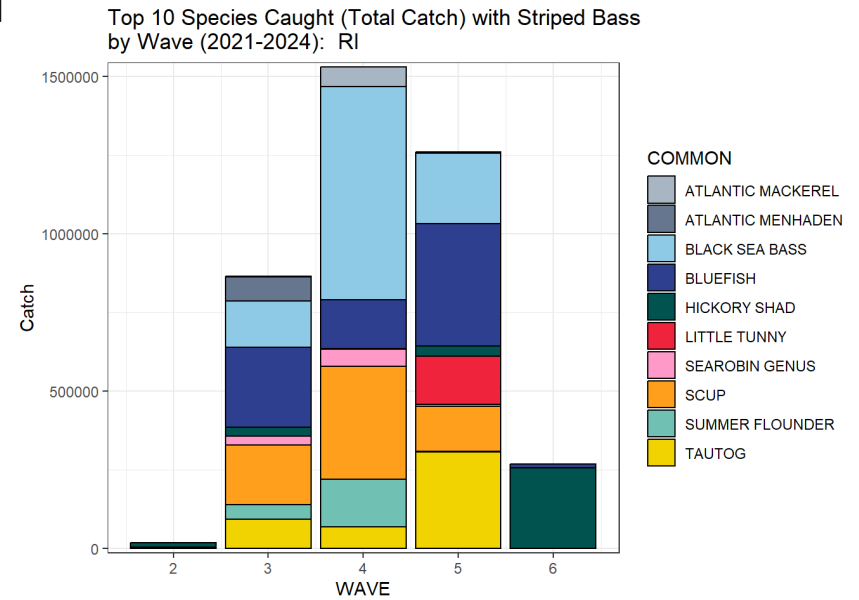
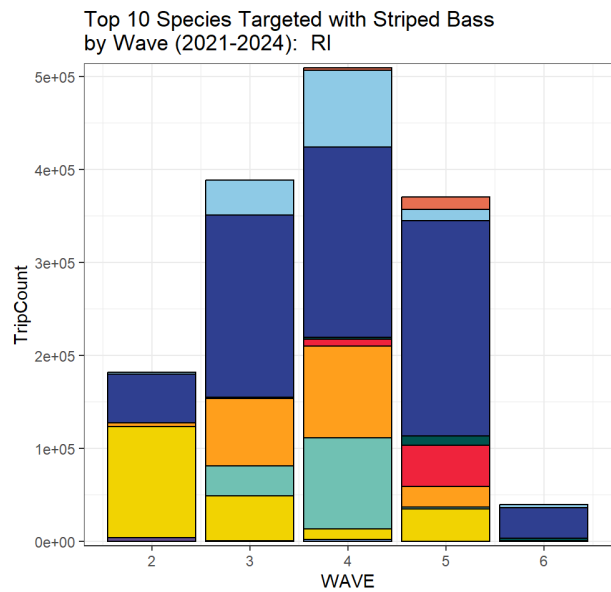


*Bait species removed from this
bottom catch figure for reference*

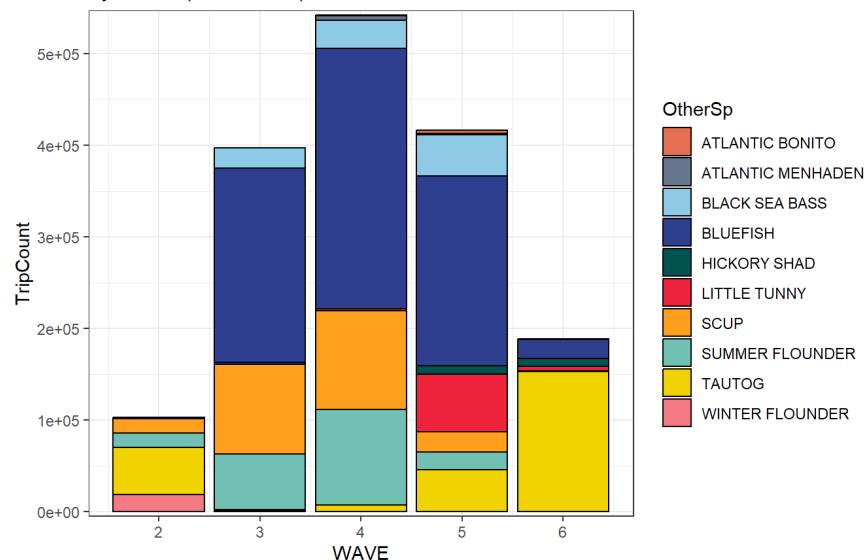
Massachusetts



Rhode Island

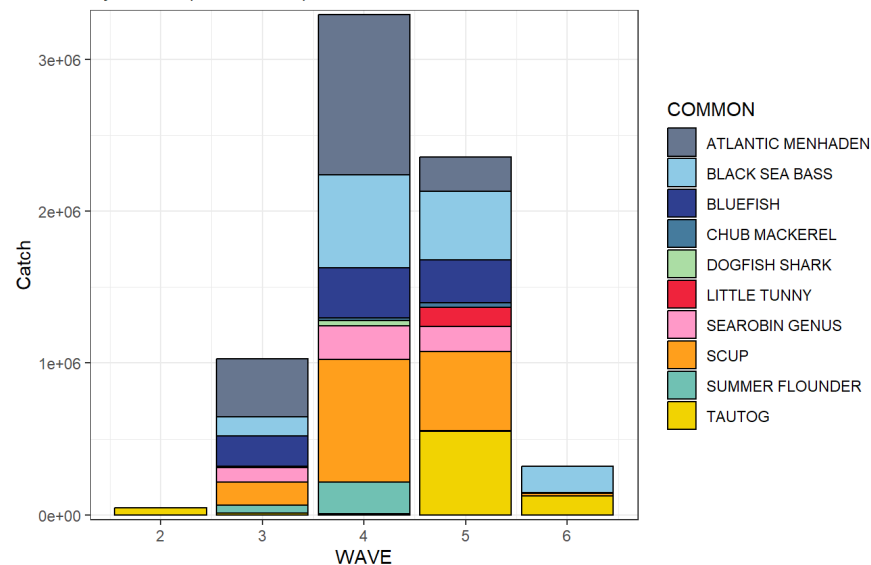


Top 10 Species Targeted with Striped Bass
by Wave (2021-2024): CT

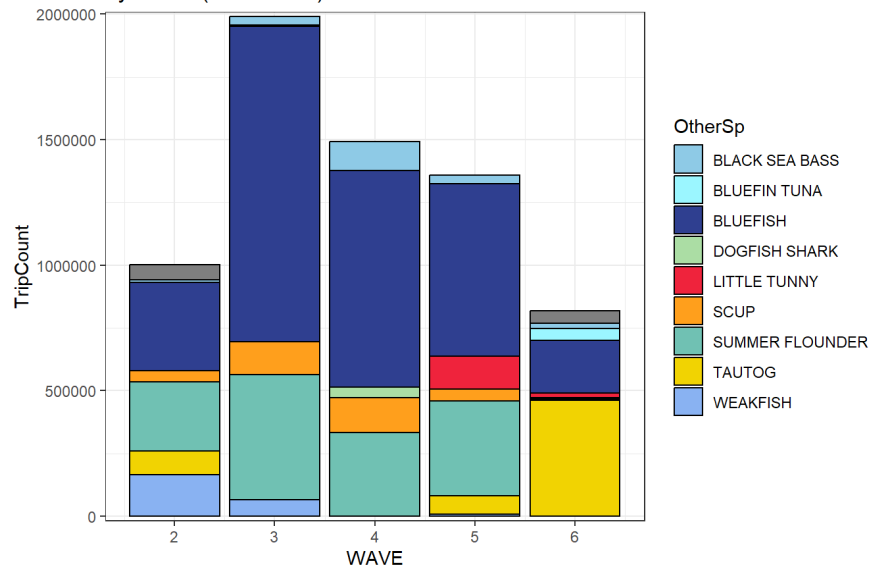


Connecticut

Top 10 Species Caught (Total Catch) with Striped Bass
by Wave (2021-2024): CT

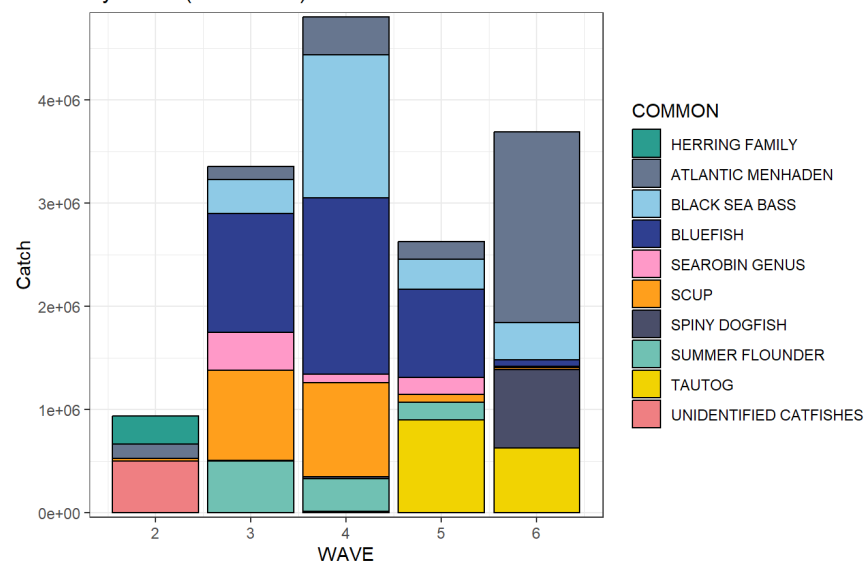


Top 10 Species Targeted with Striped Bass
by Wave (2021-2024): NY

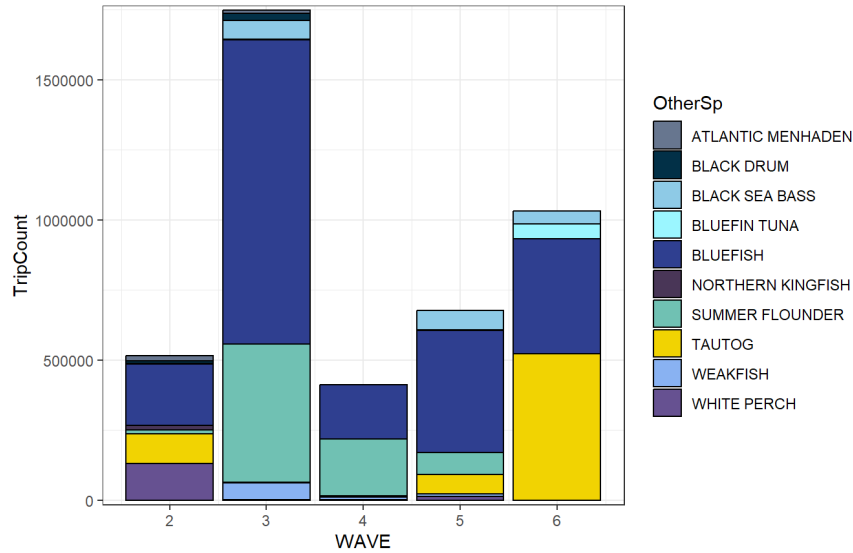


New York

Top 10 Species Caught (Total Catch) with Striped Bass
by Wave (2021-2024): NY

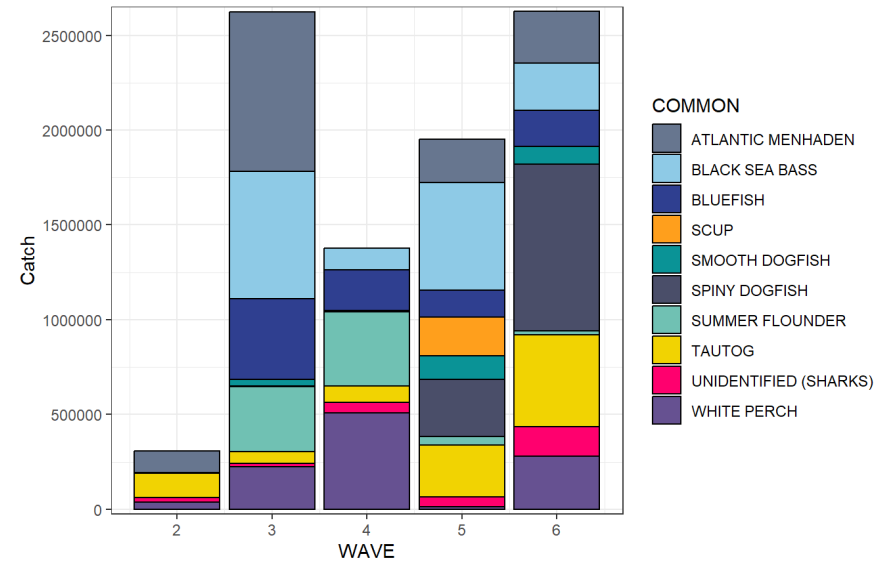


Top 10 Species Targeted with Striped Bass
by Wave (2021-2024): NJ

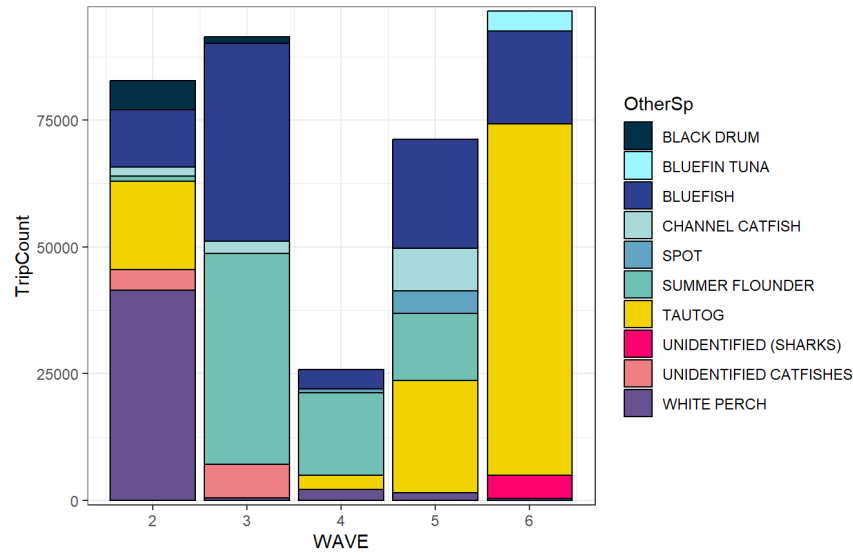


New Jersey

Top 10 Species Caught (Total Catch) with Striped Bass
by Wave (2021-2024): NJ

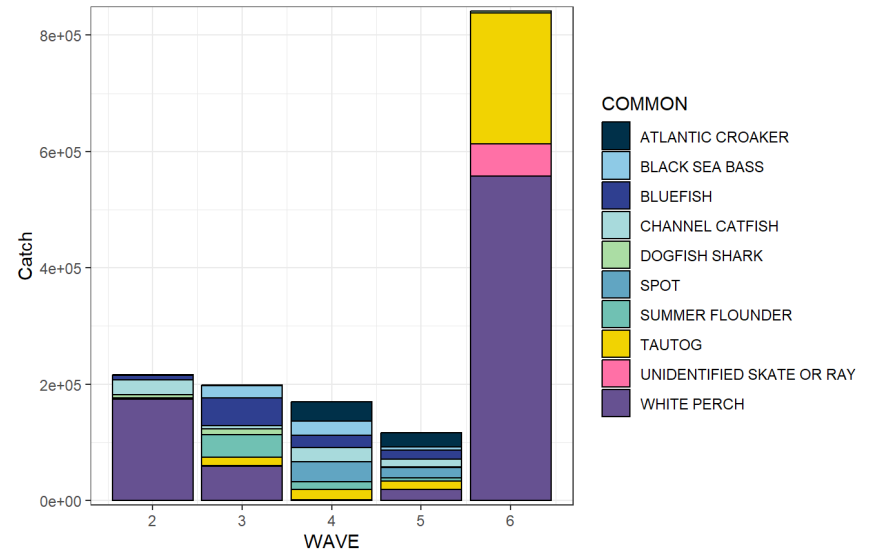


Top 10 Species Targeted with Striped Bass
by Wave (2021-2024): DE



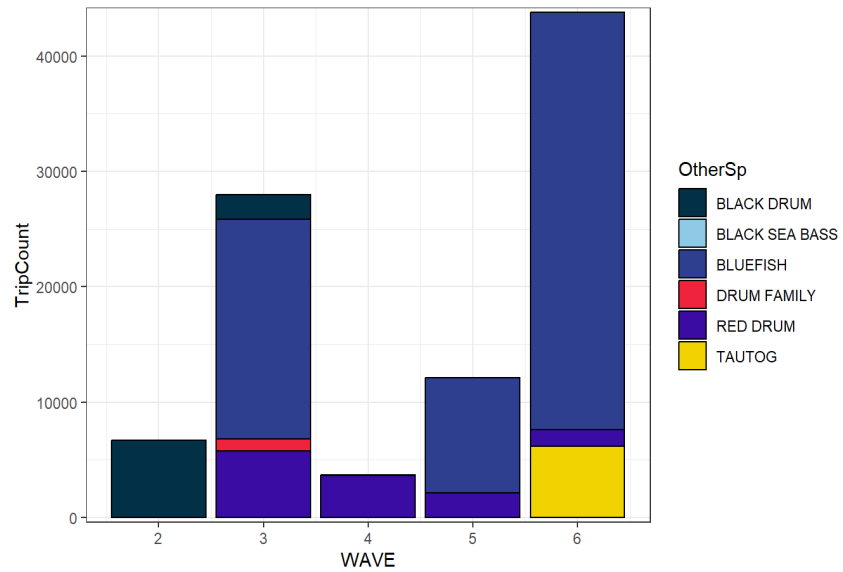
Delaware

Top 10 Species Caught (Total Catch) with Striped Bass
by Wave (2021-2024): DE

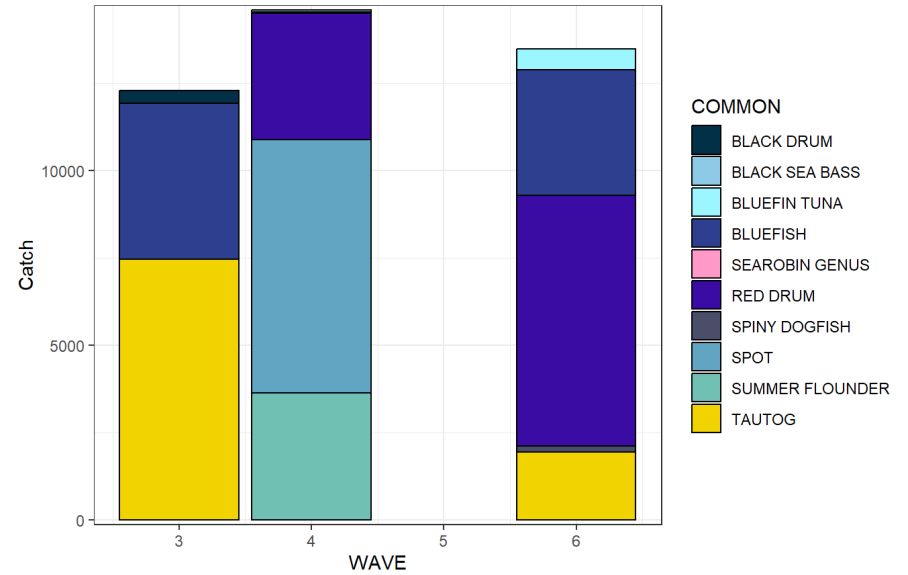


Maryland Ocean

Top 10 Species Targeted with Striped Bass
by Wave (2021-2024): MD

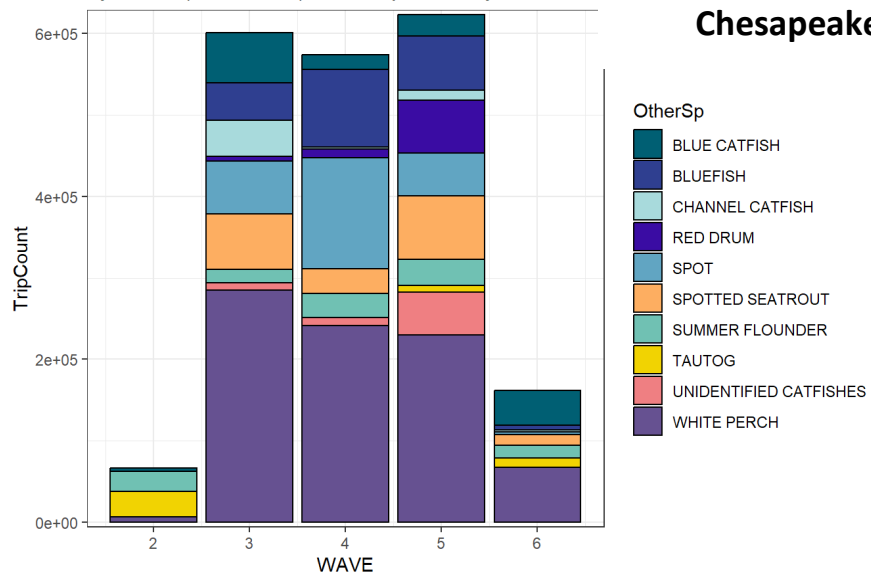


Top 10 Species Caught (Total Catch) with Striped Bass
by Wave (2021-2024): MD



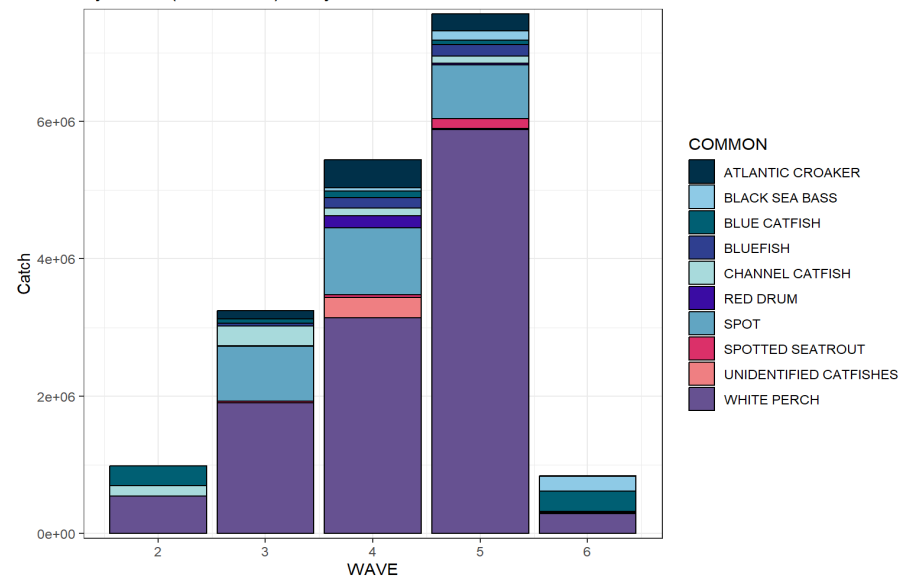
No figures available for Virginia ocean or North Carolina ocean due to limited data.

Top 10 Species Targeted with Striped Bass
by Wave (2021-2024) - Chesapeake Bay: MD

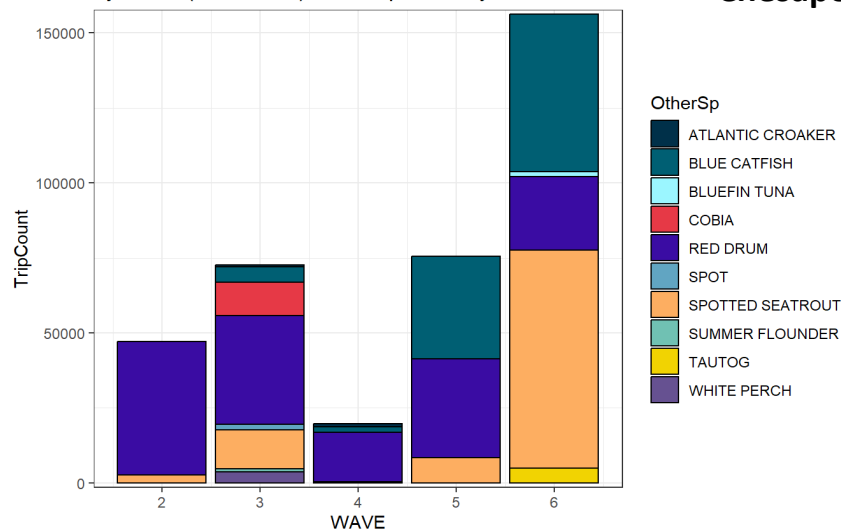


Maryland Chesapeake Bay

Top 10 Species Caught (Total Catch) with Striped Bass
by Wave (2021-2024) - Bay: MD



Top 10 Species Targeted with Striped Bass
by Wave (2021-2024) - Chesapeake Bay: VA



Virginia Chesapeake Bay

Species Caught (Total Catch) with Striped Bass by Wave (2021-2024) - Bay: VA

