



Atlantic States Marine Fisheries Commission

1050 N. Highland Street • Suite 200A-N • Arlington, VA 22201
703.842.0740 • 703.842.0741 (fax) • www.asmf.org

Atlantic Striped Bass Technical Committee and Stock Assessment Subcommittee Meeting Summary

Arlington, VA
September 4-5, 2024

Technical Committee Members: Tyler Grabowski (Chair, PA), Gary Nelson (MA), Nicole Lengyel Costa (RI), Kurt Gottschall (CT), Caitlin Craig (NY), Brendan Harrison (NJ), Margaret Conroy (DE), Alexei Sharov (MD), Luke Lyon (DC), Ingrid Braun (PRFC), Brooke Lowman (VA), Charlton Godwin (NC), Tony Wood (NOAA, webinar)

Stock Assessment Subcommittee Members: Mike Celestino (NJ), Gary Nelson (MA), Margaret Conroy (DE), Alexei Sharov (MD), Brooke Lowman (VA), John Sweka (USFWS)

Additional State Staff: Angela Giuliano (MD)

ASMFC Staff: Katie Drew, Emilie Franke

Public On Webinar: Chris Batsavage (NC, Board Member), Jesse Hornstein, Laura Lee, Nichola Meserve (MA, Board Member), Will Poston, Jill Ramsey, Ross Squire, Michael Woods

The Striped Bass Technical Committee (TC) and Stock Assessment Subcommittee met jointly to discuss the 2024 stock assessment update and associated Board tasks regarding measures to achieve stock rebuilding, no targeting closures, recreational release mortality, and evaluating additional methods to support future size-bag-season analyses.

Day 1: 2024 Stock Assessment Initial Results, Selectivity Discussion, and Projections

Selectivity

G. Nelson presented initial assessment results for two model runs: one with a combined one-block selectivity for 2020-2023 and one with 2023 separated into its own selectivity block. The Board implemented the Emergency Action in 2023 with a 31" maximum size limit for recreational fisheries, so some change in selectivity is expected. However, there is concern about having a selectivity block based on only one year of data.

Both model runs had similar results with female spawning stock biomass (SSB) below the threshold (overfished) and fishing mortality (F) above the target. There was a difference between the model runs in how close F was to the overfishing threshold. The run with 2023 as its own selectivity block resulted in F right at the threshold, while the run with the combined selectivity block resulted in F further below the threshold but still above the target. It was noted that the confidence intervals overlap across the target and threshold in any case.

Comparing the F time series for both model runs, the main difference between the two is F in the terminal year 2023. With 2023 as its own selectivity block, F in 2023 increases from 2022. When 2020-2023 are combined in one selectivity block, F in 2023 decreases from 2022. For the SSB time series, SSB was slightly higher from 2015-2023 for the combined 2020-2023 selectivity block.

The TC-SAS had extensive discussion about which selectivity configuration would be most appropriate. The model can be very sensitive with only one year of data when 2023 is separated into its own selectivity block. There was some concern about whether the shape of the 2023 selectivity blocks made sense based on the regulation change. The TC-SAS discussed the interpretation of the two different selectivity scenarios. With 2023 as its own selectivity block, removals are concentrated on a narrower group of fish with the narrower slot limit, resulting in a higher F ; the same number of fish is being taken out of a narrower group of ages.

Potential rationale for using the 2023-only selectivity blocks was to highlight the regulation change in 2023. Potential rationale for using the combined 2020-2023 selectivity block is to address the concern about only using one year of data in the terminal year for the last selectivity block.

Given the concern about relying on one year of data to inform a separate selectivity block, there was support for using the combined 2020-2023 selectivity block as the primary model run and to determine stock status. However, the TC-SAS emphasized the importance of accounting for the 2023 regulatory change more explicitly in some way, especially when considering the selectivity used for the projections. Instead of using the model-derived selectivity for the projections, the TC-SAS considered a proposal to develop a hybrid selectivity curve for the projections that would be empirically developed based on how much of each age class is vulnerable to the new 2023 slot limit. The method would use fish availability to empirically adjust the 2020-2022 selectivity based on the 2023 regulations (31" maximum size for all recreational fisheries) and the subsequent change in 2024 regulations as well (change to Chesapeake Bay recreational slot). There was some concern about switching from a model-based selectivity approach to an empirical selectivity approach, however, the TC-SAS determined this was the best approach to acknowledge the regulatory change in the projections.

The TC-SAS decided to use the combined one-block model with one selectivity block for 2020-2023 as the primary model configuration and for stock status. The TC-SAS is not comfortable with the model estimating selectivity based on one year of data 2023, so the last selectivity block should include multiple years. For projections, a hybrid empirically-derived selectivity curve, as described above, should be used for 2023-forward to account for the expected impacts of the regulatory change in 2023 and 2024.

Projections

The Board requested that projections extend through 2034 to capture both the rebuilding deadline of 2029 and start to capture the impacts of recent low year-classes starting to mature beyond 2029.

The projections will solve for the catch needed in 2025 to achieve F target and F rebuild. One challenge for the projections is what assumption to use for 2024 removals given the management changes implemented in 2024 through Addendum II. The TC-SAS discussed using the initial projected reduction for the selected Addendum II measures (13.7% reduction from 2022 removals) as a starting point. The TC-SAS also discussed using preliminary 2024 MRIP data for Waves 2-3 to predict 2024 removals. For 2024 catch, could use projected reduction of 14% reduction in 2024 removals relative to 2022

Other Topics

The TC-SAS noted the upcoming 2027 benchmark should re-evaluate the current age-length keys (ALKs) used for each state and determine where it is appropriate for states to be borrowing ALKs from other states.

Regarding angler behavior, the TC noted continuing uncertainty about angler behavior changes in response to changes in management measures.

Day 2: Methods for Size-Bag-Season Analysis and No Targeting Closures

Addendum II includes a provision allowing the Board to adjust management measures via Board action (i.e., no addendum process) if the 2024 stock assessment indicates a reduction is needed to achieve stock rebuilding (at least 50% probability of reaching SSB target in 2029). In August 2024, the Board provided guidance to the TC on potential management measures to consider if a reduction is needed to achieve stock rebuilding (see [2024 Summer Board Meeting Summary](#) for guidance).

K. Drew reviewed the general methodology for striped bass size-bag-season analyses, including specific TC decisions for the Addendum II analysis (see [June 28, 2023 TC Meeting Summary](#) for details on Addendum II methods).

The TC-SAS discussed what MRIP length frequency data should be used to represent fish availability in 2025-2026 when the 2018-year class will be age-7 and age-8. One option is to use 2018-2019 data when the 2011 year-class was age-7 and age-8 (i.e., 2018 data to represent fish availability in 2025). There was no slot limit during these years, so this would also include data for >35" in case the Board wanted to consider shifting the slot or a higher minimum size limit. There was agreement that 2018-2019 could be a good option for the ocean, but could be problematic for the Chesapeake Bay because during those years, the strong 2015 year-class was available to the Bay fishery. In 2025-2026, there will not be strong upcoming strong year classes available. The TC-SAS discussed going back further to 2011-2012 for the Bay data when there was not a very strong year class available in the Bay fishery; the 2011s would not be recruited to the fishery yet at that point.

Considering what types of size limits the Board could consider for 2025, the TC-SAS discussed the potentially limited options given the current restrictive slot limit, and the tradeoffs of harvesting larger fish or smaller fish. If harvest remains around the current 28-31" slot, the remaining larger 2015s will be protected but the incoming 2018 year class will be subject to harvest. If harvest is shifted to larger fish, the incoming 2018s would be protected but the larger 2015s would then be subject to harvest. The TC-SAS discussed potentially considering a size limit what would allow harvest of smaller fish OR 1 larger fish (e.g., 1 fish less than 28" OR 1 greater than 40").

For seasonal closure analysis, the TC considered which years should be used to calculate reductions from seasonal closures in different Waves. So, which years would be most representative of catch distribution across the year. The TC suggested pooling 2021-2022 would capture recent years under the slot limit, including Chesapeake Bay closures that were implemented through Addendum VI. It may be best to not use 2023 due to the mid-season implementation of the emergency action.

Again, the TC-SAS discussed the uncertainty around effort and angler behavior when conducting these size-bag-season analysis. Recreational demand models (RDMs) were mentioned as a potential tool to consider for the future. This would require funding and resources to develop, but could take into account angler preferences.

No Targeting Closures

A. Giuliano presented an overview of MDDNR's evaluation of their no targeting closures implemented in 2020 for April 1-30 (half of Wave 2) and for 16 days during Wave 4. In 2020, the Wave 4 closure was August 16 through August 31, and from 2021 onward, the closure is 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 and reduced bag limit for private anglers. The charter bag limit stayed at 2 fish for charter captains if they were enrolled in the charter electronic reporting system.

MDDNR tested various assumptions about how striped bass trips and releases would change during a no targeting closure to estimate the decrease in live releases. The final method/assumptions used to estimate the change in live releases is as follows. Trips that were only targeting striped bass (e.g. no other species were targeted) were assumed to no longer release any striped bass. If striped bass were targeted with a second species, those trips would still release striped bass but at a lower non-targeted rate. All striped bass releases from non-targeted trips (i.e., incidental catch) would still occur.

MDDNR reviewed MRIP data for striped bass directed trips, harvest, and live releases to compare effort and removals in Wave 2 and Wave 4 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 after the closures, and harvest, live releases and total removals estimates also declined after the no targeting closures were implemented, particularly for private and shore

modes. It is important to note that other factors (e.g., fish availability, year-class strength, and private angler trip limit changing from 2 fish to 1 fish) are also contributing to these results. Other Bay species were targeted more heavily during the closures as compared to prior to the closures when striped bass was the most targeted species.

The TC-SAS generally agreed with the method to quantify the predicted reduction associated with no-targeting closures. The TC-SAS requested a summary of predicted vs. observed reductions in total removals (harvest and live releases) before considering a recommendation on whether this method could be applied to estimate the reduction associated with other no targeting closures that the Board could discuss in the future. The TC-SAS also asked for more information on the Wave 2 data. It appears there were some changes in effort and harvest prior to the closure, and additional insight on other regulation changes (e.g., trophy season size limit changes) would be helpful.

Recreational Fleet Dynamics Model

M. Celestino discussed initial efforts to develop a recreational fleet dynamics model (RFDM) for striped bass based on past work for other species. The RFDM could help address some limitations of the current size-bag-season analysis and assumptions about fish availability and year class strength. The model could predict harvest and discards as a function of size, bag, and season, but also incorporate the assessment model estimates of recruitment and SSB. Parameterization of an RFDM for striped bass is in beginning stages compiling data inputs from the assessment model and coding state regulations by year and by wave over time.

The TC-SAS will continue to work on this model as time permits as a possible method to improve the methodology for calculating management measures in the future.

Next Steps

The TC-SAS planned to schedule a webinar meeting for late September or early October to discuss the stock assessment report, measures to achieve rebuilding, and quantifying no targeting closures, as time permits.