

Atlantic States Marine Fisheries Commission

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MEMORANDUM

April 22, 2019

To: Atlantic Striped Bass Management Board

From: Atlantic Striped Bass Technical Committee

RE: Percent reduction in harvest to achieve F threshold and F target in 2020, and example

recreational options to achieve those reductions

At its February 2019 meeting, the Atlantic Striped Bass Management Board (Board) reviewed preliminary results of the 2018 Benchmark Stock Assessment for Atlantic striped bass which indicated the stock was overfished and experiencing overfishing. Unfortunately, due to the partial lapse in federal appropriations, the final assessment and peer-review panel reports were not available for this meeting and formal review of those reports was postponed to the ASMFC Spring Meeting. However, as a first step in determining a management response to the assessment findings, the Board made the following motion: "Move to task the TC with providing the Board with a report that shows the reductions in harvest needed to reduce F to F threshold (0.24) and F target (0.197) and also providing one example of recreational bag and size limit combination (if necessary, seasonal restrictions) needed to achieve these conditions a) on the coast and b) in the Chesapeake Bay and report back to the Board in May."

M19-032

Task 1: Projections to determine harvest reductions

Methods and Data

The terminal year of the assessment was 2017, and, with guidance from the Board, the TC assumed management would be implemented in 2020. Therefore, the TC had to make assumptions about total removals in 2018 and 2019. Preliminary estimates of recreational removals were available for 2018, but estimates of commercial removals were not. The TC used the average ratio of commercial removals (harvest and dead discards) to total removals from 2015 – 2017 to estimate commercial removals for 2018-2020. Recreational removals in 2018 were significantly lower than in 2017 (5.0 million fish in 2018 compared to 6.4 million fish in 2017) (Figure 1). The TC ran projections using the 2018 total removals estimate as a proxy for total removals in 2019, and also ran projections using the average removals from 2016 – 2018 as a proxy for 2019 removals. Recreational dead releases are estimated using a 9% post-release mortality rate for MRIP's estimate of B2 striped bass (i.e., striped bass caught and released alive).

Results

Projection results are shown in Table 1. In order to have a 50% chance of being at or below the F threshold (F=0.240) in 2020, removals for 2020 needed to be 7.1 million fish. This is approximately equal to total removals in 2017, and a 26% increase from 2018 levels. This assumed that 2019 removals were equal to 2018 removals. Using the most recent 3-year average resulted in very similar results: removals to achieve the F threshold needed to be 7.0 million fish, a 1% decrease compared to 2017 and a 24% increase relative to 2018.

In order to have a 50% chance of being at or below the F target (F=0.197) in 2020, removals for 2020 needed to be 5.9 million fish. This is a 17% reduction from 2017 levels and a 5% increase from 2018 levels. This assumed that 2019 removals were equal to 2018 removals; using the most recent 3-year average again resulted in very similar results: removals to achieve the F target would be equal to 5.8 million fish, an 18% decrease compared to 2017 and a 3% increase relative to 2018.

Discussion

Overall, because of the reduction in removals in 2018 that has already occurred and the strong 2014 and 2015 year classes beginning to enter the exploitable population, there was a 50% chance of being at or below the F threshold in 2020 by keeping removals approximately equal to 2017 levels. To have a 50% chance of achieving the F target, an approximately 17% reduction from 2017 would be necessary (or no reduction relative to 2018).

It should be noted that for all of the scenarios, although striped bass female spawning stock biomass (SSB) increased slightly by 2020, SSB was still projected to be below both the target and the threshold (Figure 2).

The estimates from the projection analysis have uncertainties associated with them. For the projections, the 2018 and 2019 total removals are not known yet. The recreational data for

2018 are still preliminary, and commercial landing and discards are not available. In addition, the TC had to make an assumption about what removals in 2019 would be. The decline in recreational removals from 2017 to 2018 increased uncertainty about what removals would be like in 2019, but the sensitivity analysis suggested the estimate of the reduction necessary to achieve F threshold and F target were relatively similar even if removals in 2019 were higher than in 2018.

Task 2: Size and bag limit analysis

Methods and Data

The TC developed an example management change for the ocean recreational fishery and for the Chesapeake Bay (Bay) recreational fishery that would achieve a 17% reduction in total recreational removals (harvest and dead discards) relative to 2017 to reach F target. The TC assumed commercial removals would also be reduced by 17% through other management actions, so the reduction in total removals would be enough to bring F to the target. Since the ocean is already at a 1-fish bag limit and fishing seasons vary so much along the coast, the TC only looked at a size limit analysis for the ocean. For the Bay, a reduction in bag limit resulted in a greater than 17% reduction, so it is not presented here. A season analysis was conducted for the Bay that resulted in several options for reducing the recreational season and achieving the required 17% reduction. Due to the TC's request to see additional data on the daily catch rate assumptions for that analysis, and for simplicity and ease of comparison with the ocean, only the size limit analysis is presented here.

For this analysis, the TC used MRIP length frequency data from 2016 and 2017. In 2020, the 2014 and 2015 year classes will be the same age as the 2011 year class was in 2016 and 2017, so the TC believed that those years would be most representative of the size structure of the population in 2020.

Maryland and Virginia currently have different size limits within the Bay, so separate analyses were conducted for each state to achieve a 17% reduction within the Bay. In 2016 and 2017, Maryland's minimum size was 20 inches and was decreased to 19 inches in 2018. As 19 inch fish were not fully represented in the 2016-2017 harvest length frequency, the proportion of 19 inch fish in the harvest was estimated as the average proportion in the harvest from 2000-2014, when the minimum size was 18 inches.

Results

Results for the regional size limit analyses are shown in Table 2. In the ocean (which includes ocean waters from Maine – North Carolina and non-Chesapeake Bay inland waters like Delaware Bay and Long Island Sound), the current minimum size limit is 28 inches. In order to reduce total removals by 17%, the size limit would need to be increased to 35 inches. This analysis assumed that current non-compliant harvest (harvest of fish smaller than the current size limit) would still occur. As with any increase in minimum size, dead releases would be expected to increase as anglers would have to release fish that were no longer of legal size.

Under the 35 inch size limit, dead releases are expected to increase by 3% in the ocean. This increase is more than offset by the reduction in harvested fish.

A 17% reduction is estimated if Maryland raised the minimum size limit from 19 inches for the summer/fall season to 21 inches. In Virginia, an 18% reduction is estimated if the 20 inch minimum size limit is increased to 22 inches. Under these scenarios, dead releases are expected to increase by 4.3% for Maryland and 3.5% for Virginia, but again, the increase is offset by the reduction in harvest.

Discussion

The largest source of uncertainty comes from the assumptions made for the size limit analysis. As with all size, season, and bag limit analyses, the future availability of different size classes, and changes in effort and angler behavior resulting from management changes, or other factors cannot be incorporated into the analysis. As a result, the realized reductions from a size limit change could be very different from what was estimated. The TC chose years of catch length data where the size structure is similar to what the TC would expect to see in 2020, but there is uncertainty in that assumption, especially given that there has only been one strong year class in recent years prior to 2014 and 2015. Potential changes in effort and angler behavior – such as high grading, needing to fish longer and discard more fish to harvest a legal-size fish, or choosing not to take a fishing trip because the limits are too onerous – are even harder to account for.

This uncertainty can be seen in the recent history of the striped bass fishery. When ASMFC implemented Addendum IV in 2015, total removals and F declined as predicted in that year. However, for 2016 and 2017, recreational removals increased to pre-Addendum IV levels even though management measures remained the same. Similarly, recreational removals declined 20% from 2017 to 2018, most likely driven by a drop in fishing effort: the number of total trips from Maine – North Carolina was 37% lower and directed striped bass trips were 12% lower in 2018 than in 2017. This was despite virtually the same management measures in both years. Changes in effort and fish availability have a large effect on the realized harvest under this kind of management regime.

The TC discussed season changes as a potential management option to reduce harvest without increasing dead releases. In some jurisdictions with seasons where striped bass is the only available sportfish, closing that season would result in those trips not being taken, and harvest and dead releases would be reduced. However, for other states or jurisdictions, if the striped bass season was shortened, anglers might target another species or switch to catch-and-release only for striped bass. Those trips might still occur, striped bass might still be encountered, and while harvest would be reduced, dead releases would likely increase. The TC supports season changes as a method to reduce total removals, but it may not reduce dead releases in all areas.

Table 1. Estimated removals to achieve the F threshold and F target in 2020.

Removals to get to F threshold (F=0.240) in 2020								
Year	Probability SSB < SSB threshold	Probability F > F threshold	Removals (Numbers of fish; 2019 = 2018)	Removals (Numbers of fish; 2019 = 3 yr avg)				
2017	1.00	1.00	7,058,838	7,058,838				
2018	1.00	0.11	5,631,901	5,631,901				
2019	1.00	0.03	5,631,901	6,631,882				
2020	0.99	0.50	7,092,400	6,986,000				
% Change Relative to 2017			0%	-1%				
% Change Relative to 2018			+26%	+24%				

Removals to get to F target (F=0.197) in 2020								
Year	Probability SSB < SSB target	Probability F > F target	Removals (Numbers of fish; 2019 = 2018)	Removals (Numbers of fish; 2019 = 3 yr avg)				
2017	1.00	1.00	7,058,838	7,058,838				
2018	1.00	0.75	5,631,901	5,631,901				
2019	1.00	0.45	5,631,901	6,631,882				
2020	1.00	0.50	5,894,000	5,796,000				
% Change Relative to 2017			-17%	-18%				
% Change Relative to 2018			+5%	+3%				

Table 2. Size limit analysis for the ocean region (includes non-Chesapeake Bay inland waters such as Delaware Bay and Long Island Sound) and Chesapeake Bay.

Ocean Size Limit							
	28" Size limit (current)	35" Size limit					
Harvest	1,732,344	898,552					
Dead releases	2,609,528	2,684,569					
Total recreational removals	4,341,872	3,583,122					
% Reduction		-17.5%					

Chesapeake Bay Size Limit							
	Maryland 19" Size limit (current)	Maryland 21" Size limit	Virginia 20" Size limit (current)	Virginia 22" Size limit			
Harvest	1,003,700	693,707	110,304	66,361			
Dead releases	654,761	682,660	113,081	117,036			
Total recreational removals	1,658,461	1,376,368	223,385	183,397			
% Reduction		-17.0%		-17.9%			

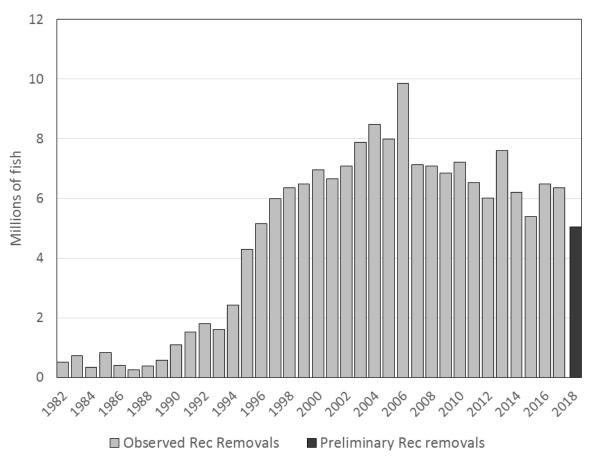


Figure 1. Time series of recreational removals (harvest + dead releases). The 2018 value used in the projection is preliminary.

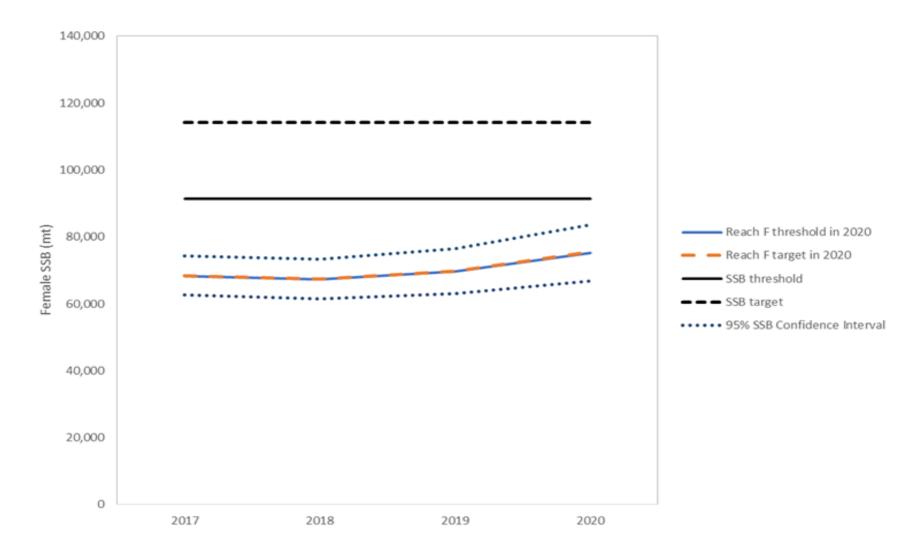


Figure 2. Female spawning stock biomass (SSB) trends under different removal scenarios, plotted with the SSB target and threshold.

Chairman James S. Gilmore, Jr. Atlantic States Marine Fisheries Commission 1050 N. Highland Street, Suite 200A Arlington, VA 22201

Dear Chairman Gilmore:

We are writing today to express our serious concerns regarding the current status of Atlantic striped bass, and to request that the Commission take immediate action to prevent further depletion and start rebuilding striped bass stocks. As you know, a recent benchmark stock assessment found that striped bass are overfished and that overfishing is occurring. Even more troubling, new data show that striped bass spawning stock biomass has remained below its critical lower threshold since 2013, and the fishing mortality rate has remained above its upper threshold since 2010. It is evident that status quo management will be inadequate to return the striped bass stock to target levels of biomass and fishing mortality indicative of a healthy fishery.

For those reasons, we believe that it is absolutely necessary for the Commission to adopt a new Addendum to Amendment 6 of the Atlantic Striped Bass Fishery Management Plan (FMP) no later than its 2019 Annual Meeting in October, with the goal of significantly reducing fishing mortality. We understand that instituting a full suite of conservation and management measures will require a new Amendment to the FMP. However, it is clear that we cannot afford to continue unsustainable levels of fishing while we work though the lengthy Amendment process. Amendment development should begin concurrently with development of an emergency Addendum, and should reject half measures in favor of strong and enforceable actions that firmly place the striped bass stock on the road to recovery.

While we do not prejudge which management tools could most effectively achieve harvest reductions, we agree that all options should be on the table, including measures to shorten fishing seasons, reduce release mortality, and ensure that more of the large female fish that are critical to spawning success remain in the water. Further, we believe that individual states should consider taking immediate measures to reduce fishing mortality in upcoming fishing seasons that occur before a new Addendum is implemented. We urge the Commission to incentivize states to be proactive by signaling that any reductions achieved during that period will be credited toward states' conservation responsibilities under a new Addendum.

Scientific evidence and what fishermen in our states are seeing on the water tell us that bold action to protect striped bass is long overdue. Rebuilding striped bass stocks and sustaining them at target levels of abundance is incredibly important to fisheries in both of our states. We urge

the Commission to implement measures that will reduce striped bass harvests to sustainable levels as quickly as possible.

Sincerely,



Kaller & Dykes

Katherine Dykes

Commissioner, Department of Energy and Environmental Protection State of Connecticut



Matthew A. Beaton

Secretary, Executive Office of Energy and Environmental Affairs Commonwealth of Massachusetts

Matthew J. Strickler

Secretary of Natural Resources

Commonwealth of Virginia



COMMONWEALTH of VIRGINIA

Marine Resources Commission
Building 96
380 Fenwick Road
Fort Monroe, VA 23651

Steven G. Bowman Commissioner

April 5, 2019

Chairman James S. Gilmore, Jr. Atlantic States Marine Fisheries Commission 1050 N. Highland Street, Suite 200A Arlington, VA 22201

Dear Chairman Gilmore:

Matthew J. Strickler

Secretary of Natural Resources

Please accept our commitment to participate in the striped bass rebuilding plan that we expect the ASMFC will promote at its April 30, 2019 meeting. We fully support reducing the current (2017) fishing mortality rate of 0.307 to the target fishing mortality rate of 0.197 or lower within one year.

We realize this is the second time in six years the ASMFC must accept the difficult challenge to revitalize the striped bass resource and the fisheries that depend on this prized resource. In Virginia, we need to take a first step towards the expected reduction plan that awaits all states. Virginia has enjoyed three spring trophy-size fisheries since 1995, with the Chesapeake, Coastal and tributaries of the Potomac as sites for these recreational fisheries. On April 23, 2019 the VMRC Commission will consider an emergency proposal from its staff to eliminate these three trophy-size striped bass fisheries. Our intent is to curtail the harvest of larger striped bass in the spring.

The trophy-size fisheries are managed by a one-fish possession limit and 36-inch minimum size limit in all areas except the Virginia tributaries of the Potomac River where the minimum size limit is 35 inches. The open trophy-size fishing seasons vary by area, with the Bay season as May 1 through June 15 being the longest. The amount of savings in harvest from this proposed emergency action, is not extensive, likely less than one percent of all harvested striped bass in 2017. We do request that any harvest savings from this action be applied to any savings in mortality required by ASMFC in the near future.

Concerning the technical feasibility that may be available to construct reduction strategies, we are concerned about the disproportionate geographical distribution of dead discards. Virginia usually enjoys a modest discard rate in its recreational striped bass fisheries. From 2015 through 2018 Virginia averaged 4.4% of the coast-wide dead discards. Since the fishing mortality rate is

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influenced by the magnitude of harvest and dead discards, we hope the ASMFC can plan to include both components of mortality in its overall plan for reduction in the fishing mortality rate.

Thank you for your consideration of this information. We will provide you with the outcome of our Commission's action on this emergency proposal.

Sincerely,

Steven G. Bowman

Max Appelman

From: Top Hook <ssofabed@aol.com>
Sent: Thursday, April 18, 2019 4:13 PM

To: Max Appelman

Cc: mark.woolley@mail.house.gov; Emerson Hasbrouck

Subject: Fwd: TRANSIT ZONE

From:CAPTOPHOOK@AOL.COM

To:mappelman@asmfc.org

Sent: 4/18/2019 1:14:20 PM Eastern Standard Time

Subject:

Dear Mr Robert E. Beal

I would like to make a comment in reference to ASMFC opposing draft letter to the transit zone. This small area that NOAA has referred to in their ANPR comment period has captured the concerns of the public fishing community in a very passionate mode. The Striped Bass are a very important fish to the recreational community, how ever, we (meaning management) should not base decisions on emotion, but on "best available scientific information".

We need better data to make hard decisions.

So what I am asking for, is a IFZMA, 4 year pilot program to be in acted. Interim Fisheries Zone Management Act: The For-Hire industry with our new upgraded reporting method would be more than willing to provide science and management to obtain better data to make the" best available scientific decisions possible to the resource.

Respectfully

CAPT Steven R Witthuhn

AP MRAC NY ASMFC MAFMC

Charter For-Hire

Commercial F/V Top Hook

Max Appelman

From: Top Hook <ssofabed@aol.com>
Sent: Tuesday, April 23, 2019 10:27 AM

To: Robert Beal
Cc: Max Appelman
Subject: TRANSIT ZONE

Dear Mr Robert Beal.

I would like to make a comment in reference to the ASMFC in opposition of the draft letter for an opening of the striped bass transit zone to harvest. The lines of demarcation for the Block Island Transit Zone illustrates how small the area is in comparison to the inshore coastal waters on the east coast. The discussion which time and again is brought up, is on the impact of harvest of striped bass in what appears to be an insignificant area in size that NOAA has referred to in their ANPR comment period. Over the past few years it has now become an emotional issue without any scientific studies or catch estimates which would ease the concerns of the public fishing community who are very passionate about the sustainability of the biomass.

Striped Bass are on of the most economically important fish to the recreational community, however, we which encompasses management, should not base decisions on emotion, but on what is heard both at the council and here at the Commission meeting discussions that any regulatory changes should be based upon the "best scientific information". Due to all the regulatory concerns on our fish stocks, we continue to ask for the most in depth and updated data possible in order for the Commissioners to make future regulatory decisions on striped bass.

In closing, and what I would recommend to ease the tension between the fishing community and fishery management is in implementing a 3 year pilot under the auspices of an Interim Striped Bass Fisheries Zone Management Act. The For-Hire industry would aid in the various facets of collaborative research that would include the use of our new upgraded electronic reporting method on tracking fishing trips into the current Block Island Transit Zone, real time catch and harvest data as well as tagging of striped bass during these trips.

This should be a big part in bringing both anecdotal and angling information, as well as providing the "best available" science to management in order to help in better managing the striped bass resource in the coming years.

For your consideration,

Capt. Steve Witthuhn