Mid-Atlantic Fishery Management Council
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Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: December 1, 2021

To: Chris Moore, Executive Director

From: Kiley Dancy, Staff

Subject: Summer Flounder Recreational Measures for 2022

On Tuesday, December 14, the Council and Board will consider 2022 recreational management measures for summer flounder, including the use of either conservation equivalency or coastwide measures. Materials listed below are provided for the Council and Board's discussion of this agenda item.

1) Summary of November 10, 2021 Monitoring Committee meeting.
2) Summary of November 18, 2021 Advisory Panel meeting.
3) Email comments from advisors and others on summer flounder, scup and/or black sea bass recreational measures received by December 1, 2021.
4) Staff memo on 2022 recreational summer flounder measures dated November 4, 2021.
5) ASMFC Technical Committee Meeting Summary from October 25, 2021

Any additional public comments received by the supplemental comment deadline of December 9, 2021 will be posted separately to the Council's meeting page.

Summer Flounder, Scup, and Black Sea Bass Monitoring Committee (MC)
November 10, 2021 Webinar Meeting Summary

Monitoring Committee Attendees: Julia Beaty (MAFMC staff), Peter Clarke (NJ F&W), Dustin Colson Leaning (ASMFC staff), Karson Coutré (MAFMC staff), Kiley Dancy (MAFMC staff), Lorena de la Garza (NC DMF), Steve Doctor (MD DNR), Emily Keiley (GARFO), Alexa Galvan (VMRC), Savannah Lewis (ASMFC staff), Rachel Sysak (NY DEC), Mark Terceiro (NEFSC), Corinne Truesdale (RIDEM), Sam Truesdell (MA DMF), Greg Wojcik (CT DEEP)

Additional Attendees: John Almeida (GARFO), Pat Augustine, Chris Batsavage (Council/Board member), Frank Blount (AP member), Steven Cannizzo, Kiersten Curti (NEFSC), Greg DiDomenico (AP member), Michelle Duval (Council member), Dan Farnham (Council member), Skip Feller (Council member), James Fletcher (AP member), Jack Fullmer, Dewey Hemilright (Council member), Adam Nowalsky (Council/Board member), Will Poston, Eric Reid (NEFMC Council Liaison), David Stormer (Council member), Mike Waine (AP member)

Summer Flounder

The Monitoring Committee (MC) agreed with the staff recommendation for **continued use of regional conservation equivalency for summer flounder in 2022**, using the same regions as adopted in 2021.

The MC agreed with the methodology Council staff used to develop 2021 harvest projections, which used the average 2019-2020 proportions of harvest by wave at the coastwide level applied to the 2021 coastwide preliminary estimate of harvest for waves 1-4. However, the MC expressed concerns that the 2021 wave 1-4 estimates are much lower than recent years. The 2021 projected harvest would be the lowest since management measures were implemented in 1993. The MC could not provide a clear explanation for this low 2021 estimate. They also noted that this trend is in contrast to wave 1-4 estimates for scup and black sea bass which are higher than recent years. This could indicate low summer flounder availability in 2021, which is consistent with what some MC representatives have heard from stakeholders in their states. One MC member mentioned poor weather on many weekends may have contributed to low opportunities for targeting summer flounder earlier in 2021.

The MC agreed that projected 2021 harvest may not be the most appropriate proxy for expected 2022 harvest under status quo management measures. For example, the MRIP data have shown large variations in estimates over recent years with nearly identical measures. Between 2018-2021, harvest varied from a low of 5.71 million pounds in 2021 (projected) to 10.06 million pounds in 2020 under essentially the same measures. While 2021 preliminary wave 1-4 harvest is low, 2020 harvest exceeded the RHL by 31% and was much closer to the 2022 RHL. In addition, the MC noted some uncertainty regarding availability in 2022 given that more of the above-average 2018 year class will recruit to the recreational fishery as age 4 fish, which could increase harvest as these fish reach legal size limits. One MC member noted that the 2022 RHL falls within the 80% and 95% joint distribution confidence intervals for the 2018-2020 MRIP harvest estimates. This suggests that if 2018-2020 harvest is an appropriate predictor of 2022 harvest under status quo

measures, then status quo measures may result in harvest that is not notably above or below the 2022 RHL. Finally, the MC discussed that pending management changes under the Harvest Control Rule Framework/Addendum and Commercial/Recreational Allocation Amendment could lead to recreational management changes in 2023 and beyond; however, the likely outcomes are uncertain as final action has not yet taken place. They cautioned that this could mean substantial changes to measures for multiple years in a row under large 2022 liberalizations, depending on final measures selected under these actions. The MC discussed that several recreational fishery models in development through the Harvest Control Rule Framework/Addendum and Summer Flounder Management Strategy Evaluation processes may be helpful in future considerations of appropriate liberalizations, but are not currently ready to use in this year's process.

For all these reasons, the MC was not comfortable with the Council staff recommendation for a 33% liberalization in harvest in 2022 compared to 2018-2021 average harvest. The MC considered a few different methods for calculating possible liberalization amounts, including a weighted average of recent years harvest with 2021 down weighted, or recommending a liberalization of 25% based on the increase in the RHL between 2021 and 2022. However, many MC members were concerned that these increases would still pose too much of a risk of exceeding the 2022 RHL. Given these concerns, **the MC recommended status quo regional measures for summer flounder. However, if the Council and Board prefer liberalizations, the MC recommended a maximum coastwide liberalization of 16.5%**, which is half of the 33% liberalization recommendation in the Council staff memo.

Under conservation equivalency, **the MC also recommended status quo non-preferred coastwide measures** including a 19-inch minimum size, 4 fish bag limit, and open season May 15-September 15.

If the Council and Board prefer liberalizations to the non-preferred coastwide measures, the MC recommends dropping the non-preferred coastwide minimum size limit to 18.5" from the current 19". Based on a rough analysis of the impacts of this change using 2019 landings and discard length frequency data, this change would be expected to result in an approximately 11% increase in harvest in weight and a 14% increase in harvest in numbers of fish. There are several caveats associated with this analysis including that the underlying data are from 2019, and length data from the NEFSC are in centimeters and binned to the nearest half inch which introduces some rounding and conversion error. This analysis also assumes full size limit compliance and similar availability at size in 2022. The MC did not support the Council staff recommendation of dropping the non-preferred size limit to 18" due to the concerns about large liberalizations discussed above.

The MC recommended **status quo precautionary default measures** including a 20-inch minimum size, a 2 fish possession limit, and an open season of July 1-August 31. The group agreed that these measures were sufficiently restrictive to deter states from adopting measures outside of the agreed upon conservation equivalency guidelines for 2022.

Scup

The MC discussed the circumstances that led to status quo measures for 2020 and 2021 despite expected RHL overages, and how circumstances in 2022 may differ from those years. Differences include that 2021 MRIP estimates are available through wave four this year whereas current year

estimates were not available in 2020 due to COVID-19 related data gaps. The status quo measures were meant as a temporary solution while ongoing actions provided guidance on how to respond to the new MRIP estimates. The MC also generally discussed that there are still many uncertainties related to policy decisions that the Council and Board will make on the Harvest Control Rule Framework/Addendum and the Commercial/ Recreational Allocation Amendment.

The MC also discussed that total catch has been under the Acceptable Biological Catch (ABC) in recent years and wondered whether commercial landings may increase in 2022. There is potential for an increase in commercial landings due to the potential for trawl caught scup to become Marine Stewardship Council certified. This could increase the value and commercial targeting of scup. It is also unclear whether there was an ABC overage in 2020 due to lack of commercial and recreational discard data, however commercial harvest was well under the 2020 commercial quota.

The MC agreed with the Council staff recommendation to use 2019-2021 average harvest (with the 2021 value projected coastwide) as the basis for expected 2022 harvest under status quo measures. Using a multi-year average helps account for variability in the MRIP estimates across years.

MC members discussed that they were not comfortable with the 56% reduction in harvest that may be needed to prevent an RHL overage as described in the Council staff memo. They discussed the socioeconomic repercussions of these cuts and that scup biomass is still nearly double the target level. Some MC members initially discussed that status quo recreational measures may be appropriate for a third year for these reasons and given that final action on important ongoing Council and Board actions are expected in the near future (Harvest Control Rule Framework/Addendum and the Commercial/Recreational Allocation Amendment). However, the MC also discussed that there would still be a need for recreational harvest reductions compared to recent years based on the example 2023 RHLs under all Commercial/Recreational Allocation Amendment alternatives.

They added that it would be beneficial for the recreational fishery models being considered for use in the Harvest Control Rule Framework/Addendum to also address scup as they are currently only in development for summer flounder and black sea bass. This would help better understand the impacts of large scale reductions on the recreational sector.

Ultimately, **many MC members were not comfortable with status quo recreational measures and felt there was a need for some reduction in harvest, particularly due to the recent years of low recruitment**. The MC discussed that increasing the current minimum size in state and federal waters may also allow more scup to reach maturity and spawn. **The MC recommended increasing the minimum size by one inch in state and federal waters.** They felt this was an appropriate approach to achieving an equitable reduction in harvest that specifically decreases the harvest of immature scup. This increase in minimum size would achieve an approximate 33% reduction in recreational harvest if implemented coastwide. They noted that some state specific shore programs allow 8 inch scup to be retained and felt that those programs should increase their minimum size from 8 inches TL to 9 inches TL.

The MC also discussed what would happen if the Council and Board adopted this recommendation in December, but one or more states did not implement similar restrictions to achieve the reduction. GARFO indicated there would need to be a more restrictive measure which would be implemented by the agency as a backup if all states do not achieve similar reductions. Because the majority of scup are caught in state waters, it would likely need to be a full federal waters closure. This would only achieve about a 6% reduction in harvest.

Black Sea Bass

Several MC members expressed concern about the preliminary 2021 wave 1-4 coastwide black sea bass harvest estimate, which is 40% higher than the average 2018-2020 wave 1-4 final harvest estimate. This higher than average value is driven by several states; however, some states had lower than average 2021 wave 1-4 estimates. The MC was not aware of any changes in the fisheries which would drive these trends.

The MC agreed with the Council staff recommended method for projecting 2021 full year harvest. They also agreed with the Council staff recommendation to use 2018-2021 average harvest (with the 2021 value projected) as the basis for expected 2022 harvest under status quo measures. Using a multi-year average in this way helps account for variability in the MRIP estimates across years with virtually status quo measures and no clear drivers of these differences based on changing availability or other factors. The resulting value of 9.40 million pounds suggests that **harvest would need to be reduced by 28% to prevent an overage of the 2022 RHL** of 6.74 million pounds.

One MC member asked how this value compares to the example 2023 RHLs under the alternatives under consideration through the Commercial/Recreational Allocation Amendment. Staff stressed that the example 2023 RHLs are just examples and the actual implemented 2023 RHLs may differ. The highest example 2023 RHL, representing the greatest shift in allocation from the commercial fishery to the recreational fishery, is 10.07 million pounds. It is important to emphasize that the Council and Board have not yet selected preferred alternatives through the Commercial/ Recreational Allocation Amendment.

The GARFO representative on the MC said the regulations require a change in the measures given that an Accountability Measure (AM) was triggered. This AM was triggered based on a comparison of the 2018-2020 average ACL to 2018-2020 average catch. This comparison suggests a 12% overage without 2020 discard data, which are not currently available in weight. Once these data are available, the overage will be higher. The MC preferred no change in the measures given that biomass is more than double the target and there are no concerning trends in recruitment or other stock status indicators, unlike with scup. Therefore, **the MC's primary recommendation was for status quo measures in 2022**.

The MC discussed how to modify measures if a change is required due to the AM. The MC agreed that any implemented restrictions should be equitable across all states. Some MC members expressed concerns about implementing different measures for private vs. for-hire fishing modes. This would require breaking the MRIP data down to finer increments, which would reduce the precision in the estimates. It could also create tensions within the recreational fishery if one mode has more liberal measures than others.

Some MC members said additional seasonal closures in the spring, as suggested in the Council staff memo, would have major negative impacts on their states.

The MC member from Maryland said for-hire boats in his state already must travel 25 miles offshore to access black sea bass above the current minimum size limit in that state of 12.5 inches. He said fishermen in states to the north do not need to travel as far offshore to access larger fish. The MC member from New York said fishermen in that state are very frustrated with their current 15 inch minimum size given that neighboring New Jersey has a 12.5 inch minimum size.

Despite the expected negative impacts to the recreational fisheries in each state, several MC members agreed that **a half inch minimum size increase in all states and federal waters could be considered an equitable solution if a reduction is deemed necessary due to the AM**. This change would be expected to reduce harvest in numbers of fish by 13% at a coastwide level; therefore, it would not be expected to prevent an RHL overage in 2022. However, the MC felt this was appropriate given that that there is no strong conservation need for a major restriction and given the ongoing Commercial/Recreational Allocation Amendment and the Harvest Control Rule Framework/Addendum, which may impact the 2023 fishery, but have uncertain outcomes given that final action has not yet taken place.

The MC also agreed that, **as an alternative to a half inch increase in the minimum size in all states, each state could determine their preferred measures to achieve a 14% reduction in harvest**. They selected 14% because it is half the full 28% reduction that would be needed to prevent an RHL overage in 2023. This reduction would be based on a comparison to average 2018-2021 harvest. Some MC members noted that this would create a greater burden on the Technical Committee and Commission process to approve the various state proposals, and it would also result in states potentially using MRIP data at finer scales than would be needed to support a 0.5 inch minimum size increase in all states and federal waters. For these reasons, the MC recommended that states work together as regions if this approach is taken.

The MC recommended further consideration of the socioeconomic impacts of changes in regulations in future years, preferably through the use of statistical models.

The MC agreed with the Council staff recommendation to not waive the black sea bass federal waters measures in favor of the state waters measures. This has been an option since the 2020 fishing year but has never been used for black sea bass. Given the challenging circumstances described above, the MC did not think it would be appropriate to make such a major change in the management program in 2022.

Public Comments

One Council/Board member asked if staff could explore any of the options being explored under the Commercial/Recreational Allocation Amendment or the Harvest Control Rule Framework/ Addendum for the Council and Board's consideration for 2022. Staff responded that the Harvest Control Rule Framework/Addendum options are still in development by the Plan Development Team/Fishery management Action Team and will not be ready or appropriate to apply in 2022. For the allocation amendment, staff can provide example quotas and RHLs under each allocation option, but any allocation revisions will not be implemented until 2023 at the earliest.

One advisor noted that the MC's deliberations focused heavily on the allocation amendment, and thought it was unfortunate that the unknown outcome of that pending action influenced the group's

decision making at this meeting. He did not support restrictive regulations for the recreational fishery, but believes that the decisions made by the MC increase the chance of overfishing by continuing what was intended as a temporary solution. He thought the December joint meeting discussions on the allocation amendment and recreational measures would be linked and have an unfortunate outcome on the allocation amendment. He asked the MC to support a continued delay on the allocation amendment for these reasons. Finally, he stated that the MC has placed a high emphasis on the allocation issue but should focus just as much on other important challenges with recreational fisheries management, including data concerns.

Another advisor questioned why requiring a large hook size for these species has never been discussed. He was frustrated that during the discussion of raising size limits, the MC did not discuss how many more dead discards would be created.

Summer Flounder, Scup, and Black Sea Bass Advisory Panel Meeting Summary

November 18, 2021

The Mid-Atlantic Fishery Management Council's (Council's) Summer Flounder, Scup, and Black Sea Bass Advisory Panel (AP) met jointly with the Atlantic States Marine Fisheries Commission's (Commission's) Summer Flounder, Scup, and Black Sea Bass AP on November 18, 2021. The purpose of the meeting was to discuss 2022 recreational management measures (i.e., possession limits, fish size limits, and open and closed seasons) for all three species.

Please note: Advisor comments described below are not consensus or majority statements.

Council Advisory Panel members present: Frank Blount (RI), Eric Burnley (DE), Frank Blount (RI)*, Jeff Deem (VA), Joseph DeVito (NY), Greg DiDomenico (NJ)*, James Fletcher (NC), Jeremy Hancher (PA), Victor Hartley (NJ), Kenny Hejducek (NY), June Lewis (MD), Gus Lovgren (NJ), Michael Pirri (CT), Mike Plaia (CT)*, Bob Pride (VA), Robert Ruhle (NC), George Topping (MD), Mike Waine (NC), Harvey Yenkinson (PA)

Commission Advisory Panel members present: Frank Blount (RI)*, Jack Conway (CT), Greg DiDomenico (NJ)*, Joseph Huckemeyer (MA), Mike Plaia (RI)*, Bill Shillingford (NJ), James Tietje (MA)

*Serves on both Council and Commission Advisory Panels.

Others present: Julia Beaty (MAFMC Staff), Rick Bellavance (NEFMC member), Dustin Colson Leaning (ASMFC Staff), Joe Cimino (Council and Board member), Karson Coutré (MAFMC Staff), Jessica Daher (NJ DEP), Kiley Dancy (MAFMC Staff), Neil Delanoy, Steve Doctor (MD DNR), Michelle Duval (Council member), Tony Friedrich (American Saltwater Guides Association), Sonny Gwin (Council member), Jeff Kaelin (Lund's Fisheries), Emily Keiley (NMFS GARFO), Meghan Lapp (Seafreeze, Ltd.), Savannah Lewis (ASMFC Staff), Brandon Muffley (MAFMC Staff), Adam Nowalsky (Council member), Paul Risi (Council member), Philip Welsh, Angel Willey (MD DNR), Charles Witek

2022 Summer Flounder Recreational Measures

One advisor from New Jersey stated that the party/charter fleet is not able to land many fish due to regulations, but they are catching fish. He said it would be helpful if headboats could have separate regulations, as is done for bluefish, such as a higher bag limit or a slot limit for at least one fish. He said that despite increases in the recreational harvest limit (RHL), the for-hire sector is still losing boats left and right. Another advisor agreed that the for-hire sector should be managed separately with unique management measures. A third advisor said he supported the Monitoring Committee recommendations, but if the Council and Board choose to liberalize measures, he would like to see an allowance for a slot fish in New Jersey, of one fish between 15-16 inches (in addition to fish above the current minimum size). He indicated that these measures would reduce fishing pressure on large females by allowing retention of smaller fish. A fourth advisor agreed

that a for-hire slot limit allowing one fish at 15-16 inches would be good for New York's fishery as well.

One advisor fishing from shore in southern New Jersey indicated that early in the season this year, anglers were having a lot of success getting big fish. He supports keeping measures status quo early in the season and moving to a slot limit later in the season.

One advisor questioned what the projected stock biomass trend was for 2022 and beyond. He said that given the above average 2018 year class continuing to recruit to legal recreational sizes, he is skeptical about the low 2021 harvest estimates. The projected recreational harvest for 2021 does not seem to match the information about stock dynamics, nor does it match the trend of increased 2021 harvest for scup and black sea bass. He asked whether MRIP staff have looked into the data in detail and identified any issues. He noted it was difficult to make a recommendation when the harvest has varied so much over the past few years under the same regulations.

Another advisor agreed that 2021 MRIP data does not seem reliable. He said that fishing in New Jersey was a little worse in 2021 compared to 2020 but not to the level that the MRIP data would suggest.

One advisor asked what the recent recreational dead discard estimates were in pounds. He said that managers have never looked at recreational gear requirements, and requested that the Council and Board explore a minimum hook size requirement to reduce discard mortality in the fishery.

One commercial advisor stated that this fall they saw a majority of medium size fish in the 14-18 inch range in their first wave of fish caught, when these fish are normally large or jumbo, and he believes this supports the conclusion of high recruitment a few years back. He also supported a recreational slot limit for summer flounder.

Three advisors expressed support for continuing conservation equivalency in 2022. One reasoned that given the size disparity of summer flounder available along the coast, measures need to remain tailored to each region. One of these advisors stated that he will request that his state (Virginia) lower the minimum size by an inch.

One commercial advisor supported status quo regulations and noted that private recreational anglers are not being held in compliance to their limits and are overharvesting. He supported moving to a system where all recreational anglers need to record their harvest, similar to requirements for for-hire Vessel Trip Reports. Another advisor agreed, noting that recreational anglers should be supportive of accountability and that anglers need better accountability methods such as tagging fish.

A member of the public responded that as a recreational fishermen, he doesn't know anyone who doesn't follow the regulations. He also commented that weather has been heavily impacting fishable days recently, for example, since mid-October, they have only had about two or three fishable days. This is something managers should account for by lengthening the season. Climate change is making things more difficult on recreational anglers and in New Jersey the season is too short.

2022 Scup Recreational Measures

Multiple advisors commented that they would prefer the MC recommended minimum size increase over any changes to bag size and season. One advisor from New Jersey added that a bag limit reduction was definitely not preferred. Another advisor noted that from a charter boat perspective a minimum size increase is preferred. One advisor supported the minimum size increase in order to move the harvest closer to the RHL and decrease the harvest of immature fish. One advisor asked for a comparison of the percent of scup that are mature at 9 inches compared with 10 inches and thought that would be helpful for the Council and Board meeting. Staff responded that they would work with NMFS to provide that information.

One advisor disagreed with the increase in minimum size and wondered how many more dead discards this would create. They added that we should reduce the minimum size in order to reduce discards.

One advisor voiced frustration with the use of MRIP data in management and specifically noted unrealistic numbers from the shore mode. They added that in Long Island Sound the fishing days were reduced due to bad weather and large quantities of freshwater input driving the fish away. This has led to fewer opportunities for anglers and because of this, regulations should be liberalized for all three species.

One advisor asked how the commercial sector's harvest and discards factored into the overall accounting and noted high discards in that sector. Another advisor pointed out that the commercial sector has willingly taken reductions in the past when needed.

Staff discussed the recent low recruitment based on the most recent stock assessment and asked what trends advisors were seeing on the water. One recreational advisor said that earlier in the year, scup seemed to be more out to the east, and they have had to travel further offshore to reach them. They added that there are still plenty of them. Another advisor said that the first wave of scup seems to start earlier and move off earlier, however it was a larger run of fish. They also noted that wind patterns can disperse the scup this time of year. Another advisor added using the webinar chat that the NEAMAP survey has seen consistent recruitment across the survey range.

2022 Black Sea Bass Recreational Measures

Two advisors questioned the use of a combination of older, pre-calibration MRIP data and newer MRIP data, depending on the year, in the three year average of catch required for the accountability measure comparison. One of these advisors noted the additional uncertainty in the 2020 estimates due to the imputation method used to fill COVID-19 related gaps in the MRIP intercept survey data.

Two commercial fishing advisors said it feels as if the recreational fishery is not accountable. These comments addressed multiple concerns and were not focused only on accountability in the regulatory sense of a response to Annual Catch Limit (ACL) overages. Concerns raised include the appearance that recreational ACL overages are permissible, the potential for ACL overages to be rewarded with an increased recreational allocation through the Commercial/Recreational Allocation Amendment, and poor quality recreational data, especially from private anglers.

Two advisors said the MRIP data are highly uncertain and are a poor basis for management decisions. As an example, one advisor cited the preliminary 2021 wave 1-4 harvest estimate for Connecticut, which, contrary to several years of trends in the fishery, is greater than the New York estimate. Another advisor said the preliminary 2021 harvest estimates seem too high and do not match his experience in New Jersey where he was impacted by more windy days than in previous years. He said MRIP should be used as an estimate of the big picture and management has been using the data at too fine of a scale.

A few advisors expressed concerns about the for-hire sector being grouped with the private recreational sector in terms of data and management. One advisor said this grouping negatively impacts both the for-hire sector and the commercial sector. Another advisor said the for-hire sector has more accurate data than the private recreational sector and should be held accountable to their own catch based on their own data.

Three commercial fishery advisors expressed support for private angler reporting (e.g., through smart phones) as a means of improving the recreational data.

One advisor said the commercial/recreational allocation for black sea bass is not based on the best available science as it is based on old, pre-calibration MRIP data. He said the challenges discussed today would have been resolved if the Council and Board had taken final action on the Allocation Amendment in the spring. He argued that by continuing to delay a decision on allocations, the Council and Board are not following the best available science.

One advisor said black sea bass are so abundant that it seems that the underlying stock assessment is not providing accurate biomass estimates and the overall catch and landings limits are set too low.

Two advisors recommended keeping status quo recreational management measures in 2022, expressing a lack of confidence in the data suggesting a restriction is needed and noting the very high biomass.

One recreational fishery advisor said the recreational fishery should not be held to status quo measures but should be allowed to liberalize. He added that the multiple past recreational overages have not harmed the stock and it feels as if the recreational sector is being penalized for catching fish that are extremely abundant.

One advisor said the recreational fishery mostly harvests male fish, as the majority of larger fish are male due to the protogynous hermaphrodite life history of black sea bass. He said this is not a cause for concern as females can transition to males when large males are removed from the population, and smaller males also contribute to spawning success. Given this, and the very high biomass that has been maintained in recent years, he said he is not concerned that the recreational fishery will negatively impact the stock.

One commercial fishery advisor expressed concerns with the recommendations made by the Monitoring Committee. He said they were inconsistent in their recommendations, their comments relied too much on opinion, and they did not provide purely technical advice. He said they focused too much on the Allocation Amendment as a remedy instead of providing advice on management measures. He also noted that the Monitoring Committee expressed concern about the MRIP data, but the Allocation Amendment relies on those data to inform the allocations. He said their recommendations will increase uncertainty moving forward and will make it more difficult to

determine if overfishing is occurring. He did not support relying on ongoing management actions as a justification to avoid making difficult decisions. He noted that in making these comments he is not advocating for more restrictive regulations for the recreational fishery. Another participant on the call who is a member of other Advisory Panels, but not the Advisory Panel for these species expressed support for all these statements and added that if there is no strong conservation need for a restriction in the recreational fishery, then the commercial fishery should also be allowed to harvest more fish.

Two advisors recommended recreational gear restrictions or release practices such as circle hooks, descending devices, or venting to reduce recreational discard mortality.

Kiley Dancy

From: James Fletcher <bamboosavefish@gmail.com>
Sent: Thursday, November 11, 2021 9:26 AM
To: Beaty, Julia; Kiley Dancy; Didden, Jason
Subject: Fwd: Alternative recreational fishery management

The following was sent to ASMFC NMFS Council. Perhaps when recreational reform or other recreationl plan development, fmats or what ever a discussion of minimum hook size to be allow on vessels in EEZ or state waters, ALL FISH MUST BE RETAINED WITH TOTAL LENGTH ALLOWED.

-------- Forwarded Message --------
Subject: Alternative recreational fishery management
Date: Thu, 11 Nov 2021 09:20:15 -0500
From: James Fletcher <unfa34@gmail.com>
Reply-To:unfa34@gmail.com
To: Moore, Christopher <cmoore@mafmc.org>, Chris Kellogg <ckellogg@nefmc.org>, Bob Beal <rbeal@asmfc.org>, Batsavage, Chris <chris.batsavage@ncdenr.gov>, Jon Hare <jon.hare@noaa.gov>

FACT: A LARGE FISH CAN BE CAUGHT WITH A SMALL HOOK. A SMALL FISH **CAN NOT BE CAUGHT WITH A LARGE HOOK:**
Recreational fishery management must examine hook size allowed on recreational vessels as effort control.
To eliminate discards only hook size larger than a given fish size would be allowed on recreational vessels. [no exceptions}
All fishery management should direct staff for research hook size, to match current regulatory fish size. then recommend one size larger hook as precaution. {no discards}
Would like to have discussion in council & ASMFC plus NMFS .

--
James Fletcher
United National Fisherman's Association
123 Apple Rd.
Manns Harbor, NC 27953
252-473-3287

From: James Fletcher
To: Beaty, Julia; Moore, Christopher; Didden, Jason
Subject: Re: AP mtg, Nov 18, 2-5 pm, 2022 recreational measures for summer flounder, scup, and black sea bass
Date: Tuesday, November 16, 2021 9:24:49 AM

OUT OF BOX SUGGESTION RECREATION FISHING:
ELECTRONIC CELL PHONE REPORTING***!
ONLY ALLOW 6-0 OR 7-0 HOOKS ON VESSELS IN EEZ WILL WORK FOR SUMMER FLOUNDER & BLACK SEA BASS. VESSELS IN EEZ CAN ONLY POSSESS HOOKS LARGER THAN REQUIRED SIZE,
SCUP MAY REQUIRE SMALLER HOOK SIZE; CIRCLE HOOK, J OFF SET WHAT EVER WILL BE RED HERRING FROM RECREATIONAL::

REQUIRE A MEASUREMENT FROM HOOK POINT TO SHANK *** {**SOMETHING SIMPLE FOR COAST GUARD & LAW ENFORCEMENT*****} REQUIRE TOTAL RETENTION!
CAN THIS BE PART OF DISCUSSION??

On 10/18/2021 9:41 AM, Beaty, Julia wrote:

> Dear Summer Flounder, Scup, and Black Sea Bass Advisors,
>
> Please hold Thursday, November 18, 2021 from 2 pm to 5 pm for a webinar meeting to discuss 2022 recreational bag, size, and season limits for summer flounder, scup, and black sea bass.
>
> This will be a joint meeting with the Atlantic States Marine Fisheries Commission's Advisory Panel.
>
> We will follow up with webinar connection information and background materials closer to the meeting date.
>
> If you cannot attend this meeting, you are welcome to provide input to staff via email or phone prior to or after the meeting.
>
> Thank you,
> Julia Beaty, Karson Coutré, and Kiley Dancy (Council staff)
>
> Julia Beaty
> Fishery Management Specialist
> Mid-Atlantic Fishery Management Council
> 800 N. State Street, Suite 201
> Dover, DE 19901
> 302-526-5250
> jbeaty@mafmc.org
> Pronouns: She/her/hers

Kiley Dancy

From: James Fletcher <bamboosavefish@gmail.com>
Sent: Wednesday, November 17, 2021 9:11 AM
To: Hare, Jon; Kiley Dancy; Moore, Christopher; Beal, Robert
Subject: HOOK SIZE STUDIES FOR RECREATIONAL FISHING & FISH SIZE CAUGHT

Mr. Hare; do you OR NORTH EAST SCIENCE CENTER know OR POSSES any studies of hook size & size of fish hooked?

logic::: CAN CATCH A LARGE FISH ON SMALL HOOK ****BUT *CAN NOT CATCH A SMALL FISH ON LARGE HOOK! ****
FOR recreational reform & management measures need hook size information & studies to support .
Simple management in EEZ only allow hook with given distance between point & shank
PROBLEM*** DIFFERENT DESIGN HOOKS*** SOLUTION MEASUREMENT BETWEEN POINT OF HOOK & SHANK.
WHAT EVER STUDIES EXIST SHOULD BE ABLE TO MEASURE DISTANCE REGARDLESS OF MANUFACTURE.
THUS LAW ENFORCEMENT NEEDS ONLY ONE GAGE.
Hope center has studies can share with Council staff & ASMFC staff & ME.

--
James Fletcher
United National Fisherman's Association
123 Apple Rd.
Manns Harbor, NC 27953
252-473-3287

Kiley Dancy

From: James Fletcher <bamboosavefish@gmail.com>
Sent: Wednesday, November 17, 2021 11:06 AM
To: Kiley Dancy; Muffley, Brandon; Beaty, Julia; Moore, Christopher; Beal, Robert; Didden, Jason; Hare, Jon; Batsavage, Chris
Subject: HOOK INFORMATION {Support for hook requirement on vessels in EEZ.

Please forward to advisors & management staff . by catch reduction combined with total length {replacing number of fish} https://badangling.com/tackle-advice/a-guide-to-fishing-hook-sizes-and-types/
Perhaps ASMFC will already have hook size vs fish size because ASMFC was formed in 1940's

--
James Fletcher
United National Fisherman's Association
123 Apple Rd.
Manns Harbor, NC 27953
252-473-3287

Kiley Dancy

From: Loyd Chenoweth <bamboosavefish@gmail.com>
Sent: Sunday, November 28, 2021 11:40 AM
To: Benson, Carl L.; Kiley Dancy; Beaty, Julia; Moore, Christopher; Beal, Robert
Subject: Re: HOOK STUDY

THANK YOU MUCH FOR INFORMATION! HAVING SEEN WHAT HOOK MANUFACTURE REPRESENTATIVES WILL SAY & DO DURING COUNCIL MEETINGS; people that obtain hooks for free from manufactures to keep hook size regulations out of reform discussion I offer the following thought / idea for you & recreational industry to consider.
have a gauge / ball / round object / something simple that must pass between the shank & curve of circle hook, on jay hook shank & barb / point.
Any and all hooks would allow a round object to pass through without restriction, thus manufacture representatives could not object to having a uniform gauge.
With the correct size gauge in the EEZ discards should be reduced. on Summer Flounder & Black Sea Bass Scup will be a challenge.
State waters with Spots Croaker [pan fish] states should be able to adjust Gauge. or maybe total length [no discards] for shore fishers
Recreational industry should be willing to test gauge size on / vs hooks if allowed more fish with less discards. [I know of no one that wants discards Except management}
WOULD HOOK SIZE {plus total length} { without total length some will discard smaller fish as larger are caught} WORK FOR ALL FISHERY MANAGEMENT TO REDUCE OR ELIMINATE DISCARDS?
AGAIN THANK YOU FOR INFORMATION & HOPE YOU SENT TO COUNCIL!

On 11/23/2021 8:42 AM, flukeman@aol.com wrote:

> James,
> We have been MAFMC advisors for a long time. We see eye to eye on flounder and the need to limit discards. You propose total length and quit, while I favor a total ban. Three and done, for example.
> I keep mentioning the hook study done in 2014 and presented shortly after to the Council. That study was peer reviewed and published. I am attaching a copy. Please note that over 7800 flounder provide data for the study. This a very robust study in terms of data input.
> I also presented to various recreational groups. Those presentations highlighted the methodology and results of the study but also discussed the non-scientific side.

Kiley Dancy

From: James Fletcher <bamboosavefish@gmail.com>
Sent: Monday, November 29, 2021 9:14 AM
To: Kiley Dancy; Beaty, Julia; Moore, Christopher; Beal, Robert
Subject: Re: Draft AP meeting summary: review by Mon. 11/29

MS. Dancy; For all three species I would like to propose 1. ELECTRONIC REPORTING
2. A hook gauge to pass between the shank and point of hook ** Circle hooks the crook; thus a gauge for hook size for possession on vessels in the EEZ.
A GEAR REGULATION HAS LONG BEEN IN EFFECT FOR COMMERCIAL **NET SIZE***
YOU CAN CATCH A LARGE FISH ON A SMALL HOOK! YOU CAN NOT CATCH A SMALL FISH ON A LARGE HOOK!
To prevent discards Council must enact a gauge requirement that hooks on a vessel allow to pass through.
MANY HOOK MANUFACTURES PROVIDE HOOKS & TACKLE TO COUNCIL MEMBERS.
A GAUGE ***DOES NOT ALLOW A BENEFIT TO MANUFACTURES ***

In a study provided to council 1.7 is recommended distance from shank; Precaution would indicate the gauge must be 1.8 or larger, to prevent high grading a total length with NO DISCARDS FOR THE EEZ SHOULD BE ENACTED!
THE ABOVE IS SO SIMPLE WHY HAS SCIENCE OR STAFF EVER PROPOSED THIS APPROACH TO COUNCIL?
HOPE THIS IS IN REPORT TO COUNCIL!
Fletcher UNFA.

On 11/22/2021 12:10 PM, Kiley Dancy wrote:

> Hello summer flounder, scup, and black sea bass advisors,
> Thank you for providing your comments at last week's AP meeting. See attached for a draft summary of the meeting. **Please provide any edits or clarifications to this summary by the end of the day next Monday, November 29.** If you would like to provide additional comments by email, the main briefing book deadline for comments is Wednesday, December 1, and the deadline for supplemental comments is Thursday, December 9. We are also happy to take comments over the phone if preferred. Please let us know if you have any questions. Thanks and have a great Thanksgiving.
> Kiley, Karson, and Julia
>
> Kiley Dancy
> Fishery Management Specialist
> Mid-Atlantic Fishery Management Council
> 302-526-5257 (direct)
> Email: kdancy@mafmc.org or kiley.dancy@noaa.gov

--
James Fletcher
United National Fisherman's Association
123 Apple Rd.
Manns Harbor, NC 27953
252-473-3287

Kiley Dancy

From: charlie McBlondee <ocblondee1@hotmail.com>
Sent: Thursday, November 18, 2021 12:35 PM
To: Kiley Dancy
Subject: accountability

Kiley:
As an advisor, I would appreciate comments on Recreational VS Commercial as far as being held accountable for the fish caught and discards.
There is nothing in play as far as Recreational being checked. This needs to improve. Put some accountability on these Recreational fishermen
And on the “head-boats”. For instance, tag their fish. We have gotten serious with the Commercial Fisheries, now time to get serious with Recreational.
It seems unfair to keep taking quota from the Commercial Fishermen [ones who make a living] to those that are just out for sport.

Thank You.

June C. Lewis

Sent from Mail for Windows

Steve Witthuhn phone comments for 11/18/2021 AP Summer Flounder, Scup and Black Sea Bass Advisory Panel Meeting:

- We are still in a pandemic and at this point status quo is a win for fishermen. Status quo means you didn't take anything away from my business when you are in the for hire industry.
- The Magnuson Stevens Act does not have a provision that addresses what we do during a pandemic and these catastrophic times should be factored into management. We don't have the ability to do things business as usual.
- Another benefit of continuing status quo measures is that we can look at trends during years of status quo with consistent measures.
- Fluke may be in trouble and I am dumbfounded by a liberalization there, but I am based in Montauk, maybe they are moving further north and States like Massachusetts are having a good season.
- Black sea bass fishing is off the hook and we are never going to run out, they are the locusts of the sea and they eat everything in sight. There are overwhelming signs of good abundance including a lot of smaller fish. Reductions in black sea bass make no sense based on what I see on the water.
- We also need better MRIP information including more funding to help improve the data. With MRIP and the pandemic there is a lot we don't know and a lot of data that wasn't collected and still isn't being collected.
- There needs to be improvements to electronic reporting and outreach explaining why it is important to report what was discarded not just what was kept. A lot of fish need to be discarded to before being able to keep a legal sized black sea bass.
- If making reductions or liberalizations, make them small/ gradual.
- We are seeing more trigger fish, so with climate change we may be able to diversify with more southern species.

Kiley Dancy

From: flukeman@aol.com
Sent: Tuesday, November 23, 2021 9:13 AM
To: Kiley Dancy
Subject: Re: Draft AP meeting summary: review by Mon. 11/29

Kiley,
Two points
!) The hook study funded by NOAA By-catch Reduction Engineering Program (BREP) in 2014 and presented to the council shortly thereafter, and subsequently peer reviewed and published seems to have been forgotten. Over 7800 summer flounder data points were used to assess the various hooks sizes evaluated.
2) Since our goals are to maintain or rebuild stocks, two methods currently used seem diametrically opposed. For summer flounder, we harvest the female breeding stock and release the less mature individuals and for striped bass we release the breeding females and harvest the less mature individuals. In all meat producing operations that I am familiar with. high volume breeders are protected and the less mature or less productive are harvested.

Carl
-----Original Message-----
From: Kiley Dancy <kdancy@mafmc.org>
To: Advisors - SFSBSB <Advisors-SFSBSB@mafmc.org>
Cc: Beaty, Julia <jbeaty@mafmc.org>; Coutre, Karson <KCoutre@mafmc.org>; Savannah Lewis <slewis@asmfc.org>; Leaning, Dustin Colson <dleaning@asmfc.org>; Moore, Christopher <cmoore@mafmc.org>; Luisi, Michael <michael.luisi@maryland.gov>; Davis, Justin <Justin.Davis@ct.gov>
Sent: Mon, Nov 22, 2021 12:10 pm
Subject: Draft AP meeting summary: review by Mon. 11/29

Hello summer flounder, scup, and black sea bass advisors,
Thank you for providing your comments at last week's AP meeting. See attached for a draft summary of the meeting. **Please provide any edits or clarifications to this summary by the end of the day next Monday, November 29.** If you would like to provide additional comments by email, the main briefing book deadline for comments is Wednesday, December 1, and the deadline for supplemental comments is Thursday, December 9. We are also happy to take comments over the phone if preferred. Please let us know if you have any questions. Thanks and have a great Thanksgiving.
Kiley, Karson, and Julia

Kiley Dancy
Fishery Management Specialist
Mid-Atlantic Fishery Management Council
302-526-5257 (direct)
Email: kdancy@mafmc.org or kiley.dancy@noaa.gov

Joan Berko phone comments taken 11/24/2021 for 11/18/2021 AP Summer Flounder, Scup and Black Sea Bass Advisory Panel Meeting:

- Concerned about accountability in the black sea bass recreational fishery.
- She sees people fishing recreationally all day for a small amount of fish and constantly throwing fish back. There has been an increase in black sea bass effort because there are really no bluefish anymore, so these boats have shifted their target to black sea bass. Most party/charter vessels are now bottom specialists. They are fishing all day long for black sea bass because there is really nothing else to target.
- Unsure whether she supports the half increase size limit increase recommended by the Monitoring Committee in the event that reductions are required. Although concerned about accountability, she tends to not support this because it would exacerbate the problem of recreational discards given high effort in this fishery.
- There should be a moratorium on recreational party/charter vessel permits. Similar to a low threshold for permit qualification in the commercial fishery in Massachusetts years ago, too many permits creates a problem where the pie is cut smaller and smaller. There are a lot of boats fishing recreationally for black sea bass now.
- She asked whether party/charter vessels carried observers and noted that this should be required like it is for the commercial fishery.
- The recreational fishery should be held accountable. She does not care what they do as long as their activity doesn't impact the commercial sector, but it seems like it is more and more.
- Would support sector separation for the party/charter fleet if that is what they wanted.
- Does not support reallocation of commercial/recreational allocation toward the recreational fishery and if anything, the commercial allocation should be increased.

Kiley Dancy

From: Moore, Christopher
Sent: Wednesday, December 1, 2021 10:11 AM
To: Kiley Dancy
Subject: FW: Public comment

Fyi and posting. C

From: Victor Gano <vgano@comcast.net>
Date: Wednesday, December 1, 2021 at 9:53 AM
To: Christopher Moore <cmoore@mafmc.org>
Subject: Public comment

Good morning Dr. Chris Moore. I am writing to make my public comment on the fishery issues I believe we face with species such as summer flounder. We are allowed to keep 18 inch summer flounder. It is not good that we are targeting a breeder fish. There should be a slot limit for fluke, and be allowed to keep one fluke 18 inch or larger. I also believe beach replenishment is destroying our coastal fish habitat and messing up the fish food chain. Thank you, Victor Gano

Date/Time

11/30/2021 12:22pm

Name

Thomas Smith

Email

smith.tom560@gmail.com

Topic (Select One)

2022 Summer Flounder Recreational Measures

Comments

(Second Comments) The summer flounder stock is in a decade long decline in every aspect of the fishery. Declines caused by recreational size minimums being increased to a level causing a major shift in the gender composition of the stock, substantial declines in the size and population of SSB, material declines in the mature female population causing recruitment to collapse over this past decade to levels not seen since the eighties. The current misuse of recreational size minimums to constrain recreational harvest and the resulting consequences of that decision to every attribute of the stock is threatening the future of this fishery. It's causing and will continue to cause severe economic and social consequences to the states participating in this fishery from the Mid-Atlantic and New England Regions. Consequences involving multiple billions of dollars of revenues and spending being removed from these states and in the absence of immediate changes in how this stock is being managed, those consequences will become catastrophic to the states economies, shore based communities, both sectors, small businesses and the fishery itself.

We had regulation in place during the nineties promoting the most prolific growth in recent memory of the stock. A slot fish needs to be implemented and we need to intelligently work our way back to those same regulations. Why we would replace regulations which caused a 900% improvement in SSB, increased the biomass population by ~120 million fish, bolster the female population and recruitment levels to record highs with regulations causing substantial declines in every key metric of the fishery over this past decade is a question fisheries management collectively needs to answer for to the constituents of this resource.

Attachment

supplementalmarinefisheriesdocument11_29_21.pdf

Date/Time

11/30/2021 12:21pm

Name

Thomas Smith

Email

smith.tom560@gmail.com

Topic (Select One)

2022 Summer Flounder Recreational Measures

Comments

The summer flounder stock is in a decade long decline in every aspect of the fishery. Declines caused by recreational size minimums being increased to a level causing a major shift in the gender composition of the stock, substantial declines in the size and population of SSB, material declines in the mature female population causing recruitment to collapse over this past decade to levels not seen since the eighties. The current misuse of recreational size minimums to constrain recreational harvest and the resulting consequences of that decision to every attribute of the stock is threatening the future of this fishery. It's causing and will continue to cause severe economic and social consequences to the states participating in this fishery from the Mid-Atlantic and New England Regions. Consequences involving multiple billions of dollars of revenues and spending being removed from these states and in the absence of immediate changes in how this stock is being managed, those consequences will become catastrophic to the states economies, shore based communities, both sectors, small businesses and the fishery itself.

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Attachment

summationdraftsecretaryofcommerce11_29_21.pdf

Date/Time

11/30/2021 10:20am

Name

Michael Shepherd

Email

sheponfishing@yahoo.com

Topic (Select One)

Summer Flounder, Scup, Black Sea Bass Com/Rec Allocation Amendment

Comments

Council and Commission members:

I am writing concerning recreational fishing regulations that are simply not working and are actually detrimental to creating healthy and sustainable fisheries, particularly summer flounder. Requiring that the female population is the main target for recreational fishing harvest guarantees a decline in the summer flounder.
Recreational fishing is a long-time tradition here in my home waters of New Jersey. I know of families with traditions that go back three generations both in the industry and just plain enjoying fishing.
The regulations are actually causing the casualties.
I implore you representative to at least reduce the size of the daily keeper minimum length, and to also expand the season and raise the daily “keeper” requirement.
Mike Shepherd 11/30/2021

Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201, Dover, DE 19901
Phone: 302-674-2331 | FAX: 302-674-5399 | www.mafmc.org
Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: November 4, 2021

To: Chris Moore, Executive Director

From: Kiley Dancy and Karson Coutré, Staff

Subject: Summer Flounder Recreational Management Measures for 2022

Background and Summary

The information in this memo is intended to assist the Monitoring Committee (MC), Advisory Panels, the Mid-Atlantic Fishery Management Council (Council) and the Atlantic States Marine Fisheries Commission's (Commission's) Summer Flounder, Scup, and Black Sea Bass Management Board (Board) in developing recommendations for summer flounder recreational measures for 2022.

In August 2021, the Council and Board adopted commercial quotas and recreational harvest limits (RHLs) for summer flounder for the 2022-2023 fishing years based on the June 2021 management track assessment, which incorporated fishery catch and fishery independent survey data through 2019. The 2022 RHL is 10.36 million lb. This represents a 25% increase from the 2021 RHL. As described in more detail below, staff recommend an assumption that 2022 harvest under status quo measures will be similar to 2018-2021 average harvest, with 2021 harvest based on coastwide projections. This assumption indicates that **an approximate 33% liberalization in harvest could occur to allow harvest to meet, but not exceed the 2022 RHL.**

The MC is tasked with recommending recreational management measures (possession limits, size limits, and seasons) to constrain harvest to the RHL. For summer flounder, this includes recommending the use of coastwide measures (identical measures in all states and federal waters) or conservation equivalency (state- or region-specific measures in state waters, and "non-preferred" federal measures that are waived in favor of the state measures). In either case, the combination of measures is designed to constrain harvest to the RHL.

Staff recommend continuation of regional conservation equivalency in 2022. As discussed below, **staff recommend that the MC consider potential liberalizations to the current conservation equivalency measures with a focus on reductions in the current minimum size limits. Given the increase in the RHL, staff recommend a one inch size limit adjustment to the non-preferred coastwide measures to include an 18 -inch TL size limit, a 4-fish possession limit, and an open season from May 15-September 15, 2022. Staff recommend maintaining the current precautionary default measures that include a 20-inch TL minimum size, 2 fish possession limit, and open season from July 1-August 31, 2022.**

Data Considerations

In July 2018, the Marine Recreational Information Program (MRIP) released revisions to their time series of recreational catch and landings estimates based on adjustments for a revised angler intercept methodology and a new effort estimation methodology (i.e., a transition from a telephone-based effort survey to a mail-based effort survey). The revised estimates of catch and landings are several times higher than the previous estimates for shore and private boat modes, substantially raising the overall summer flounder catch and harvest estimates. On average, the new landings estimates for summer flounder (in pounds) are 1.8 times higher over the revised time series (1981-2017), and 2.3 times higher in recent years (2008-2017). Recreational data included in this memo reflect revised MRIP data except where otherwise stated.

MRIP estimates for 2020 were impacted by the COVID-19 pandemic. The mail-based Fishing Effort Survey (FES), continued uninterrupted in 2020; however, the Access Point Angler Intercept Survey (APAIS), which forms the basis for catch estimates, was suspended starting in late March or April and resumed between May and August 2020, depending on the state.

The National Marine Fisheries Service (NMFS) used imputation methods to fill gaps in 2020 intercept data with data collected in 2018 and 2019. These proxy data match the time, place, and fishing mode combinations that would have been sampled had the APAIS continued uninterrupted. Proxy data were combined with observed data to produce 2020 catch estimates using the standard estimation methodology. NMFS has indicated that when complete 2021 recreational data become available in 2022, they will evaluate the effects of including 2021 data (for example, alongside 2019 data and instead of 2018 data) in the imputation. Because these effects are unknown, the agency cannot predict whether it will seek to revise its 2020 catch estimates.

Estimates of recreational dead discards in weight for 2020 are not currently available. The method for estimating the weight of recreational discards relies on age and length information that is not complete at this time. Estimates of dead discards through 2019 are available in the draft 2021 management track stock assessment report.[1]

[1] Available at: https://www.mafmc.org/ssc-meetings/2021/july21-23

Past Fishery Performance and Management Measures

RHLs for summer flounder were first implemented in 1993. Since then, they have varied from a high of 11.98 million lb in 2005 to a low of 3.77 million lb in 2017. Performance relative to RHLs through 2018 can only be evaluated using pre-revision ("old") MRIP data, since past RHLs were set using assessments that incorporated the previous MRIP time series. Recreational harvest (pre-revision data) relative to the RHL has varied from a high of 122% over the RHL (2000) to a low of 49% under the RHL (2011; Table 1).

From 1993-2000, coastwide measures were in place for all states and federal waters, with possession limits ranging from 3-10 fish and size limits ranging from 14.0-15.5 inches. Starting in 2001, conservation equivalency was implemented, and has been used as the preferred management system each year since (Table 1). Under conservation equivalency, individual states or multi-state regions set measures that collectively are designed to constrain harvest to the coastwide RHL. Federal regulations are waived and anglers are subject to the summer flounder regulations of the state in which they land. State-by-state conservation equivalency was adopted each year from 2001 through 2013, with each state implementing different sets of management measures. Each year from 2014 through 2021, the Board has approved the use of regional conservation equivalency, where the combination of regional measures is expected to constrain the coastwide harvest to the RHL.

In December 2020, the Council and Board adopted conservation equivalency for the summer flounder recreational fishery in 2021. Region-specific possession limits in 2021 range from 2-6 fish with size limits ranging from 15-19 inches, with various seasons (Table 2).

Under conservation equivalency, the Council and Board must adopt two associated sets of measures: the non-preferred coastwide measures, and the precautionary default measures. The **non-preferred coastwide measures** are a set of measures that would be expected to constrain harvest to the RHL if implemented on a coastwide basis (the same measures in all states and in federal waters). The combination of state or regional measures under conservation equivalency is designed to be equivalent to this set of non-preferred coastwide measures in terms of coastwide harvest. These coastwide measures are included in the federal regulations but waived in favor of state- or region-specific measures. **The non-preferred coastwide measures adopted in 2021 include a 4-fish possession limit, a 19-inch total length (TL) minimum size, and an open season from May 15-September 15.**

The **precautionary default measures** would be implemented in any state or region that failed to develop adequate measures to constrain or reduce landings as required by the conservation equivalency guidelines. **The precautionary default measures in 2021 include a 2-fish possession limit with a 20-inch TL minimum fish size and an open season from July 1-August 31.**

Table 1: Summary of federal management measures for the summer flounder recreational fishery, 1995-2022.

Measure	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
ABC (m lb)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Recreational ACL (land+disc; m lb)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHL (m lb)	7.76	7.41	7.41	7.41	7.41	7.41	7.16	9.72	9.28	11.21	11.98	9.29	6.68	6.22
Harvest - OLD MRIP (m lb)	5.42	9.82	11.87	12.48	8.37	16.47	11.64	8.01	11.64	11.02	10.92	10.5	9.34	8.15
% Over/Under RHL[c]	-30%	33%	60%	68%	13%	122%	63%	-18%	25%	-2%	-9%	13%	40%	31%
Harvest - NEW MRIP	9.02	15.02	18.52	22.86	16.7	27.03	18.56	16.29	21.49	21.2	18.55	18.63	13.89	12.34
Possession Limit	8-Jun	10	8	8	8	8	3	[a]	[a]	[a]	[a]	[a]	[a]	[a]
Size Limit (TL in)	14	14	14.5	15	15	15.5	15.5	[a]	[a]	[a]	[a]	[a]	[a]	[a]
Open Season	1/1 - 31-Dec	1/1 - 31-Dec	1/1 - 31-Dec	1/1 - 31-Dec	5/29 - 11-Sep	5/10 - 2-Oct	4/15 - 15-Oct	[a]	[a]	[a]	[a]	[a]	[a]	[a]
Measure	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
ABC (m lb)	21.5	25.5	33.95	25.58	22.34	21.94	22.57	16.26	11.3	13.23	25.03	25.03	27.11	33.12
Recreational ACL (land+disc; m lb)	-	-	-	11.58	10.23	9.07	9.44	6.83	4.72	5.53	11.51	11.51	12.48	14.64
RHL (m lb) - landings only	7.16	8.59	11.58	8.49	7.63	7.01	7.38	5.42	3.77	4.42	7.69	7.69	8.32	10.36
Harvest - OLD MRIP (m lb)	6.03	5.11	5.96	6.49	7.36	7.39	4.72	6.18	3.19	3.35	-	-	-	-
% Over/Under RHL[c]	-16%	-41%	-49%	-24%	-4%	5%	-36%	14%	-15%	-24%	1%	31%	-	-
Harvest - NEW MRIP	11.66	11.34	13.48	16.13	19.41	16.24	11.83	13.24	10.06	7.60	7.80	10.06	-	-
Possession Limit	[a]	[a]	[a]	[a]	[a]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	-
Size Limit (TL in)	[a]	[a]	[a]	[a]	[a]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	-
Open Season	[a]	[a]	[a]	[a]	[a]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	-

[a] State-specific conservation equivalency measures.
[b] Region-specific conservation equivalency measures.
[c] Based on a comparison with old MRIP data through 2018 and new MRIP data starting in 2019.

Table 2: Summer flounder recreational fishing measures 2019-2021, by state, under regional conservation equivalency. Conservation equivalency regions in these years include: 1) Massachusetts, 2) Rhode Island, 3) Connecticut and New York, 4) New Jersey, 5) Delaware, Maryland, The Potomac River Fisheries Commission, and Virginia, and 6) North Carolina.

<table>
<tr><th></th><th colspan="3">2019-2021</th></tr>
<tr><th>State</th><th>Minimum Size (inches)</th><th>Possession Limit</th><th>Open Season</th></tr>
<tr><td>Massachusetts</td><td>17</td><td>5 fish</td><td>May 23-October 9</td></tr>
<tr><td>Rhode Island (Private, For-Hire, and all other shore-based fishing sites)</td><td>19</td><td>6 fish</td><td rowspan="3">May 3-December 31</td></tr>
<tr><td rowspan="2">RI 7 designated shore sites</td><td>19</td><td>4 fish[a]</td></tr>
<tr><td>17</td><td>2 fish[a]</td></tr>
<tr><td>Connecticut</td><td>19</td><td rowspan="3">4 fish</td><td rowspan="3">May 4- September 30</td></tr>
<tr><td>CT Shore Program (45 designed shore sites)</td><td>17</td></tr>
<tr><td>New York</td><td>19</td></tr>
<tr><td>New Jersey</td><td>18</td><td>3 fish</td><td rowspan="3">2019: May 24- September 21
2020 and 2021: May 22-September 19</td></tr>
<tr><td>NJ Shore program site (ISBSP)</td><td>16</td><td>2 fish</td></tr>
<tr><td>New Jersey/Delaware Bay COLREGS</td><td>17</td><td>3 fish</td></tr>
<tr><td>Delaware</td><td rowspan="4">16.5</td><td rowspan="4">4 fish</td><td rowspan="4">January 1- December 31</td></tr>
<tr><td>Maryland</td></tr>
<tr><td>PRFC</td></tr>
<tr><td>Virginia</td></tr>
<tr><td>North Carolina</td><td>15</td><td>4 fish</td><td>2019: January 1-September 3
2020: August 16-September 30[b]
2021: September 1-14[b]</td></tr>
</table>

[a] Rhode Island's shore program includes a combined possession limit of 6 fish, no more than 2 fish at 17-inch minimum size limit.

[b] North Carolina restricted the recreational season at the end of 2019 and for 2020 for all flounders in North Carolina (southern, gulf, and summer flounder) due to the need to end overfishing on southern flounder. North Carolina manages all flounder in the recreational fishery under the same regulations. In 2021, the season was further restricted to account for a southern flounder harvest overage in 2020.

Recreational Catch and Landings Trends

Table 3 provides the revised annual MRIP time series of recreational harvest (in number and weight) and catch (in number of fish) for 1981-2020, as well as the estimates for waves 1-4 for 2021. Under the revised MRIP estimates, the time series high of harvest is 36.74 million lb or 25.78 million fish in 1983, with a low harvest of 5.66 million lb or 3.10 million fish (1989). Catch in numbers of fish (harvest plus live and dead releases) reached a high of 58.89 million fish in 2010 and a low in catch of 5.06 million fish in 1989 (Table 3). Table 3 also shows the percent of summer flounder released[2] (relative to total catch in numbers of fish) and the mean weight of landed summer flounder each year from 1981-2020, and 2021 through wave 4.

Landings by state in recent years in thousands of pounds are shown in Table 4 including full year estimates for 2016-2020 and wave 1-4 estimates for 2021.

The percent of summer flounder harvest (in numbers of fish) from state waters (0-3 miles from shore) averaged 75% from 2016-2020 (Figure 1). Over the same time period, most harvest originated from private/rental mode trips (86%), while party/charter mode and shore mode accounted for an average of 4% and 10% of the harvest, respectively (Figure 2).

[2] Reported as released alive, with 10% of those live releases assumed to die post-release.

Table 3: Summer flounder recreational catch and landings under revised MRIP estimates, Maine through North Carolina, 1981-2020, all waves. 2021 preliminary estimates are shown through wave 4.

Year	Catch (mil fish)	Harvest (mil fish)	Harvest (mil lb)	% Released (Released Alive)[a]	Average Weight of Harvested Fish
1981	22.77	17.02	15.85	25%	0.93
1982	26.07	19.29	23.72	26%	1.23
1983	36.35	25.78	36.74	29%	1.43
1984	39.82	23.45	28.23	41%	1.20
1985	26.28	21.39	25.14	19%	1.18
1986	32.52	16.38	26.47	50%	1.62
1987	29.94	11.93	23.45	60%	1.97
1988	25.45	14.82	20.79	42%	1.40
1989	5.07	3.10	5.66	39%	1.82
1990	15.47	6.07	7.75	61%	1.28
1991	24.83	9.83	12.91	60%	1.31
1992	21.11	8.79	12.67	58%	1.44
1993	36.18	9.80	13.73	73%	1.40
1994	26.11	9.82	14.29	62%	1.45
1995	27.84	5.47	9.02	80%	1.65
1996	29.75	10.18	15.02	66%	1.47
1997	31.87	11.04	18.53	65%	1.68
1998	39.09	12.37	22.86	68%	1.85
1999	42.88	8.10	16.70	81%	2.06
2000	43.26	13.05	27.03	70%	2.07
2001	43.68	8.03	18.56	82%	2.31
2002	34.48	6.51	16.29	81%	2.50
2003	36.21	8.21	21.49	77%	2.62
2004	37.95	8.16	21.20	79%	2.60
2005	45.98	7.04	18.55	85%	2.63
2006	37.90	6.95	18.63	82%	2.68
2007	35.27	4.85	13.89	86%	2.86
2008	39.48	3.78	12.34	90%	3.26
2009	50.62	3.65	11.66	93%	3.20
2010	58.89	3.51	11.34	94%	3.23
2011	56.04	4.33	13.48	92%	3.12
2012	44.71	5.74	16.13	87%	2.81
2013	44.96	6.60	19.41	85%	2.94
2014	44.58	5.37	16.24	88%	3.02
2015	34.14	4.03	11.83	88%	2.92
2016	31.24	4.30	13.24	86%	3.08
2017	28.03	3.17	10.06	89%	3.18
2018	23.55	2.41	7.60	90%	3.15
2019	30.75	2.39	7.80	92%	3.26
2020	33.25	3.49	10.07	90%	2.89
2021 (w1-4)	18.08	1.82	5.12	90%	2.81

[a] For summer flounder, 10% of recreational releases are assumed to die.

Table 4: Summer flounder recreational harvest MRIP estimates (thousands of pounds), by state for all waves (January-December), 2016-2020. 2020 recreational estimates were developed using imputation methods (incorporating 2018 and 2019 data) to account for missing 2020 APAIS data. 2021 values are preliminary estimates through wave 4 (January-August).

	2016	2017	2018	2019	2020	2021 (w1-4)
NH	-	-	-	-	-	-
MA	240	172	143	145	176	69
RI	341	597	604	837	480	188
CT	1,024	403	549	292	388	170
NY	5,744	4,214	2,385	2,442	2,390	807
NJ	4,718	3,602	3,155	3,229	5,492	3,122
DE	435	254	205	225	534	204
MD	98	171	122	206	187	79
VA	529	528	345	369	381	482
NC	110	147	92	53	38	2
Coast	**13,239**	**10,088**	**7,600**	**7,798**	**10,065**	**5,122**

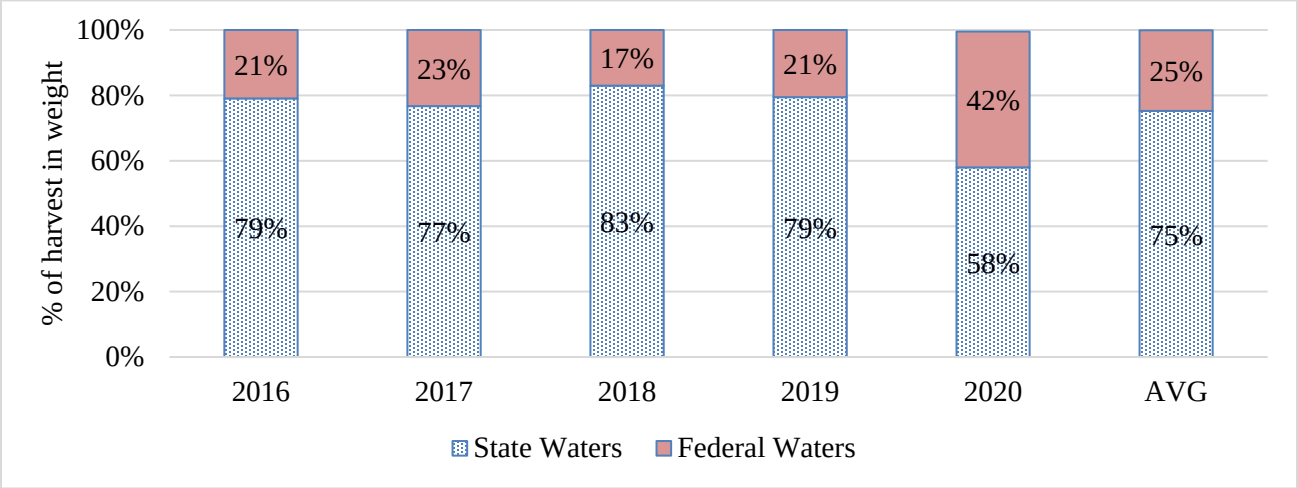

Figure 1: State vs. federal waters harvest (in weight) for summer flounder, 2016-2020. 2020 recreational estimates were developed using imputation methods (incorporating 2018 and 2019 data) to account for missing 2020 APAIS data. Fishing area information is self-reported by anglers.

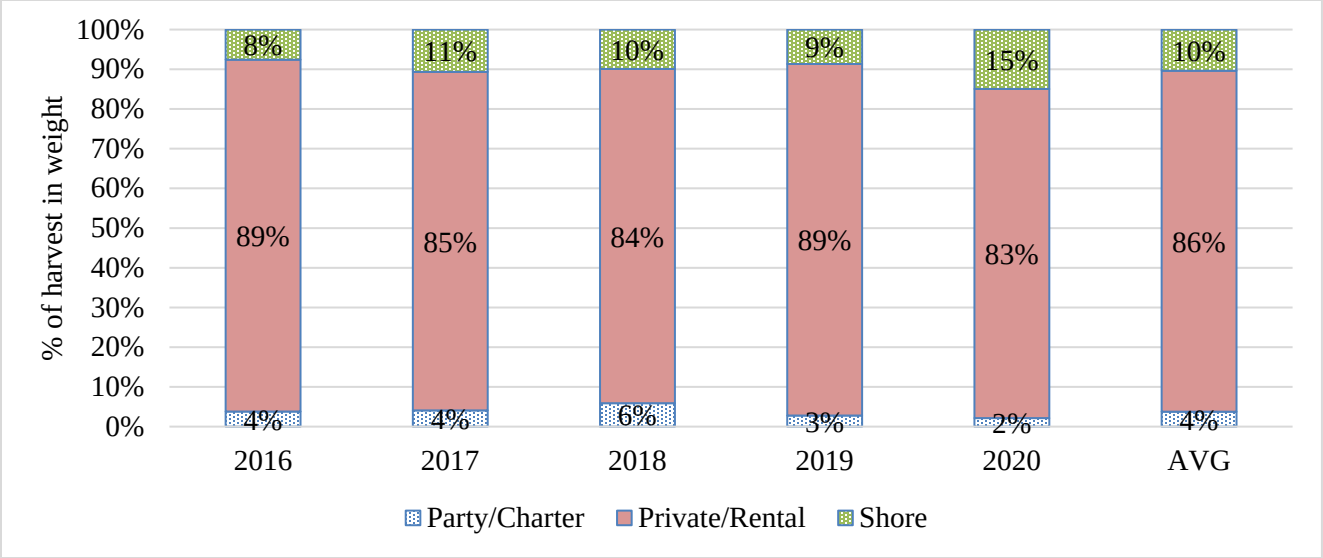

Figure 2: Summer flounder harvest by fishing mode (in weight), 2016-2020. 2020 recreational estimates were developed using imputation methods (incorporating 2018 and 2019 data) to account for missing 2020 APAIS data.

2021 Harvest Projections and Expected 2022 Harvest

2021 Harvest Projections

MRIP data for 2021 are incomplete and preliminary, with only the first four waves (January through August) available. Typically, staff project landings for the current year by using preliminary wave 1-4 data and assuming the same proportion of catch and landings by wave as in the previous year (with some adjustments to this methodology as appropriate). To project 2021 harvest, this would mean applying the 2020 proportion of harvest by wave and state to the 2021 preliminary estimates for waves 1-4. Because 2020 recreational data were derived using imputation methods to account for missing APAIS data, staff recommend caution in relying on 2020 data broken down by wave and state in developing 2021 projections. The degree of imputation needed varied by state and wave due to variations in APAIS suspension. As such, **staff recommend using an average of 2019-2020 for the proportions of harvest by wave to project 2021 harvest.**

The MC has previously considered projection methods that rely on summing individual state projections (the typical method for summer flounder), or projecting by first summing coastwide harvest for waves 1-4 and using the coastwide proportion of wave 1-4 harvest from the prior year. Both methods are provided for 2021 projections in Table 5 below. **Staff recommend using the coastwide projection methods for 2021 due to the greater uncertainty in the breakdown of state and wave data in 2020.**

Using this coastwide method, the **2021 projected harvest is 5.71 million pounds** . Alternatively, the combined state-by-state projection method results in a projected 2021 harvest of 5.66 million pounds (Table 5). The MC should consider the merits of various projection methods and years used as the basis for proportions of harvest by wave.

Changes in seasonal management measures should be considered when making harvest projections. Between 2019-2021, all states maintained status quo measures except for North Carolina, which further

restricted their season to account for a southern flounder overage, and New Jersey, which modified their season start and end dates by two days between 2019 and 2020 (see Table 2).

Table 5: Projected 2021 harvest (in pounds) based on proportions of harvest by wave from 2019-2020. Coastwide totals are given both as the combination of individual state projections and as a coastwide projection using the coastwide wave 1-4 proportion from 2019-2020.

State	2019-2020 wave 1-4 harvest as % of annual harvest	2021 wave 1-4 harvest (lb)	2019-2020 average annual harvest (lb)	2021 projected annual harvest (lb)
ME	0%	0	0	0
NH	0%	0	0	0
MA	89%	69,321	160,396	78,311
RI	99%	188,233	658,349	190,525
CT	91%	170,146	340,096	187,278
NY	86%	806,625	2,415,709	940,029
NJ	91%	3,122,420	4,360,369	3,432,362
DE	91%	203,707	379,386	222,851
MD	68%	78,841	196,801	116,757
VA	97%	481,623	375,059	494,266
NC	74%	1,563	45,402	2,127
Coastwide	90%	5,122,479	8,931,567	--
Projected total 2021 harvest as sum of state projections (lb)				**5,664,505**
Projected total 2021 harvest using coastwide W1-4 proportion (lb)				**5,705,114**

Expected 2022 Harvest

It is typically assumed that if regulations remain unchanged, effort and harvest in the upcoming year will be similar to projected harvest in the current year. This assumption does not always hold true. Harvest is impacted by many interacting factors including management measures, availability, factors influencing fishing effort other than regulations, weather, economic conditions, angler demographics, and availability and management measures for other recreational species. The impacts of these factors on harvest in future years can be difficult to accurately predict.

Table 6 provides estimates of the number of trips where summer flounder was reported as the primary target and the estimated percentage of these directed summer flounder trips relative to directed trips from all species from Maine through North Carolina. The number of directed recreational summer flounder trips generally declined from 2011 through 2019, with an indication of a rebound in directed effort in 2020. Summer flounder trips remain a relatively substantial portion of total fishing trips within the management unit (14% in 2020; Table 6).

Table 6: Number of summer flounder directed recreational fishing trips, and percentage of total directed trips, Maine through North Carolina, 2009 to 2020.

Year	Number of Summer Flounder Directed Trips (millions)[a]	Percentage of Directed Trips Relative to Total Trips[a,b]
2009	10.42	11%
2010	11.92	12%
2011	13.03	14%
2012	11.89	13%
2013	11.23	13%
2014	11.49	13%
2015	10.61	13%
2016	10.19	12%
2017	8.62	10%
2018	8.59	12%
2019	8.67	11%
2020	11.27	14%

[a] Revised MRIP estimated number of recreational fishing trips (expanded) where the primary target species was summer flounder, Maine through North Carolina. Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, November 1, 2021.

[b] Source of total trips for all species combined, revised MRIP data: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, November 1, 2021.

Summer flounder year class strength can be variable and can impact availability of the fish to anglers. The management track assessment for 2021 indicates that the time series average recruitment was 53 million fish at age 0 from 1982-2019. Recruitment was below average during 2011-2017, ranging from 31 to 45 million and averaging 36 million fish. The 2018 year class is estimated at 61 million fish, which is above average and the largest since 2009, while the 2019 year class is below average at 49 million fish.

The 2018 year class will be recruiting to the fishery landings as age 4 fish in 2022. Age-length information from the stock assessment indicates that age 4 fish are on average about an 18 inch fish, but generally range from about 15 inches to 23 inches. There is high variation in length at this age as the growth rates of the sexes diverge with sexual maturity.

Recreational measures at the regional level have remained largely unchanged since 2018. Measures from 2019-2021 are shown in Table 2. Measures in 2018 were nearly identical, but with the absence of a shore program in Rhode Island and a slightly different season in New Jersey. Despite these mostly constant measures, estimated recreational harvest has varied from 7.60 million pounds in 2018 to 10.06 million pounds in 2020. If considering the 2021 projected value of 5.71 million pounds, the variation in harvest over these years would vary by over 4 million pounds. Given this variation, **staff recommend using the average harvest from 2018 through 2021 (projected) to derive an expected 2022 harvest under status quo measures from which to determine an appropriate liberalization percentage.** This average is 7.79 million pounds, which is similar to harvest in 2018 and 2019. Relative to this harvest level, this would allow for an approximate 33% liberalization compared to the 2022 RHL of 10.36 million pounds.

Table 7: Harvest estimates from 2018-2020 and projected harvest for 2021.

Year	Harvest estimate or projection (mil lb)
2018	7.60
2019	7.80
2020	10.06
2021 (projected, using coastwide wave 1-4 proportion from 2019-2020)	5.71
Average	**7.79**
Percent liberalization from average harvest to 10.36 mil lb RHL	**33%**

Accountability Measures

Federal regulations include proactive accountability measures (AMs) to prevent the summer flounder recreational Annual Catch Limit (ACL) from being exceeded and reactive AMs to respond when an ACL is exceeded. Proactive recreational AMs include adjusting management measures (bag limits, size limits, and season) for the upcoming fishing year that are designed to prevent the RHL and ACL from being exceeded. The regulations do not allow for in-season closure of the recreational fishery if the RHL or ACL is expected to be exceeded. For reactive AMs, paybacks of ACL overages may be required in a subsequent fishing year, depending on stock status and the magnitude of the overage, as described below. ACL overages in the recreational fishery are evaluated by comparing the most recent 3-year average recreational ACL against the most recent 3-year average of recreational dead catch (i.e., landings and dead discards). If average dead catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

1. If the stock is overfished ($B < \frac{1}{2} B_{MSY}$), under a rebuilding plan, or the stock status is unknown: The exact amount, in pounds, by which the most recent year's recreational ACL has been exceeded, will be deducted in the following fishing year, or as soon as possible once catch data are available.
2. If biomass is above the threshold, but below the target ($\frac{1}{2} B_{MSY} < B < B_{MSY}$), and the stock is not under a rebuilding plan:
    - If only the recreational ACL has been exceeded, then adjustments to the recreational management measures (bag, size, and seasonal limits) would be made in the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measures and the conditions that precipitated the overage.
    - If the Acceptable Biological Catch (ABC = recreational ACL + commercial ACL) is exceeded in addition to the recreational ACL, then a single year deduction will be made as a payback, scaled based on stock biomass. The calculation for the payback amount in this case is: (overage amount) * $(B_{msy}-B)/\frac{1}{2} B_{msy}$.
3. If biomass is above the target ($B > B_{MSY}$): Adjustments to the recreational management measures (bag, size, and seasonal limits) would be considered for the following year, or as soon as possible once catch data are available. These adjustments would take into account the performance of the measures and the conditions that precipitated the overage.

As previously discussed, 2020 recreational data collection was impacted by suspension of the intercept survey in all states due to COVID-19. While MRIP developed 2020 harvest estimates using imputation methods, discard estimates in weight for 2020 are not available due to the need for age and length information that is not available.

Thus, the most recent three years of complete recreational catch data available are 2017-2019. Recreational ACLs for 2017 and 2018 were set using assessments that used the pre-revision MRIP data; therefore, it is necessary to use catch estimates based on the old MRIP estimation methodology to compare pre-2019 recreational catch to the ACLs. The evaluation shown in Table 8 thus uses old MRIP data for 2017-2018 and revised MRIP data for 2019. This evaluation indicates that recreational catch was below the recreational ACLs for summer flounder in each year from 2017-2019. A reactive AM would not be triggered based on this comparison. Although the 2020 RHL was exceeded by about 31%, it is not possible at this time to evaluate total dead catch in 2020 relative to the ACL. NMFS will make final determinations regarding AM evaluations. It is not yet known if the agency will be able to use 2020 catch estimates in their evaluation.

Table 8: Evaluation of summer flounder recreational AMs using the 2017-2019 average recreational ACL compared to the 2017-2019 average recreational dead catch. Comparison of 2020 harvest to the RHL is also shown. Because revised MRIP estimates were incorporated into the RHL setting process starting in 2019, old MRIP data is used for 2017-2018 comparisons and revised MRIP for 2019. Recreational dead discards in weight are not available for 2020; therefore, 2020 recreational dead catch cannot be evaluated against the ACL.

	Recreational Harvest (mil lb)	**Recreational Dead Discards (mil lb)**	**Total Dead Recreational Catch (mil lb)**	**Recreational ACL (mil lb)**	**% Over/ Under ACL**
2017 (old MRIP)	3.19	0.94	4.13	4.72	-13%
2018 (old MRIP)[a]	3.35	0.97	4.32	5.53	-22%
2019 (new MRIP)	7.80	3.04	10.84	11.51	-6%
2020 (new MRIP)[b]	10.06[c]	Not available	Not available	11.51	Not available

[a] MRIP stopped publicly releasing pre-calibration MRIP data after 2017, but back-calibrated 2018 recreational harvest data were provided to Council staff by request. 2018 dead discards were estimated by assuming the same ratio of recreational discards to landings for the 2018 pre- and post-revision MRIP data (using post-revision data from the 2019 Northeast Fisheries Science Center data update).

[b] 2020 recreational estimates were developed using imputation methods (incorporating 2018 and 2019 data) to account for missing 2020 APAIS data.

[c] The recreational harvest estimate for 2020 exceeded the 2020 RHL (7.69 mil lb) by 31%.

2022 Staff Recommendation

As described above, **staff recommend using the average harvest from 2018 through 2021 (projected) as an expected 2022 harvest level of 7.79 million pounds to serve as the basis for any adjustments to management measures. This would allow for a 33% percent liberalization.**

However, staff recommend that caution be taken when considering liberalizations due to a number of data and management factors for 2022, including:

- **Uncertainty in 2020 recreational data by state and wave.** As discussed above, due to imputation methods used to fill missing 2020 catch intercept data, the extent of which varied by state and wave, staff recommend that the MC use caution in using 2020 data at fine scales for projections or calculations of liberalizations or reductions.
- **Uncertainty in recent and future effort trends.** As shown in Table 6, the number of estimated directed summer flounder trips increased in 2020. It is not clear whether this trend will continue in 2021 and 2022.
- **Variation in harvest from 2018-2021 under nearly constant measures.** As described above, factors other than management measures have influenced recreational harvest and resulted in fluctuations in harvest under similar or identical management measures.
- **Unknown outcomes of the ongoing Harvest Control Rule Framework/Addendum and other Recreational Reform Initiative actions, as well as the Commercial/Recreational Allocation Amendment.** Final action on the Commercial/Recreational Allocation Amendment is expected in December 2021, to allow for implementation for the 2023 fishing year. Final action on the Recreational Harvest Control Rule Framework/Addendum may occur in 2022, with the potential for use in setting 2023 measures. Other Recreational Reform Initiative Actions may not be implemented by 2023. The Council and Board have not yet taken final action on any of these actions; therefore, it is unknown how they may impact recreational fisheries management in 2023 and beyond. It is important to emphasize that the Recreational Harvest Control Rule Framework/ Addendum and the other Recreational Reform Initiative Actions will not change the Magnuson-Stevens Fishery Conservation and Management Act requirements for ACLs and prevention of overfishing.

Staff recommend the continued application of regional conservation equivalency to achieve the 2022 RHL, and that moderate liberalizations be considered at the state and regional level, with consideration of decreases to the minimum size limits as the liberalization method.

Many managers, advisors, and other stakeholders have repeatedly expressed concerns with the minimum size limits implemented in some states under conservation equivalency. These are limits are perceived by many as being too high and associated with negative socioeconomic and biological outcomes. Since 2002, size limits have fluctuated substantially in some states, especially under state by state conservation equivalency prior to 2014. Size limits were generally highest in 2008-2010, were liberalized in the next few years, and increased again after 2016 when a large coastwide reduction in harvest was required (Table 9). Many stakeholders have argued that the current size limits focus fishing pressure disproportionately on the largest, most fecund female summer flounder, potentially influencing the sex ratio of the population and the reproductive potential of the stock.

Anglers have also expressed frustration with high release rates and low retention ability for summer flounder in the recreational fishery due to size limit regulations. The high rate of discards has decreased

angler satisfaction and angler ability to keep fish for personal consumption. In addition, there is increasing concern regarding perceived waste in the fishery and the mortality associated with discards. Over the past 10 years (2011-2020), approximately 89% of summer flounder caught recreationally were estimated to be released (Table 3), with a 10% assumed discard mortality rate applied to those released fish. Decreases to the size limits where possible may allow for increased retention of summer flounder that would otherwise be discarded. It is important to note that the Council is currently conducting a management strategy evaluation (MSE) which will evaluate different management strategies designed to minimize discards in the recreational summer flounder fishery, but it is unknown at this time which management changes may result from this effort.[3]

Many advisors and other stakeholders have requested evaluation of alternatives to high minimum size limits. Examples include slot limits (specification of a minimum and maximum size limit, with or without trophy fish allowance) or cumulative length limit (where all summer flounder of any length would count toward a total length allowance per angler). Slot limits were extensively discussed at the MC's November 2019 meeting.[4] MC members expressed some interest in further exploring slot limits at the state and regional level, but did not support coastwide slot limits due to differential impacts by region.[5] States could consider testing the application of slot limits through the Commission process as a means of liberalization.

[3] Additional information available at: https://www.mafmc.org/actions/summer-flounder-mse
[4] Meeting materials available at https://www.mafmc.org/council-events/2019/sfsbsb-mc-nov-13-14.
[5] The full Monitoring Committee meeting summary from this meeting can be found in: https://www.mafmc.org/s/Tab12_Summer-Flounder-Rec-Measures_2019-12.pdf.

Table 9: Summer flounder size limits by state under conservation equivalency, 2002-2021. Includes the size limit in place for most of the state for most of the fishing season; does not account for special size limit programs such as shore mode programs or different size limits by area. Information is from prior recreational memos and has not been validated by states.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
MA	16.5	16.5	16.5	17	17.5	17.5	17.5	18.5	18.5	17.5	16.5	16	16	16	16	17	17	17	17	17
RI	18	17.5	17.5	17.5	17.5	19	20	21	19.5	18.5	18.5	18	18	18	18	19	19	19	19	19
CT	17	17	17	17.5	18	18	19.5	19.5	19.5	18.5	18	17.5	18	18	18	19	19	19	19	19
NY	17	17	18	17.5	18	19.5	20.5	21	21	20.5	19.5	19	18	18	18	19	19	19	19	19
NJ	16.5	16.5	16.5	16.5	16.5	17	18	18	18	18	17.5	17.5	18	18	18	18	18	18	18	18
DE	17.5	17.5	17.5	17.5	17	18	19.5	18.5	18.5	18	18	17	16	16	16	17	16.5	16.5	16.5	16.5
MD	17	17	16	15.5	15.5	15.5	17.5	18	19	18	17	16	16	16	16	17	16.5	16.5	16.5	16.5
VA	17.5	17.5	17	16.5	16.5	18.5	19	19	18.5	17.5	16.5	16	16	16	16	17	16.5	16.5	16.5	16.5
NC	15.5	15.5	14	14	14	14	14	15	15	15	15	15	15	15	15	15	15	15	15	15
Average	16.9	16.9	16.7	16.6	16.7	17.4	18.4	18.7	18.6	17.9	17.4	16.9	16.8	16.8	16.8	17.6	17.4	17.4	17.4	17.4
Weighted Average[a]	16.8	16.7	16.8	16.7	16.6	17.8	18.8	18.5	18.6	18.2	17.9	17.9	17.5	17.5	17.7	18.2	18.1	18.1	18.1	-

[a] Average weighted by percent of harvest (in numbers of fish) from each state.

Under conservation equivalency, a set of **non-preferred coastwide measures** must be identified. The non-preferred coastwide measures must consist of a minimum fish size, possession limit, and season for 2022 that if implemented on a coastwide basis, would be expected to constrain harvest to the 10.36 million pound RHL in 2022. Under conservation equivalency, these measures are written into the federal regulations, but waived in favor of the state- or region-specific measures. For 2021, the non-preferred coastwide measures include a 19-inch minimum fish size, 4 fish bag limit, and open season from May 15-September 15.

Because the RHL increases between 2021 and 2022 by about 25%, the non-preferred coastwide measures for 2022 could be adjusted to reflect this increase. However, since conservation equivalency has been implemented at the state or regional level for many years, it has become very difficult to predict the impacts of coastwide measures. It is also often more challenging to predict the effects of liberalizations compared to reductions given data constraints and changes in angler behavior. It is therefore difficult to identify exactly how the non-preferred coastwide measures should be adjusted. As a starting point, **staff recommend a one inch decrease to the size limit for the 2022 non-preferred coastwide measures from 19 inches to 18 inches, and maintaining the 4 fish bag limit and open season from May 15-September 15.**

Harvest and discard length frequencies can be used to evaluate what lengths are landed vs. discarded under the current regulations. It is difficult to predict how this distribution would change under modified regulations; however, the length frequency data from 2019 gives some sense of the recent availability of different sizes classes to anglers (Figure 3). Information from 2019 is provided as discard length frequencies are not currently available for 2020.

Based on harvest at length and expanded dead discard at length data, an estimated 643,000 fish in the 18" size bin (18.00-18.99 inches) were either harvested (564,064) or subject to discard mortality (78,941) in 2019 (Figure 3). Many of these discards are assumed to be due to the minimum size limit. Under a coastwide 18” size limit it can be assumed that most discards in the 18” size bin would not have been discarded. The dead discard estimate here could be scaled up by a factor of 10 (given the 10% discard mortality rate) to 789,410 live and dead fish to represent what may be harvested under an 18” minimum size. This would represent an increase of approximately 33%. This is a rough estimate as it is based on 2019 data and does not account for non-compliance, changes in effort or availability, or the average weight at different lengths. The MC may wish to provide advice on how to best address this. Based on this evaluation, it is expected that a coastwide 18” minimum size would be appropriate to constrain harvest to the 10.36 million pound RHL in 2022.

Conservation equivalency also requires **precautionary default measures** that are intended to be more restrictive than measures any state would need to implement to achieve a necessary reduction, to deter states from deviating from the conservation equivalency guidelines. The Commission would require adoption of the precautionary default measures by any state that either does not submit a summer flounder management proposal to the Commission's Summer Flounder Technical Committee, or submits measures that are inconsistent with the conservation equivalency guidelines. In 2021, the precautionary default measures consist of a 20-inch minimum size, a 2-fish possession limit, and an open season of July 1-August 31. Because these measures are intended to be a deterrent to implementing measures inconsistent with the conservation equivalency guidelines, and because this default is likely to be more restrictive than any measure an individual state would implement in 2022, **staff recommend no changes to the current precautionary default measures**.

In summary, staff recommend that the summer flounder recreational fishery be managed under regional conservation equivalency in 2022, and consideration of up to a 33% liberalization to regional management measures given a projected underage of the 2022 RHL. Staff recommend non-preferred coastwide measures that include an 18-inch TL size limit, a 4-fish possession limit, and an open season from May 15-September 15, 2022, as well as precautionary default measures that include a 20-inch TL minimum size, 2 fish possession limit, and open season from July 1-August 31, 2022.

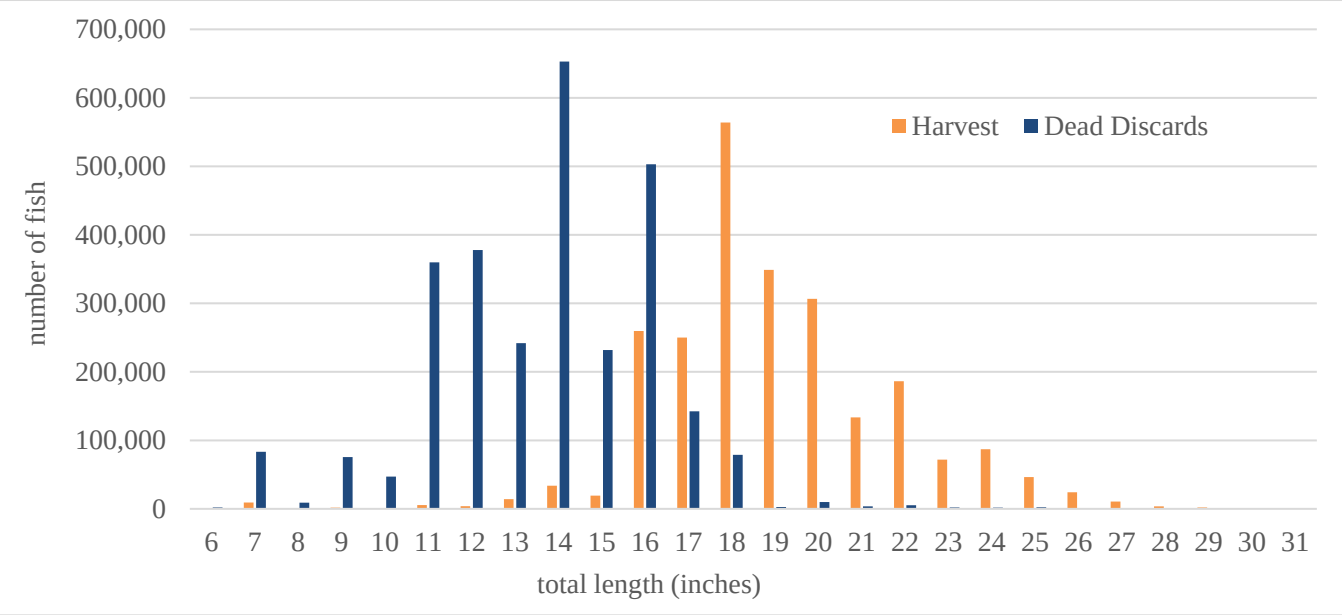

Figure 3: 2019 expanded recreational dead discard and landings length frequency data for summer flounder. Data from M. Terceiro, pers. comm., 11/3/21. Length bins include harvest or discards from X.0 to X.99 inches. These data use the NEFSC method for allocating the catches to length, including the use of supplemental state, academic, and American Littoral Society tagging data where available. As such, the proportions at length will not exactly match MRIP-provided expansions.

Atlantic States Marine Fisheries Commission

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Summer Flounder, Scup, Black Sea Bass Technical Committee
Meeting Summary

Conference Call
October 25, 2021

Technical Committee Members: Greg Wojcik (Chair, CT), Julia Beaty (MAFMC), Peter Clarke (NJ), Kiersten Curti (NEFSC), Kiley Dancy (MAFMC), Steve Doctor (MD), Lorena de la Garza Hernandez (NC), Karson Coutre (MAFMC), Corinne Truesdale (RI), Sam Truesdell (MA), Rachel Sysak (NY), Mark Terceiro (NEFSC), Richard Wong (DE), and Tony Wood (NEFSC)

ASMFC Staff: Dustin Colson Leaning and Savannah Lewis

Additional Attendees: Lou Carr-Harris (NEFSC), Greg DiDomenico (Lunds), Emerson Hasbrouck (Board member), Emily Keiley (NOAA), Shanna Madsen (Board member), Jason McNamee (Board member), Adam Nowalsky (Board Chair), Will Poston (ASGA), Mike Schmidtke (SAFMC), Michael Waine (ASA), and Kate Wilke (Council member)

The Summer Flounder, Scup, Black Sea Bass Technical Committee (TC) met via conference call on Monday, October 25, 2021 to receive a presentation on two statistical recreational harvest and catch projection models, discuss general approaches for developing 2022 recreational measures, and review updates on the Harvest Control Rule Addendum/Framework.

Presentation on Statistical Models:

Dr. Jason McNamee (Rhode Island Dept. of Environmental Management, RIDEM) presented first on the Recreational Fleet Dynamics Model (RFDM) for summer flounder and black sea bass, which he developed with collaborators Corinne Truesdale (RIDEM, Division of Marine Fisheries) and Savannah Lewis (ASMFC). The RFDM is a generalized additive model that can be used to predict future harvest or catch based on historical recreational management measures and stock population dynamic variables. The model can simulate how state or coastwide level adjustments in bag, size and season limits may affect both landings and discards for the focal species. The statistical uncertainty around harvest estimates can also be modeled. The model was constructed in R, but an R shiny app has also been constructed that allows for a more user friendly experience.

Lou Carr-Harris (NOAA Fisheries, Northeast Fisheries Science Center) presented second on the Recreational Economic Demand Model (REDM), which was developed for summer flounder. The REDM uses data from the NEFSC's 2010 North Atlantic Recreational Fishing Survey, Marine Recreational Information Program (MRIP) data, and statistical catch at age frequencies from the NEFSC summer flounder stock assessments. The 2010 North Atlantic Recreational Fishing

Survey provides data to estimate anglers' preferences and predict behavior under different regulations, as well as fish caught and fish released across 4 survey regions: ME-NY, NJ, DE/MD, VA/NC. The REDM couples anglers' estimated preferences with a biological submodule that uses population projections from the most recent stock assessment. The model is currently simulated to match the number of summer flounder directed trips in 2019, but could be updated with projections for 2022.

These two models are being considered for use by the Council's Fishery Management Action Team (FMAT) and the Commission's Plan Development Team (PDT) in the development and analyses of alternatives for the Recreational Harvest Control Rule Draft Addendum/Framework. A sub-group of the Council's Science and Statistical Committee (SSC) recently reviewed both models and indicated that there is still room for improvement for both the RFDM and REDM before they are used as the sole basis for developing recreational measures. As such, the TC agreed that if these models are used, they should be explored in combination with the traditional methods used to estimate the impacts of management measures. The TC agreed that both models would be useful for consideration in the development of recreational measures for the 2022 fishing year. However, the TC raised concerns about the time constraint considering the quick turnaround and the modelers' other priorities.

Initial Discussion on 2022 Recreational Measures

Commission staff provided a short presentation on the typical timeline for recreational specification setting along with an overview on recent years of annual recreational harvest and important data considerations. Table 1 compares recent MRIP harvest estimates for 2018-2020 to the 2022 Recreational Harvest Limit (RHL) as a potential indicator for what percentage RHL underage or overage might be expected in 2022 under status quo measures. The table also provides 2021 preliminary harvest for waves 1-4, which serves as another indicator for recent harvest trends. Council staff indicated they also plan to utilize wave 1-4 harvest to generate projections for 2022 for the Monitoring Committee (MC) meeting scheduled for November 10th. A few TC members also suggested calculating multi-year confidence intervals for all three species to aid with characterizing the uncertainty around projections. A joint distribution confidence interval would account for the uncertainty inherent in an MRIP point estimate of landings (by considering the PSE value for an individual estimate) as well as the variability in point estimates of annual landings across years when rec measures were held status quo.

Table 1. Summer Flounder, Scup, and Black Sea Bass Harvest by Year Compared to 2022 RHL. Harvest and RHL in millions of pounds.

	Black Sea Bass		Scup		Summer Flounder	
Year	MRIP Landings (lb)	RHL	MRIP Landings (lb)	RHL	MRIP Landings (lb)	RHL
2018	7.92	3.66	12.98	7.37	7.60	4.42
2019	8.61	3.66	14.12	7.37	7.80	7.69
2020	9.05	5.81	12.91	6.51	10.06	7.69
2021	7.55 prelim w1-4	6.34	11.81 prelim w1-4	6.07	5.12 prelim w1-4	8.32
2022		6.74		6.08		10.36
2018-20 Avg. MRIP landings	8.53		13.34		8.49	
% Difference from 2022 RHL	27%		119%		-18%	

After viewing the harvest trends for scup and black sea bass, the TC discussed potential harvest reduction strategies. To help Council staff prepare for the upcoming MC meeting, the TC recommended Council staff first prepare harvest reduction analyses for bag limits, minimum sizes, and season individually. In addition, the TC recommended conducting at least one hybrid approach with combined adjustments to all three management measures that meet the projected reduction required.

The TC provided several ideas specific to analyzing seasonal closures. One TC member proposed exploring seasonal closures for scup during the spawning season. Scup spawning stock biomass is still approximately twice the target level, but recruitment in recent years has been below average causing biomass to retreat back towards the target. This concept would aim to simultaneously reduce harvest while also protecting spawners. The TC discussed the pros and cons of adjusting seasonal closures such that at least one of the three species' seasons remain open at all times of the year. A potential benefit of this approach is that anglers would always be able to fish for at least one of these three recreationally important species throughout the year, which could lead to increased angler welfare, while one potential drawback of this approach is that it could unintentionally increase discards of either scup, summer flounder or black sea bass during the seasonal closures since all three species are often targeted by similar gear configurations and are located in similar habitats.

Several TC members said that there are numerous reasons why status quo measures may be appropriate for scup and black sea bass. Foremost, spawning stock biomass is approximately twice the target for both stocks. One TC member said the recent high recreational harvest demonstrates high demand for recreational fishing opportunities. In contrast, recent commercial harvest of scup and black sea bass have underachieved the annual quota. This TC member also said each sector's demonstrated quota needs should be considered and the recreational sector's demonstrated need provides a level of justification for the recreational sector not taking a reduction in the form of more restrictive measures. Another TC member pointed out that the commercial sector's needs may not be accurately represented due to the

unusual market conditions that occurred in 2020 and 2021 due to COVID-19. The TC also acknowledged the 2020 data challenges that were a direct result of COVID-19 closures and the increased uncertainty in predicting future years of harvest. While not discussed in detail at this meeting, the economic impact of significant reductions in measures is another consideration that has been used as justification for keeping measures status quo in previous years. Lastly, the TC recognized that the ongoing Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment and the recreational reform initiative's Harvest Control Rule Addendum/Framework may factor into decisions on recreational measures for 2022. Neither management action will be implemented in time for 2022 recreational measure development, but both may be implemented for 2023. Final action has yet to be taken on either action, and potential impacts to recreational fisheries management in 2023 and beyond are unknown. The development of both actions have factored into the Board and the Council's past decisions to maintain status quo measures instead of implementing severe restrictions on recreational measures. In summary, the TC's conversation served as a primer for the conversation that will follow at the upcoming MC meeting.

Overview of the Harvest Control Rule

Commission staff presented updates on the Commission and Council's Harvest Control Rule Addendum/Framework which is one management action under the Recreational Reform Initiative. Staff presented the proposed options still under development by the FMAT/PDT. The Board and Council are scheduled to consider the Draft Addendum for public comment this winter, which would enable the action to stay on track for 2023 implementation. TC members and members of the public asked a few clarifying questions regarding the timeline for implementation, application to other recreational reform issues, and progress on developing accountability measures for the Harvest Control Rule. In response to the last question, staff offered that accountability measures are still under development and that the exact application of the RHL for each of the harvest control rule options is still being considered and discussed at both the FMAT/PDT and Board/Council level. The most recent version of the Harvest Control Draft Addendum that was presented at the Commission's Fall Meeting provides a more thorough review of progress on this action.