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

MEMORANDUM

Date: November 27, 2019

To: Council and Board

From: Kiley Dancy, Staff

Subject: Summer Flounder Recreational Measures for 2020

On Tuesday, December 10, the Council and Board will consider 2020 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) Monitoring Committee recommendation summary from their November 13-14, 2019 meeting;
2) Staff memo on 2020 recreational summer flounder measures dated November 6, 2019;
3) Public comments on summer flounder recreational measures received prior to the briefing book comment deadline.

Additional materials will be posted as supplemental prior to the meeting, including:

1) Advisory Panel recommendations from their Friday, November 22, 2019 meeting;
2) Any additional public comments received by the supplemental comment deadline of December 5, 2019.

Summer Flounder, Scup, and Black Sea Bass Monitoring Committee (MC)
November 13-14, 2019 Meeting Summary
Baltimore, MD

Monitoring Committee Attendees: Alex Aspinwall (VMRC; via webinar, Nov 14 only), Julia Beaty (MAFMC staff), Peter Clarke (NJ F&W), Dustin Colson Leaning (ASMFC staff), Karson Coutré (MAFMC staff), Kiley Dancy (MAFMC staff), Steve Doctor (MD DNR), Emily Gilbert (GARFO), John Maniscalco (NY DEC), Jason McNamee (RI F&W), Caitlin Starks (ASMFC staff; Nov 14 only), Mark Terceiro (NEFSC; via webinar), Sam Truesdell (MA DMF), T.D. VanMiddlesworth (NC DMF), Greg Wojcik (CT DEEP), Rich Wong (DE F&W)

Additional Attendees: Steve Cannizzo (NY RFHFA; via webinar, Nov 14 only), Maureen Davidson (Council member; Nov 14 only), Greg DiDomenico (GSSA; via webinar, Nov 14 only), Jeff Gutman (via webinar, Nov 14 only), Megan Lapp (Seafreeze Ltd; via webinar, Nov 14 only), Nichola Meserve (MADMF; via webinar), Adam Nowalsky (Council member; Nov 14 only), Kirby Rootes-Murdy (ASMFC staff; via webinar), Tom Smith (via webinar, Nov 14 only), Wes Townsend (Council member)

Summer Flounder

The projected 2019 summer flounder recreational harvest based on preliminary wave 1-4 data is 7.06 million pounds, which is 8% under the 2020 RHL of 7.69 million pounds. The 2020 RHL is within the coastwide percent standard error (PSE) for the 2019 preliminary wave 1-4 harvest estimates (10.5%) and within the average PSEs for recreational summer flounder harvest in the past few years (~10% 2015-2018). The MC has adopted a policy of considering the uncertainty surrounding the recreational estimates and generally recommending *status quo* measures and/or harvest levels when the following year's harvest limit falls within the PSE of the harvest projection (in either direction). This approach accounts for uncertainty in the recreational data and allows for increased stability in the recreational measures from year to year. The MC recommends continuing this approach for 2020 and maintaining *status quo* harvest.

The MC recommends the use of conservation equivalency for summer flounder in 2020. The group had a lengthy discussion about potential application of slot limits for summer flounder, as described below. In summary, the MC is supportive of further analysis and exploration of slot limits for possible future application. An example set of coastwide slot limit measures is provided that would likely constrain harvest to the RHL; however, the MC did not recommend these measures due to their disproportionate negative impact on the southern states. The MC supports further evaluation of possible regional or state-level slot limits for 2020 under conservation equivalency but could not definitively recommend this approach until considering additional analysis at the state and regional level.

Potential Biological and Socioeconomic Impacts of Slot Limits

The MC discussed the potential biological impacts of slot limits and whether there are signals in the fishery data and assessment that are cause for concern regarding potential population dynamic

effects of the recreational fishery selectivity. Overall, the MC does not see a clear signal that managers should necessarily be concerned about recreational harvest of females.

There are several ongoing changes currently being observed in the stock in terms of growth rates, sex ratios, and other dynamics. Growth rates for both sexes have slowed, and the sex ratio for larger fish has been shifting closer to 50/50. The biggest fish, over about 24 inches, are still mostly all females, but up to that point the sex ratio in the survey data is closer to 50/50. There have been several changes in stock dynamics over the last 10-15 years, including decreased mortality rates, slower growing fish, and male fish living to older ages.

Much of the discussion about sex ratios and sex-specific mortality in the recreational fishery is based on the work of Morson et al. (2015)[1], the sampling for which was conducted in 2010 and 2011. This study compared recreational and commercial fishery sampling data to trawl survey data and found that the sex ratio and the sizes and ages in the commercial fishery closely matched that of the trawl surveys. In contrast, the length and age frequency and sex ratio in recreational fishery, especially in the southern region, didn't closely align with that of the trawl surveys or commercial fishery, and was more heavily weighted toward females. This study unfortunately represents a limited snapshot in time. During development of the last stock assessment, survey data was used to determine the sex of commercial and recreational fishery catch to test the application of sex-specific models. The result was that most catch in these fisheries are now male, due to the factors described above including changes in growth rates and sex ratios. However, this is based on using the trawl survey data to determine the sex of the recreational catch which makes an assumption about survey and fishery equivalency.

On a relative basis, the contention that the recreational fishery is removing too many large females does not appear to hold true, and in absolute terms , because total catch and F rates have decreased substantially in recent years, the fisheries are removing about half as many females (and males) as a decade ago.

Assessment scientists have attempted to model a stock-recruitment relationship for this species for decades and have been unsuccessful given that the relationship is essentially flat. Thus, it's difficult to draw any conclusions about the extent to which spawning stock biomass influences recruitment. There seem to be many factors that may be affecting recruitment including environmental factors.

In summary, the MC discussed that it does not seem that recreational measures and resulting mortality are causing big females to be "wiped out," and it is not clear whether they are directly affecting recruitment. It is worth noting that slot limits implemented over the course of several years would be expected to effect recreational selectivity and yield per recruit in the assessment model, although several years would be needed to see this effect. Slot limits may result in removing too many fish at smaller sizes without leaving enough to survive all the way through the slot, dissipating potential biological benefits.

Another important point about moving to a slot limit is that protecting larger fish in the recreational fishery does not reduce access to these fish in the commercial fishery, and in fact is likely to increase the availability of larger fish available for the offshore commercial trawl fishery.

[1] Morson, Jason M., Eleanor A. Bochenek, Eric N. Powell, Emerson C. Hasbrouck, Jennifer E. Gius, Charles F. Cotton, Kristin Gerbino & Tara Froehlich. 2015. Estimating the Sex Composition of the Summer Flounder Catch using Fishery-Independent Data, Marine and Coastal Fisheries, 7:1, 393-408, DOI: 10.1080/19425120.2015.1067261.

The benefits of slot limits for summer flounder would appear to be mostly related to angler satisfaction, including increased retention opportunity and potentially reduced discards. The MC also discussed the belief that many anglers are not likely to support slot limits given that they also eliminate the possibility of keeping the larger "trophy" fish. The group agreed that there is no system of constraining harvest with size limits that will make all angers happy, given that there are segments of the fishery focused on targeting the largest fish and others that are more concerned with the opportunity to retain fish to eat.

A common suggestion under slot limits is to allow for trophy fish harvest above the maximum size. This generally has presented a problem in past analyses for a few reasons. First, the outcomes of these types of measures are highly unpredictable and very difficult to analyze, especially when it comes to predicting harvest in weight. This problem could be addressed by having a tag system for trophy sized fish to better quantify trophy harvest, however, given high effort for summer flounder, this would present logistical challenges and a high administrative burden for most states. In addition, previous analyses[2] have shown that under many slots, the potential benefits of a slot limit are essentially negated once a trophy fish option is included. Finally, including a trophy option reduces the effect of anglers shortening trips once their bag limit is caught, since many are likely to keep fishing to seek a trophy sized fish (and once the bag limit has been reached, high grading may be an issue).

Evaluation of Specific Coastwide Slot Limit Options

The MC considered the staff recommendation of coastwide slot limit measures including a 17-19" slot, a season of May 15-Septmber 15, and a 1 or 2 fish possession limit. The MC discussed that the 17-19" slot limit as analyzed in the staff memo actually includes fish up to 19.99" based on the way that the recreational size data is binned by MRIP. The staff memo thus effectively analyzes a 17-20" slot limit.

Under such a slot, consideration would be needed for how to treat 20" fish. The MC agreed that it is simpler from an enforcement and communication perspective if the maximum size is included in the range of sizes that can be harvested. For example, if the analysis for a slot included fish from 17.0"-19.99", the maximum size in the slot should be 20", and a buffer should be included to allow harvest of fish exactly at 20" but no larger than 20".

The MC requested further evaluation of the expected change in harvest and discards in weight, in addition to the analysis done in number of fish in the staff memo. A length-weight equation from the Northeast Fisheries Science Center spring and fall trawl surveys was applied to the 2018 recreational length frequency data. It is important to note that because this age-length relationship was derived from trawl survey data, it does not reflect the exact length-weight relationship of recreationally caught fish. To get a more precise estimate of the effects of a slot limit on weight harvested and discarded, a length-weight relationship derived specifically from recreational sampling would be needed, and this is not currently available.

The updated analysis including estimated changes in weight predicted that while harvest in numbers of fish is expected to substantially increase under this slot, harvest in weight would decrease. The updated evaluation showed that a 17-19.99" slot may result in a harvest in numbers

[2] e.g., Wiedenmann, J., M. Wilberg, E. Bochenek, J. Boreman, B. Freeman, J. Morson, E. Powell, B. Rothschild, and P. Sullivan. 2013. Evaluation of management and regulatory options for the summer flounder recreational fishery. Available at: http://www.mafmc.org/s/A-Model-to-Evaluate-Recreational-Management-Measures.pdf.

of fish that is 26% greater than the projected 2019 harvest of 7.06 million pounds, but that harvest in weight is estimated to decrease by 13% relative to projected 2019 levels. There are large caveats associated with this analysis, including that it does not account for estimates of non-compliance or changes in availability of each size class. Therefore, the results are very uncertain.

Because of this estimated decrease in harvest in weight, and the estimated 8% coastwide reduction resulting from the staff-proposed coastwide season, the MC felt that a higher associated possession limit could be considered than the 1 fish bag limit proposed in the staff memo. However, the effects of moving to a coastwide bag limit in combination with moving from a minimum length limit to a slot limit are difficult to analyze. Based on 2018 data, a 3-fish possession limit appears on paper to result in a 2% decrease in coastwide harvest; however, this does not account for the large change in availability of legal sized fish that would occur under this slot limit and the resulting expected increase in kept fish (i.e., many more anglers would be expected to keep 2 or 3 fish instead of 1 fish, as they will encounter more legal sized fish). The MC emphasized that as a result, the expected change in harvest under a 3 fish bag limit, in combination with the proposed slot and season, is nearly impossible to quantify but could result in a substantial increase in harvest. A possession limit of 3 fish is the highest that the MC would consider reasonable in combination with this slot and season.

Overall, the MC noted that a set of coastwide slot limit measures that could work to constrain harvest to the RHL include a 17-20" slot, a 3-fish possession limit, and an open season from May 15-September 15. While the MC believed that these measures would be reasonably expected to produce harvest at or below the RHL, the group also noted that the separate analyses of the slot limit, possession limit, and season do not easily allow for prediction of how those three changes would interact on a coastwide basis. Therefore, it is not possible to precisely quantify how coastwide harvest and discards would change overall under the measures discussed above.

While some states indicated that these measures would be feasible for consideration in their state and may provide benefits in terms of angler satisfaction, the group acknowledged that these measures would likely have negative impacts on the southern region in the states of Delaware and south. Differing availability of summer flounder by season and size makes it difficult to recommend coastwide measures that would be acceptable for all states, which is the primary reason conservation equivalency was originally developed. In addition, all states would like to further evaluate state-specific impacts and tradeoffs of these measures. Thus, while the MC notes that these coastwide measures could work in theory, the group is not recommending their application in 2020 due to the differential impacts by region.

The MC was supportive of further evaluation of slot limits, either for regional or state use under conservation equivalency in 2020, or for coastwide or regional application in future years. However, the degree of support for slot limits in this fishery was mixed among the group members in the absence of more refined analysis.

Further Evaluation and Issues to be Addressed

Additional evaluation of expected impacts by state was requested. While state-level impacts were evaluated for the coastwide May 15-September 15 season, the state-level effects of bag limit changes were only preliminarily considered, and the state-level impacts of the slot limit could not be evaluated by the end of the meeting. In order to evaluate the implications of the size limit change at a state level, length frequency distribution of discards by state for 2018 would be needed, which

was not available during the meeting. Similarly, the MC would like to see further evaluation of *regional* approaches to slot limits, if the Council and Board are interested in further pursuing these types of measures.

Another aspect of slot limits that the MC believes is important to consider is how to make this type of management dynamic, including how to consider and adapt to changes in availability and cohort strength. Slot limits allow for harvest of a narrower range of certain year classes within the population. Given year class strength effects, a slot limit could result in a large discard problem, and/or a lack of available fish within a slot in some years if these factors are not considered. While the staff analysis provides a reasonable analysis of one year out, if this approach were applied throughout multiple years, managers would need to be reactive to cohort strength dynamics to minimize the risk of substantially exceeding RHLs or increasing discards based on larger cohorts moving through the population. To do this, consideration should be given to moving the slot window every few years.

A further evaluation using a more statistically robust methodology for longer-term analysis, would be useful to guide how to apply slot limits beyond 2020. The recreational fleet dynamics model developed as part of the Council contract with Gavin Fay and Jason McNamee could possibly be used in part to estimate the interaction effects of the combination of measures, although the tool cannot currently directly predict the expected harvest or discards from slot limits.

Another issue to be evaluated is expected non-compliance and how to account for it when evaluating possible outcomes. The staff and the MC analyses do not currently fully consider non-compliance. Given that there would likely be resistance to discarding larger fish, the MC noted that non-compliance with size restrictions would likely be on the high end, and additional work should be done to build in a range of possible non-compliance rates into the evaluation of expected impact on harvest and discards in number of fish and in weight.

Another question is how to reconcile slot limit regulations with summer flounder fishing tournaments based on harvest of the largest sizes of summer flounder, particularly for states like New Jersey which have many economically important tournaments. It is not clear whether or how such tournaments would function under slot limit regulations.

There was a brief discussion of whether it would be possible to consider inshore vs. offshore slot limits, or a slot limit specific to shore mode, given that many of the anglers concerned about size limits are fishing from or near shore. While an inshore/offshore slot limit split would likely not be feasible in terms of enforcement, states with existing or planned separate shore site regulations could consider a separate shore mode slot. There is limited information, if any, about discard lengths from shore, so discard data from party/charter records would likely need to be used in the analysis which could present a challenge for analysis.

Recommendations for 2020

The MC recommends the use of conservation equivalency to manage the recreational summer flounder fishery in 2020, with further evaluation of slot limits at the state and regional level for possible application in 2020. The group did not reach consensus on whether regional level slot limits should be pursued in 2020, given varying opinions about feasibility in each state and the desire to review additional analysis of state level impacts.

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

15. The group considered putting forward the coastwide slot limit measures discussed above as the recommended non-preferred coastwide measures, but ultimately decided *status quo* was more appropriate given the uncertainties in the current preliminary slot analyses. The current non-preferred coastwide measures were deemed less likely to result in an overage of the RHL in 2020.

The MC was able to evaluate the current non-preferred coastwide measures using the fleet dynamics tool developed by Jason McNamee and Gavin Fay. The model results indicate that a 19" minimum size, 4 fish possession limit, and an open season of May 15-September 15 is predicted to result in recreational harvest of 7.13 million pounds, about 7% under the 2020 RHL and close to the projected 2019 harvest of 7.06 million pounds. As an important analytical note, the fleet dynamics tool estimates harvest in numbers of fish at length (not weight), so these estimates at length were converted to weight by applying the length-weight equation as described earlier in this report to the predicted lengths from the tool, and then multiplying that average weight-at-length by the number of predicted harvested fish at that length.

The MC also recommended *status quo* precautionary default measures under conservation equivalency, including a 20-inch minimum size, a 2 fish possession limit, and an open season of July 1-August 31. The group believed these measures to be sufficiently constraining to prevent states or regions from not abiding by conservation equivalency guidelines adopted by the Board.

As previously stated, the PSE of the projected 2019 harvest encompasses the 2020 RHL, and as such the MC recommends that 2020 state and regional harvest not be liberalized under conservation equivalency.

Other Comments

The MC discussed that although major changes are not needed for recreational measures for summer flounder in 2020, the revised MRIP data still has impacts related to the commercial/recreational allocations that need to be addressed. A joint amendment to re-evaluate these allocations was initiated by the Council and Board in October 2019.

Scup

MC members discussed the New York wave 3 private mode scup recreational harvest estimate in 2019 that is 3 to 4 times the recent values. This pattern is not seen in the neighboring states of Connecticut and Rhode Island and a small proportion of intercepts appear to be driving the high estimate. A modified Thompson tau technique (previously used to identify possible outliers in NY and NJ black sea bass harvest estimates) was used to statistically determine whether or not the 2019 NY private mode wave 3 estimate could be considered an outlier. The analyses identified the estimate as statistically inconsistent with past NY Wave 3 private mode harvests and MC members felt that a more accurate projection for 2019 harvest in New York would be obtained by using the average proportions of total harvest by wave from 2014-2018, rather than the proportion of 2018 alone. This captured a longer-term trend of when harvest occurs and decreased the 2019 projected recreational harvest in New York by 1.59 million pounds. For all other states, they used the 2018 proportions of harvest by wave to project 2019 harvest. The MC noted that this updated projection decreases the projected 2019 and estimated 2020 total catch from the staff memo to lower than the 2020 Acceptable Biological Catch (ABC) under *status quo* recreational measures.

The updated projection also changes the percent reduction in recreational harvest needed to meet the 2020 RHL from 59% to 55%. The MC discussed the significant restrictions to management measures that would be needed to meet this reduction. The MC felt it would be inappropriate to consider any federal seasonal reductions because of the currently disparate seasons in state waters. A long federal season helps provide flexibility to states. Because of this, the MC agreed that the 55% reduction would need to be achieved through decreasing the bag limit, increasing the minimum size, or a combination of these approaches. A 3 fish bag limit would achieve the reduction needed to meet the RHL, however one MC member said this is a food fishery for some recreational anglers and people need more than 3 scup to provide enough fish to make the trip worthwhile in this context. A 12-inch minimum size could also achieve the reductions needed but would be a 3-inch increase from current measures. After calculating the cumulative reduction, the MC discussed a third way to reduce harvest to the RHL by having a 10-inch minimum size and a 5 fish bag limit. However, the MC did not feel comfortable putting these restrictions forward as a MC recommendation.

The MC discussed that they would like to avoid imposing additional restrictions on anglers as management adjusts to the new MRIP numbers, especially given that SSB is 200% of the target. One MC member felt it was inappropriate to impose restrictions on the recreational sector based on lack of flexibility in the FMP with regard to the allocation. MC members added that this issue is not the fault of the fishermen, rather it's a management problem, and more time is needed for management to respond. One MC member also noted that it was unfortunate that quota could not be transferred between sectors since the commercial sector has not harvested its full quota in recent years. There is little to no risk to the stock by allowing the recreational harvest to remain at status quo for 2020 while the management issues are resolved. Because of this management situation, healthy stock status, and catch projections below the 2020 ABC, the MC recommended *status quo* recreational measures in state and federal waters for scup in 2020.

Although the MC recommended *status quo* recreational measures for scup in state and federal waters for 2020, they agreed that in future years consideration should be given to more closely aligning the federal and state waters measures.

Black Sea Bass

The MC agreed that 2019 annual black sea bass harvest should be projected based on coastwide, rather than state by state, proportions of harvest by wave in 2018. This results in 7.33 million pounds of projected harvest in 2019. This helps to account for the increased uncertainty in the MRIP estimates when they are broken down into smaller spatial, temporal, or mode-based increments. This is a different projection approach than that recommended for scup; however, they agreed that this difference is justifiable given that a state-specific correction was needed for scup, but not for black sea bass.

If it is assumed that 2020 harvest would otherwise equal the projected 2019 value (i.e., 7.33 million pounds), then recreational harvest would need to be reduced by about 20% to prevent an overage of the 2020 RHL of 5.81 million pounds. The group agreed that it is very hard to justify a reduction in harvest when the RHL is increasing by 59% compared to 2019, spawning stock biomass was 2.4 times the target level in 2018, and availability to anglers remains very high. They agreed that it is challenging to constrain the recreational fishery under current high levels of availability and

further restrictions on harvest would likely increase discards. They also noted that spawning stock biomass has remained very high despite multiple consecutive years of ABC overages, going back to at least 2015. Staff noted that recent above-average recruitment events have helped in maintaining a high biomass level despite ABC overages. The 2017 year class is estimated to be 72% below average. One MC member said he expects to see continued periodic above average year classes due to mild winters. In addition, representatives from New York, New Jersey, and Maryland said their state trawl surveys suggest that the 2018 year class may also be above average. An abundant 2018 year class was not evident in the Connecticut trawl survey; however, according to fishermen in Connecticut, there were signs of a strong year class later in 2019 after the trawl survey had concluded.

One MC member said availability of black sea bass to anglers in 2020 may decline due to the mid-year 59% increase in the commercial quota. A few MC members reiterated previously stated concerns about the potential for the increase in the commercial quota to result in unintended negative socioeconomic impacts if a sudden increase in landings causes the price to decrease.

Based on all these considerations, the MC recommended that all state and federal waters recreational bag, size, and season limits for black sea bass remain unchanged in 2020 compared to 2019. *Status quo* recreational management measures would be expected to result in an RHL overage of about 26%, a recreational Annual Catch Limit (ACL) overage of about 23%, and an ABC overage of about 12%. Catch would not be expected to exceed the Overfishing Limit (OFL).

The MC did not recommend the use of conservation equivalency (i.e., waiving the federal waters measures in favor of the state waters measures where anglers land their catch) for black sea bass in 2020. They noted that the conservation equivalency regulations require constraining harvest to the RHL, which would require more restrictive measures than *status quo*, which is their primary recommendation for 2020. The MC added that it would not be appropriate to set precautionary default measures under conservation equivalency based on the most restrictive state measures in 2019, as suggested in the staff memo, as these measures would not be restrictive enough.

The MC had a very brief discussion on the fixed 49% commercial/ 51% recreational allocation of the landings portion of the black sea bass ABC. They agreed that the Council and Board should prioritize review of this allocation as it poses challenges for managing the recreational fishery under the revised MRIP estimates. One MC member provided examples of changes that might warrant consideration, including allowing recreational harvest to fluctuate in response to availability while maintaining consistent access for the commercial fishery, for example by using dynamic, as opposed to fixed, allocations. Another MC member suggested consideration of a trigger-based approach, where the allocation to the recreational fishery is higher when the ABC exceeds a certain level. However, the group agreed that it would be inappropriate for them to have a detailed discussion on any potential changes at this point in time as the Council and Board have not yet clarified their goals with regards to potential changes to these allocations.

Two members of the public provided comments on black sea bass via webinar. One individual said the recreational fishing community does not believe the MRIP numbers. He added that with spawning stock biomass more than double the target level, the regulations should be relaxed. He said non-compliance may increase if the fishery continues to be so constrained. The staff recommendations for federal waters measures to constrain harvest to the RHL would put party/charter boats out of business, he said, especially considering concurrent restrictions in the striped bass, scup, and bluefish fisheries. Another member of the public agreed with these points,

adding that it feels like the fishery is restricted whether biomass goes up or down and the increases in the RHL feel like paper increases when they are not accompanied by liberalizations in recreational management measures.

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Michael P. Luisi, Chairman | G. Warren Elliott, Vice Chairman
Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: November 6, 2019

To: Chris Moore, Executive Director

From: Kiley Dancy, Staff

Subject: Summer Flounder Recreational Management Measures for 2020

Background and Summary

In October 2019, the Council and the Atlantic States Marine Fisheries Commission's (Commission's) Summer Flounder, Scup, and Black Sea Bass Board (Board) reviewed the previously adopted commercial quota and recreational harvest limit for summer flounder for the 2020 fishing year. The Council and Board recommended no changes to the implemented catch and landings limits, based on the advice of the Scientific and Statistical Committee (SSC) and Monitoring Committee (MC). These 2020 specifications were approved in March 2019 based on the recommendations from the SSC following the 2018 stock assessment for summer flounder.

The final rule implementing the 2020 commercial quota and recreational harvest limit (RHL) published on October 9, 2019 (84 FR 54041) and includes a 2020 recreational harvest limit (RHL) for summer flounder of 7.69 million lb (the same as the revised 2019 RHL). Projected 2019 harvest in pounds, as described below, is 7.06 million pounds (8% below the 2020 RHL).

Each year, the Monitoring Committee (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.

As discussed in the staff recommendation section below, staff recommend that the Monitoring Committee consider measures that depart from the current conservation equivalency measures, particularly regarding the current minimum size limits.

Recreational Catch and Landings Trends and 2019 Projections

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 full 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 data for 2019 are incomplete and preliminary, with only the first four waves (January through August) available. Preliminary wave 1-4 data for 2019 were used to project catch and landings for the entire year by assuming the same proportion of catch and landings by wave as in 2018. These projections are typically assumed to be overestimates for states with more restrictive seasonal measures in remaining waves of the current year, and underestimates for those with less restrictive seasonal measures. Between 2018 and 2019, only a few very minor changes to recreational measures were made, including shifts of 1 or 2 days in season for Rhode Island and New Jersey, and the addition of shore mode regulations for Rhode Island (see Table 5).

For 2019, projected catch is 28.69 million fish (including landings, live discards, and dead discards), and projected landings are 7.06 million lb or 2.22 million fish (Table 1). For comparison purposes, 2019 projected annual harvest was also calculated using the coastwide (i.e., Maine through North Carolina) proportions of harvest by wave in 2018, rather than projecting by state. This resulted in a projected 2019 harvest of 6.98 million pounds and 2.18 million fish.

Table 1: Preliminary summer flounder 2019 catch and harvest through wave 4, and projected 2019 catch and harvest based on proportions by wave from 2018.

	Harvest (mil lb)	**Harvest (mil fish)**	**Catch[a] (mil fish)**
Preliminary 2019 through Wave 4	6.23	1.93	24.23
Projected 2019 full year[b]	7.06	2.22	28.69

[a] Catch data provided by MRIP include harvest, dead discards, and live discards in numbers of fish.
[b] Using summed state level projections.

Table 2 provides the revised MRIP time series of recreational harvest (in number and weight) and catch (in number of fish) for 1981-2019 (with 2019 projected). 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). Revised catch estimates show a high catch of 58.89 million fish in 2010 and a low in catch of 5.06 million fish in 1989 (Table 2). Table 2 also shows the percent of summer flounder released[1] (relative to total catch in numbers of fish) and the mean weight of landed summer flounder each year from 1981-2019 (projected).

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

Table 2: Summer flounder recreational catch and landings under revised MRIP estimates, Maine through North Carolina, 1981-2019, all waves (2019 projected based on data through wave 4).[a]

	Catch (mil fish)	Harvest (mil fish)	Harvest (mil lb)	% Released (Released Alive)	Mean Weight of Landed 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 (proj.)[b]	28.69	2.22	7.06	92%	3.18

[a] Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 28, 2019. [b] Projected using proportion by wave from 2018 MRIP data and 2019 MRIP wave 1-4 data.

Landings by state in recent years, in thousands of pounds and thousands of fish are shown in Table 3 including projections for 2019.

An average of 84% of summer flounder harvest in numbers of fish was taken from state waters (0-3 miles from shore) over the last 10 years (2009-2018; Figure 1). Over the same time period, most harvest originated from private/rental mode trips (87%), while party/charter mode and shore mode accounted for an average of 4% and 9% of the harvest, respectively (Figure 2). Because MRIP revisions affected only the shore and private angler modes and not the party/charter mode, the proportions of harvest by mode have shifted somewhat following the release of revised MRIP estimates.

Table 3: Summer flounder recreational harvest (in thousands of pounds and thousands of fish fish) for revised MRIP estimates, by state for all waves (January-December), 2015-2019 (projected).

	Thousands of Pounds					Thousands of Fish				
	2015	**2016**	**2017**	**2018**	**2019 (proj.)**	**2015**	**2016**	**2017**	**2018**	**2019 (proj.)**
NH	-	-	-	-	-	-	-	-	-	-
MA	386	240	172	143	226	213	106	65	67	93
RI	791	341	599	604	753	222	113	156	169	198
CT	999	1,024	403	549	272	252	338	121	153	79
NY	5,011	5,744	4,214	2,385	2,298	1,517	1,800	1,186	641	533
NJ	3,246	4,718	3,571	3,155	2,561	1,180	1,456	1,200	1,045	894
DE	270	435	259	205	246	120	173	100	85	96
MD	251	98	171	122	118	98	40	57	48	50
VA	719	529	528	345	502	334	212	188	145	221
NC	157	110	147	92	84	99	65	91	58	56
Coast	**11,830**	**13,239**	**10,064**	**7,600**	**7,058**	**4,034**	**4,302**	**3,166**	**2,413**	**2,221**

[a] Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 28, 2019.
[b] Projected using proportion by wave from 2018 MRIP data and 2019 MRIP wave 1-4 data.

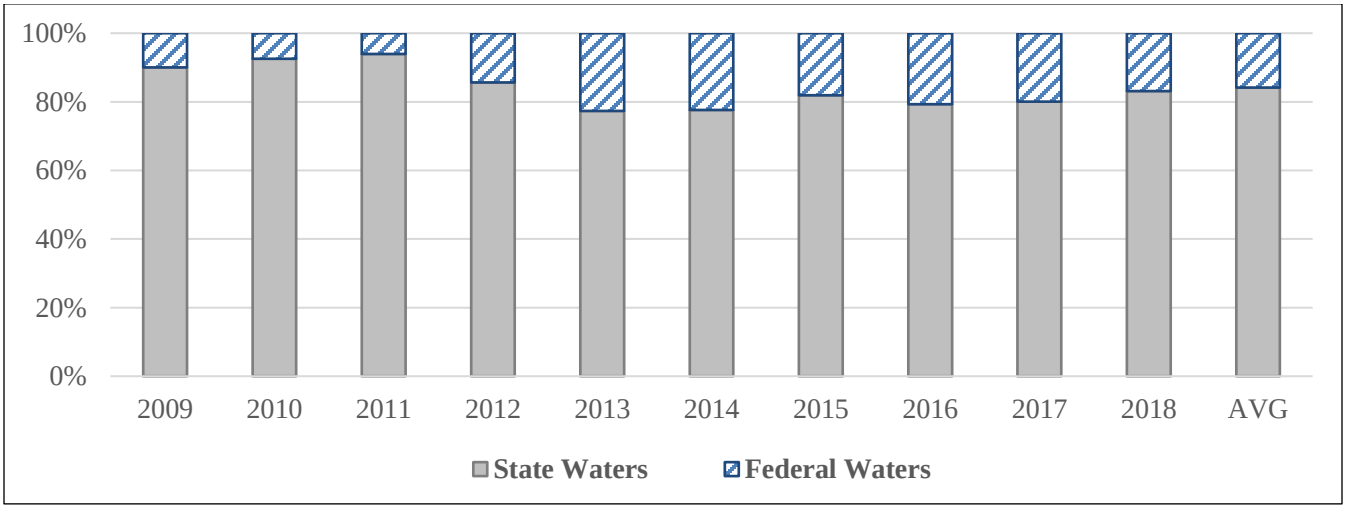

Figure 1: State vs. federal waters harvest in numbers of fish for summer flounder, 2009-2018. Fishing area information is self-reported by anglers. Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 28, 2019.

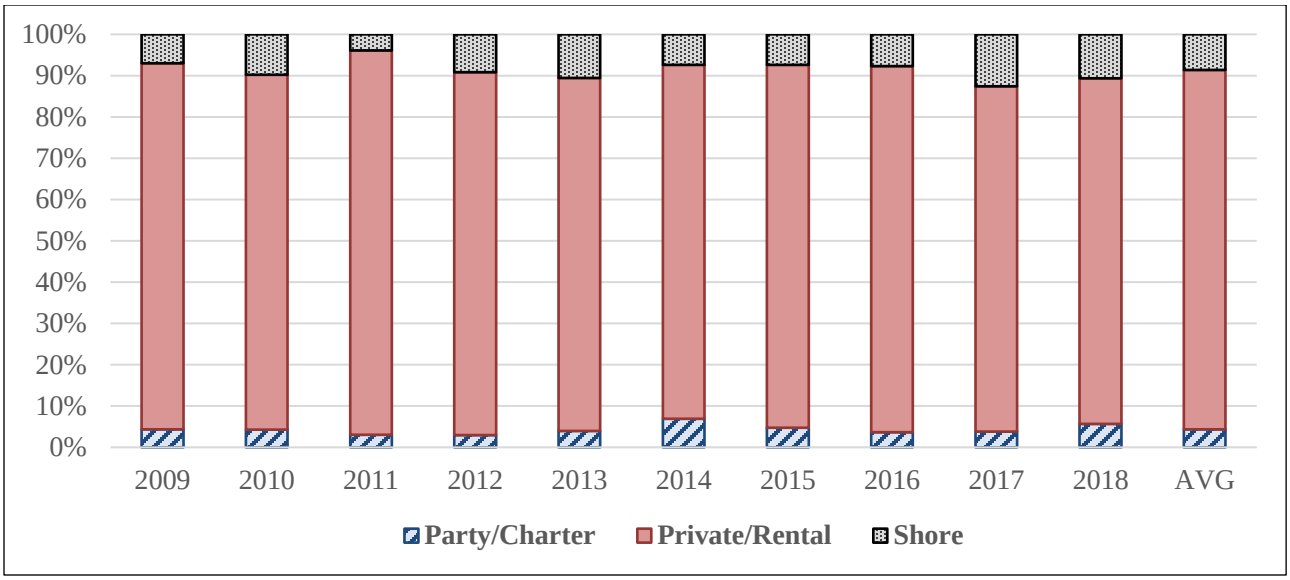

Figure 2: Summer flounder harvest by fishing mode (in numbers of fish), 2009-2018. Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 28, 2019.

Expanded length frequencies for summer flounder recreational harvest from 2016-2018 are shown in Figure 3, both in number of fish harvested and in percent of total harvest. Size limits were restricted in most states between 2016 and 2017, resulting in a shift in the size distribution toward larger fish in 2017. Size limits between 2017 and 2018 were largely the same except for a decrease from 17 inches to 16.5 inches in the states of Delaware, Maryland, and Virginia. In 2018, the size bin with the largest landings was 19 inches (21% of 2018 harvest, or about 509,000 pounds).

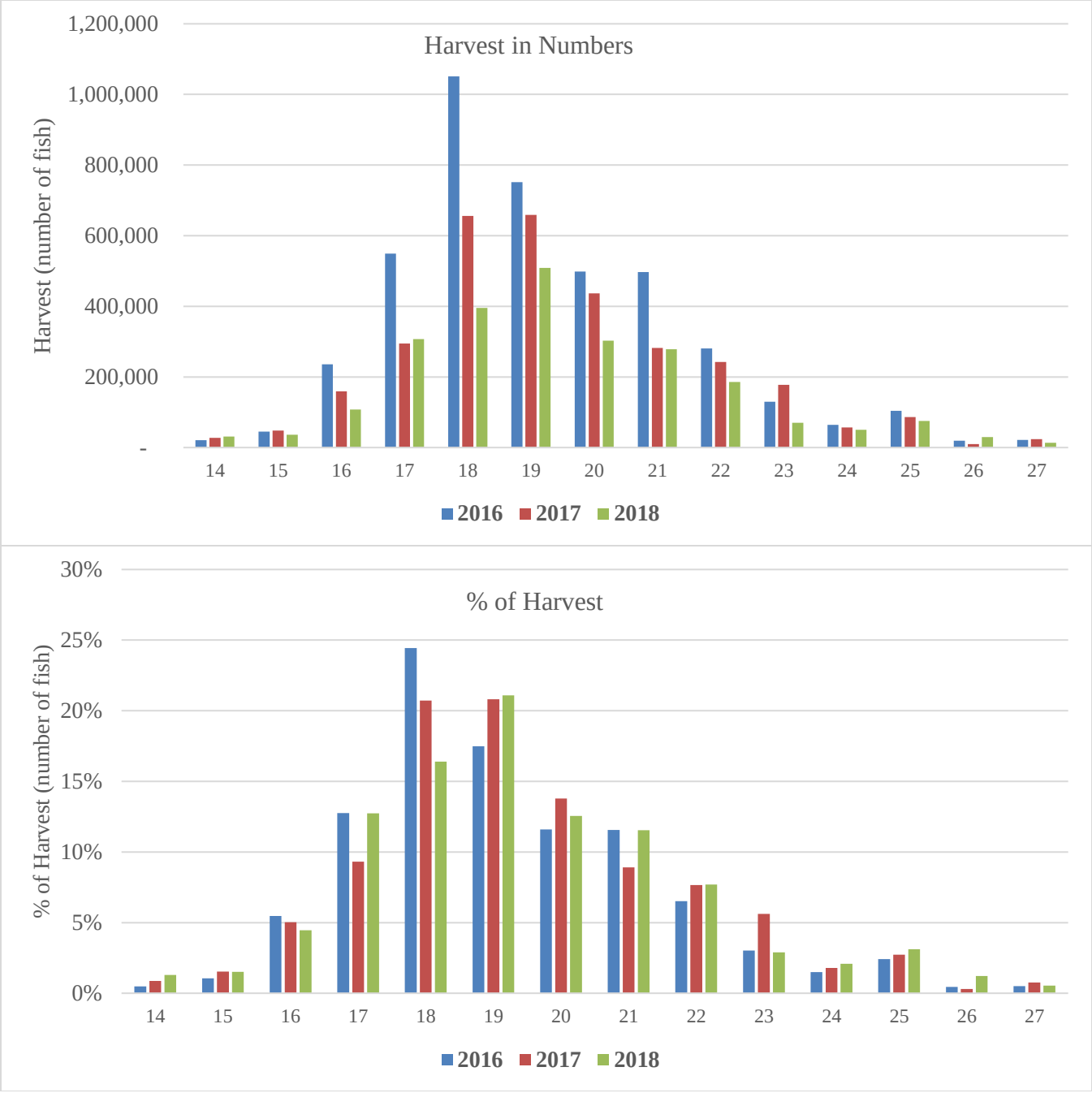

Figure 3: Expanded recreational length frequency for summer flounder, 2016-2018. Size bins below 14" and above 27" accounted for less than 0.5% each of the estimated total harvest and were omitted. Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 31, 2019.

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 past RHLs 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 4).

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 4). 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 2019, 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 March 2019, the Council and Board adopted regional conservation equivalency for the summer flounder recreational fishery in 2019. Region-specific possession limits in 2019 range from 2-6 fish with size limits ranging from 15.0-19.0 inches, with various seasons (Table 5).

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 2019 include a 4-fish possession limit, a 19-inch total length (TL) minimum size, and an open season from May 15-September 15. These non-preferred coastwide measures are only waived for the duration of the applicable fishing year; thus, the non-preferred measures described above will take effect in federal waters and for federal party/charter permit holders starting on January 1, 2020 until replaced (if applicable) by the implementation of conservation equivalency or alternative coastwide measures.

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 2019 include a 2-fish possession limit with a 20-inch TL minimum fish size and an open season from July 1-August 31.

Table 4: Summary of federal management measures for the summer flounder recreational fishery, 1993-2020.

Measure	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
ABC (m lb)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Recreational ACL (land+disc; m lb)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RHL (m lb)	8.38	10.67	7.76	7.41	7.41	7.41	7.41	7.41	7.16	9.72	9.28	11.21	11.98	9.29
Harvest - OLD MRIP (m lb)	8.83	9.33	5.42	9.82	11.87	12.48	8.37	16.47	11.64	8.01	11.64	11.02	10.92	10.50
% Over/Under RHL(Old MRIP)	+5%	-13%	-30%	+33%	+60%	+68%	+13%	+122%	+63%	-18%	+25%	-2%	-9%	+13%
Harvest - NEW MRIP	13.73	14.29	9.02	15.02	18.52	22.86	16.70	27.03	18.56	16.29	21.49	21.20	18.55	18.63
Possession Limit	6	8	6/8	10	8	8	8	8	3	[a]	[a]	[a]	[a]	[a]
Size Limit (TL in)	14	14	14	14	14.5	15	15	15.5	15.5	[a]	[a]	[a]	[a]	[a]
Open Season	5/15 - 9/30	4/15 - 10/15	1/1 - 12/31	1/1 - 12/31	1/1 - 12/31	1/1 - 12/31	5/29 - 9/11	5/10 - 10/2	4/15 - 10/15	[a]	[a]	[a]	[a]	[a]
Measure	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
ABC (m lb)	-	-	21.50	25.50	33.95	25.58	22.34	21.94	22.57	16.26	11.30	13.23	25.03	25.03
Recreational ACL (land+disc; m lb)	-	-	-	-	-	11.58	10.23	9.07	9.44	6.83	4.72	5.53	11.51	11.51
RHL (m lb) - landings only	6.68	6.22	7.16	8.59	11.58	8.49	7.63	7.01	7.38	5.42	3.77	4.42	7.69	7.69
Harvest - OLD MRIP (m lb)	9.34	8.15	6.03	5.11	5.96	6.49	7.36	7.39	4.72	6.18	3.19	3.35	-	-
% Over/Under RHL(Old MRIP)	+40%	+31%	-16%	-41%	-49%	-24%	-4%	+5%	-36%	+14%	-15%	-24%	-	-
Harvest - NEW MRIP	13.89	12.34	11.66	11.34	13.48	16.13	19.41	16.24	11.83	13.24	10.06	7.60	7.06[c]	-
Possession Limit	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[b]	[b]	[b]	[b]	[b]	[b]	-
Size Limit (TL in)	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[b]	[b]	[b]	[b]	[b]	[b]	-
Open Season	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[b]	[b]	[b]	[b]	[b]	[b]	-

[a] State-specific conservation equivalency measures. [b] Region-specific conservation equivalency measures. [c] Projected.

Table 5: Summer flounder recreational fishing measures in 2018 and 2019, by state, under regional conservation equivalency. 2018 and 2019 regions 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.

	2018			2019		
State	**Minimum Size (inches)**	**Possession Limit**	**Open Season**	**Minimum Size (inches)**	**Possession Limit**	**Open Season**
Massachusetts	17	5 fish	May 23-October 9	17	5 fish	May 23-October 9
Rhode Island (Private, For-Hire, and all other shore-based fishing sites)	19	6 fish	May 1-December 31	19	6 fish	May 3-December 31
RI 7 designated shore sites	N/A	N/A		19	4 fish[a]	
				17	2 fish[a]	
Connecticut	19	4 fish	May 4-September 30	19	4 fish	May 4- September 30
CT Shore Program (45 designed shore sites)	17			17		
New York	19			19		
New Jersey	18	3 fish	May 25-September 22	18	3 fish	May 24- September 21
NJ Shore program site (ISBSP)	16	2 fish		16	2 fish	
New Jersey/Delaware Bay COLREGS	17	3 fish		17	3 fish	
Delaware	16.5	4 fish	January 1-December 31	16.5	4 fish	January 1- December 31
Maryland						
PRFC						
Virginia						
North Carolina	15	4 fish	January 1-December 31	15	4 fish	January 1- September 3[b]

[a] Combined possession limit of 6 fish, no more than 2 fish at 17-inch minimum size limit.

[b] Although originally specified as open year-round, the recreational flounder fishery in North Carolina (southern, gulf, and summer flounder) closed on September 4, 2019 as the result of measures implemented to end overfishing on southern flounder. NC manages all flounder in the recreational fishery under the same regulations resulting in a de facto closure of the summer flounder recreational fishery. The fishery will open in 2020 at a date to be determined. See the proclamation here: http://portal.ncdenr.org/web/mf/proclamation-ff-32-2019.

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 accountability measures 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 NMFS Regional Administrator no longer has in-season closure authority for 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 catch exceeds the average ACL, then the appropriate AM is determined based on the following criteria:

1. If the stock is overfished ($B < ½ B_{MSY}$), 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 ($½ B_{MSY} < B < B_{MSY}$), 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) * $(B_{msy}-B)/½\ B_{msy}$.
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.

The 2016-2018 recreational ACLs 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. 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).

The resulting AMs evaluation shown in Table 6 indicates that the 2016-2018 average recreational catch (5.37 million pounds) was lower than the 2016-2018 average ACL (5.69 million pounds), meaning that a recreational accountability measure has not been triggered for application in 2020.

Table 6: Evaluation of summer flounder recreational accountability measures using 3-year moving average of the recreational ACL compared to 3-year moving average of recreational catch (using old MRIP estimation methodology).

	Recreational Harvest (Old MRIP)	Recreational Dead Discards (Old MRIP)	Total Dead Recreational Catch (Old MRIP)	Recreational ACL
2016	6.18	1.48	7.66	6.83
2017	3.19	0.94	4.13	4.72
2018	3.35	0.97	4.32	5.53
AVG	4.24	1.13	**5.37**	**5.69**

Predicting 2020 Harvest and the Impacts of Management Measures

When developing recommendations for recreational summer flounder measures, 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 7 provides estimates of the number of trips where summer flounder was reported as the primary target from Maine through North Carolina, and the estimated percentage of these directed summer flounder trips relative to directed trips from all species Maine through North Carolina. The number of directed recreational summer flounder trips has been generally declining since 2011 but summer flounder trips remain a relatively substantial portion of total fishing trips within the management unit (12% in 2018; Table 7). Summer flounder year class strength can be variable and can impact availability of the fish to anglers. Recruitment for summer flounder has been below average since about 2010, and availability of fish to anglers in the past few years has also been reported as relatively low.

The Monitoring Committee should consider these and other potentially relevant factors when discussing expected 2020 recreational harvest and any potential changes in management measures.

Table 7: Number of summer flounder directed recreational fishing trips, and percentage of total directed trips, Maine through North Carolina, 2007 to 2018.

	Number of Summer Flounder Directed Trips (millions)[a]	Percentage of Directed Trips Relative to Total Trips[a,b]
2007	9.85	11%
2008	8.84	10%
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%

[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, October 24, 2018 and October 31, 2019.

[b] Source of total trips for all species combined, revised MRIP data: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, October 24, 2018 and October 31, 2019.

At their respective August 2019 meetings, the Council and Board received presentations on the preliminary results of a summer flounder recreational Management Strategy Evaluation (MSE) for F-based recreational management conducted by Dr. Gavin Fay and Dr. Jason McNamee (Fay and McNamee 2019). This project includes two main components: a fleet dynamics model, which expands on previous work to forecast how changes in recreational measures impact changes in harvest, and a forecasting simulation model, which tests the performance and of current and alternative management approaches (including *status quo* and F-based management, both with and without incorporating estimates of uncertainty).

The fleet dynamics model is of particular relevance during the process of setting recreational measures for the upcoming fishing year to predict how changes in regulations are expected to influence harvest and discards. The Monitoring Committee has previously noted that the fleet dynamics model generally performs well and produces the expected results from modifications to management measures (bag limits, size limits, and seasons), and that this model will allow for better comparisons of the tradeoffs associated with increasing size limits on increasing dead discards. However, at the time of this memo, some adjustments were still needed to improve the performance of the model, which currently appears to be overestimating harvest in some states. Staff will work with the model developers to test the fleet dynamics model for the MC's consideration in developing 2020 measures. If possible, the MC should use this model alongside typical methods of analysis when considering 2020 measures at the state or coastwide level.

2020 Staff Recommendation

The projected 2019 harvest for summer flounder using data through wave 4 is 7.06 million pounds, approximately 8% below the 2020 RHL of 7.69 million pounds. Relative to projected 2019 harvest, this would leave room for an approximate 9% liberalization in harvest in weight. However, wave 5 data should be considered once available as wave 5 accounted for about 28% of summer flounder harvest in 2017-2018. As discussed below, staff recommend departing from the measures used in recent years under conservation equivalency and adopting an alternative management strategy to reduce recreational discards and increase angler satisfaction. The following sections describe the challenges of current management and possible approaches toward improving fishery outcomes in 2020.

Challenges of Conservation Equivalency as Currently Configured

The system of conservation equivalency was originally adopted through Framework 2/Addendum XIV to alleviate perceived inequities of coastwide management measures on different states within the management unit, given summer flounder migrations and differences in availability by region. Conservation equivalency has been adopted every year since 2001, as coastwide measures have not been a palatable option for most states.

Over the years, measures under conservation equivalency have become more complex. Since 2014, regional conservation equivalency has been implemented with some success in increasing consistency in measures between neighboring states; however, the current regional management system still includes many single-state regions and a set of highly complex measures including measures by state, wave, fishing mode, and sub-area. This has made analyzing recreational measures increasingly complicated, and additionally, complex measures generally lead to more difficult enforcement and higher noncompliance, especially with a high frequency of changes to the measures. MRIP data is being used at fine scales for which it was not designed, with high uncertainties in the estimates at these levels, increasing the uncertainty in the outcomes of the measures set.

Conservation equivalency was designed around constraining harvest to the RHL, prior to implementation of annual catch limits and accountability measures. As such, conservation equivalency has historically used annual adjustments to meet a harvest-based target, based on an evaluation of a single prior year's performance, without thorough consideration of how measures influence dead discards. Although the Monitoring and Technical Committees have repeatedly acknowledged the discards issue, it is also recognized that the main requirement of conservation equivalency as currently outlined in the FMP is that the combination of state and regional measures must be expected to constrain harvest to the RHL, with no discussion of accounting for discards. In addition, it has typically been very difficult to predict precisely how regulations will influence dead discards, especially given uncertainty in discard estimates and a time lag in estimates of dead discards in weight.

When reductions are required in the recreational fishery, increases in size limits are typically the most effective and efficient way to accomplish a reduction. In addition, stakeholders in many states are not receptive to decreases in season under current season lengths, as longer seasons allow more opportunities to fish even if fewer fish can be retained.

One result of the fleet dynamics model developed by Fay and McNamee (2019) indicates that although increases in minimum sizes are effective at reducing harvest, they also, not surprisingly, result in increased discards. While only a portion (10%) of recreational discards are assumed to experience discard mortality, when accounting for this mortality, it is likely that such adjustments to measures are not having as much of a reduction on total removals as assumed. Figure 4 below, adapted from their report, illustrates this point, with the report noting, "When accounting for both harvest and discards, the interaction between the two model effects largely cancel each other out, minimizing the effect of minimum size as a management tool. There is still a decrease in catch (harvest + discards) but it is much less than when viewed by harvest alone."

Many managers, advisors, and other stakeholders have repeatedly expressed concerns with the relatively high 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.[2] 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 somewhat in the next few years, and increased again after 2016 when a large coastwide reduction in harvest was required (Table 8).

Many stakeholders have argued that the current relatively high 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. Female summer flounder grow faster and mature faster compared to males. The sex ratio for younger fish is skewed toward males, and as the cohort ages, the balance in the sex ratio shifts toward females. In a study by Morson et al. (2015), among thousands of fish sampled in the recreational fishery in 2010 and 2011 from North Carolina to Maine, the probability that a given fish landed in the recreational fishery was female was 80% at the smallest minimum sizes and approached 100% with increasing fish size. Many have stated concerns about how selecting on larger fish in the recreational fishery may be influencing recent trends of below-average recruitment. For many species, age and size dependent maternal effects on egg and larval quality can influence recruitment (Hixon et al. 2013; Gwinn et al. 2013). For summer flounder, it is not clear at this time to what extent recreational fishery selectivity may be influencing recruitment and other stock dynamics. Several factors have been hypothesized as potentially influencing low recruitment, but recent evaluations have not been able to conclusively separate the primary driver or drivers of this trend.

Anglers have expressed frustration with the very 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 (2009-2018), approximately 89% of summer flounder caught recreationally were estimated to be released (Table 2), with a 10% assumed discard mortality rate applied to those released fish. Some stakeholders and researchers have suggested that actual discard mortality rates may be higher under some conditions (Henderson and Fabrizio 2014), and that managers should take steps to reduce recreational discard mortality. Henderson and Fabrizio (2014) also found that discard mortality on undersized recreational summer flounder catch may be higher than for larger fish, although some of this effect may be explained by different emigration rates from their study area in the Chesapeake Bay.

[2] For examples of recent comments, see: http://www.mafmc.org/s/Summer-Flounder-Specifications-Supplemental-Comments-10-4-19.pdf.

Table 8: Summer flounder size limits by state under conservation equivalency, 2002-2019. 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
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
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
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
NY	17	17	18	17.5	18	19.5	20.5	21	21	20.5	19.5	19	18	18	18	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
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
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
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
NC	15.5	15.5	14	14	14	14	14	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
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	-

[a] Average weighted by percent of harvest from each state.

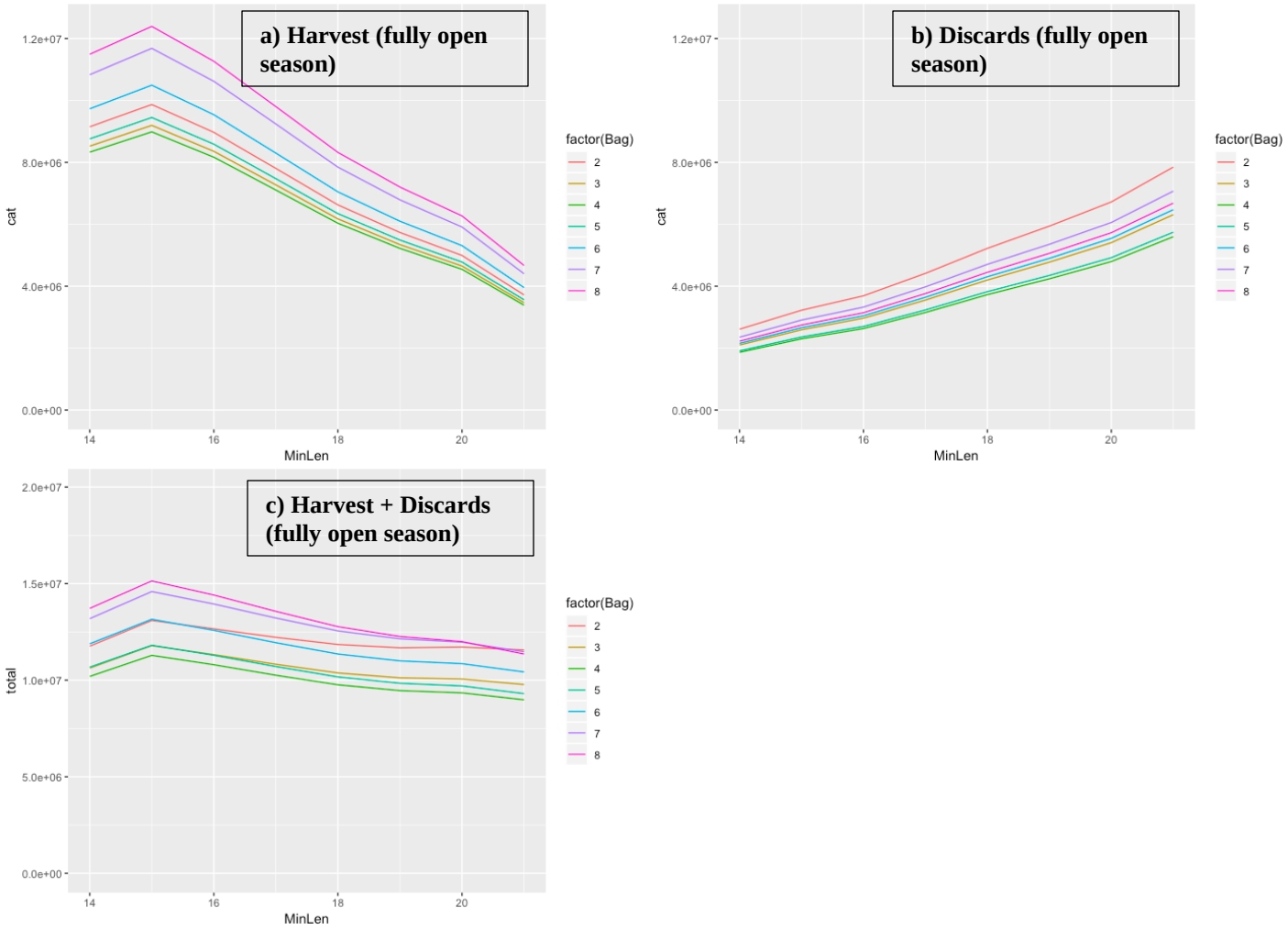

Figure 4: Modeled effects of size limit increases from Fay and McNamee (2019) indicating that increases in size limits decrease harvest and increase discards, the effects of which largely cancel each other out, resulting in only slight to moderate decreases in total catch with increasing size.

Alternative Size Limit Regulations

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).

Harvest slots are designed to protect both immature fish and older, larger fish that tend to have greater relative reproductive value. Several studies have suggested potential benefits of implementing slot limits to achieve multiple, sometimes conflicting, recreational management objectives. For example, Gwinn et al. (2013) modeled various recreational harvest strategies and found that harvest slots and minimum length limits were both effective at comprising between yield, numbers of fish harvested, and catch of trophy fish while also conserving reproductive biomass. An increase in fish harvested was assumed to have a positive impact on angler satisfaction given that it allowed for more fish to be harvested, while the biomass yield in weight was lower under a slot limit than under a minimum size only limit. The results of this study were not contingent on maternal effects, meaning that any size-dependent maternal effects on egg and larval quality that may be present would only enhance the benefits of slot limits.

The Monitoring Committee has discussed slot limits in the past and expressed reservations about their implementation in practice for summer flounder under current harvest limits and the current configuration of the FMP. An increase in harvest in numbers of fish is predicted under slot limits, and it is likely that very restrictive slots, combined with restrictive bag limits and seasons, may be required constrain harvest to the RHL. In addition, it is difficult to predict how angler behavior (including discarding behavior and compliance) would change under implementation of a slot limit for summer flounder when such measures have never been implemented for this species before.

A detailed slot limit analysis using for-hire catch data from 2008 was considered by the Monitoring Committee in 2009, including a range of slot limit options, bag limits, and options for trophy fish in combination with slot limits (Wong 2009). The results indicated that compared to a standard minimum size limit, the slot limit options considered would "certainly result in greatly increased numbers of fish harvested" due to the higher availability of smaller fish compared to larger fish. A management strategy evaluation analysis by Wiedenmann et al. (2013) also found that slot limits could result in an increase in the number of summer flounder harvested per angler, as well as a small reduction in the total number of female summer flounder harvested. They found that slot limits generally resulted in lower harvest and more discards by weight, and higher and more frequent ACL overages, compared to minimum size limits.

It is difficult to predict how an increase in the number of fish harvested would translate to harvest in weight, which is used to evaluate performance relative to the RHL. An increase in harvest in numbers of fish under a slot limit may not necessarily lead to a substantial increase in harvest in weight if the slot harvested fish are on average smaller than they would be under a standard minimum size limit, but this has been difficult to analyze due to the difficulty in predicting changes in landings and discards at length. Total weight of harvest and dead discards under a slot limit would depend heavily on availability of summer flounder by age class, along with other variable factors that impact effort and catch rates as discussed in the previous section of this memo.

The potential impacts of slot limits were also evaluated in the recent Framework 14/Addendum XXXI document. In this action, the Council and Board approved the use of a maximum size in the recreational regulations for summer flounder and black sea bass. This action is pending implementation by NMFS but is expected to be available for use in 2020.[3] Thus, the Monitoring Committee should consider whether a slot limit or other alternative to a single minimum size may be appropriate on a coastwide basis in 2020. Alternatively, the Monitoring Committee could consider encouraging states to evaluate slot limits and other alternative management approaches under conservation equivalency.

Staff Recommendation

Staff recommend that the Monitoring Committee consider alternative approaches to recreational management in 2020, including alternatives to the current size limits that would reduce regulatory discards and increase retention of fish while preventing the ACL from being exceeded. Given the language in the FMP requiring that conservation equivalency constrain harvest to the RHL, in the longer term, it may be necessary to consider a plan amendment that would re-evaluate conservation equivalency requirements to include, among other modifications, a better ability to account for how changes to measures influences discards and total removals and consideration of the recreational ACL in addition to the RHL.

Based on preliminary analysis, **staff recommend consideration of a coastwide slot limit** that would preserve the spawning capacity of larger, older female fish while also protecting immature fish from harvest and limiting total removals of summer flounder to prevent overfishing.

As discussed above, the outcomes of slot limits are difficult to evaluate given current data and uncertainties about availability by size and angler behavior. Harvest and discard length frequencies can be used to evaluate what lengths are being landed vs. discarded under the current regulations, but it is difficult to predict how this distribution would change under modified regulations. However, the distribution data from 2018 gives some sense of the recent availability of different sizes classes to anglers (Figure 5). It is expected that harvest and total removals would increase under a slot limit as discussed above. Therefore, adjustments to possession limits and seasons are evaluated to provide a buffer against an expected increase in harvest.

Based on harvest at length and expanded dead discard at length data from 2018, an estimated 1.37 million fish in the 17"-19" range were either harvested or subject to discard mortality. Assuming that many of the discards in that range were regulatory, and that under a 17"-19" slot most of the fish encountered in that size range 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 produce an estimated total theoretical harvest of 2.80 million fish under a slot limit in that size range. This represents a 16% increase from estimated 2018 harvest in numbers, and a 26% increase from projected 2019 harvest in numbers. This should be considered a very rough estimate and does not account for non-compliance or changes in effort or availability.

[3] See: http://www.mafmc.org/actions/sfsbsb-recreational-management-fw.

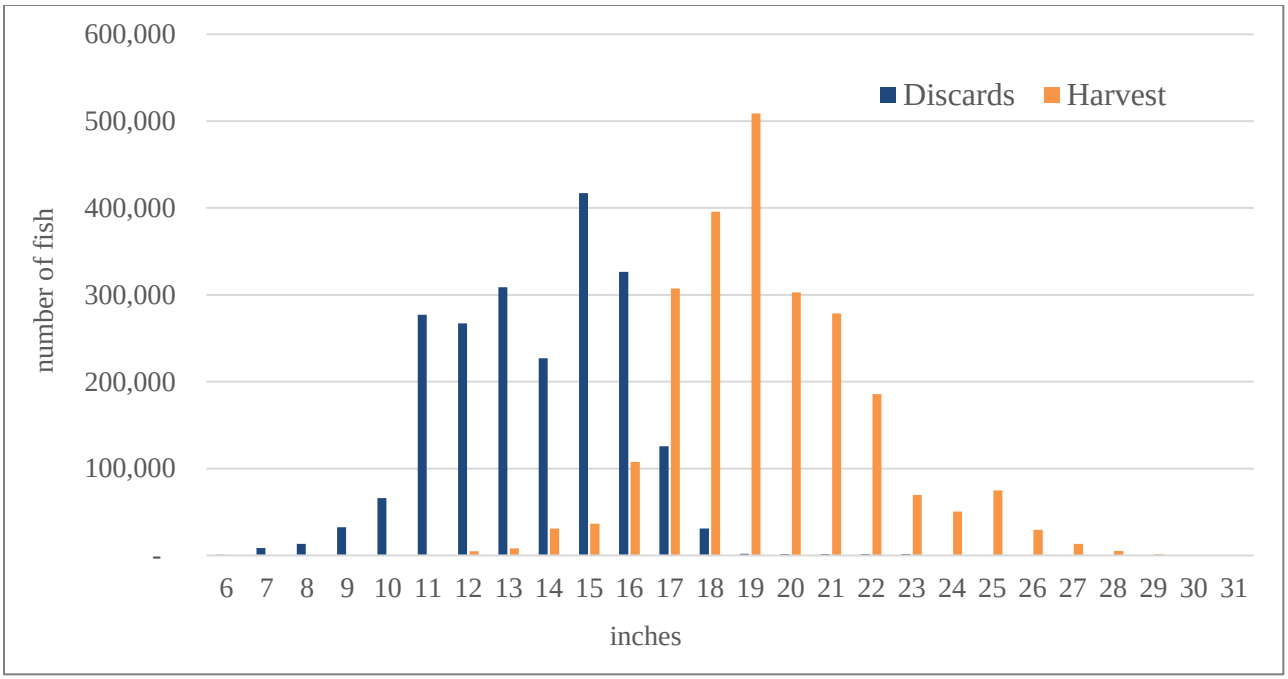

Figure 5: 2018 expanded recreational dead discard and landings length frequency data for summer flounder. Length frequency data is from an MRIP query as of 10/31/19. Discard length frequency from M. Terceiro, pers. comm., 11/4/19. Length bins include harvest or discards from X.0 to X.99 inches.

As indicated by the 2018 expanded harvest per angler trip data in Table 9, 67% of trips and 45% of the number of fish landed in 2018 were from angler-trips where only one summer flounder was landed. Some of this trend is likely related to the size limit regulations, meaning that many anglers are not able to find and land more than one or two legal sized summer founder on a given trip due to the lower availability of higher size classes. If a slot limit were implemented with no changes to possession limits, it is likely that this distribution would shift toward higher numbers of fish retained per angler. Under a coastwide slot limit, a reduced coastwide possession limit should be considered to account for increases in encounters with legal size fish within the slot.

A possession limit analysis of the 2018 harvest per angler trip data was conducted to estimate the reduction from moving to a 1 or 2 fish possession limit on a coastwide basis. Assuming that definitively non-compliant harvest remains non-compliant, a 2 fish possession limit was associated with an estimated 9% coastwide harvest reduction, while a 1 fish possession limit was associated with a 31% coastwide harvest reduction (Table 9). These reduction percentages may be overestimated given that the non-compliance evaluation was based on the highest current state possession limit (6 fish) and there is likely other non-compliant harvest in the data that would likely remain.

As previously noted, the potential impacts of measures on recreational discards and discard mortality should be considered to the extent possible, but there are limited data to predict the effects of this type of bag limit reduction. Many stakeholders have commented that under a lower size limit and lower bag limit, the length of fishing trips is expected to decrease, such that anglers will catch their limit and stop targeting summer flounder, but under a very low bag limit it is difficult to predict the extent to which this would occur.

Table 9: Expanded harvest per recreational angler trip for summer flounder in 2018, based on MRIP data as of 10/31/19, and associated estimated reduction for a coastwide 1 or 2 fish possession limit. Definitively non-compliant harvest (harvest per angler of over 6 fish) was assumed to remain noncompliant under a reduced bag limit. Actual non-compliance may be higher given differences in possession limit by state in 2018.

	2018 harvest per angler trip				2 fish bag limit				1 fish bag limit			
# of fish	**Angler trips**	**% of Trips**	**Total Fish**	**% of Harvest (# of fish)**	**# of fish**	**Angler trips**	**Total Fish**	**% of Harvest (# of fish)**	**# of fish**	**Angler trips**	**Total Fish**	**% of Harvest (# of fish)**
1	1,085,098	67%	1,085,098	45%	1	1,085,098	1,085,098	50%	1	1,085,098	1,085,098	50%
2	385,445	24%	770,889	32%	2	385,445	770,889	35%	1	385,445	385,445	18%
3	113,646	7%	340,937	14%	2	113,646	227,292	10%	1	113,646	113,646	5%
4	31,865	2%	127,458	5%	2	31,865	63,729	3%	1	31,865	31,865	1%
5	5,428	0.30%	27,142	1%	2	5,428	10,857	0%	1	5,428	5,428	0%
6	4,063	0.20%	24,379	1%	2	4,063	8,126	0%	1	4,063	4,063	0%
7	343	0.00%	2,400	0.10%	7	343	2,400	0%	7	343	2,400	0%
8	11	0.00%	91	0.00%	8	11	91	0%	8	11	91	0%
9	-	-	-	-	9		0	0%	9		0	0%
10	2,195	0.10%	21,951	1%	10	2,195	21,951	1%	10	2,195	21,951	1%
Tot.	**1,628,094**	**100%**	**2,400,346**	**100%**		**1,628,094**	**2,190,434**			**1,628,094**	**1,649,987**	
							Reduc. (# fish)	**209,913**			**Reduc. (# fish)**	**750,359**
							Reduc. (%)	**9%**			**Reduc. (%)**	**31%**

Under a coastwide slot limit, staff also propose a coastwide season. The current non-preferred coastwide season, May 15-September 15, was evaluated to estimate the effects on harvest at a coastwide level. Table 10 shows the percent reduction that would be estimated on a coastwide basis, based on 2018 data, associated with closing one day per wave in each state. The coastwide sum represents the percent reduction associated with closing one day per wave in all states. All reductions are relative to coastwide harvest. For example, closing one day in wave 5 in NJ produces a 0.107% reduction in coastwide harvest, and closing one day in wave 5 for all states results in a 0.303% reduction in coastwide harvest.

Table 11 uses the information in Table 10 to calculate an expected change in harvest by state and wave under a May 15-September 15 coastwide season. On a coastwide basis, this season is estimated to produce about an 8% reduction in harvest. Since this is based only on 2018 data, these results should be interpreted cautiously given fluctuations in state harvest by wave on an annual basis. This analysis also assumes equal harvest distribution throughout a wave, which is an assumption that typically does not match reality.

Table 10: Percent reduction, on a coastwide basis, associated with closing one day per wave in each state, based on 2018 harvest data by state and wave.

a)	WAVE 1	WAVE 2	WAVE 3	WAVE 4	WAVE 5	WAVE 6
MA	0.000	0.000	0.014	0.016	0.031	0.000
RI	0.000	0.000	0.011	0.098	0.004	0.000
CT	0.000	0.000	0.066	0.036	0.007	0.000
NY	0.000	0.000	0.246	0.152	0.088	0.000
NJ	0.000	0.000	0.333	0.455	0.107	0.000
DE	0.000	0.000	0.023	0.025	0.010	0.000
MD	0.000	0.000	0.001	0.022	0.009	0.000
VA	0.000	0.000	0.009	0.056	0.032	0.001
NC	0.000	0.001	0.006	0.012	0.016	0.005
COAST	0.000	0.001	0.710	0.873	0.303	0.005

Table 11: Percent reduction, on a coastwide basis, estimated from a May 15-September 15 coastwide season, based on 2018 harvest data by state and wave and the reduction in open days per wave compared to the 2019 measures. Negative values indicate an increase in harvest. Given annual fluctuations in state harvest proportions by wave, this should be considered a rough estimate.

a)	WAVE 1	WAVE 2	WAVE 3	WAVE 4	WAVE 5	WAVE 6	TOTAL
MA	0.000	0.000	-0.115	0.000	0.746	0.000	0.631
RI	0.000	0.000	0.145	0.000	0.180	0.000	0.325
CT	0.000	0.000	0.794	0.000	0.099	0.000	0.893
NY	0.000	0.000	2.950	0.000	1.315	0.000	4.265
NJ	0.000	0.000	-2.996	0.000	0.852	0.000	-2.144
DE	0.000	0.000	0.322	0.000	0.439	0.000	0.761
MD	0.000	0.000	0.021	0.000	0.417	0.001	0.439
VA	0.000	0.000	0.126	0.000	1.484	0.046	1.656
NC	0.010	0.031	0.082	0.000	0.752	0.280	1.155
COAST	0.010	0.031	1.330	0.000	6.284	0.326	7.982

Given the above analyses, staff recommend that the Monitoring Committee consider possession limit and season adjustments that could balance an expected increase in harvest under a harvest slot. Specifically, **staff recommend that the Monitoring Committee consider a coastwide 1-fish possession limit, 17"-19" harvest slot, and an open season of May 15-September 15 as a starting point for discussion.** Alternatively, a 2 fish possession limit could be considered but would possibly need to be associated with a narrower harvest slot or reduced season.

Although there is uncertainty in the proposal outlined above, there is currently a slight buffer for liberalization given projections through wave 4, and the stock is not overfished and overfishing is not occurring. As discussed above, effects of measures on discards should be more thoroughly considered in the process of setting recreational measures, and these measures may provide more opportunities for retention and reduce regulatory discards within this size range. However, the Monitoring Committee should consider how discards may change under a very low possession limit and how discards in other size classes will be affected. An attempt at a different set of management measures on a one-year trial basis could be attempted in 2020 as an effort to obtain data about how angler behavior and landing and discarding patterns change under a slot limit.

Alternate Recommends for Conservation Equivalency

If conservation equivalency is preferred instead, the non-preferred coastwide and precautionary default measures would need to be recommended by the MC. The current non-preferred coastwide measures consist of a 4-fish possession limit, a 19-inch total length (TL) minimum size, and an open season from May 15-September 15. Again, these measures will take effect in federal waters and for federal party/charter permit holders starting on January 1, 2020 until replaced (if applicable) by the implementation of conservation equivalency or alternative coastwide measures.

Given the implementation of state and regional measures for many years, the expected harvest from coastwide measures has been difficult to evaluate. The MC should attempt to evaluate the current non-preferred coastwide measures using the fleet dynamics tool if possible. If the MC does not support or is unable to justify a set of coastwide measures involving alternative size limit approaches, staff recommend *status quo* non-preferred coastwide measures under conservation equivalency. Although projected 2019 harvest is 8% below the 2020 RHL, given the uncertainty in the outcome of these coastwide measures, staff recommend not liberalizing the non-preferred coastwide measures at this time.

Staff also recommends that if conservation equivalency is selected, the existing precautionary default measures of a 2-fish possession limit, 20-inch TL minimum fish size, and an open season from July 1-August 31 be maintained. These measures are likely to be sufficiently restrictive to deter states from implementing measures that do not follow the agreed upon conservation equivalency guidelines for the year.

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Written Comments on Summer Flounder 2020 Recreational Measures and General Summer Flounder Management Issues: November 2019

Several written public comments were submitted on summer flounder recreational measures via email and web form for the December 2019 joint meeting. Some of these comments contained attachments which are also provided here. Comments include:

1. Nicholas Calio 11/15 comments
2. Tom Smith 11/7 email and attachment (an additional attachment to this email, a memo dated 9/15/19 was previously provided to the Council and Board and can be found at http://www.mafmc.org/s/Tab12_Summer-Flounder-Specifications_2019-10.pdf).
3. Tom Smith 11/19 email and attachment
4. Email exchange in response to Tom Smith's comments, including comments from Jim Lovgren, Tom Smith, Tom Fote, and Jeff Eutsler
5. Ryan Landolfi 11/25 comments
6. Timothy Anfuso 11/25 comments
7. Mike Plaia 11/25 comments
8. Bruce Corrnine 11/26 comments
9. Larry Hart 11/26 comments
10. Tom Trageser 11/26 comments
11. Jack Conway 11/26 comments
12. Alan Kenter 11/26 comments
13. Paul Geelan 11/26 comments
14. Dave Daly 11/26 comments
15. Martin Smith 11/26 comments
16. Roger Neset 11/27 comments
17. Bonnie Montevechi 11/27 comments
18. Additional emails from Tom Smith received through 11/27

Name: NICHOLAS CALIO

Email: NACALIO@COMCAST.NET

Topic(s): Tab 12: Summer Flounder 2020 Recreational Specifications

Comments: Every year in NJ we have a limited season for summer flounder, approximately 100+ days. Is there any consideration given to the number of days that are unfishable during this period. Flounder fishing is typically a drifting situation which is nearly impossible when you have winds in excess of 15mph. We lost many days the past few seasons due to heavy winds and small craft advisories.

Would you please consider allocating additional days for summer flounder as a minimum the number of days that small craft advisories are posted. Ideally this would be added to the end of the summer flounder season and would reduce the number of days between the close of summer flounder and the opening of sea bass.

I fish in the Cape May area, and have been fishing for over 30 years. I keep a log, the 2019 was the worst ever for summer flounder in OUR area. It was worse than 2018 and 2018 was worse than 2017. I don't understand the rationale for not having slot limits rather than harvesting breeding female 18 inches or larger.

(Sent via *Mid-Atlantic Fishery Management Council*)

Kiley Dancy

From: Tom Smith <smith.tom560@gmail.com>
Sent: Thursday, November 7, 2019 2:08 PM
To: Gregory Wojcik; CRAIG.MINER@cga.ct.gov; MELISSA.ZIOBRON@cga.ct.gov; WILLIAM.A.HYATT@snet.net; Davis, Justin; CRABMAN31@aol.com; Saveikis, David; FISHMASTER70 @comcast.net; JOHN.CLARK@delaware.gov; WILLIAM.CARSON@delaware.gov; MJDIZE@verizon.net; MBRASSIL@house.state.md.us; Luisi, Michael; Langley, Phil; BILL.ANDERSON@maryland.gov; SARAHKPEAKE@gmail.com; RAY@capecodfishermen.org; Ruccio, Michael; NICHOLA.MESERVE@state.ma.us; White, Sherry; McKiernan, Dan; Capt. Adam; Cimino, Joseph; Fote, Tom; JASON.SNELLBAKER@dep.nj.gov; SENANDRZEJCZAK@njleg.org; Davidson, Maureen; Gilmore, Jim; Hasbrouck Jr, Emerson C.; KAMINSKY@nysenate.gov; STEVE.MURPHEY@ncdenr.gov; MBLANTON9394@gmail.com; BOB.STEINBURG@ncleg.net; Batsavage, Chris; JMANNEN@yfmlaw.com; Ballou, Robert; Reid, Eric; Borden, David; SEN-SOSNOWSKI@rilin.state.ri.us; Rootes-Murdy, Kirby; DISTRICT01@senate.virginia.gov; Bowman, Steven; BPLUMLEE@pbp-attorneys.com; MARTINGARY.PRFC@gmail.com; CSTARKS@asmfc.org; Leaning, Dustin Colson; PAT.GEER@mrc.virginia.gov; Wong, Richard; Muffley, Brandon; Kiley Dancy; Beaty, Julia; Coutre, Karson; STEVE.DOCTOR@maryland.gov; Terceiro, Mark; Gilbert, Emily; Truesdell, Samuel; PETER.CLARKE@dep.nj.gov; Maniscalco, John; VanMiddlesworth, Todd; Jason McNamee; JKIPP@asmfc.org; ALEX.ASPINWALL@mrc.virginia.gov; JACK.D.CONWAY.JR@lmco.com; KYLE@jbtackle.com; Townsend, Wes; LUREFEST@gmail.com; PGFVIKING1@gmail.com; SELBYSUZI1121@aol.com; JEFFEUTSLER@me.com; Jesien, Roman; BUNTING904@gmail.com; BUDDYSCRN@gmail.com; PKCARUSO@comcast.net; PATRIOTTOO@aol.com; JOSEPH@meganet.net; TIMEBANDIT100@hotmail.com; Lovgren, Jim; GREGDI@voicenet.com; CAPTBOB626@comcast.net; BUCKTAIL8@aol.com; D713K@aol.com; MKHOFFMAN@optonline.net; RBUSBY@optonline.net; MARCIALOM@msn.com; Ruhle, James; ARTSMITH@gotricounty.com; BJSEAFOOD@earthlink.net; Blount, Frank; MHALL@towndock.com; NBF05@verizon.net; TRAVISBARAO@gmail.com; DCRABBE@crabbescharterfishing.com; DRNEILL3@hotmail.com; Hodges, Mark L.; CAPTSTV@yahoo.com; Amory, C. Meade; KEVIN.SMITH@suez.com; Elliott, G. Warren; Bolen, Ellen; Stewart.Michels@state.de.us; Shiels, Andrew L.; Pentony, Mike; Wilke, Kate; Lenox, Scott; Heins, Stephen; Gwin, Sonny; Hughes, Peter B.; Winslow, Sara; deFur, Peter; Nolan, Laurie; Hemilright Jr, Dewey; dave; harborman@optonline.net; Jim Hutchinson; Cicero, Nick; Gregory Hueth; John depersenaire; Mike Waine; tony@rocketcharters.com; Gutman, Jeffrey; Zemeckis, Douglas; Caputi, Gary; Gerry Zagorski; Rocky McGuigan; Patrick J. Sullivan
Subject: Summer Flounder Fishery - Upcoming Meetings / Future Regulations
Attachments: ASMFC December 19 Mtg.pdf; Joint Commission Council Meeting Executive Summary v4.pdf

Ladies and Gentlemen,

Many or some of you may have already read the attached analysis and materials which were disseminated at the Joint Commission and Council October Meeting in Durham North Carolina hosted by MAFMC regarding the Summer Flounder Fishery as well as other stocks. A copy of the Executive Summary along with details and analysis included in the briefing materials for that meeting are contained in the second attachment to this email titled "Joint Commission Council Meeting Executive Summary v4". The briefing material was included in Tab 12 under the Summer Flounder Section which Kiley Dancy presented. In addition, I've attached a second file which I implore everyone associated with the management of this fishery to please read as it highlights long-term trends in the fishery leading to its decline since the biomass and SSB hit their historical highs in the 2003 / 2004 time frame. The fishery has since been on a prolonged 15-yr decline which will continue unless changes as outlined in the memorandum are acknowledged and remedial measures adopted to current regulations. This vital fishery is in trouble and corrective measures need to be taken or we're risking the future of a once viable and healthy fishery being lost.

I need to point out that all data used in the analysis, trends, findings and conclusions are from the 57th and 66th SAW, marine fisheries own data, with the exception of a chart from the Rutgers Sex and Length Study used to illustrate the dramatic change which has taken place over the last four decades in catch composition in this fishery and the impact it's caused on the harvest of females versus males and significantly older age classes versus younger age classes. Regulatory decisions which made sense at the time have caused behavioral changes in the fishery causing irreparable harm in catch composition, reduced biomass levels, material gender and age composition alterations of SSB resulting in greatly weakened relative recruitment strength leading to significantly declining recruitment trend. The current management methodology combined with regulatory decisions over the last two decades have caused mandatory or behavioral changes in catch composition which in turn has caused this fishery to decline substantially. My analysis is based on decade long trends, not singular data points or anecdotal evidence. If we don't acknowledge what the data is telling us, we're at risk of losing another very vital fishery which will have far reaching economic impacts on businesses and people involved, both commercial and recreational. We're tied at the hip in that respect. I'm pleading with the Commission, Council, Technical Committees, Advisory Panels and anyone else involved in the management of this fishery to read the attached Memorandum titled "ASMFC December 19 Mtg" and draw your own conclusions.

I'd also like to recognize and personally thank Dustin Leaning and Kiley Dancy for their assistance in getting some of this material included in the briefing materials at the Joint Commission / Council Mtg in October. This data needs to get out and it needs to be viewed by as many people as possible with an open mind. Trend analysis is intended to identify changes over a period of time in anything that's undergone a change of fortune, including businesses or in this case fisheries. If you map the data out and compare relative changes over periods of time it will inevitably guide you in the right direction and identify issues or causes in this case holding back the fishery.

I've put this together not to discredit or disparage anyone involved in managing this fishery. I applaud everyone for dealing with the complexities involved in fishery management. You have my upmost respect as you do from countless others. As I mention in the draft, I consider myself a stakeholder in this fishery as we all are and am simply connecting the dots with data science has provided to illustrate reasons why the fishery has declined 40% - 50% over the last 15-years. Changes need to occur to reverse the fate of this fishery or the declines will continue which benefits no one.

If anyone has questions or comments, feel free to email me. If I left anyone out, feel free to forward the attached documents to them on my behalf. This fishery (SSB) grew 900% between 1989 and 2003, there's no reason it can't experience that kind of growth prospectively but regulatory changes need to be made for that to happen which address the causes of the decline outlined in the draft.

Dustin and Kiley, I'd ask again for your help including this material in briefing materials for any upcoming meetings by ASMFC or MAFMC involving the Summer Flounder Fishery and policy decisions governing 2020 and 2021. I'd ask the Commission and Council in making those policy decisions to heed what the data is telling us. If we don't address these issues immediately, the fishery is destined to suffer more irreparable damage over the foreseeable future than it already has over the last two decades.

Respectfully Submitted

Tom Smith

Memo

To: ASMFC - Commissioners and Summer Flounder Board
Mid-Atlantic Fisheries Marine Council Members
Dustin Colson Leaning, Fishery Management Plan Coordinator ASMFC
Kiley Dancy Fishery Management Specialist MAFMC

From: Thomas B. Smith

Date: November 7, 2019

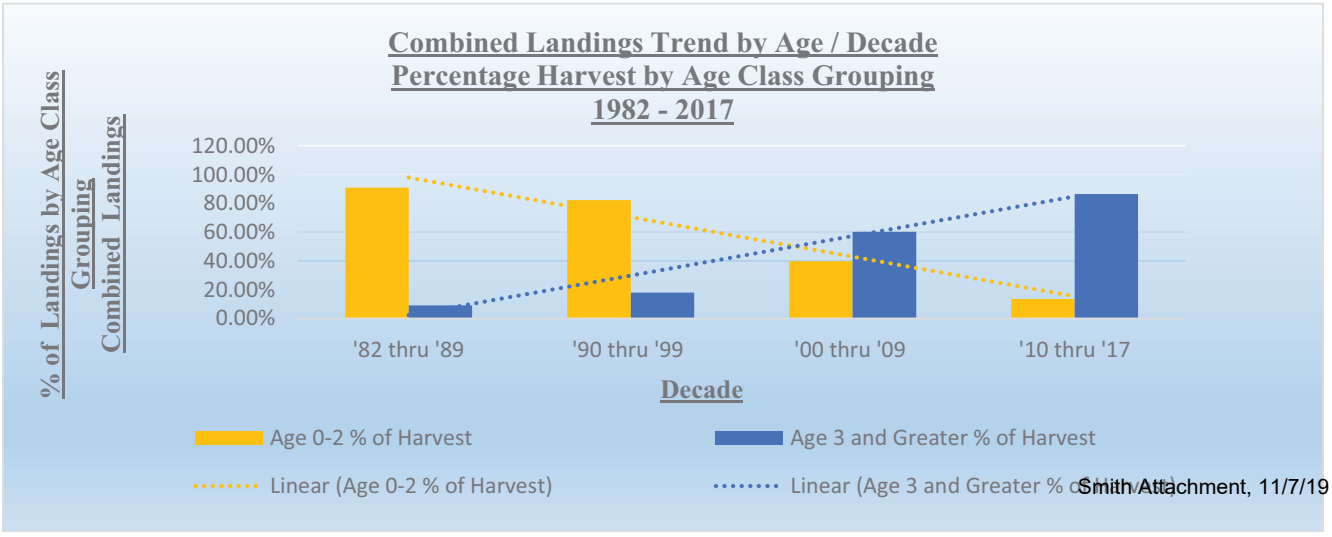
Re: Summary Summer Flounder Stock – Comments for Consideration at Upcoming December 10 – 12th Joint Meeting in Annapolis, MD

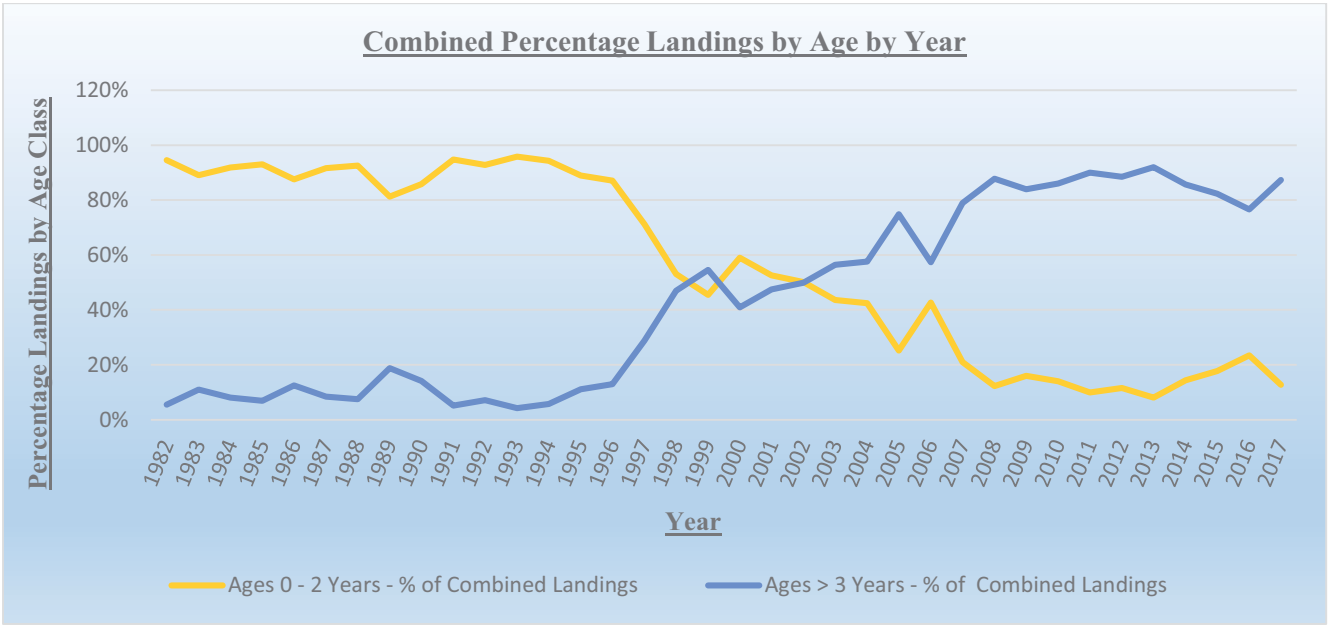
For anyone on the ASMFC or MAFMC Commission or Council, you should have received analysis and commentary regarding the state of the summer flounder fishery in the Mid-Atlantic region as part of the briefing materials provided for the October meeting at the Durham Convention Center. At that meeting, Kiley Dancy gave a presentation of the summer flounder stock which included a few comments from that analysis. I'm sending this document, along with said briefing material document from the October meeting, to all Commission and Council Members as it is still my strong belief the fishery is in trouble and continuing to experiencing problems which have caused a 15-year decline in every aspect of the fishery which will continue unless fundamental changes are made to the current regulations. The analysis, finding and conclusions drawn are based on data extracted from the 66th and 57th SAW reports, no third party data is being introduced.

My intention again is to elevate to the attention of the Commission and Council Members substantial changes and materially altering trends in the Summer Flounder Fishery leading to substantive declines over a prolonged time frame. Declines in my opinion caused by unintended consequences from past policy decisions which trend analysis all but guarantees will continue in the absence of a fundamentally new approach to managing the stock.

Landings Composition:

Combined landings (commercial and recreational) over the last four decades as it relates to age classes being harvested has experienced an unprecedented shift. Following charts illustrates that alteration:





- 91% of combined landings between the period 1982 to 1989 represented age classes 0 – 2 when a 13" size minimum was in place.
- The trend of harvesting larger fish changed in the mid-nineties and accelerated when recreational size limits experienced a continued series of mandated increases while commercial, allowed to harvest 14" fish, electively increased presumably as a result of harvesting larger higher market value fish to mitigate consequences of reduced catch quotas and protect / grow ex-vessel values **(orange line below graph)**. ***Source - Page 7 MAFMC Summer Flounder Fishery Information Document August 2019***
- For the period 2010 to 2017, ~87% of landings now consists of age classes 3 and above. Important to note increases are not concentrated in any singular age class as all age classes 3 and above have experienced substantial increases in harvest relative to the late 80's and 90's per the below graphs.

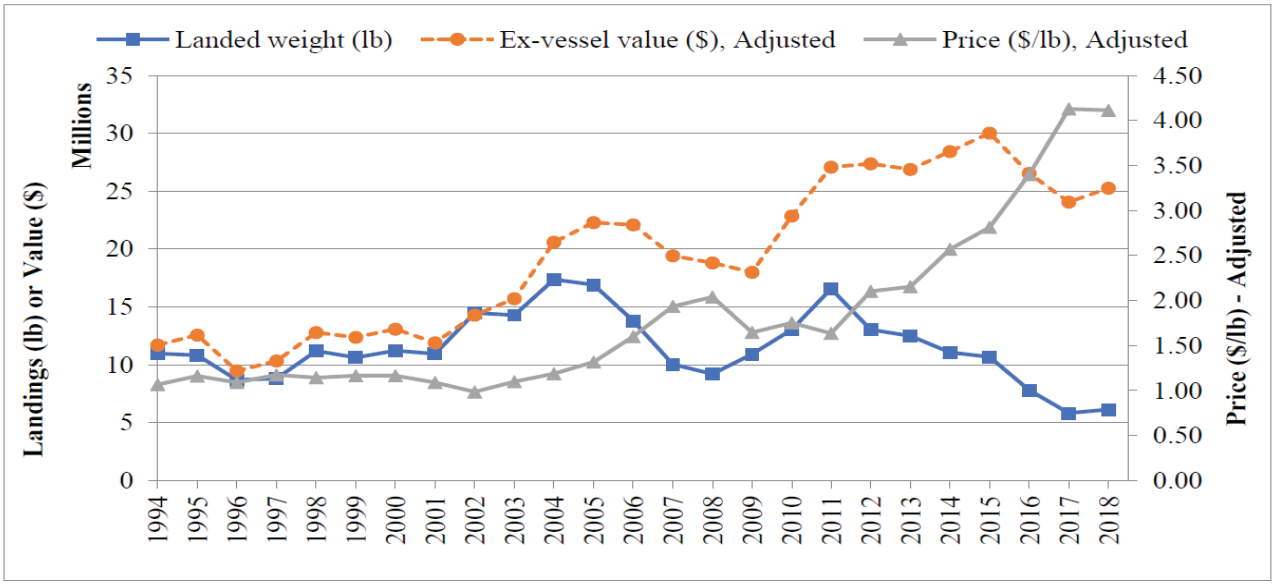
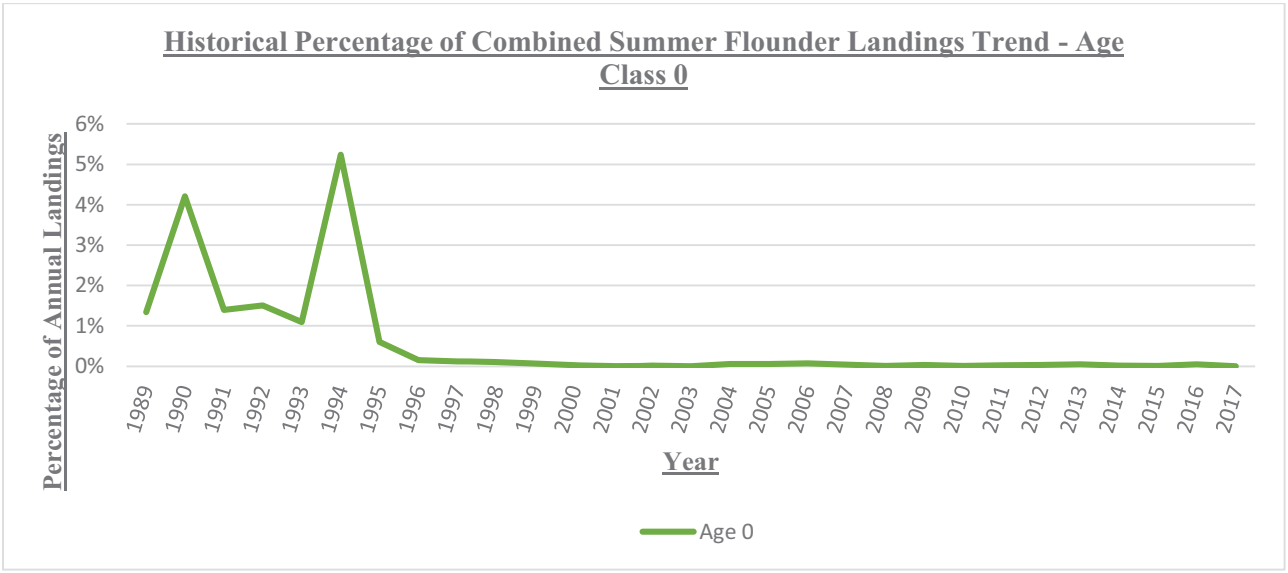
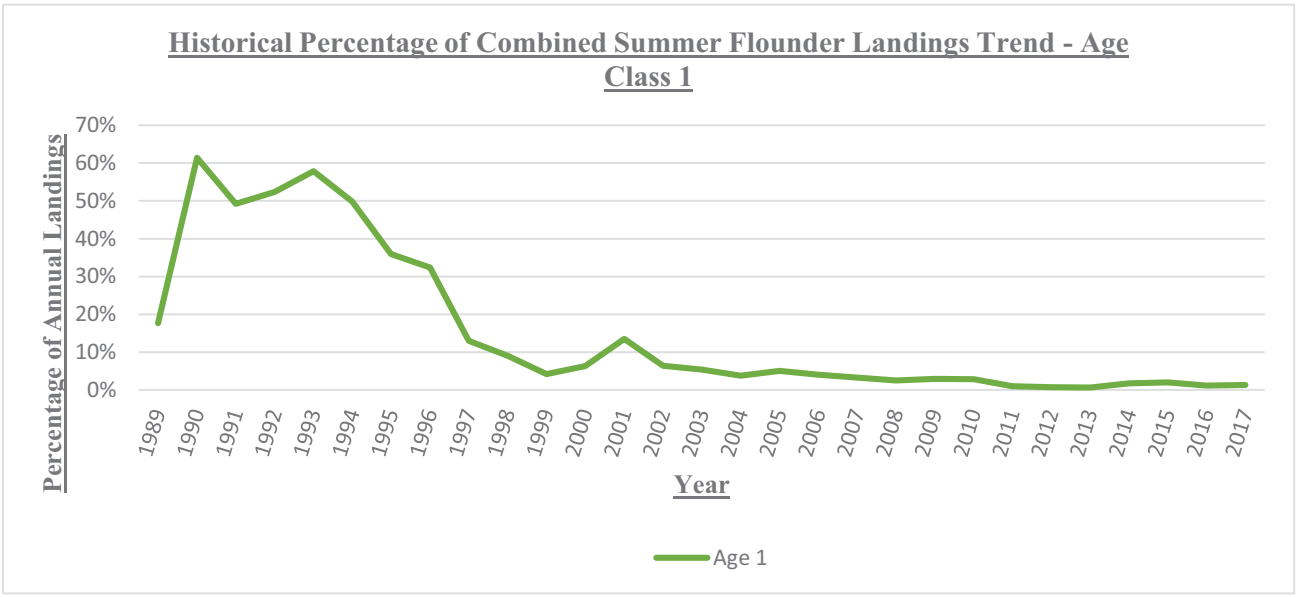
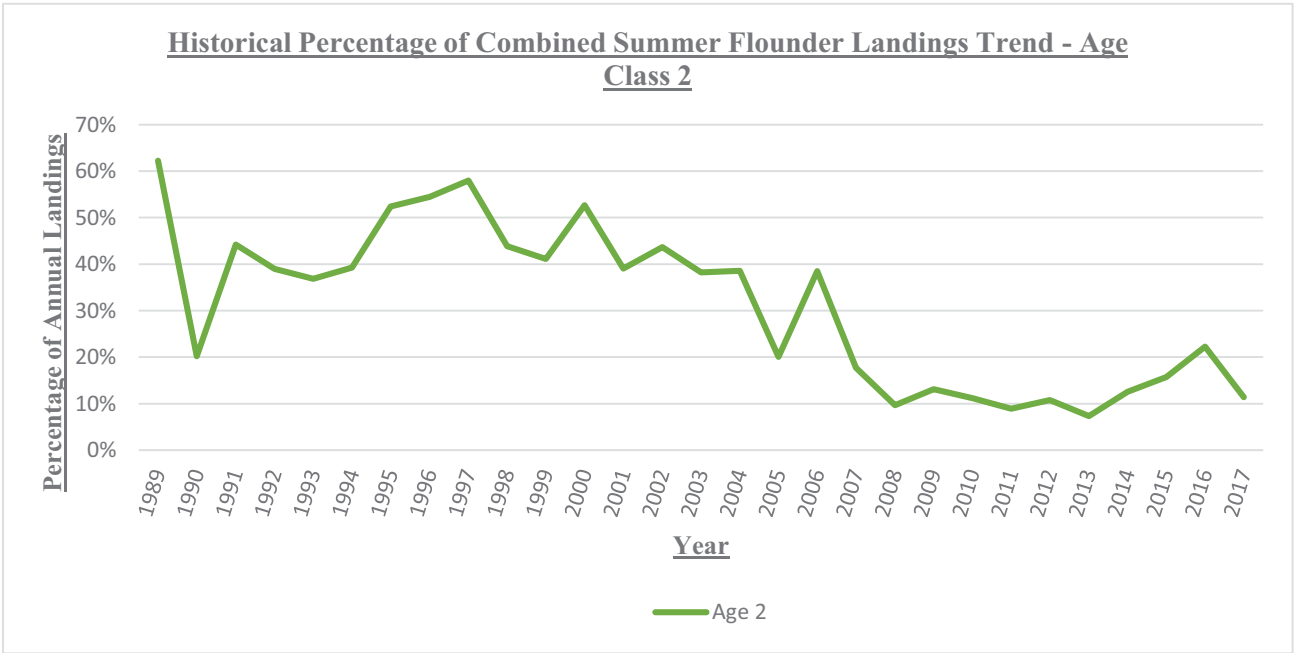
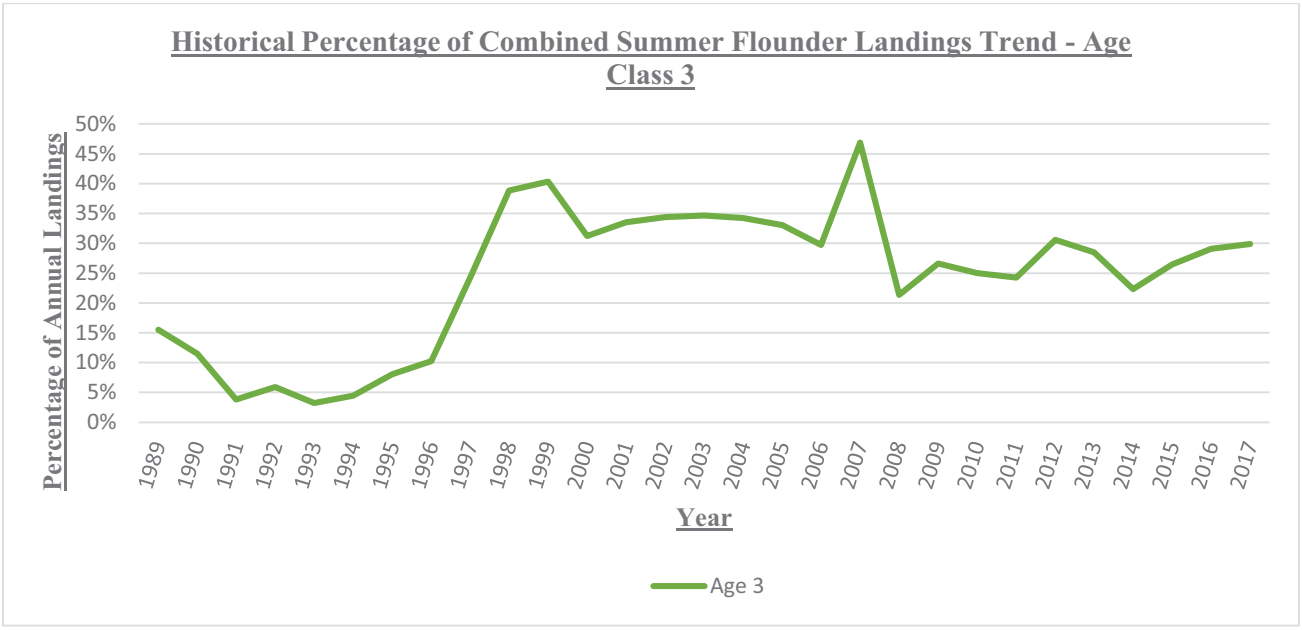


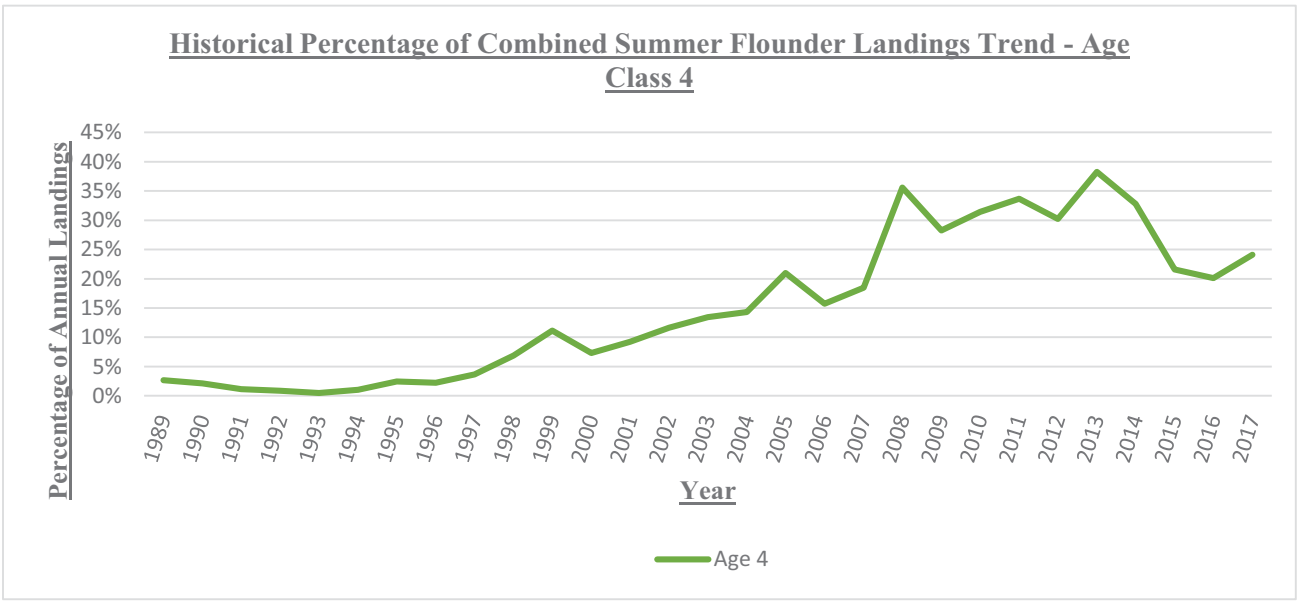
Figure 4: Landings, ex-vessel value, and price per pound for summer flounder, Maine through North Carolina, 1994-2018. Ex-vessel value and price are adjusted to real 2018 dollars using the Gross Domestic Product Price Deflator (GDPDEF).[4]

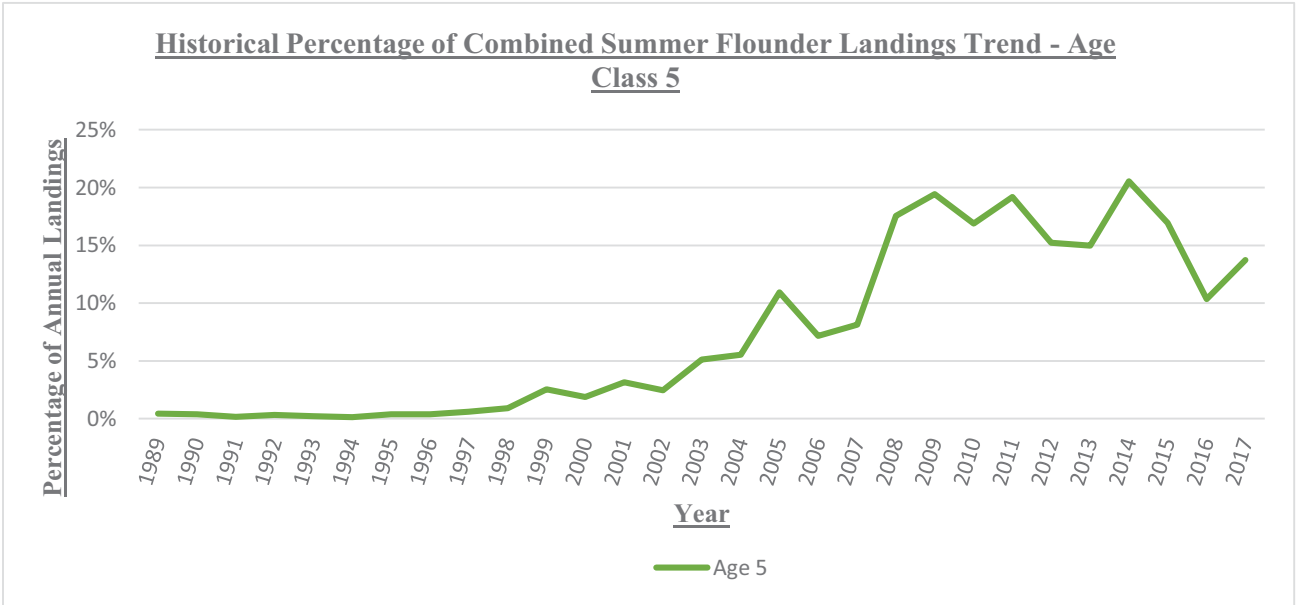

Historical Percentage of Combined Summer Flounder Landings Trend - Age Class 0
Percentage of Annual Landings
6%
5%
4%
3%
2%
1%
0%
1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017
Year
Age 0

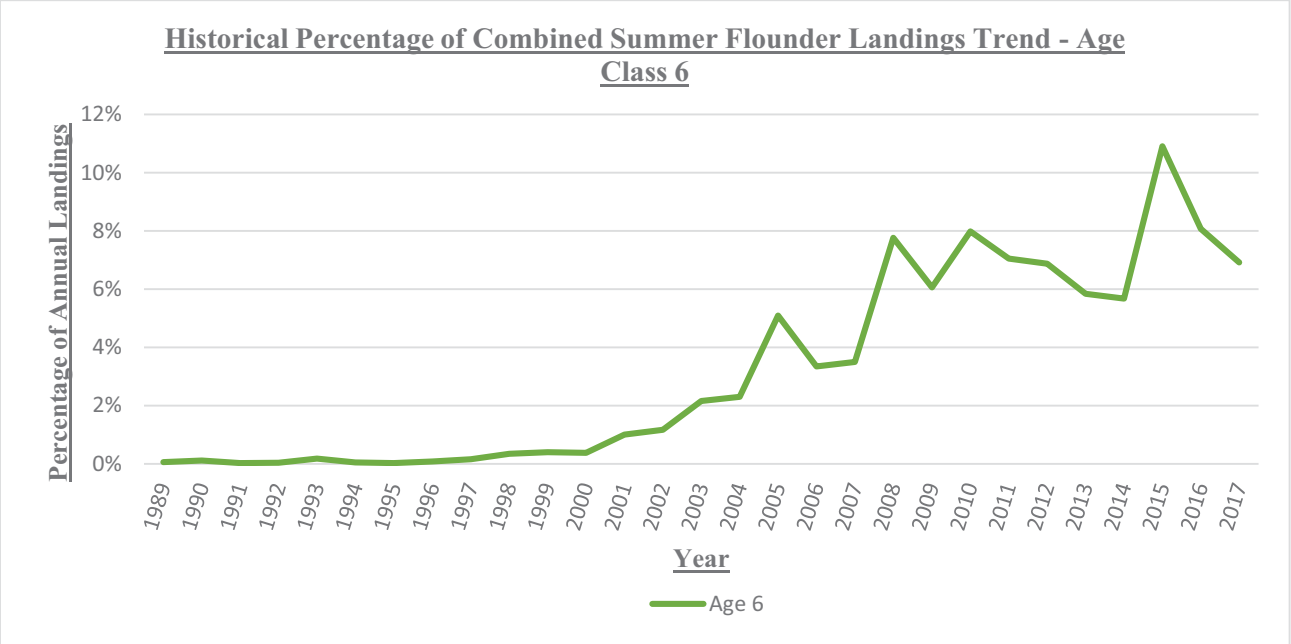

Historical Percentage of Combined Summer Flounder Landings Trend - Age Class 1
Percentage of Annual Landings
70%
60%
50%
40%
30%
20%
10%
0%
1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017
Year
Age 1

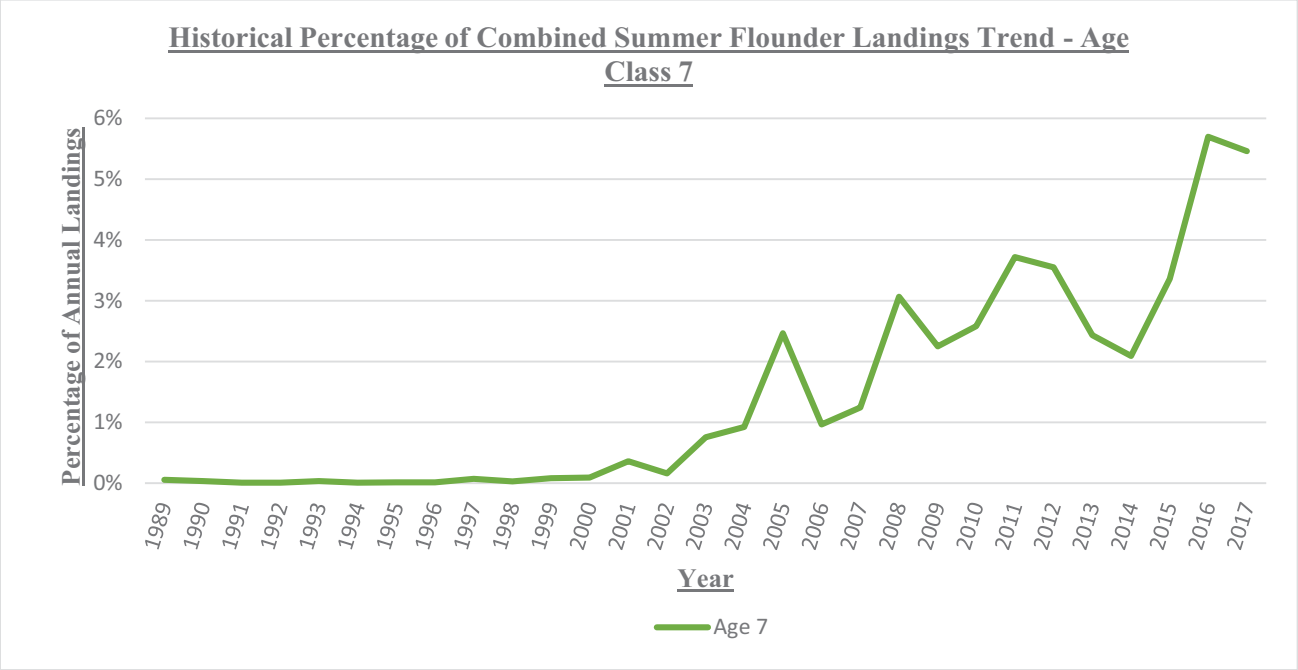

Historical Percentage of Combined Summer Flounder Landings Trend - Age Class 2
Percentage of Annual Landings
70%
60%
50%
40%
30%
20%
10%
0%
1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017
Year
Age 2


Historical Percentage of Combined Summer Flounder Landings Trend - Age Class 3
Percentage of Annual Landings
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017
Year
Age 3


Historical Percentage of Combined Summer Flounder Landings Trend - Age Class 4
Percentage of Annual Landings
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017
Year
Age 4


Historical Percentage of Combined Summer Flounder Landings Trend - Age Class 5
Percentage of Annual Landings
25%
20%
15%
10%
5%
0%
1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017
Year
Age 5



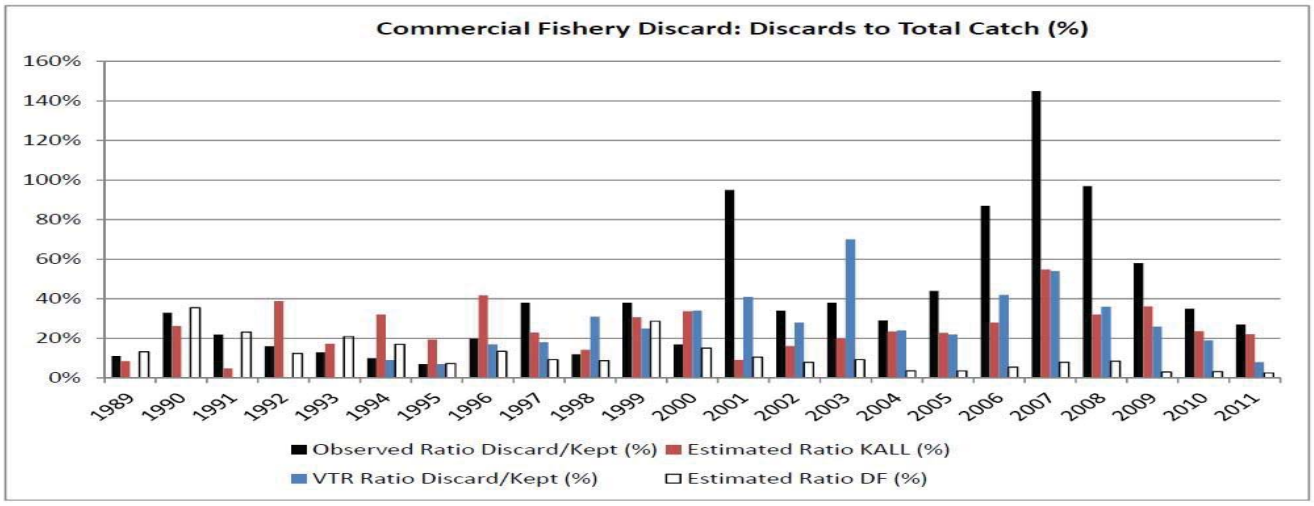


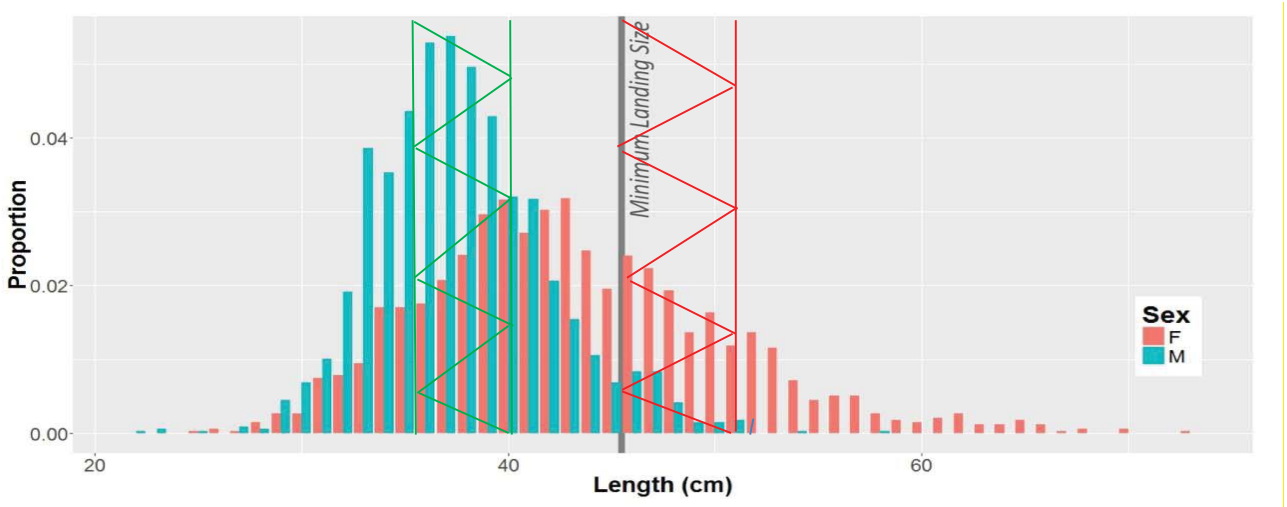
The above shift in catch composition, in spite of decreases in overall landings between 2004 and 2017 from 17,496 metric tons to 7,209 metric tons (an ~60% decrease) resulted in an ~37% decrease in SSB and an ~40% reduction in annual recruitment over the same period. Not only has SSB decreased, significantly more important is the gender composition of SSB has been materially impaired as stated in the following excerpt from the 66th SAW.

In the fall survey, the proportion of females shows no trend for age 0 and the mean proportion was 0.3. **For ages 1-3 the proportion has *DECREASED* from about 0.5-0.6 in the 1980's to 0.4-0.5 by 2012-2016. The proportions at ages 4 to 7 have *STRONGLY DECREASED* from about 0.8 through the late 1990's to about 0.3-0.8 by 2012-2016**; proportions at age 8 are highly variable (Figure A90). ***Source 66th SAW - page 61.***

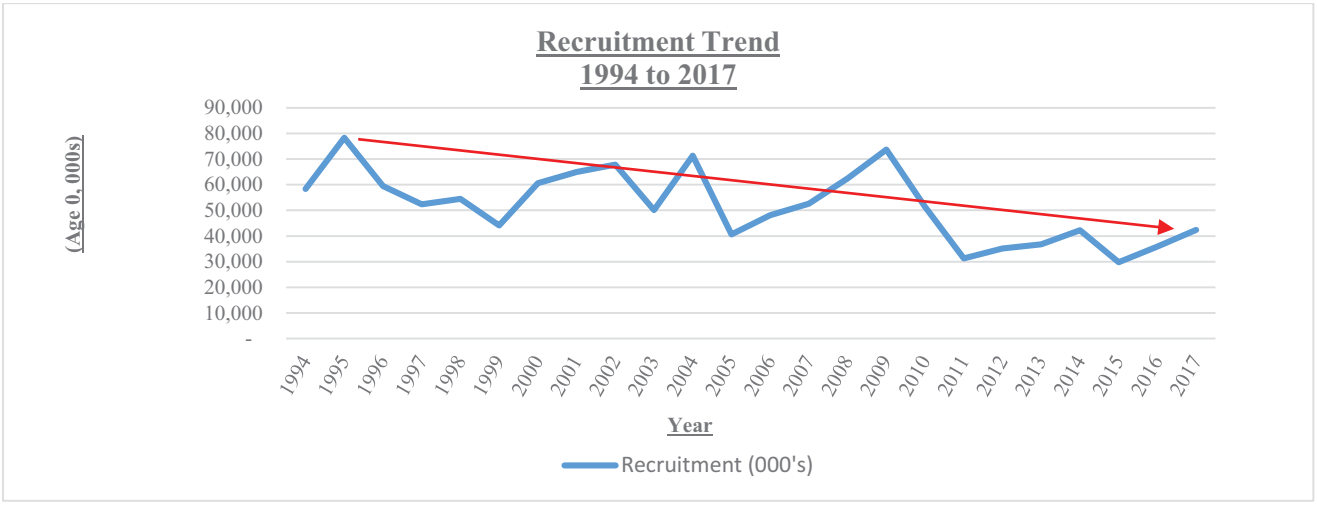
Based on the above statement and below five graphs, the harvest of older age class fish created multiple problems in the fishery, all directly impacting gender composition of SSB, its relative recruitment

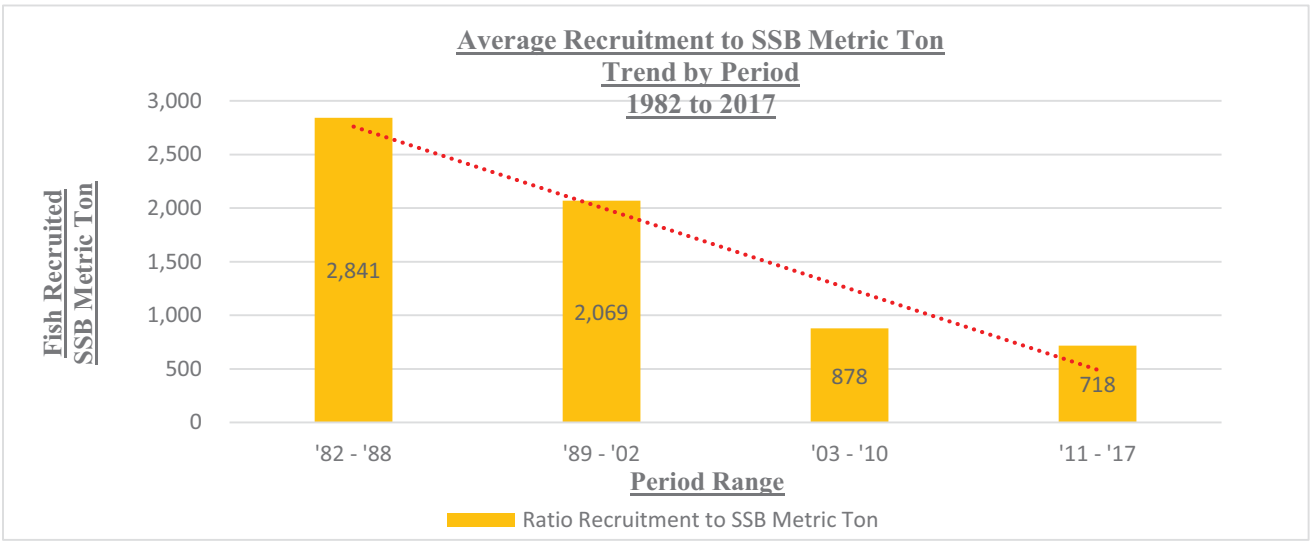
strength, overall catch and discard levels. When larger fish started being harvested, commercial discard rates grew exponentially higher, SSB in the absolute declined, more important the gender composition of SSB was materially altered resulting in recruitment statistics dropping precipitously. Discard rates from observed trawls 1989 to 2012. ***Source*** - P***age 302, 57th SAW***

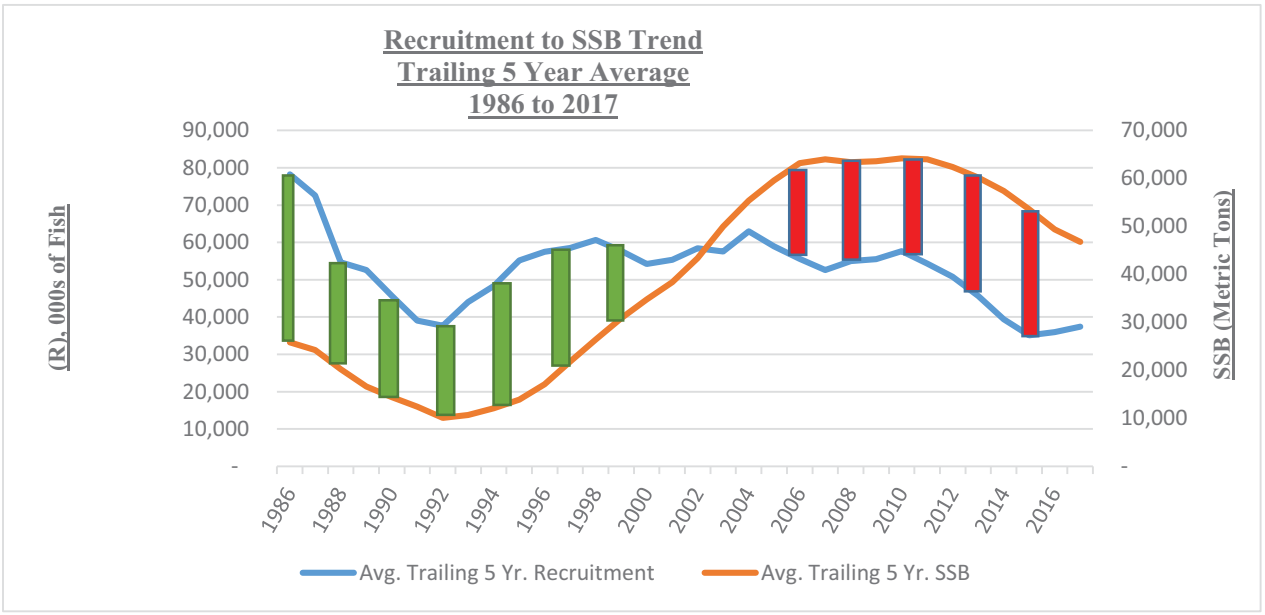




The above graph obtained from "Rutgers Sex and Length Study" illustrates the biggest threat to today's fishery. The green shaded area represent size fish harvested in the 80's and 90's when SSB increased ~900%. Red shaded area represents the size fish being harvested today and for the better part of the last two decades. Notice the change in proportion between males and females. **During the 80's and 90's, the ratio of catch was almost 2:1 male to females. Last two decades, it's closer to 4:1 female to males. The gender composition of SSB has been and continues to be decimated. Since a high percentage of the commercial harvest occurs in the fall / winter months during the stock's spawn, a question which needs to be asked and answered is what impact is all this having on the efficacy of the spawn.**







I'd like to share dialogue I had with a Council Member regarding how data is being interpreted and used as a basis for policy decisions with the summer flounder fishery. My initial comments are in red in quotes. Black represents the Council Member's replies followed by my thoughts again in red regarding key issues effecting the fishery.

"substantial and continued declines in recruitment" - I have referenced in our discussions multiple reasons why recruitment may be a paper issue, including sampling not occurring where juveniles are, gear not optimized for catching of juveniles, and similar trends occurring with multiple species of flatfish nearly simultaneously. If you want to use science center data, the 2019 update shows improvements in recruitment in recent years. "Paper issue" translated means the data may be wrong. If so, inaccurate data understating recruitment and as a result the biomass in general has been driving more restrictive policy decisions. Conversely if the data is accurate and representative which we've been asked to believe, there's a significant problem with recruitment which hasn't been addressed for the better part of two decades. 1989 to 2003 annual recruitment averaged ~54 million recruits based on an average SSB of 29,000 metric tons. From 2011 to 2017, it averaged ~36 million recruits based on an average SSB of 50,000 metric tons. A 34% decrease in recruitment based on a 73% increase in SSB. The result of the erosion taking place with the gender composition of SSB and potentially the adverse effects associated with the harvest of almost exclusively breeder summer flounder commercially during their spawn.

"The fishery is in dire trouble" - The fishery may have shifted, but shows high availability in both recreational and commercial catches, particularly to the east. Using "their" data, SSB is 5x where it was 30 years ago. 30 years ago brings us back to 1988 when the fishery for all practical purposes collapsed with an SSB level of ~9,000 metric tons and a recruitment level of ~12.4 million new recruits, both the lowest recorded levels over the last 35 years. I would hardly suggest using that as a baseline measurement to illustrate the health of the fishery. **Fact is the fishery since 2003 when SSB attained its all-time high, recruitment, catch and SSB have decreased by 40%, 54% and 32% respectively while the overall biomass has decreased by 62 million fish or ~34%. And the trend analysis all but guarantees those decreases will continue until the issues causing those declines are addressed.** More important, SSB is defined as "The total weight of all sexually mature fish in the stock" so gender composition is not a factor in the calculation of SSB. SSB in the absolute is down 32% since 2004 compounded by the fact the female composition of age classes 1 to 7 have strongly decreased creating a material gender imbalance destroying recruitment strength. So yes, in my opinion based on the facts, this fishery is in dire trouble. Without changes in the regulations reversing the harvest of older age classes and correcting the unintended consequences it created of higher discard rates and the potentially disastrous impacts on the spawn, there's no logical reason to believe the fishery will rebound on the basis of its own merits.

High availability in both recreational and commercial catches, not sure how that position is supportable when as I mentioned earlier catch levels are down 54% since 2004. The data is indisputable in that respect. Commercial availability is a different story which I've commented on previously in the briefing materials. **Due to the disparity in size limits between recreational and commercial concerns, commercial operators have ~35 MILLION more fish they can harvest from the existing biomass than recreational.** So while I agree there's more fish for commercial parties to harvest, that's not indicative of a growing fishery. It's the result of a significant percentage of the biomass being made available to commercial interests for their exclusive harvest, an extremely disparate allocation of the resource. A serious problem created when size limits between both recreational and commercial were changed in the mid to late nineties, intensifying over subsequent years as recreational size limits continued to increase.

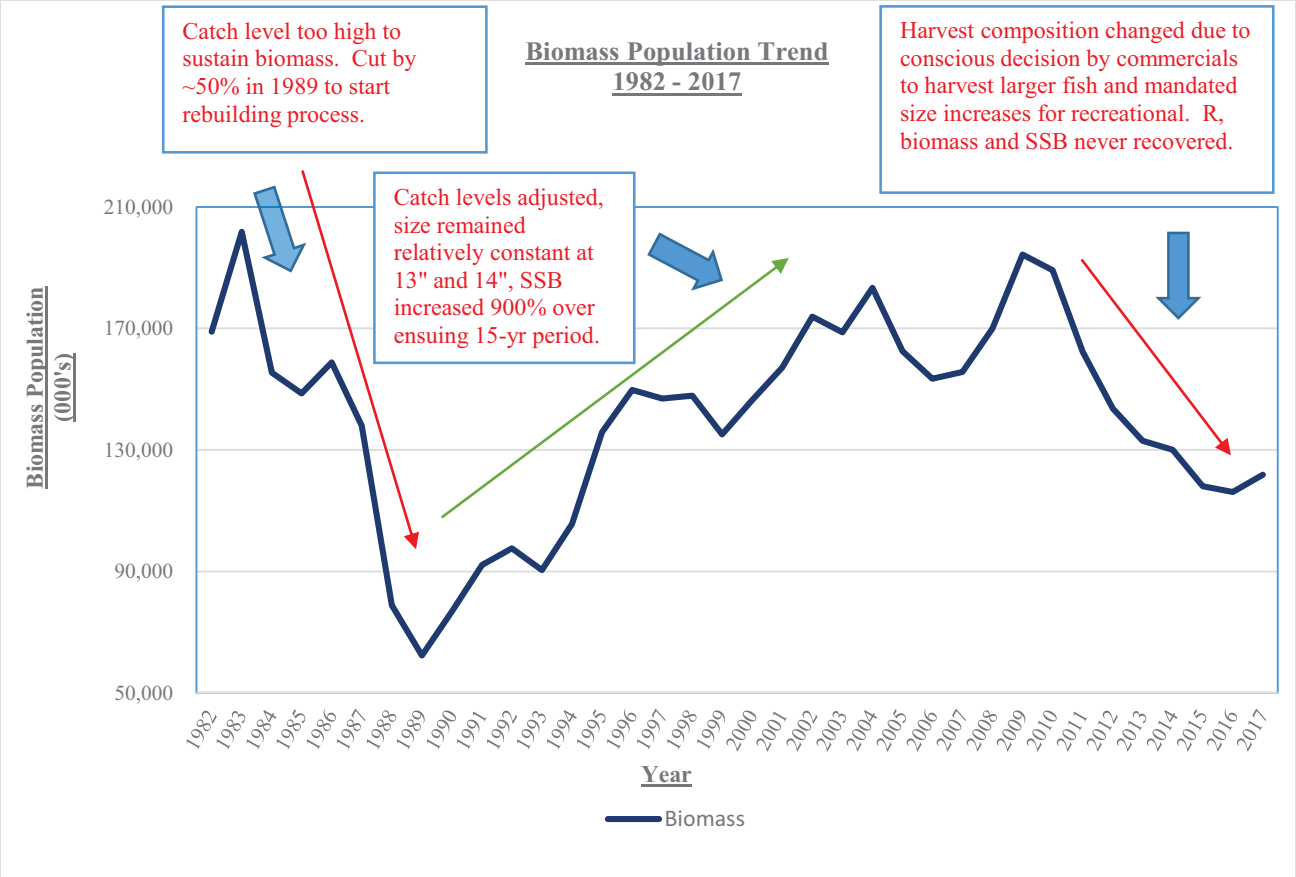
"Reproductive strength of the stock...has been destroyed" - My comments above re recruitment and availability support my disagreement with this statement. Couldn't disagree more with this explanation. Recruitment in the absolute and as a percentage of SSB has been declining for the better part of the last two decades and more recently at an accelerated pace. The data is indisputable in this respect as well. 50% increase in commercial quotas and continued harvest of almost exclusively female breeders will assuredly continue that decline. It has no choice. The stock has shown no signs of steepness in the last

35 years and with the gender balance created over the last two decades, there's no logical reason to believe it will develop that trait prospectively.

"scientists have stated going to a slot or reducing size minimums will further hurt this fishery" - I have never heard this statement outside of the context that as a result of current management mechanisms, in order to go to a smaller slot or minimum size, significantly shorter seasons would be required to constrain harvest to allowable levels...but not in a context that it would be biologically harmful. I would think the positive impact slot sizes or lower size limits in general would have in reducing recreational discards which carry a 33% mortality factor would more than cover the need to shorten seasons if instituted. That aside, it's perplexing how we had an 8 to 10 possession limit at 13" and 14" or slightly higher between 1989 and 2003 with catch levels during that period significantly greater than today resulting in 900% growth in SSB but the introduction of a slot fish would cause the need to shorten seasons more than they've already been. The logic behind those two thought is mutually exclusive.

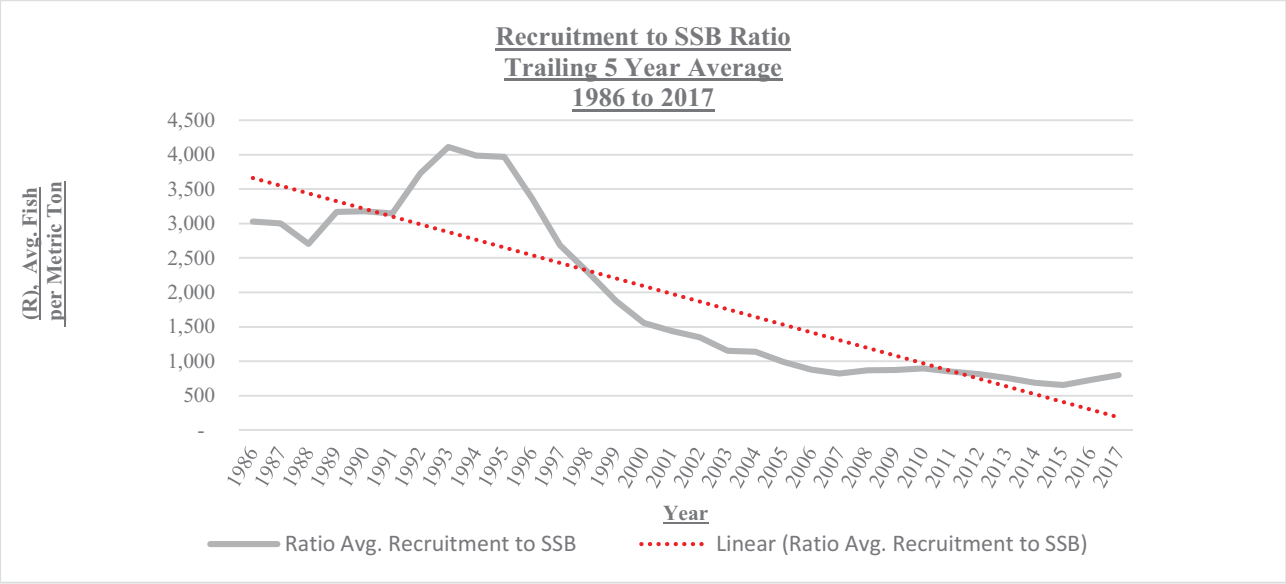
"What's compounded that...is...the commercial harvest...in the fall / winter months off shore" - That is a fishery that has been in place since the 1980's. Since its inception, biomass has experienced very large increases. You're correct there has been a winter / fall offshore fishery in place for years but there's four factors requiring consideration in your statement. First the fishery collapsed between 1980 and 1989 declining from an SSB of ~31,000 metric tons to ~7,000 over that period. Recruitment levels dropped from a high of ~102 million in 1983 to just over 12 million in 1988. Another potential indicator of the damage commercial harvest is having on the efficacy of the fall / winter spawn. Biomass jumped to record levels only when catch levels were cut in half in 1989, the primary driver of the biomass increase. Second, in the 80's and 90's, the fish being commercially harvested were age classes 1 to 2 representing a significantly lower percentage of sexually mature fish and a significantly reduced percentage of females than males harvested (reference Rutgers Sex and Length Study chart). Today the fish being harvested are primarily 3 to 6 yr. old classes, approximately 80% to 90% or more female and all sexually mature. Third, commercial discard rates from observed trawls experienced a material increase when older age groups started being harvested compared to percentages in the 90's. The above graph illustrates that and there's no reason to believe the same conditions don't exist today. **In the first decade of 2000, there's five years combined (2001, 2006, 2007, 2008 and 2009) which averaged ~100% DISCARD RATES TO TOTAL CATCH on observed trawls, an absolutely staggering statistic. 2007 alone is ~145%.** Fourth and notably in my opinion the most important, the biomass as stated in the 66th SAW is located in the most highly concentrated location on record. In 2018, areas 613, 616 and 537 accounted for 64% of the commercial catch. For the periods 1992 to 1999, 2000 to 2009 and 2010 to 2012, percentage catch from those three areas were 28%, 28% and 39% respectively. The biomass is highly concentrated and coupled with the fact ~75% of the commercial harvest occurs throughout the fall / winter season during the stock's spawn, you have to at minimum consider the potentially destructive consequences commercial harvest is having on reproduction. All the statistics and data point to a drop off in recruitment simultaneous with the harvest of older age classes, we may literally be regulating this fishery to a sterile SSB.

Summation:

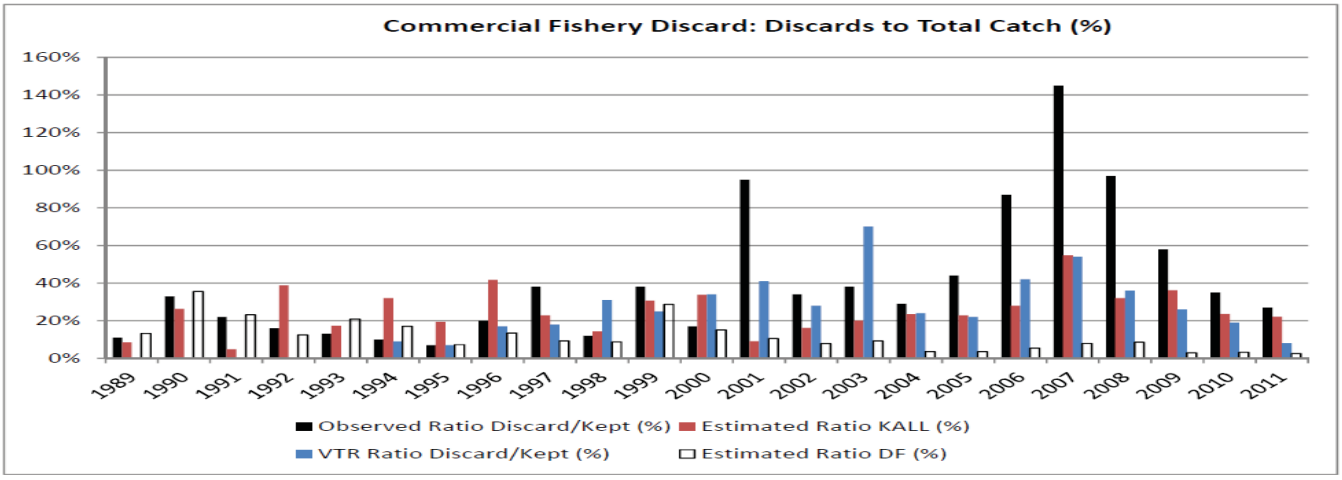


- Biomass declined between 1982 and 1989, result of catch averaging 115% of SSB, too high a percentage of the resource was being harvested resulting in an unsustainable fishery.
- Correct decision was made in 1989 to reduce catch by more than 50% which had an immediate and profoundly positive impact on the biomass, SSB and R. ***PLEASE NOTE CATCH WAS DECREASED BY TONNAGE, SIZE LIMITS REMAINED UNCHANGED.*** That point can't be emphasized enough. Recreational began a series of size increases in 1993 continuing through today resulting in a weighted average size limit between NJ, NY, Ct and RI of 18.82". Commercial on the other hand experienced a one-time size increase from 13" to 14" in 1997.
- Around 1996, landings of age classes 0 to 2 experienced sharp declines and landings of age classes 3 to 7 started making up larger percentages of annual catch, accelerating over the ensuing years. This marked the beginning of a change in catch composition within the fishery eventually leading to the downward trend we've experienced in all aspects of the fishery since 2003.
- Material change in catch composition led to a materially impaired SSB eroding the relative recruitment strength within the fishery. Recruitment, the single most important attribute of every healthy fishery, trending down over the last two decades is not an anomaly. It's the result of a

massive shift in the gender composition of SSB, the result of the over-harvest of female breeders due to size regulations recreationally and reduced catch quotas and higher market prices for larger fish commercially. Recruitment trends won't reverse until changes are made addressing the harvest of older age class fish. For any prognosticators who believes the stock is "steep" and recruitment will rebound on it's own merits, it won't. The below graph guarantees that. If it hasn't over the last ~35 years, why would we believe it will prospectively.



- The harvest of older age class fish have caused unprecedented levels of discard rates both recreationally and commercially. Recreationally due to size increases which caused a disparity of ~35 million less fish recreational anglers can harvest versus commercial concerns. Commercial due to their elective decision to harvest older age class breeders with greater market value. Remember these are discard rates on **OBSERVED** trawls, one can only imagine what the rates are on trips without observers on board. ***Source is 57th SAW page 302***.



- For the period 1989 to 2003, combined landings averaged 16.5 million fish or 12,900 metric tons. For the years 2004 to 2017, landings averaged 10.6 million fish and 12,300 metric tons. A 35% decrease in fish landed translating to a 5.5% reduction in weight of fish landed (the result of larger older age class fish being harvested) and simultaneously as mentioned earlier recruitment, catch and SSB have decreased by 40%, 54% and 32% respectively while the overall biomass has decreased by 62 million fish or ~34% from 2004 through 2017. 62 million less fish in the biomass

with a 54% decrease in catch, another alarming statistic in this fishery. If these trends continue which they will based on current regulations, there won't be a fishery to manage in the not too distant future. The data supports that outcome, only thing that will change the stock's fortunes is someone acknowledging the data and making decisions to address the problems identified in this memorandum. Millions of recreational anglers and commercial operators are dependent on the later taking precedence.

- In order for this fishery to recover, we need to stop focusing on catch alone and start focusing on catch composition, size which equates to age and gender. Recreational size limits need to be changed back to 14" or at minimum a slot fish implemented as an interim measure phasing in reduced recreational size limits. The issue of commercial operators targeting older age class fish, a high percentage female breeders, during the fall / winter spawn **NEEDS TO BE ADDRESSED AND CHANGED.** This change in the fishery resulting in exponentially higher discard rates and significantly lower levels of recruitment relative to egg production is literally killing the fishery. The stock will never rebound unless preemptive measures are taken to protect the spawn, female breeders and the integrity of the recruitment strength of SSB in general.
- Data is revealing identifying relational changes in the fishery over the last four decades and reasons causing its decline and preventing its recovery. Lower levels of recruitment will be felt in the fishery for years and will continue until measures are implemented to protect breeders and the spawn in general. In its absence, the fishery will not only continue it's decline but accelerate due to the recent 50% increase in commercial catch quota for 2019, 2020 and 2021. There's not one reason declining trends in the fishery since 2004 will correct themselves on their own merit without immediate changes to the regulations. The public is counting on the Commission and Council to acknowledge these facts and make the appropriate changes to begin the rebuilding process of this vital fishery. Blueprint already exists, it worked between 1989 and 2003 and there's no reason it wouldn't work today as long as catch composition is corrected. If not, other alternatives need to be considered and implemented. Recreational is the easier of the two, reduce size limits and catch composition and discard rates will correct themselves immediately. Commercial is more complicated but the harvest of older age class fish causing unprecedented levels of discards while disrupting the spawn of a highly concentrated biomass and destroying habitat in the process has to be addressed. If left unaddressed, the fishery will continue failing and defacto we'll be violating the provisions of MSA.
- MSA reauthorized in 2007 states the following:
    1. Acting to conserve fishery resources
    2. Providing for the implementation of fishery management plans (FMPs) which achieve optimal yield
    3. Establishing Regional Fishery Management Councils to steward fishery resources through the preparation, monitoring, and revising of plans which **(A) enable stake holders to participate in the administration of fisheries** and (B) consider social and economic needs of states and
    4. Protecting essential fish habitat.
- A biomass down 34% over the last 15 years with a failing recruitment trend is not conservation. Catch over that same period is down 54% so optimum yield I would argue is not being achieved. I consider myself a stakeholder in this fishery as do many others in the commercial, party boat, for-hire and recreational communities so I'm asking the Commission and Council to consider my analysis and conclusions based on marine fisheries data their own scientific community developed and make the necessary changes to correct the 15-yr decline of this vital fishery. Protecting the spawn and fish habitat is anything but what's occuring by allowing unabated harvest of a highly concentrated biomass, with 64% of the 2018 commercial quota coming during fall / winter months from areas 613, 616 and 537. My guess is that percentage will increase in 2019 with commercial operators being granted a 50% increase in catch quota. Changes in the fundamental management of this fishery are needed and the public is depending on the Commission and Council to make those changes. In the absence of a drastically different approach, the summer flounder fishery will continue its decline and eventually become a shadow of what it was in 2004.

In summary, changes in regulations (size recreationally and annual catch quotas commercially) have caused a seismic shift in catch composition over the last two decades leading to consequential damages to various attributes of the fishery, primarily a significant shift in gender composition, elevated levels of discard mortality and a declining recruitment trend. For recreational anglers, regulations mandate size fish harvested and they also guarantee significantly higher levels of discards. Recreational size increases have also caused ~**35 MILLION fish or ~60% of the harvestable biomass (fish over 14" inches)** to be exclusively available for commercial harvest which is a tragically disparate allocation of the resource and a severe economic burden being shouldered solely by the recreational fishing community. Commerial operators on the other hand retained a 14" inch minimum size limit, have access to a significantly greater proportion of the biomass while making a conscious decision to harvest older age class fish for economic benefits creating unprecedented levels of discard rates in the process. Discard rates substantially higher than rates used in fishery management models in estimating commercial catch and determining catch quotas.

The result of the above is today's landings disproportionately consists of older class fish, primarily female breeders, which per the 66th SAW created a strong decrease in the female proportion of SSB. This gender imbalance coupled with higher discard rates referenced above has placed the fishery in a decline it can't recover from without management intervention. Reduced recruitment is a direct result of the above, started two decades ago and intensifying as recreational size limits increased and commercial harvest dynamics changed in the late nineties favoring larger breeders and predominantly sexually mature fish. The decision to maintain a 14" size minimum for commercial was the correct decision at the time but quickly became a moot point as the commercial harvest of younger age classes abruptly changed in the late nineties and represents a substantially lesser percentage of today's harvest. From 1989 to 1996, age classes 1 and 2 made up on average 85% of the annual commercial harvest, the same years SSB began an unprecedented 15-yr period of 900% growth. From 2010 to 2017, those classes made up on average 17% of the commercial harvest, an extraordinary change in commercial catch composition leading to a 33% decrease in SSB. Dynamics having disasterous effects on the gender and age composition of the biomass, associated discard rates and in strong likelihood the overall efficacy of the offshore spawn. All factors contributing to a steady decline in recruitment in turn causing a steady and prolonged decline in the fishery since 2004. In the late 80's after annual catch levels were adjusted and for most of the nineties, age classes 0 to 2 represented a majority of the recreational and commercial harvest and all other age clases by default, not by regulations, were largely left untouched. Older age sexually mature fish which perpetuated the future of the fishery. Today, age classes 3 through 6 comprise more than 80% of combined catch. By default, significantly elevated discard rates presumably consist of either 0 to 2 year age classes which are already at reduced levels due to poor recruitment statistics over the last decade or 7+ year classes with lower market values. **Age 0 to 2 year old fish accounted for 59 million fish of the biomass population in 1989 when the fishery for all practical purposes collapsed, 145 million fish in 1996, 146 million fish in 2004 and a mere 86 million in 2017.** That translates to a biomass population where every age class short of 7+ years is down moderately to substantially from 2009 to 2017 or a total reduction of 73 million fish representing a 38% decline in the population over that short period of time. A staggering statistic in itself, more so when you factor in catch levels both in tonnage and number of fish have been cut drastically over the same time frame. If we continue on the path we've been on for the last two decades, the fishery will continue declining. The data and trends guarantee it, those facts need to be acknowledged and remedial measures implemented to address the causes identified in this memorandum.

A MAJOR ALTERATION HAS OCCURRED IN THE FISHERY IN CATCH COMPOSITION CREATING AN EXTENSIVE DECREASE IN THE FEMALE COMPOSITION OF SSB AND A SIGNIFICANTLY HIGHER LEVEL OF DISCARD RATES CAUSING DECLINES IN ALMOST EVERY AGE CLASS. DECLINES RESULTING IN A PRONOUNCED DECLINE IN RECRUITMENT STATISTICS LEADING TO A SUBSTANTIALLY LOWER AND GENDER IMPAIRED BIOMASS. THIS YEARS'S 50% INCREASE IN COMMERCIAL QUOTA WILL ACCELERATE THOSE DECLINES. COUPLE THIS WITH 75% OF COMMERCIAL

HARVEST OCCURING DURING THE SPAWN WITH THE PRIME BREEDERS BEING HARVESTED AND THIS IS THE CYCLE THE FISHERY IS IN WHICH WILL CONTINUE AT AN ACCELERATED PACE UNTIL THE REGULATIONS ARE CORRECTED TO RESTORE THE BALANCE THAT EXISTED IN CATCH COMPOSITION (AGE CLASSES AND GENDER) IN THE 80'S AND 90'S. IN THE ABSENCE OF THOSE CHANGES, ANOTHER FISHERY WILL BE LOST CAUSING SIGNIFICANT ECONOMIC AND SOCIAL IMPACTS TO HUNDREDS OF THOUSANDS IF NOT MILLIONS OF PEOPLE AND BUSINESSES THROUGHOUT THE MID-ATLANTIC STATES. IT'S NOT A POSSIBILITY, IT'S A GUARANTEE AS TREND ANALYSIS DOESN'T LIE UNLESS OF COURSE THE DATA WE'RE USING IS WRONG WHICH WE'RE BEING TOLD IS BEST AVAILABLE AND BEING USED EITHER WAY IN SETTING POLICY DECISIONS.

I implore the people copied on this email to put your political, philosophical, personal and lobbyist agendas gendas aside to address the issues raised in this analysis to save the fishery before it's unsavable. We've all witnessed too many fisheries disappear in our lifetimes, we don't need another one as vital as summer flounder on our conscience. I'm appealing to your hard work and sense of judgment to acknowledge the above trends as real and make the hard decisions to reverse the fortunes of this vital fishery. SSB once grew by 900%, there's no reason it can't again but changes in how the fishery is being managed have to be made.

Kiley Dancy

From: Tom Smith <smith.tom560@gmail.com>
Sent: Tuesday, November 19, 2019 10:34 AM
To: Gregory Wojcik; CRAIG.MINER@cga.ct.gov; MELISSA.ZIOBRON@cga.ct.gov; WILLIAM.A.HYATT@snet.net; Davis, Justin; CRABMAN31@aol.com; Saveikis, David; FISHMASTER70 @comcast.net; JOHN.CLARK@delaware.gov; WILLIAM.CARSON@delaware.gov; MJDIZE@verizon.net; MBRASSIL@house.state.md.us; Luisi, Michael; Langley, Phil; BILL.ANDERSON@maryland.gov; SARAHKPEAKE@gmail.com; RAY@capecodfishermen.org; Ruccio, Michael; NICHOLA.MESERVE@state.ma.us; White, Sherry; McKiernan, Dan; Capt. Adam; Cimino, Joseph; Fote, Tom; JASON.SNELLBAKER@dep.nj.gov; SENANDRZEJCZAK@njleg.org; Davidson, Maureen; Gilmore, Jim; Hasbrouck Jr, Emerson C.; KAMINSKY@nysenate.gov; STEVE.MURPHEY@ncdenr.gov; MBLANTON9394@gmail.com; BOB.STEINBURG@ncleg.net; Batsavage, Chris; JMANNEN@yfmlaw.com; Ballou, Robert; Reid, Eric; Borden, David; SEN-SOSNOWSKI@rilin.state.ri.us; Rootes-Murdy, Kirby; DISTRICT01@senate.virginia.gov; Bowman, Steven; BPLUMLEE@pbp-attorneys.com; MARTINGARY.PRFC@gmail.com; Starks, Caitlin; Leaning, Dustin Colson; PAT.GEER@mrc.virginia.gov; Wong, Richard; Muffley, Brandon; Kiley Dancy; Beaty, Julia; Coutre, Karson; STEVE.DOCTOR@maryland.gov; Terceiro, Mark; Gilbert, Emily; Truesdell, Samuel; PETER.CLARKE@dep.nj.gov; Maniscalco, John; VanMiddlesworth, Todd; Jason McNamee; JKIPP@asmfc.org; ALEX.ASPINWALL@mrc.virginia.gov; JACK.D.CONWAY.JR@lmco.com; KYLE@jbtackle.com; Townsend, Wes; LUREFEST@gmail.com; PGFVIKING1@gmail.com; SELBYSUZI1121@aol.com; JEFFEUTSLER@me.com; Jesien, Roman; BUNTING904@gmail.com; BUDDYSCRN@gmail.com; PKCARUSO@comcast.net; PATRIOTTOO@aol.com; JOSEPH@meganet.net; TIMEBANDIT100@hotmail.com; Lovgren, Jim; GREGDI@voicenet.com; CAPTBOB626@comcast.net; BUCKTAIL8@aol.com; D713K@aol.com; MKHOFFMAN@optonline.net; RBUSBY@optonline.net; MARCIALOM@msn.com; Ruhle, James; ARTSMITH@gotricounty.com; BJSEAFOOD@earthlink.net; Blount, Frank; MHALL@towndock.com; NBF05@verizon.net; TRAVISBARAO@gmail.com; DCRABBE@crabbescharterfishing.com; DRNEILL3@hotmail.com; Hodges, Mark L.; CAPTSTV@yahoo.com; Amory, C. Meade; KEVIN.SMITH@suez.com; Elliott, G. Warren; Bolen, Ellen; Stewart.Michels@state.de.us; Shiels, Andrew L.; Pentony, Mike; Wilke, Kate; Lenox, Scott; Heins, Stephen; Gwin, Sonny; Hughes, Peter B.; Winslow, Sara; deFur, Peter; Nolan, Laurie; Hemilright Jr, Dewey; dave; harborman@optonline.net; Jim Hutchinson; Cicero, Nick; Gregory Hueth; John depersenaire; Mike Waine; tony@rocketcharters.com; Gutman, Jeffrey; Zemeckis, Douglas; Caputi, Gary; Gerry Zagorski; Rocky McGuigan; Patrick J. Sullivan
Subject: December ASMFC Joint Mtg - Annapolis MD
Attachments: Summation December Joint Mtg v2.pdf

Ladies and Gentlemen,

I'm sending the attached summation of the summer flounder fishery for consideration in regulatory decisions made at the upcoming Joint Commission / Council meeting in Annapolis Maryland. The attached PDF is a much shortened version of the summation included with the briefing materials at the October MAFMC meeting earlier this year. The attached document is slightly over 5 pages long and an easy read.

Dustin I'd ask once again for the material to be included in the briefing materials for the December meeting. If that's not possible I'd ask at minimum for it to be included in the Supplemental Public Comments. Kiley if the meeting and agenda will appear on the MAFMC website, I'd ask that the attachment be made available there as well. Thanks in advance for your help making that happen.

This analysis and summation is based on marine fisheries own data, statistics the public has been asked to accept as data from best available science driving policy decisions. It couldn't be more clear what's happening with this fishery

experiencing significant declines since 2004. If you don't believe my analysis, I ask that each and every one of you at least believe your own data which my analysis is based on.

Without changes to the regulations addressing harvest composition of larger female breeders, the impact it's had on the gender composition of SSB and the negative impacts ultimately on recruitment levels, and protection of the offshore spawn this fishery will continue it's decline until ultimately failing. While I'm not intimately familiar with all the provisions of MSA legislation, I'm sure managing a fishery to failure is not one of those provisions.

Younger age classes today are now collateral damage in the process of harvesting older age groups with higher market values. Killing already materially impaired younger fish due to depressed recruitment levels in the pursuit of harvesting older age class fish will insure the further decline of future recruitment classes until the stock is ultimately irreparably damaged.

The decision is up to the Commission and Council. Manage the fishery for the short -term under the current regulations and there won't be a long-term. 16-year trends guarantee that. Or acknowledge what marine fisheries own data is clearly illustrating and make the necessary changes to preserve one of the most vital fisheries to the Mid-Atlantic States.

I hope someone on the Commission / Council has the courage and conviction to address the changes needed to save this fishery.

Respectfully Submitted

Tom Smith

Memo

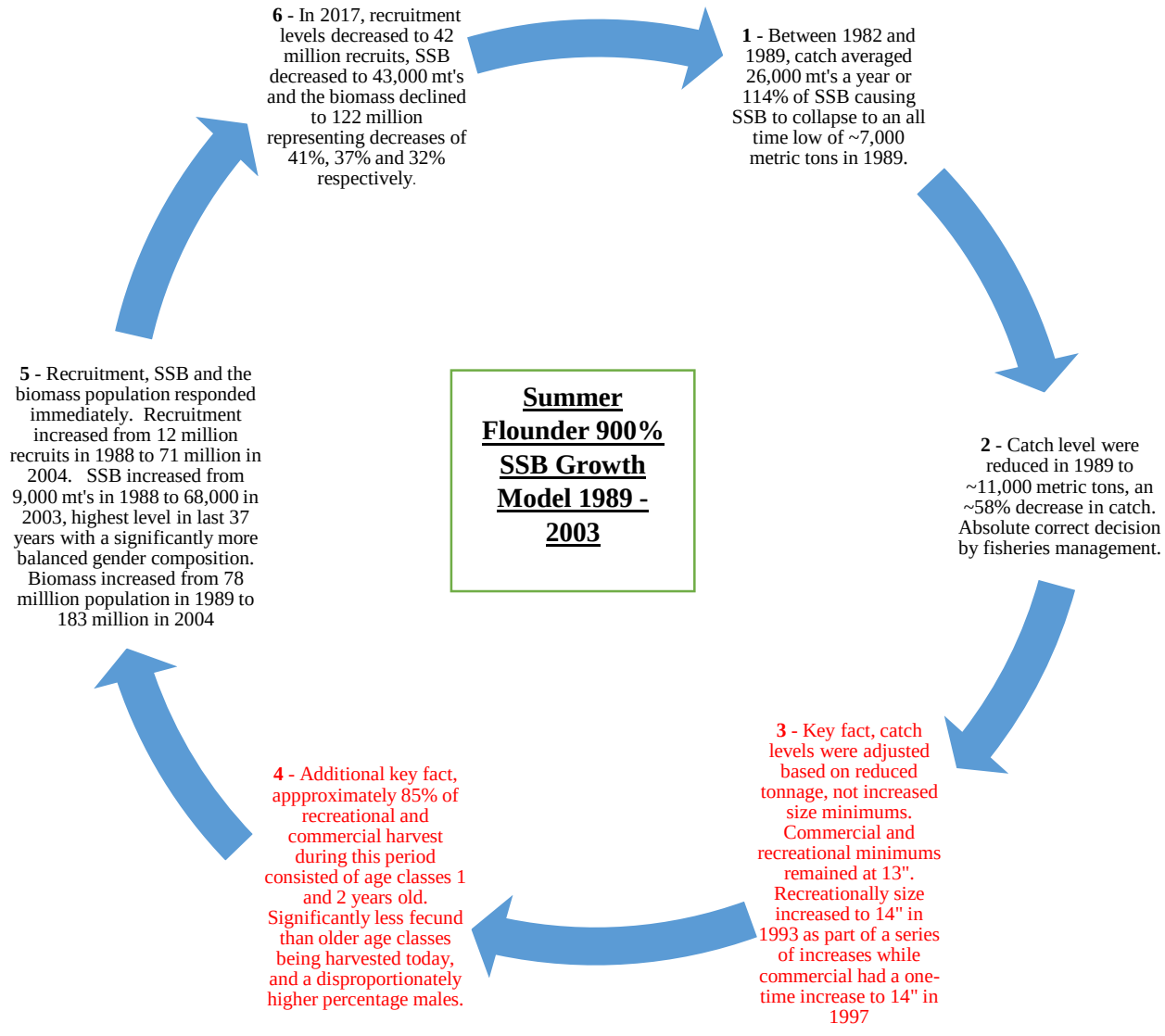
To: Atlantic States Marine Fisheries Commission - Commissioners and Summer Flounder Board
Mid-Atlantic Fisheries Marine Council Members
Dustin Colson Leaning, Fishery Management Plan Coordinator ASMFC
Kiley Dancy Fishery Management Specialist MAFMC

From: Thomas B. Smith

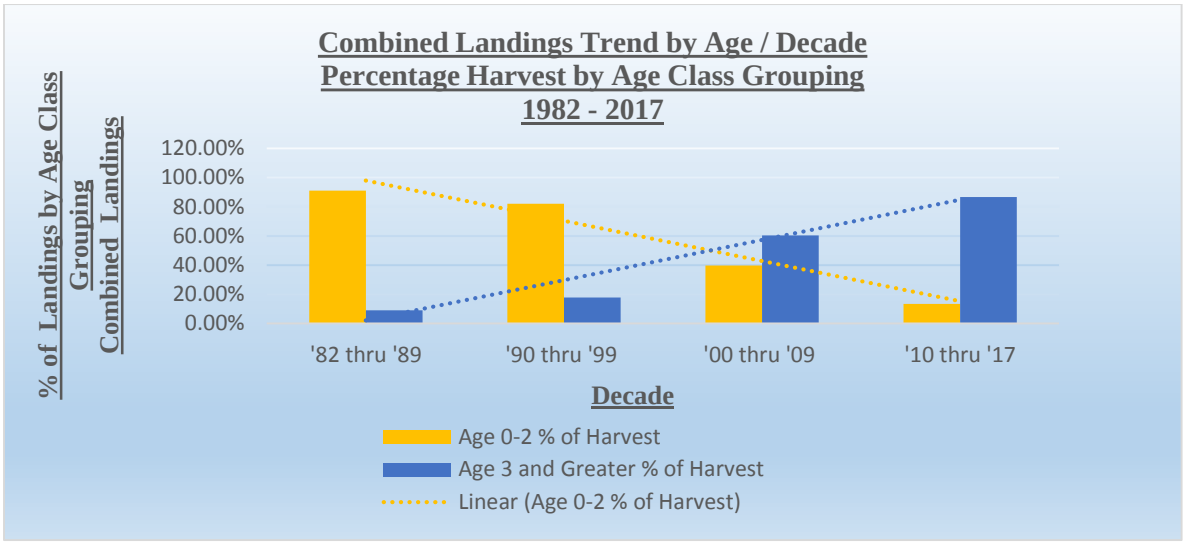
Date: November 19, 2019

Re: Executive Summary Summer Flounder Stock – Joint Council Meeting, December 9-12, Annapolis MD.

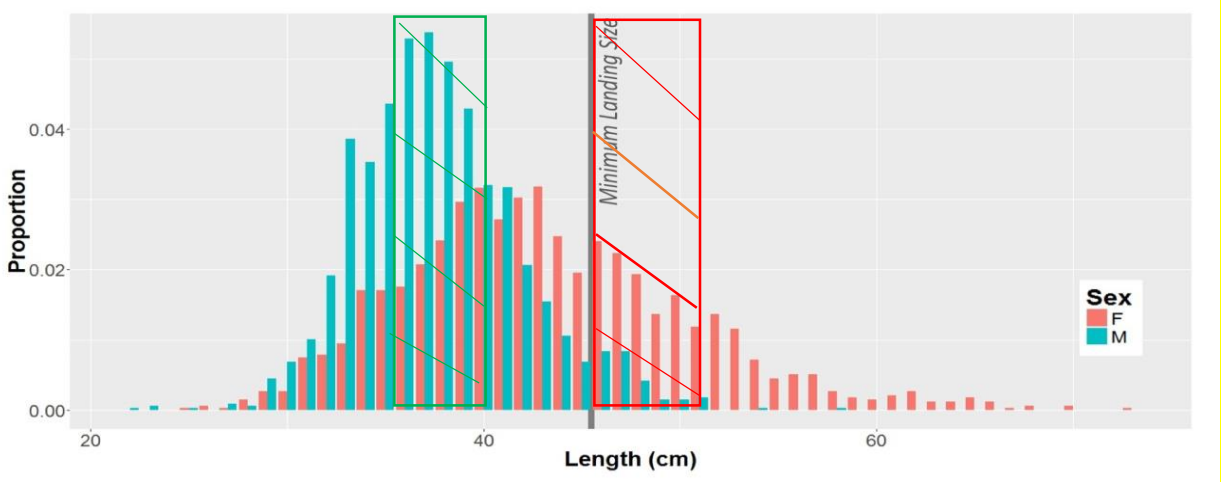
Summer Flounder Growth (1989 to 2003)



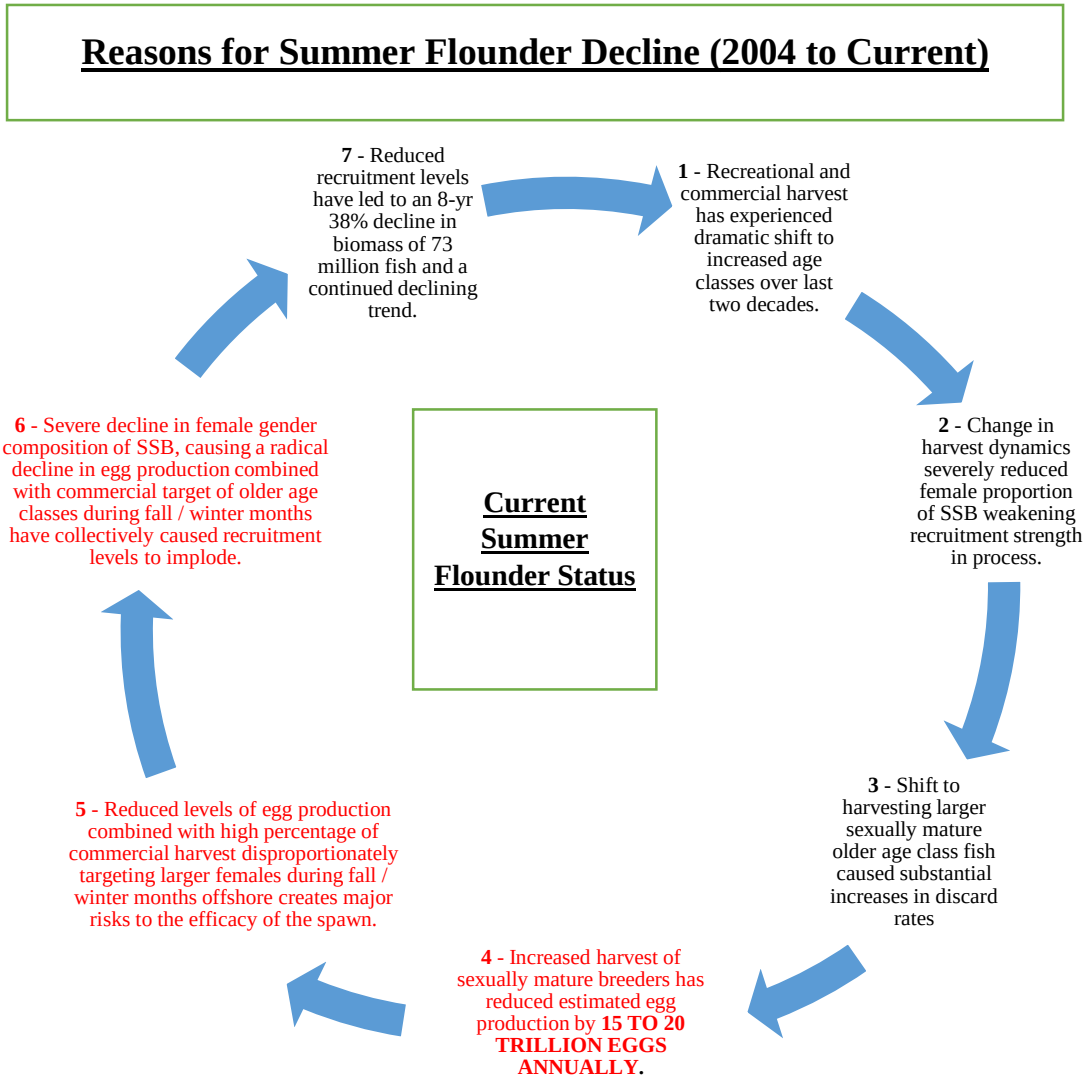
- Proper catch composition drives a gender balanced SSB which drives recruitment levels. Recruitment levels are a pre-requisite to a sustainable fishery. SSB balance has been impaired in this fishery due to an imbalance in catch composition which began in 1997. Fishery exploded exponentially higher when younger age class fish were harvested and older age classes were left essentially untouched to grow and perpetuate the future of the stock. When harvest composition changed, the fishery experienced a series of unintended impacts promoting a 16-year decline. Change in harvest composition illustrated below.

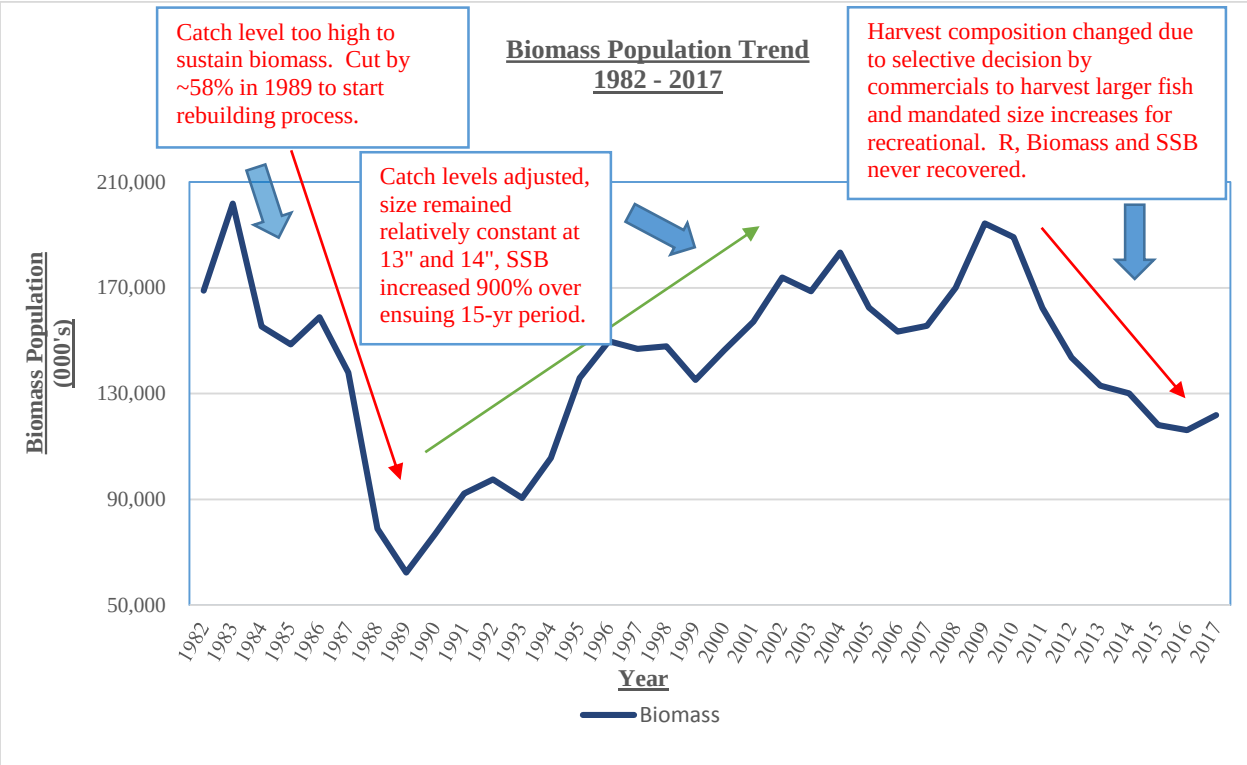


- When recreational size limits were significantly increased mandating the harvest of older age classes comprised of a significantly higher proportion of female breeders (below graph) over the last two decades coupled with commercial operators selectively deciding to target older age classes with greater market values to compensate for the economic impacts of reduced landings in 1997, everything changed. It prompted a series of negative impacts within the fishery outlined in the two cycle graphs which needs to be corrected for the fishery to ever recover.



The above graph extracted from "Rutgers Sex and Length Study" illustrates one of the largest threats to today's fishery. The green shaded area represent size fish harvested in the 80's and 90's when SSB increased ~900%. Red shaded area represents the size fish being harvested today and for the better part of the last two decades. Notice the change in proportion between males and females. ***During the 80's and 90's, the ratio of landings was 2:1 male to females. Last two decades, it's closer to 4:1 female to males. The gender composition of SSB has been and continues to be materially altered weakening the reproductive capacity of the fishery.***





Goals / Initiatives:

- Balance in catch composition (younger age class fish) and gender composition of SSB needs to be restored.
- Since gender composition of SSB has been materially impaired, it's critical for the spawn to be protected otherwise stock will never have the reproductive strength to rebound.
- With discard rates at all-time highs, natural mortality rates assigned at 20% annually, a gender impaired SSB and older age class fish continuing to be harvested along with this year's 50% increase in commercial quota, it's not practical to anticipate recruitment levels improving meaning the fishery will continue its decline.

All policy decisions made by the Commission and Council in the immediate future need to address the restoration of the gender balance of SSB and improving the reproductive strength within the fishery inclusive of protecting the offshore spawn for the foreseeable future until circumstances and statistics dictate otherwise.

Recreational:

Goal should be to make policy decisions which gradually take us back to the regulations in place during the period the stock experienced substantial growth. Why reinvent the wheel when the blueprint already exists?

15" to 17" or 38.1 cm to 43.18 cm's has a balanced ratio of males to females per Rutgers Length and Sex analysis. Consideration should be given for one fish in 2020 falling in that slot range (15" to 17") and the existing possession limit from 2019 less one (for the slot) kept at the current size minimums in place for 2019. Reduced discard rates, the trend of harvesting more males, the impact of removing less breeders from SSB and the fact we're currently looking at coming in at 8% under 2019's RHL should more than compensate for any increase in harvest associated with

the slot while moving us closer to past regulations that promoted 900% growth of the fishery for the 15-yr period 1989 to 2003.

Commercial:

Aside from safety, ex-vessel values and profits are paramount to commercial operators so they should be considered in setting policy decisions, just not at the expense of the fishery or the fisheries other constituents. Efforts should be made to protect those values but more important values to everyone involved in this fishery should be the health, sustainability and future of the fishery itself. With that said, the three most important impacts from commercial harvest are the selective harvest of older age class breeders and the impact its having on SSB and relative egg capacity, discard rates and the impact the fall / winter harvest is having on the spawn and recruitment levels. The Commission and Council need to address all three.

Protect the Spawn:

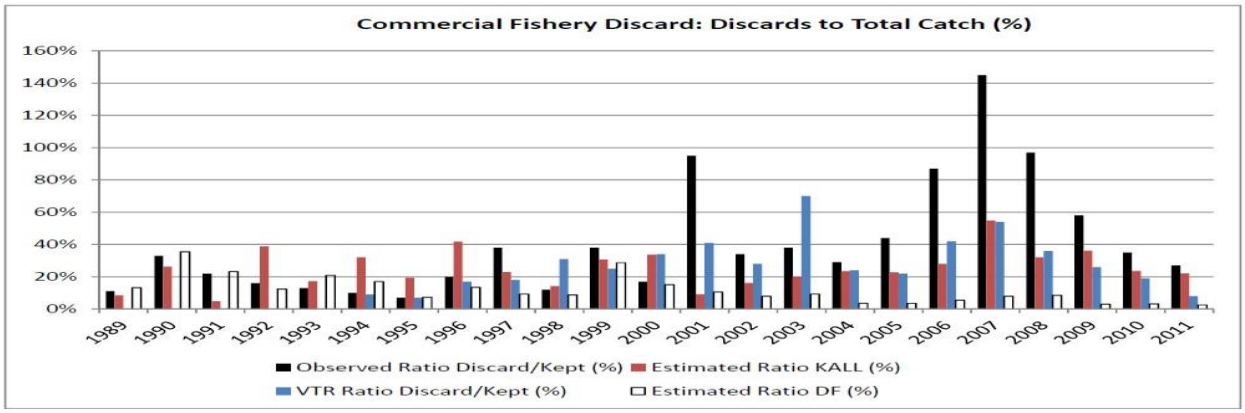
Three options to consider protecting the spawn:

1. Closed seasons (most draconian option)
2. Close or restrict access to areas in locations / depths known to hold larger summer flounder in their offshore wintering grounds.
3. Adjust the seasonal quotas so a significantly lesser percentage of the commercial harvest occurs in the fall / winter months which are the prime spawning months for summer flounder when they're highly concentrated and most vulnerable to the associated risks of commercial harvest. Risks including higher discard rates due to concentration of the biomass, adverse effects on the spawn and destruction of spawning habitat.

Option 3 would be my recommendation since it both positively impacts the efficacy of the spawn and should result in significantly lower discard rates. Take the percentage of the commercial harvest today from September through March and re-allocate half to the months April through August. This stock can't be pounded twelve months out of the year especially during the spawning cycle, science doesn't have to say so common sense does. Like every stock, summer flounder need an uninterrupted spawn to sustain their existence.

Discard Rates:

Commission and Council have to address commercial discard rates. The following chart from the 57th SAW is incomprehensible:



If trip limits are a problem, they need to be addressed. If seasonal quotas are causing higher discard rates, they need to be changed. Observed discard rates as opposed to rates reported using the honor system VTR's need to be used prospectively in determining commercial catch quotas. If recreational is going to be bound by MRIP, a highly uncertain process in it's infancy of development, commercial discard rates should be used based on empirical data derived from actual observed trips. It's a significant issue in this fishery per the above graph and needs to be factored into annual commercial catch quotas.

Harvest Composition of Commercial Catch:

In spite of MSA, every lb. of summer flounder is not the same yet catch is the only focus every year in establishing quotas. Ten 14" inch 1 lb. fish harvested will have a significantly different impact on the fishery than two 5 lb. fish. The former more likely than not consists of 7 males and 3 females, all females not yet sexually mature. The later consists most assuredly of 2 females, each contributing in excess of 2 million eggs annually. Which is most important to the resource and which is most important to protect?

Commercial harvest of larger predominantly breeders has to decrease through either reduced mesh sizes, seasonal adjustments to quotas, voluntary selective harvest or any means possible. And it can't be at the expense of even greater discard rates of older age class fish otherwise the fishery will continue its downward spiral. If commercial concerns harvested predominantly 1 to 2-yr. old fish during the 80's and 90's, the question being asked should be why not the same today if the sustainability and future of the fishery is what hangs in the balance. If an increase in quota makes it economically viable to do so, that should be given consideration as long as it results in the harvest of younger age classes, reparation of the gender impairment of SSB, higher recruitment levels and a growing biomass which benefits all constituents of the resource.

Kiley Dancy

From: Jim Lovgren <jlovgren3@gmail.com>
Sent: Tuesday, November 19, 2019 8:46 PM
To: Tom Smith
Cc: Gregory Wojcik; CRAIG.MINER@cga.ct.gov; MELISSA.ZIOBRON@cga.ct.gov; WILLIAM.A.HYATT@snet.net; Davis, Justin; CRABMAN31@aol.com; Saveikis, David; FISHMASTER70 @comcast.net; JOHN.CLARK@delaware.gov; WILLIAM.CARSON@delaware.gov; MJDIZE@verizon.net; MBRASSIL@house.state.md.us; Luisi, Michael; Langley, Phil; BILL.ANDERSON@maryland.gov; SARAHKPEAKE@gmail.com; RAY@capecodfishermen.org; Ruccio, Michael; NICHOLA.MESERVE@state.ma.us; White, Sherry; McKiernan, Dan; Capt. Adam; Cimino, Joseph; Fote, Tom; Snellbaker, Jason; SENANDRZEJCZAK@njleg.org; Davidson, Maureen; Gilmore, Jim; Hasbrouck Jr, Emerson C.; KAMINSKY@nysenate.gov; STEVE.MURPHEY@ncdenr.gov; MBLANTON9394 @gmail.com; BOB.STEINBURG@ncleg.net; Batsavage, Chris; JMANNEN@yfmlaw.com; Ballou, Robert; Reid, Eric; Borden, David; SEN-SOSNOWSKI@rilin.state.ri.us; Rootes-Murdy, Kirby; DISTRICT01 @senate.virginia.gov; Bowman, Steven; BPLUMLEE@pbp-attorneys.com; MARTINGARY.PRFC@gmail.com; Starks, Caitlin; Leaning, Dustin Colson; PAT.GEER@mrc.virginia.gov; Wong, Richard; Muffley, Brandon; Kiley Dancy; Beaty, Julia; Coutre, Karson; STEVE.DOCTOR@maryland.gov; Terceiro, Mark; Gilbert, Emily; Truesdell, Samuel; Peter Clarke; Maniscalco, John; VanMiddlesworth, Todd; Jason McNamee; JKIPP@asmfc.org; ALEX.ASPINWALL@mrc.virginia.gov; JACK.D.CONWAY.JR@lmco.com; KYLE@jbtackle.com; Townsend, Wes; LUREFEST@gmail.com; PGFVIKING1@gmail.com; SELBYSUZI1121@aol.com; JEFFEUTSLER@me.com; Jesien, Roman; BUNTING904@gmail.com; BUDDYSCRN@gmail.com; PKCARUSO@comcast.net; PATRIOTTOO@aol.com; JOSEPH@meganet.net; TIMEBANDIT100 @hotmail.com; Gregory DiDomenico; CAPTBOB626@comcast.net; BUCKTAIL8@aol.com; D713K@aol.com; MKHOFFMAN@optonline.net; RBUSBY@optonline.net; MARCIALOM@msn.com; Ruhle, James; ARTSMITH@gotricounty.com; BJSEAFOOD@earthlink.net; Blount, Frank; MHALL@towndock.com; NBF05@verizon.net; TRAVISBARAO@gmail.com; DCRABBE@crabbescharterfishing.com; DRNEILL3@hotmail.com; Hodges, Mark L.; CAPTSTV@yahoo.com; Amory, C. Meade; KEVIN.SMITH@suez.com; Elliott, G. Warren; Bolen, Ellen; Stewart.Michels@state.de.us; Shiels, Andrew L.; Pentony, Mike; Wilke, Kate; Lenox, Scott; Heins, Stephen; Gwin, Sonny; Hughes, Peter B.; Winslow, Sara; deFur, Peter; Nolan, Laurie; Hemilright Jr, Dewey; dave; Ec Newellman; Jim Hutchinson; Cicero, Nick; Gregory Hueth; John depersenaire; Mike Waine; tony@rocketcharters.com; Gutman, Jeffrey; Zemeckis, Douglas; Caputi, Gary; Gerry Zagorski; Rocky McGuigan; Patrick J. Sullivan
Subject: Re: December ASMFC Joint Mtg - Annapolis MD

Tom, you're doing a lot of research here, and unfortunately to me it is simply too biased to be used for management purposes. Your recreational slant is obvious by your stating that the offshore winter fishing grounds of the commercial industry is the spawning grounds for summer flounder and should be shut down for the health of the species. Reality is that summer flounder spawn in the fall from September through November, as they leave the inshore waters from 5 to 30 miles off the coast in most cases. By the time they reach the 40 plus fathom wintering grounds in December they are long spawned out. If your're worried about fishing effort maybe they shouldn't be fished in the summer when they are actually breeding and the fall when they lay their eggs.

Doesn't take a genius to know that if half the industry is forced to fish exclusively on large female fish due to managements inability to address the recreational catch, that a disaster will eventually happen. Management needs to immediately lower the ridiculous size limits that the recreational industry is forced to put up with, the undersized discards created by themselves will collapse a fishery. Commercial fishermen do not usually target the largest fish, half the time I fish, medium sized fish [14 to 16 inches] are worth more then the jumbos, [5 lbs +] The exception would be smaller scale fisherman targeting jumbo's for the bled market, and they do not catch that much of the quota. For the market 16 to 20 inch fish are by far the most valuable, with Jumbo's only worth slightly more than Mediums over the

course of the year. But what do I know? I've only been fishing them 45 years landing 50,000 to 100,000 lbs annually. By the way the sky is not falling, the fishery is still very healthy with the main problem being that the NEFSC cancelled the only useful trawl survey that could actually document how healthy the population really is, and that would be the winter flat fish survey that took place for over 15 years before being cancelled for the newer bigger better albatros know as the RV Bigelow. The fall and spring survey's take place during the migratory period for many species and that makes them particularly susceptible to annual variations in the weather. Combined with the absolutely horrendous history of breakdowns for that POS research vessel, this has given totally inaccurate information for the stock assessment scientists. There is now a resident [that means year round] population of Summer Flounder living in the middle of the Georges Bank, but don't expect the NEFSC to find it, or the humongous population that lines the continental shelve from December through April from Block canyon to the Hague Line in 50 to 90 fathoms. I fish all year for Summer flounder, and I have noticed just over the last 10 years a distinct change in their behavioral patterns during the summer and their fall migrations. Contrary to what you'd expect if the ocean was warming the fish would stay inshore for longer periods but that is not the case. The fish are migrating earlier, and not stopping on the inshore lumps such as Manasquan ridge, or the Klondike. they are'nt even stopping on the Cholera banks, they're heading for deeper water and are offshore earlier then ever. The population is so strong that a large amount of them stay only 20 to 30 miles offshore all winter along the mudhole.
Stop crying the sky is falling, it isn't. the population is still huge and is represented by all year classes including huge fish over 15 pounds. I have noted the best recruitment of 14 to 15 inch fish I have seen in 10 years in 2018 and 2019. Whether the trawl survey data shows that or not I don't care, they couldn't catch a fish it you threw it to them. Management needs to adopt either Jim Fletcher's almost 20 year old idea of total length, or some kind of slot limit. Anything else at this stage is not acceptable. A moron knows you can't kill all the mommy's and expect a species to survive, how come the ASMFC and the MAFMC can't figure that out? thanks, JIm

Kiley Dancy

From: Tom Smith <smith.tom560@gmail.com>
Sent: Wednesday, November 20, 2019 12:25 PM
To: Lovgren, Jim
Cc: Gregory Wojcik; CRAIG.MINER@cga.ct.gov; MELISSA.ZIOBRON@cga.ct.gov; WILLIAM.A.HYATT@snet.net; Davis, Justin; CRABMAN31@aol.com; Saveikis, David; FISHMASTER70 @comcast.net; JOHN.CLARK@delaware.gov; WILLIAM.CARSON@delaware.gov; MJDIZE@verizon.net; MBRASSIL@house.state.md.us; Luisi, Michael; Langley, Phil; BILL.ANDERSON@maryland.gov; SARAHKPEAKE@gmail.com; RAY@capecodfishermen.org; Ruccio, Michael; NICHOLA.MESERVE@state.ma.us; White, Sherry; McKiernan, Dan; Capt. Adam; Cimino, Joseph; Fote, Tom; Snellbaker, Jason; SENANDRZEJCZAK@njleg.org; Davidson, Maureen; Gilmore, Jim; Hasbrouck Jr, Emerson C.; KAMINSKY@nysenate.gov; STEVE.MURPHEY@ncdenr.gov; MBLANTON9394 @gmail.com; BOB.STEINBURG@ncleg.net; Batsavage, Chris; JMANNEN@yfmlaw.com; Ballou, Robert; Reid, Eric; Borden, David; SEN-SOSNOWSKI@rilin.state.ri.us; Rootes-Murdy, Kirby; DISTRICT01 @senate.virginia.gov; Bowman, Steven; BPLUMLEE@pbp-attorneys.com; MARTINGARY.PRFC@gmail.com; Starks, Caitlin; Leaning, Dustin Colson; PAT.GEER@mrc.virginia.gov; Wong, Richard; Muffley, Brandon; Kiley Dancy; Beaty, Julia; Coutre, Karson; STEVE.DOCTOR@maryland.gov; Terceiro, Mark; Gilbert, Emily; Truesdell, Samuel; Peter Clarke; Maniscalco, John; VanMiddlesworth, Todd; Jason McNamee; JKIPP@asmfc.org; ALEX.ASPINWALL@mrc.virginia.gov; JACK.D.CONWAY.JR@lmco.com; KYLE@jbtackle.com; Townsend, Wes; LUREFEST@gmail.com; PGFVIKING1@gmail.com; SELBYSUZI1121@aol.com; JEFFEUTSLER@me.com; Jesien, Roman; BUNTING904@gmail.com; BUDDYSCRN@gmail.com; PKCARUSO@comcast.net; PATRIOTTOO@aol.com; JOSEPH@meganet.net; TIMEBANDIT100 @hotmail.com; Gregory DiDomenico; CAPTBOB626@comcast.net; BUCKTAIL8@aol.com; D713K@aol.com; MKHOFFMAN@optonline.net; RBUSBY@optonline.net; MARCIALOM@msn.com; Ruhle, James; ARTSMITH@gotricounty.com; BJSEAFOOD@earthlink.net; Blount, Frank; MHALL@towndock.com; NBF05@verizon.net; TRAVISBARAO@gmail.com; DCRABBE@crabbescharterfishing.com; DRNEILL3@hotmail.com; Hodges, Mark L.; CAPTSTV@yahoo.com; Amory, C. Meade; KEVIN.SMITH@suez.com; Elliott, G. Warren; Bolen, Ellen; Stewart.Michels@state.de.us; Shiels, Andrew L.; Pentony, Mike; Wilke, Kate; Lenox, Scott; Heins, Stephen; Gwin, Sonny; Hughes, Peter B.; Winslow, Sara; deFur, Peter; Nolan, Laurie; Hemilright Jr, Dewey; dave; Ec Newellman; Jim Hutchinson; Cicero, Nick; Gregory Hueth; John depersenaire; Mike Waine; tony@rocketcharters.com; Gutman, Jeffrey; Zemeckis, Douglas; Caputi, Gary; Gerry Zagorski; Rocky McGuigan; Patrick J. Sullivan
Subject: Re: December ASMFC Joint Mtg - Annapolis MD

Categories: SFSCBSB

Jim,

I appreciate the extent of your response. I'm not biased towards recreational or commercial, I'm biased towards a healthy fishery and a management process which incorporates accurate data in their assessment of the stock and then allocates that resource with some degree of parity. I couldn't agree more with your comments regarding recreational size limit increases, they're increasing discards and killing the gender composition of SSB. Changes in commercial catch composition are doing exactly the same. My comment regarding closed seasons or restricted access to certain areas during the winter months to protect the spawn wasn't intended to suggest a majority of the spawn occurred during the winter months as opposed to fall. It was intended to suggest protecting larger age class fish in a highly concentrated biomass during winter months will further decimate the gender composition of SSB while causing higher levels of dead discards considering the depths and temperatures the fish are being harvested in. Harvest which is additionally weakening SSB and further impacting an already impaired reproductive capacity of the fishery. Since your based in New

Jersey, your correct the primary spawn occurs in the September to late October / early November months from what my research indicates so we agree on that. Based on demographics however, there are areas where the spawn occurs later and throughout the winter months. My suggestion regarding restricted areas and or closed seasons was based on the intent of the very Original Fishery Management Plan "FMP" which states the following as use of a management tool:

2.2. LIMIT CATCH

2.2.1. Description

This would be accomplished by imposing quotas in the commercial fishery and bag limits in the recreational fishery.

2.2.2. Analysis

Since there is no valid current quantified MSY estimate at this time (Section 5.4), there is no scientific basis for establishing quotas.

2.3. IMPOSE SEASONAL OR AREA CLOSURES

2.3.1. Description

This would be accomplished by prohibiting fishing for summer flounder during specified seasons or in specified areas.

intended to accomplish the following objectives as stated in the same document:

2. SUMMARY

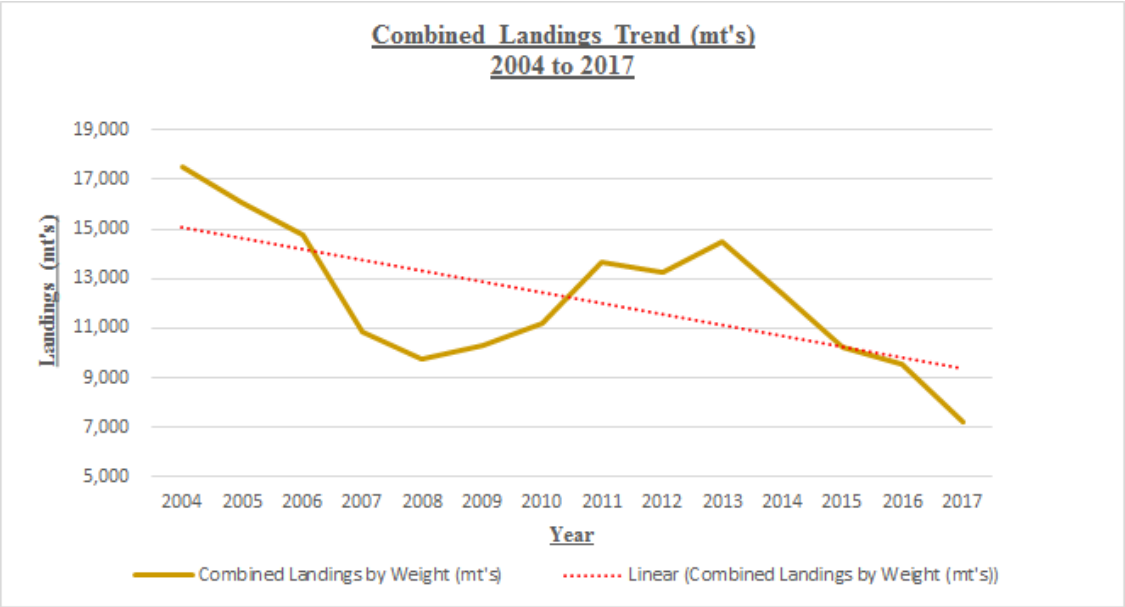
This Fishery Management Plan (FMP) for the Summer Flounder Fishery, prepared by the Mid-Atlantic Fishery Management Council (Council), is intended to initiate management of the summer flounder (*Paralichthys dentatus*) fishery pursuant to the Magnuson Fishery Conservation and Management Act of 1976, as amended (MFCMA). The management unit is summer flounder in US waters in the western Atlantic Ocean from North Carolina northward. The objectives of the FMP are to:

1. reduce fishing mortality on immature summer flounder;
2. increase the yield from the fishery;
3. promote compatible management regulations between the Territorial Sea and the EEZ; and
4. minimize regulations to achieve the management objectives recognized above.

What have we learned over the years? The **ONLY** period the stock has shown growth is when immature fish or fish just reaching maturity were being harvested during the period 1989 to 2003.. As I mentioned in my analysis, the fishery fell apart when the harvest of younger age classes was displaced by the harvest of almost exclusively sexually mature older age classes both recreationally and commercially. Difference is recreational increase in harvest lengths was mandated, commercial harvest of larger fish was an elective decision. That's a fact, not bias and one I believe we're in agreement on.

I believe the management decisions of this fishery much like what the striped bass fishery is currently going through made the same mistakes which is the following. Protect the immature fish and harvest the breeders. The result in both fisheries were declining recruitment levels causing a declining SSB and a declining biomass overall. The formula which worked in both fisheries was harvest the less mature or immature fish, enough will get through to sexual maturity and if left untouched will be the means of sustaining healthy recruitment levels to perpetuate the stock. That's the formulas we deviated from in both fisheries which caused both stock to decline as a result. I couldn't agree more when you say "When will fisheries management learn" not to make the same mistakes of past.

Per Original FMP, ***Reduce fishing mortality on immature fish***. Commercial and recreational discard rates have exponentially increased for both due to regulations. ***"Increase the yield from the fishery"***, below graph doesn't support that objective either. ***A 60% decrease in landings between 2004 and 2017, still declining and not sufficient to stem the decline in the overall fishery. Amazing statistic.***



Biomass from 2009 to 2017 decreased from 195 million fish to 122 million fish, **a reduction of 73 million fish in 9 yrs, or an almost 40% decrease.** So maybe the increase in population you say you're observing is actually the result of the approximate 35 million less fish recreational anglers can't harvest because of the disparate size differences between recreational and commercial sizes and not necessarily an indication of a growing biomass. Either your anecdotal observations are incorrect or fishery managements data is incorrect as one suggests a significant decline occurring while your observations dispute that point very clearly illustrated in the latest stock assessment. Either way regulations are being based on the former and both commercial and recreational are collectively paying the price albeit in different ways with significantly varying degrees of severity. Again those are facts, not a bias towards recreational or commercial concerns.

Two illustrations to support my last statement. Ex-vessel values have increased which when all is said and done is the single most important aspect of the fishery to commercial concerns. Below graph ***Source - Page 7 MAFMC Summer Flounder Fishery Information Document August 2019*** illustrates that fact.

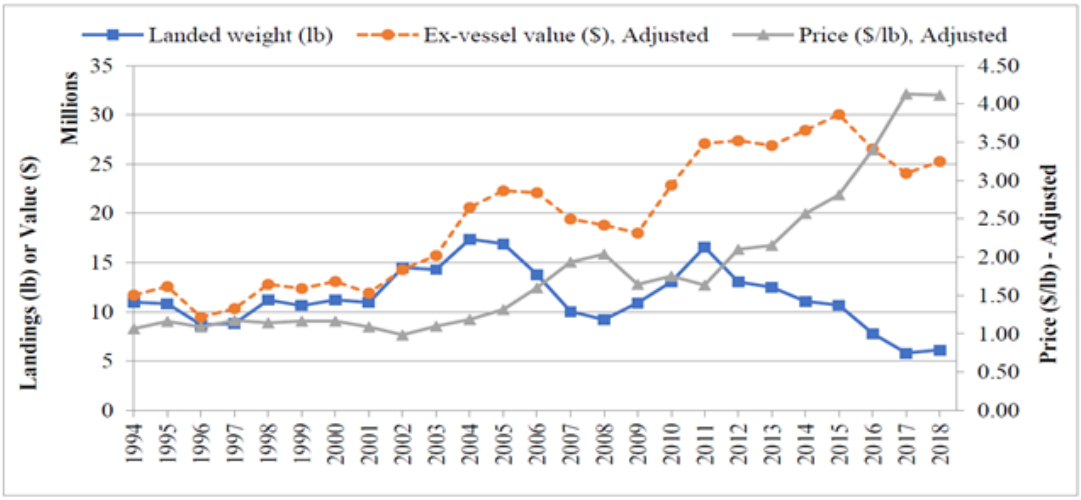


Figure 4: Landings, ex-vessel value, and price per pound for summer flounder, Maine through North Carolina, 1994-2018. Ex-vessel value and price are adjusted to real 2018 dollars using the Gross Domestic Product Price Deflator (GDPDEF).[4]

Commercial landings decreased by almost 50% between 1994 and 2018, a 25-yr period, while ex-vessel values increased by more than 100% over that same time frame and wholesale prices per lb of summer flounder quadrupled. In the process, commercial concerns based on my calculations have harvest rights of approximately 30 - 35 million more fish in the biomass than recreational anglers due to disparities in size regulations. Commercial operators can harvest fish year round, subject to trip and seasonal quota limitations. Recreational realistically, in spite of what the seasons stipulate, have a harvest window of basically July and August and most recreational anglers fish one day a week on the weekend so the season for all practical purposes for most anglers comes down to nine days of fishing effort. Possession limits have been cut from unlimited to 10 to now 3 in New Jersey, 4 in NY and Ct. with NY, Ct and RI having 19" size minimums. All Mid-Atlantic States have taken enormous hits and made enormous sacrifices recreationally in the same respect. Access to the fishery and possession limits are what's most important to the recreational angler and if you compared score cards based on the above facts, I believe most would agree recreational has been negatively impacted far more from a relative perspective based on what's matters most to both parties. Again these are facts, not a personal bias.

With all that said, if harvest size limits aren't scaled back, improving discard rates in the process and recruitment strengthened, this fishery will never recover. I believe we both agree on that as well. I would hope your future catch levels increase to 100,000 to 200,000 lbs annually but that won't happen until as I pointed out catch composition changes in the harvest of more males and less females. SSB in terms of gender composition improves dramatically, recruitment levels rise and the spawn is protected. Simply adjusting size limits higher or reducing catch levels has proven it will not only not address any of the above, it will exacerbate an already major problem within the fishery.

As long as policy decisions are based on marine fisheries data, yes the sky is falling. An ~40% decline in the biomass over the last 9 years with an ~60% decrease in landings over the last 17 years based on my definition constitutes falling skies. Maybe we don't share the same definition. If as you and others say is true that the stock is in a much healthier condition, the Commission and Council have a fiduciary responsibility under their charter and MSA legislation to correct that data problem since it ultimately drives access and harvest levels to the fishery for both commercial and recreational concerns having significant ramifications to each.

Thanks again for your reply, I don't think we're as far apart as your email suggests. And in spite of what you think, my focus is 90% on the health of the fishery and 10% on how the fishery is being allocated between parties dependent on the resource.

Regards,

Tom

Kiley Dancy

From: Jim Lovgren <jlovgren3@gmail.com>
Sent: Wednesday, November 20, 2019 6:31 PM
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Subject: Re: December ASMFC Joint Mtg - Annapolis MD

Categories: SFSCBSB

Tom, everybody wants a healthy resource, also better science, whether that means better stock assessments using industry based trawl surveys, creation of an expert fishermen panel to review the spring and fall survey data, or better recreational catch data as the new system is no better then the old. I suggest you look a little farther back in your analysis of the summer flounder fishery because if you check out landings data from the 70's and 80's you will see a rising level of landings until the mid 80's where it levels off and then takes a sharp decline especially 1989 and 90. As low as the landings were in those two years they are misleading. Because the stock had reached a low level, commercial participation almost completely stopped, resulting in the lowest landings on record. We could have easily caught 20 million pounds that year if we wanted to, but because there were other more lucrative fisheries to pursue at the time, [the government hadn't yet taken away our multi species fishing ability] we fished for Squid, and black back flounder, or scallops where we made more money. Interestingly if you check the science centers data on summer flounder recruitment through the years you see that [These numbers are somewhat close, I'm rely on memory] the highest recruitment numbers on record are in 1981 and 1982, which are also two of the highest recorded years for landings by

both sectors. Interestingly the age structure of the biomass was truncated to mostly fish less then 3 years old. What I get out of that is that we should be targeting the smaller fish, 14 to 18 inches, because that makes the rest of the biomass spawn harder to keep up. I have brought this up numerous times over the last 20 years to deaf ears.
The winter offshore migration takes place sooner in northern waters, and later as you go south, and I have no doubt that there are still spawning fish off the north Carolina coast in december, and even january. The shelf edge is about a third of the distance from the Carolina coast as it is off of Jersey. There are environmental changes taking place in many fisheries right now, and fishermen are noticing them, but the NEFSC doesn't seem to want to hear from them about what they observe. I do not believe it is all caused by climate change. Too many important species are now changing their migratory patterns in the last 15 years and rising temperatures may be what some people want to blame it on, especially states to the north that want to increase their quota by stealing from the south. Weakfish have disappeared from inshore waters and are more abundant offshore in the winter when they mix with schools of porgies. I believe this change was driven by too much competition for food with the ravenous dogfish and striped bass populations decimating many of these primarily inshore species. Croakers seemed to be moving north 5 to 10 years ago but have not appeared off NJ in a few years now. Bluefish have definitely changed to an offshore migration pattern even in the summer. Meanwhile Pot fishermen are catching cod fish off of Delaware, and I had two tows last winter over a month apart where I caught over 500 pounds of really nice sized Haddock. Which I will add we have never ever landed in Point Pleasant before. Not this time either as I was not on a groundfish day at sea and couldn't retain them. The winter before in the exact same area as I caught the haddock, I caught two American Plaice, which is a gulf of Maine fish that I have never seen in jersey waters. these incidents go contrary to the sky is falling global warming hysteria. the fact is that weather runs in decadal cycles of which we seem to have little understanding of. Perhaps when the NEFSC is more open to allowing fishermen a part in the stock assessment process, then we can gain a better understanding of not only the fisheries but of ourselves and our place in the ecosystem. Thanks for all the work you're doing it is worthy of review. Jim

Kiley Dancy

From: Tom Smith <smith.tom560@gmail.com>
Sent: Wednesday, November 20, 2019 7:56 PM
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Subject: Re: December ASMFC Joint Mtg - Annapolis MD

Categories: SFSCBSB

Jim,

I can't tell you how much I appreciate the candor of your reply and perspective. Your memory serves you well, highest recruitment level on record was 1983 at slightly over 102 million new recruits at an SSB of 29,000 metric tons. For comparison sake, 2017 recruitment was approximately 42 million recruits on a SSB of 43,000 metric tons. An almost 60% decrease in annual recruitment or 60 million less recruits on a SSB 50% higher. That is the definition of **GENDER IMBALANCE DUE TO THE OVER HARVEST OF OLDER AGE CLASSES HEAVILY COMPRISED OF BREEDER FEMALES.**

I'm already familiar with the trends in the 70's and 80's and know the stock essentially collapsed at least on paper with an SSB of ~7,000 metric tons in 1989, lowest recorded level in at least 50 years. Didn't realize commercial concerns redirected their efforts at other species which I'm glad was an option. In my opinion, the fishery as mentioned in previous documents reversed fortune to the positive beginning in 1989 and for the next 15 years because even at an

extremely low SSB, once catch levels were adjusted, gender balance (recruitment strength) of SSB had a better proportionate mix of males and females and more importantly higher fecund older age females which brought SSB back to 68.000 metric tons in 2003. 900% increase in 15 years. You're words " ***What I get out of that is that we should be targeting the smaller fish, 14 to 18 inches, because that makes the rest of the biomass spawn harder to keep up."*** That's my entire summation in a nut shell with one minor exception with how you stated it. I don't think the remaining biomass had to work harder to keep up. I believe the age and gender composition of SSB even at lower levels in the late 80's / early 90's was more proportionate between males and females because the harvest composition of younger age classes as you stated allowed that. SSB consisted more of older age classes with a significantly higher female proportion with the highest levels of fecundity. May sound like a subtle distinction but it's huge part of what needs to be corrected. Changes in catch composition in 1997 started a 20 plus year decline in this fishery which was under the radar screen for a few years until 2004 when that change caught up with us and weakened the recruitment capacity of the fishery to a point of no longer being sustainable in spite of significant cuts in catch. Catch composition needs to change in order for this fishery to rebound.

There's so much more we can discuss but I don't want to take up any more of your or anyone else's time and I know everyone at this stage with the upcoming meeting is already on information overload. But Jim you and I are on the same page more than you realize and the solution to rebuilding this fishery is in the data and the trends that data reveals. As I said, the blueprint is already in place, we need to collectively listen to what it's telling us and have the passion, conviction, courage whatever you wish to call it and work together to change this fisheries fortune. In doing so, I hope Jim has his 200,000 lb year, I hope every commercial, for hire and recreational angler can enjoy and reap the benefits of a much larger pie we collectively worked together to create. My hope, really my prayer, is the Commission, Council, Technical Committee, AP Members, Scientists, Marine Biologists, Commercial and Recreational communities and anyone else involved can work together, leave our differences at the side door, and leave our mark in a positive way on this fishery. Future generations ability to enjoy and benefit from this stock are dependent on it. This is an extremely vital fishery, it would kill me to see another one disappear and there's absolutely no reason for it to happen.

Everyone have a great night!

Regards,

Tom

Kiley Dancy

From: Tom Fote <tfote@jcaa.org>
Sent: Friday, November 22, 2019 4:42 PM
To: Tom Smith; Lovgren, Jim
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Categories: SFSCBSB

Tom Smith,

I appreciate the time and hard work you have put into your hypothesis but you should have really talked to a couple of people who have been involved in the fisheries for years and gotten the history of what really happen when the rebuilding took place. That is why your hypothesis had flaws since your started off with some gaps in your history of what went on with recruitment of summer flounder.

When we rebuilt the stocks it primarily on one, two and three year old fish since there were not many big fish. There was very little year class distribution and there were few fish older than five years. There were not the big females we have now and ages classes going out 12 years. A doormat fluke in the 80s into the 90s was a 5 pound fish and not a fish over 10 pounds as it is now. The average recreational caught fish in the late eighties and early nineties was 1 1/2 pounds not the over 3 pound fish it is now. That meant the recreational community is bringing home fewer but bigger fish.

When the stock was pronounced recovered with age classes going out to over 12 years old, recruitment started collapsing. This is called a bell shaped curve. We saw this in West Coast halibut.
When the stocks reached an all time high, recruitment dropped off. Dr. Pat Sullivan, who was working on the West Coast Halibut Commission at the time, suggested that they try fishing down the stock and see what happens with recruitment. It took 5 years of tough persuasion to get to implementation but when they did, recruitment jumped up. As we see in land based wildlife, when a species gets over crowded and the food sources get scarce, they stop reproducing. That is why many people are questioning your hypothesis. You work hard and I would like you to stay involved. But you also must understand, many of us have a long background and would gladly share our experiences with you as long as you are open to our impute.

Sincerely,
Tom Fote

Kiley Dancy

From: Jim Lovgren <jlovgren3@gmail.com>
Sent: Friday, November 22, 2019 5:22 PM
To: Fote, Tom
Cc: Tom Smith; Gregory Wojcik; CRAIG.MINER@cga.ct.gov; MELISSA.ZIOBRON@cga.ct.gov; WILLIAM.A.HYATT@snet.net; Davis, Justin; CRABMAN31@aol.com; Saveikis, David; FISHMASTER70 @comcast.net; JOHN.CLARK@delaware.gov; WILLIAM.CARSON@delaware.gov; MJDIZE@verizon.net; MBRASSIL@house.state.md.us; Luisi, Michael; Langley, Phil; BILL.ANDERSON@maryland.gov; SARAHKPEAKE@gmail.com; RAY@capecodfishermen.org; Ruccio, Michael; NICHOLA.MESERVE@state.ma.us; White, Sherry; McKiernan, Dan; Capt. Adam; Cimino, Joseph; Snellbaker, Jason; SENANDRZEJCZAK@njleg.org; Davidson, Maureen; Gilmore, Jim; Hasbrouck Jr, Emerson C.; KAMINSKY@nysenate.gov; STEVE.MURPHEY@ncdenr.gov; MBLANTON9394@gmail.com; BOB.STEINBURG@ncleg.net; Batsavage, Chris; JMANNEN@yfmlaw.com; Ballou, Robert; Reid, Eric; Borden, David; SEN-SOSNOWSKI@rilin.state.ri.us; Rootes-Murdy, Kirby; DISTRICT01 @senate.virginia.gov; Bowman, Steven; BPLUMLEE@pbp-attorneys.com; MARTINGARY.PRFC@gmail.com; Starks, Caitlin; Leaning, Dustin Colson; PAT.GEER@mrc.virginia.gov; Wong, Richard; Muffley, Brandon; Kiley Dancy; Beaty, Julia; Coutre, Karson; STEVE.DOCTOR@maryland.gov; Terceiro, Mark; Gilbert, Emily; Truesdell, Samuel; Peter Clarke; Maniscalco, John; VanMiddlesworth, Todd; Jason McNamee; JKIPP@asmfc.org; ALEX.ASPINWALL@mrc.virginia.gov; JACK.D.CONWAY.JR@lmco.com; KYLE@jbtackle.com; Townsend, Wes; LUREFEST@gmail.com; PGFVIKING1@gmail.com; SELBYSUZI1121@aol.com; JEFFEUTSLER@me.com; Jesien, Roman; BUNTING904@gmail.com; BUDDYSCRN@gmail.com; PKCARUSO@comcast.net; PATRIOTTOO@aol.com; JOSEPH@meganet.net; TIMEBANDIT100 @hotmail.com; Gregory DiDomenico; CAPTBOB626@comcast.net; BUCKTAIL8@aol.com; D713K@aol.com; MKHOFFMAN@optonline.net; RBUSBY@optonline.net; MARCIALOM@msn.com; Ruhle, James; ARTSMITH@gotricounty.com; BJSEAFOOD@earthlink.net; Blount, Frank; MHALL@towndock.com; NBF05@verizon.net; TRAVISBARAO@gmail.com; DCRABBE@crabbescharterfishing.com; DRNEILL3@hotmail.com; Hodges, Mark L.; CAPTSTV@yahoo.com; Amory, C. Meade; KEVIN.SMITH@suez.com; Elliott, G. Warren; Bolen, Ellen; Stewart.Michels@state.de.us; Shiels, Andrew L.; Pentony, Mike; Wilke, Kate; Lenox, Scott; Heins, Stephen; Gwin, Sonny; Hughes, Peter B.; Winslow, Sara; deFur, Peter; Nolan, Laurie; Hemilright Jr, Dewey; dave; Ec Newellman; Jim Hutchinson; Cicero, Nick; Gregory Hueth; John depersenaire; Mike Waine; tony@rocketcharters.com; Gutman, Jeffrey; Zemeckis, Douglas; Caputi, Gary; Gerry Zagorski; Rocky McGuigan; Patrick J. Sullivan
Subject: Re: December ASMFC Joint Mtg - Annapolis MD

Categories: SFSCBSB

Tom, As Mr. Fote knows this is called density dependence and it is the real problem with the fishery if you have to have a problem. It gets down to the carrying capacity of an ecosystem, the ecosystem can only support so many animals at one time. All that management should be doing is trying to see if we can manipulate the ecosystem to the benefit of the more beneficial to society animals, such as flounders, demersal, and pelagic species, while trying to keep the less marketable fish at a low but still sustainable level, think, less dogfish, skates and sea robins for instance. Both commercial and recreational fishermen and their representatives have been harping on this one point for over 20 years, the government thinks that they can have all species at their highest ever recorded levels at the same time, anything less is a failure, yet they know this is totally impossible. And that is why fish populations that by any reasonable measurement would be considered healthy, are declared overfished. The NEFSC knows about this problem but has done nothing in the way of even attempting to address it. It seems they get more money if the sky is falling. Thanks,Jim

Kiley Dancy

From: Tom Smith <smith.tom560@gmail.com>
Sent: Friday, November 22, 2019 9:37 PM
To: Fote, Tom
Cc: Lovgren, Jim; Gregory Wojcik; CRAIG.MINER@cga.ct.gov; MELISSA.ZIOBRON@cga.ct.gov; WILLIAM.A.HYATT@snet.net; Davis, Justin; CRABMAN31@aol.com; Saveikis, David; FISHMASTER70 @comcast.net; JOHN.CLARK@delaware.gov; WILLIAM.CARSON@delaware.gov; MJDIZE@verizon.net; MBRASSIL@house.state.md.us; Luisi, Michael; Langley, Phil; BILL.ANDERSON@maryland.gov; SARAHKPEAKE@gmail.com; RAY@capecodfishermen.org; Ruccio, Michael; Meserve, Nichola (FWE); White, Sherry; McKiernan, Dan; Capt. Adam; Cimino, Joseph; Snellbaker, Jason; SENANDRZEJCZAK@njleg.org; Davidson, Maureen; Gilmore, Jim; Hasbrouck Jr, Emerson C.; KAMINSKY@nysenate.gov; STEVE.MURPHEY@ncdenr.gov; MBLANTON9394@gmail.com; BOB.STEINBURG@ncleg.net; Batsavage, Chris; JMANNEN@yfmlaw.com; Ballou, Robert; Reid, Eric; Borden, David; SEN-SOSNOWSKI@rilin.state.ri.us; Rootes-Murdy, Kirby; DISTRICT01 @senate.virginia.gov; Bowman, Steven; BPLUMLEE@pbp-attorneys.com; MARTINGARY.PRFC@gmail.com; Starks, Caitlin; Leaning, Dustin Colson; PAT.GEER@mrc.virginia.gov; Wong, Richard; Muffley, Brandon; Kiley Dancy; Beaty, Julia; Coutre, Karson; STEVE.DOCTOR@maryland.gov; Terceiro, Mark; Gilbert, Emily; Truesdell, Samuel; Peter Clarke; Maniscalco, John; VanMiddlesworth, Todd; Jason McNamee; JKIPP@asmfc.org; ALEX.ASPINWALL@mrc.virginia.gov; JACK.D.CONWAY.JR@lmco.com; KYLE@jbtackle.com; Townsend, Wes; LUREFEST@gmail.com; PGFVIKING1@gmail.com; SELBYSUZI1121@aol.com; JEFFEUTSLER@me.com; Jesien, Roman; BUNTING904@gmail.com; BUDDYSCRN@gmail.com; PKCARUSO@comcast.net; PATRIOTTOO@aol.com; JOSEPH@meganet.net; TIMEBANDIT100 @hotmail.com; Gregory DiDomenico; CAPTBOB626@comcast.net; BUCKTAIL8@aol.com; D713K@aol.com; MKHOFFMAN@optonline.net; RBUSBY@optonline.net; MARCIALOM@msn.com; Ruhle, James; ARTSMITH@gotricounty.com; BJSEAFOOD@earthlink.net; Blount, Frank; MHALL@towndock.com; NBF05@verizon.net; TRAVISBARAO@gmail.com; DCRABBE@crabbescharterfishing.com; DRNEILL3@hotmail.com; Hodges, Mark L.; CAPTSTV@yahoo.com; Amory, C. Meade; KEVIN.SMITH@suez.com; Elliott, G. Warren; Bolen, Ellen; Stewart.Michels@state.de.us; Shiels, Andrew L.; Pentony, Mike; Wilke, Kate; Lenox, Scott; Heins, Stephen; Gwin, Sonny; Hughes, Peter B.; Winslow, Sara; deFur, Peter; Nolan, Laurie; Hemilright Jr, Dewey; dave; Ec Newellman; Jim Hutchinson; Cicero, Nick; Gregory Hueth; John depersenaire; Mike Waine; tony@rocketcharters.com; Gutman, Jeffrey; Zemeckis, Douglas; Caputi, Gary; Gerry Zagorski; Rocky McGuigan; Patrick J. Sullivan
Subject: Re: December ASMFC Joint Mtg - Annapolis MD

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PLEASE READ

Tom / Jim,

Thanks for your replies. Tom Let me reply to your last statement first ***"But you also must understand, many of us have a long background and would gladly share our experiences with you as long as you are open to our input."*** By nature I'm a data driven individual and believe data and facts outweigh anecdotal arguments, what ifs and conjecture. Policy decisions are based on marine fisheries data in my analysis and and not anecdotal observations so my personal belief is it would be prudent and beneficial to us all to direct our discussions around that data, accurate or inaccurate, as opposed to introducing alternate what ifs. In that sense, I've been very open minded to what the trends are revealing. Being open minded is different than being mindless and that door swings both ways so I would ask

the same consideration from the Commission and Council Members and everyone else on this thread as well towards my analysis. I've been a CFO for a majority of my professional career and dealing with data is one of my expertise. I'm not introducing new data, not challenging existing data although some can definitely be challenged. I'm trying to elevate 30 to 40 year trends to the surface for the decision makers to see in the hopes it will identify the issues preventing this vital fishery from recovering.

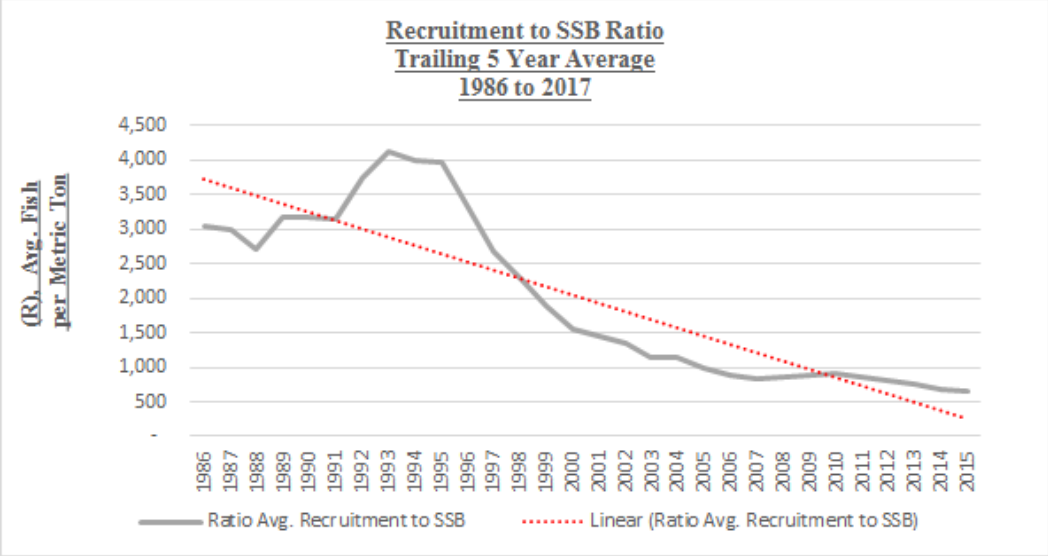
To your point of getting people involved, I've put a tremendous amount of effort in to assist for the most part the people copied on this email with managing and saving this fishery for the benefit of both commercial and recreational parties. I've attended public meetings, listened and participated on countless webinars only to find out that comments made are significantly limited and largely ignored. For all practical purposes, public involvement is in my opinion a requirement of MSA legislation or subsequent re-authorizations with little to no intent of including that input in the management of the fishery or policy decisions. That's not just my opinion, it's the overwhelming opinion of the general public and the shame of that statement is there's a tremendous amount of talented people and knowledge base being wasted with that philosophy in the process.

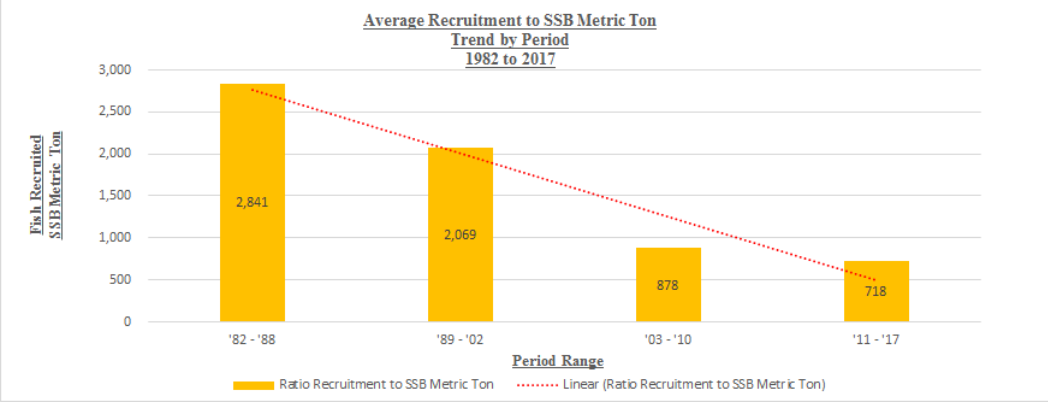
As far as getting people involved, I started this journey by meeting with RFA and SSFFF Members two years ago, specifically Jim Hutchinson Jr, Greg Hueth, Nick Cicero, Dave Arbeitman, Gerry Zagorski. and Dave Daley. Adam Nowalski is the Chairman of the RFA NJ Chapter. My analysis was initially published in RFA's 2017 "Spring Making Waves" edition which Adam is fully aware of. Jim Donofrio, Executive Director and Founder of RFA, described the article and my analysis, communicated by Jim Hutchinson Jr. to me, as "the best representation of the facts in this fishery he's ever seen". They described it as the smoking gun of why the fishery was failing. A similar article was subsequently run in the Fisherman Magazine by Jim Hutchinson Jr. with the same foundation of my conclusions and analysis today. I forwarded my work to NJDEP back in 2017 to David L. Glass, Deputy Commissioner DEP who replied "Extremely insightful, I have shared your information with our team from Fish & Wildlife, thank you for passing it along" never to hear back.. In September, based on the advise of Dustin Leaning who has been an absolute pleasure to work with in his new role, I forwarded my Executive Summary and Analysis for the Durham North Carolina meeting to Adam Nowalsky, Joe Cimino and Tom yourself, New Jersey's representatives, prompting a reply from Adam which I would characterize as anything but being open minded, and essentially no reply from Mr. Cimino or yourself. Running into dead ends over the last two years and being shunned from public commentary is what led me to forward my analysis directly to the Commission, Council, Technical Committee and AP Members as well as others to share information I've worked countless hours developing and analyzing. For that matter, Pat Sullivan who you mentioned in your reply was very aware and involved in my initial analysis and conclusions as SSFFF used it in their failed effort to incorporate sex and gender variables in future fisheries models as it failed Peer Review. At the time, Pat completely agreed with my findings and conclusions so I'm not sure why the implication in your reply is he wouldn't agree with them today. I can only reach out to people for assistance and advise them on my work which I did, I can't contribute to the management of this resource if my work falls on deaf ears which to a large degree it has.

As far as your comment ***"The average recreational caught fish in the late eighties and early nineties was 1 1/2 pounds not the over 3 pound fish it is now. That meant the recreational community is bringing home fewer but bigger fish."*** I completely agree with that statement with one caveat. That means the recreational community is bringing home fewer but bigger fish, **if any at all.** And your assuming that's what the recreational community is most interested in which I would disagree with. I believe what's most important to them is length of season and higher possession limits, the polar opposite of what the regulations have mandated. I also believe, as my thesis states, the increased harvest of females and older age classes is leading to a decline in the fishery. I know based on your reply you disagree with that thesis. I would venture to say most party boat fares today are leaving the boat with empty coolers due to the existing regulations. Average trip costs including fares, travel, sometimes lodging, food and beverages, ice, tips, equipment etc. probably range between $200 - $250. How long does anyone believe the party boat / for hire business will last with the current regulations in place. If we don't address the economic impacts these decisions are having on that community, they don't stand a chance.

Your comment ***"When the stock was pronounced recovered with age classes going out to over 12 years old, recruitment started collapsing."*** Correct me if I'm wrong but the stock was declared rebuilt in 2009, recruitment in the absolute

and relative to SSB

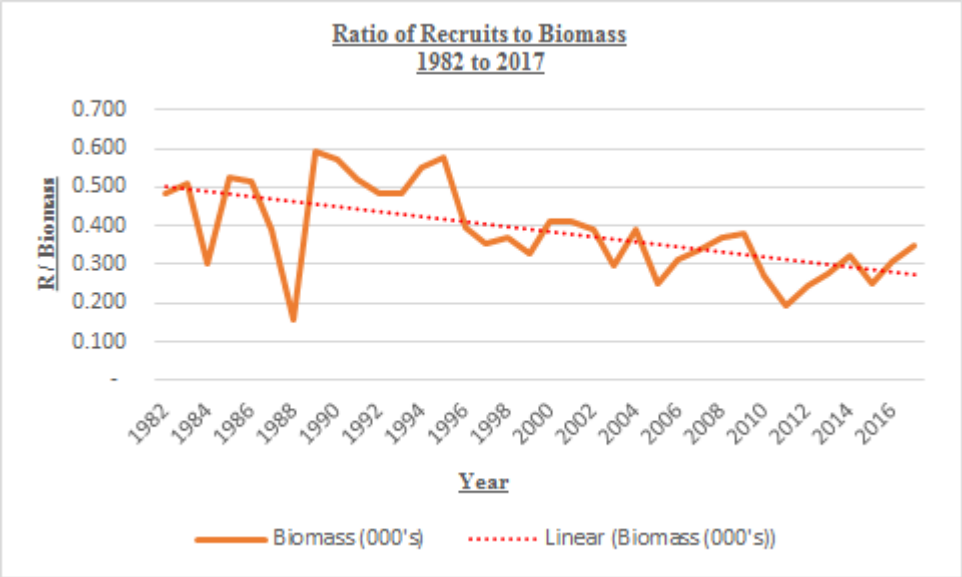




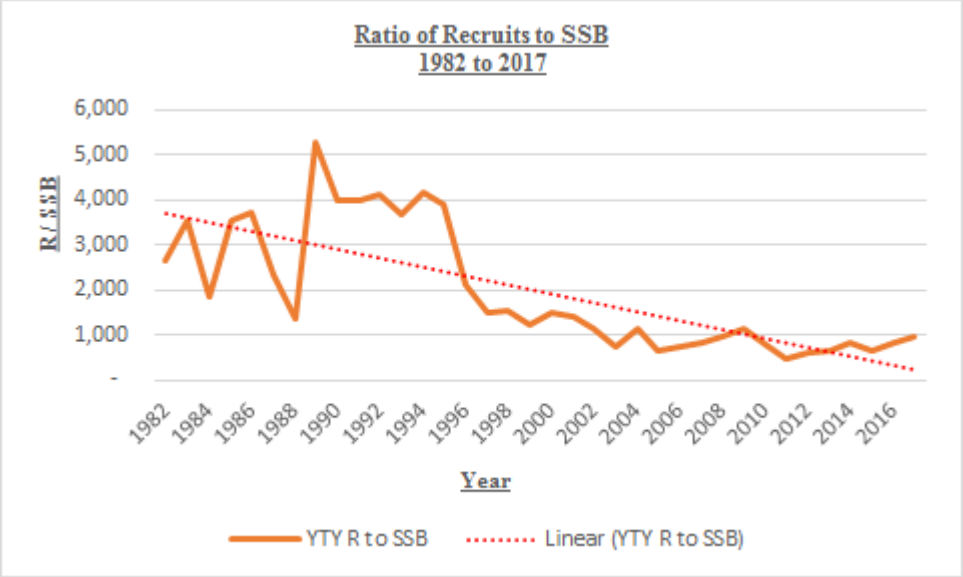
started declining well before 2009 so your statement is not only incorrect it's very misleading.

Your words, " ***When the stocks reached an all time high, recruitment dropped off. Dr. Pat Sullivan, who was working on the West Coast Halibut Commission at the time, suggested that they try fishing down the stock and see what happens with recruitment. It took 5 years of tough persuasion to get to implementation but when they did, recruitment jumped up. As we see in land based wildlife, when a species gets over crowded and the food sources get scarce, they stop reproducing. That is why many people are questioning your hypothesis."***

So in other words the Commission and Council want the stock to decline to bolster recruitment even though the data states recruitment and the biomass have each declined 41% and 32% respectively over the last 15-yr period. Interesting perspective. And if what you say is true, please explain the following relationships between recruitment and the biomass and recruitment and SSB which absolutely refutes your statement.



The ratio of new recruits to biomass has decreased substantially over the last 35 years which is the exact opposite of your theory. Recruitment in 1982 was 102 million new recruits relative to a biomass of 202 million fish. In 2017, recruitment was approximately 42 million on a biomass population of 121 million. 60% decrease in recruitment or 60 million less recruits based on a biomass population decrease of 40% or 80 million less fish. I would argue the concept of "density dependence " is not applicable since the same relationship repeats over the last 35 year period. If you relate R to SSB, the ratio is even worse and further from the case you present based on the following:



If biomass and SSB are decreasing and your theory had merit, we should be seeing increasing and historically high recruitment levels over the last decade and we're not. What we're seeing is the reverse and it's all due to the gender imbalance created in the biomass, the result of the over harvest of older age classes with higher levels of dead discard both recreationally and commercially and you can't rule out the potentially disastrous effects the commercial harvest is having on the spawn as larger sexually mature fish are being targeted than in years past. That plus as my analysis states the commercial winter harvest of the most highly concentrated biomass on record (40% occurring in the months Jan thru March per ACCSP) and the impact it's potentially having on even more elevated dead discard rates as illustrated in the following 57Th SAW graph.

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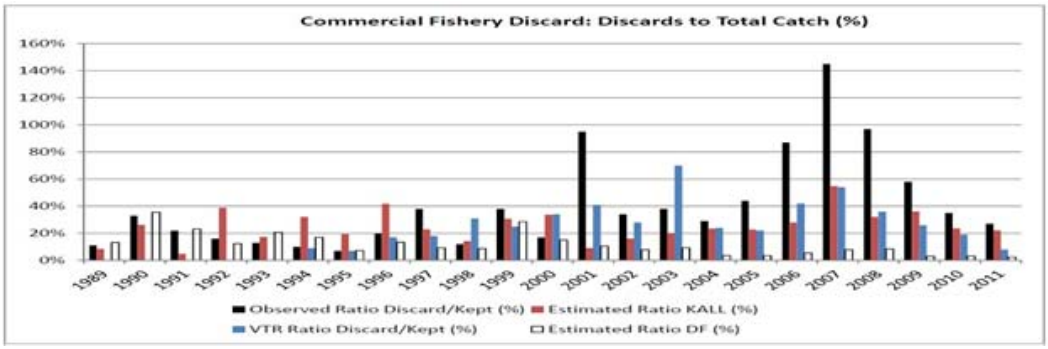

That is exactly why many people should be considering my thesis as opposed to questioning it because the statements you outlined in your reply are 100% not supported by marine fisheries data, are wrong based on the data being used to make policy decisions and extremely misleading. As Jim Lovegren himself said ***"Even a moron knows you can't kill all the mommy's and expect a species to survive, how come the ASMFC and the MAFMC can't figure that out?"*** That statement is directly from an AP Member and I couldn't agree more. We're misinterpreting the data and allowing 50 year old legislation dictate bad policy decisions. We're all better than that, but not if we keep to the path we're on.

The decision made today on the AP webinar to maintain status quo and not consider a single slot per state is the wrong decision for the health and future of this fishery. It would have been a start to reverting back to the regulations that caused a 900% increase in this fishery. It would have given for hire and party boat owners much needed relief. One slot would have made all the difference in the world in changing the trajectory of this fishery and we completely overlooked the benefits. More males harvested, more egg capacity from harvesting less females, lower levels of discards etc. the start of repairing a damaged SSB, higher recruitment levels, all the things broken in this fishery. Status quo regulations for 2020 and 2021 will result in a continuation of the same failing trend lines. How that isn't being acknowledged in a fishery which has been declining since 2003 is truly incomprehensible.

I apologize if people take this as being bold, brass, unprofessional, disrespectful whatever but my analysis, conclusions and beliefs are based on facts contrary to at least one person on this thread with the involvement and acknowledgment of some pretty smart people in this industry.

Greg Hueth, if the MC doesn't believe increased harvest of females is at the root of all evils in this fishery, catch composition as I've mentioned which has caused unintended negative consequential impacts to the fishery, you might as well stop working on your sex and gender based model because it's dead on arrival.

Sincerely,

Tom .

Kiley Dancy

From: Tom Smith <smith.tom560@gmail.com>
Sent: Saturday, November 23, 2019 8:29 AM
To: Fote, Tom
Cc: Lovgren, Jim; Gregory Wojcik; CRAIG.MINER@cga.ct.gov; MELISSA.ZIOBRON@cga.ct.gov; WILLIAM.A.HYATT@snet.net; Davis, Justin; CRABMAN31@aol.com; Saveikis, David; FISHMASTER70 @comcast.net; JOHN.CLARK@delaware.gov; WILLIAM.CARSON@delaware.gov; MJDIZE@verizon.net; MBRASSIL@house.state.md.us; Luisi, Michael; Langley, Phil; BILL.ANDERSON@maryland.gov; SARAHKPEAKE@gmail.com; RAY@capecodfishermen.org; Ruccio, Michael; Meserve, Nichola (FWE); White, Sherry; McKiernan, Dan; Capt. Adam; Cimino, Joseph; Snellbaker, Jason; SENANDRZEJCZAK@njleg.org; Davidson, Maureen; Gilmore, Jim; Hasbrouck Jr, Emerson C.; KAMINSKY@nysenate.gov; STEVE.MURPHEY@ncdenr.gov; MBLANTON9394@gmail.com; BOB.STEINBURG@ncleg.net; Batsavage, Chris; JMANNEN@yfmlaw.com; Ballou, Robert; Reid, Eric; Borden, David; SEN-SOSNOWSKI@rilin.state.ri.us; Rootes-Murdy, Kirby; DISTRICT01 @senate.virginia.gov; Bowman, Steven; BPLUMLEE@pbp-attorneys.com; MARTINGARY.PRFC@gmail.com; Starks, Caitlin; Leaning, Dustin Colson; PAT.GEER@mrc.virginia.gov; Wong, Richard; Muffley, Brandon; Kiley Dancy; Beaty, Julia; Coutre, Karson; STEVE.DOCTOR@maryland.gov; Terceiro, Mark; Gilbert, Emily; Truesdell, Samuel; Peter Clarke; Maniscalco, John; VanMiddlesworth, Todd; Jason McNamee; JKIPP@asmfc.org; ALEX.ASPINWALL@mrc.virginia.gov; JACK.D.CONWAY.JR@lmco.com; KYLE@jbtackle.com; Townsend, Wes; LUREFEST@gmail.com; PGFVIKING1@gmail.com; SELBYSUZI1121@aol.com; JEFFEUTSLER@me.com; Jesien, Roman; BUNTING904@gmail.com; BUDDYSCRN@gmail.com; PKCARUSO@comcast.net; PATRIOTTOO@aol.com; JOSEPH@meganet.net; TIMEBANDIT100 @hotmail.com; Gregory DiDomenico; CAPTBOB626@comcast.net; BUCKTAIL8@aol.com; D713K@aol.com; MKHOFFMAN@optonline.net; RBUSBY@optonline.net; MARCIALOM@msn.com; Ruhle, James; ARTSMITH@gotricounty.com; BJSEAFOOD@earthlink.net; Blount, Frank; MHALL@towndock.com; NBF05@verizon.net; TRAVISBARAO@gmail.com; DCRABBE@crabbescharterfishing.com; DRNEILL3@hotmail.com; Hodges, Mark L.; CAPTSTV@yahoo.com; Amory, C. Meade; KEVIN.SMITH@suez.com; Elliott, G. Warren; Bolen, Ellen; Stewart.Michels@state.de.us; Shiels, Andrew L.; Pentony, Mike; Wilke, Kate; Lenox, Scott; Heins, Stephen; Gwin, Sonny; Hughes, Peter B.; Winslow, Sara; deFur, Peter; Nolan, Laurie; Hemilright Jr, Dewey; dave; Ec Newellman; Jim Hutchinson; Cicero, Nick; Gregory Hueth; John depersenaire; Mike Waine; tony@rocketcharters.com; Gutman, Jeffrey; Zemeckis, Douglas; Caputi, Gary; Gerry Zagorski; Rocky McGuigan; Patrick J. Sullivan
Subject: Re: December ASMFC Joint Mtg - Annapolis MD

Categories: SFSCBSB

Ladies and Gentlemen,

Just one last point to make regarding the summer flounder fishery and the trajectory it's on. The below charts are from the winter flounder 2017 Stock Assessment. Note the relationships between the Biomass, recruitment and catch levels. The trend are almost identical to the summer flounder fishery and unless regulatory change are made as recommended to change catch composition and protect SSB, the female breeders and the spawn, summer flounder will have the same fate as the winter flounder fishery which has all but disappeared.

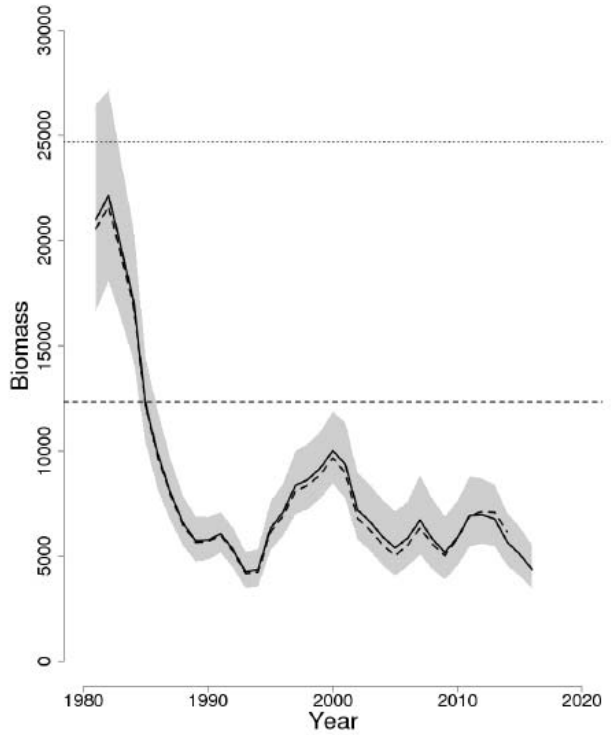

Figure 1: Trends in spawning stock biomass of Southern New England Mid-Atlantic winter flounder between 1981 and 2016 from the current (solid line) and previous (dashed line) assessment and the corresponding $SSB_{Threshold}$ ($\frac{1}{2}$ SSB_{MSY} *proxy*; horizontal dashed line) as well as SSB_{Target} (SSB_{MSY} *proxy*; horizontal dotted line) based on the 2017 assessment. The approximate 90% lognormal confidence intervals are shown.

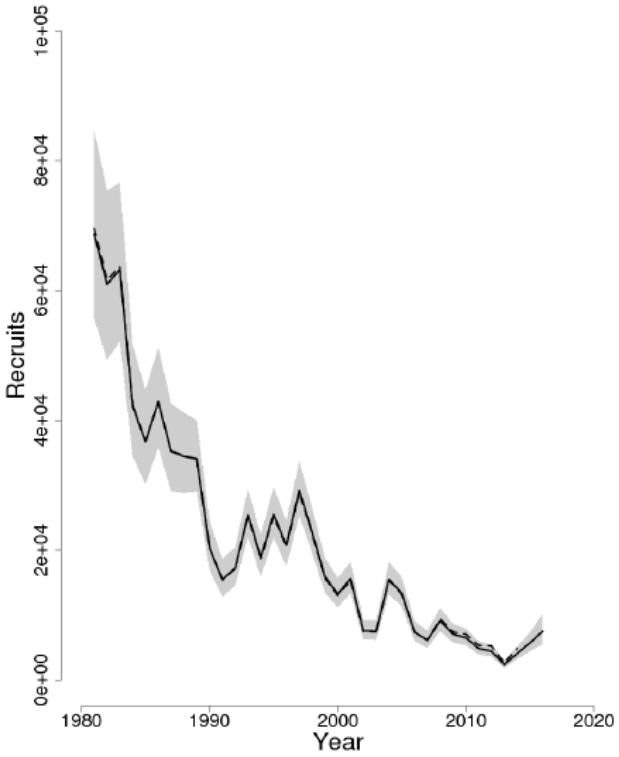

Figure 3: Trends in Recruits (age 1) (000s) of Southern New England Mid-Atlantic winter flounder between 1981 and 2016 from the current (solid line) and previous (dashed line) assessment. The approximate 90% lognormal confidence intervals are shown.

Cell issue on the Y axis of the chart in the SAW report but the trend line speaks for itself. Recruitment levels were destroyed.

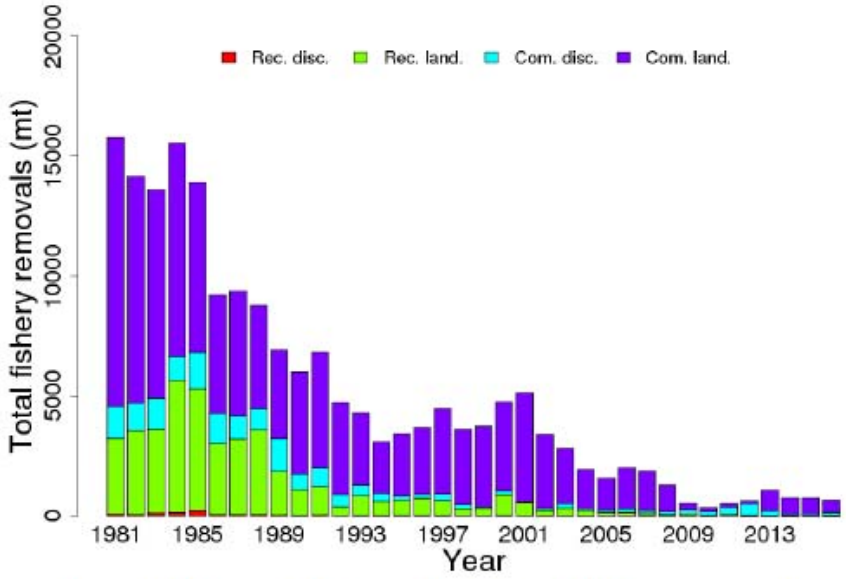

Figure 4: Total catch of Southern New England Mid-Atlantic winter flounder between 1981 and 2016 by fleet (commercial, recreational) and disposition (landings and discards).

A biomass 5 times greater in the 80's than today, catch levels which have plummeted to the point there really all that remains is a negligible commercial harvest which pales in comparison to the last four decades, the 80's in particular. Essentially no recreational fishery remains and recruitment levels in spite of a substantial drop in the biomass were crushed and never recovered. Again density differential didn't apply to this fishery either. The fishery for all practical purposes is gone. This is the same course we're on with summer flounder largely due to the same reasons. Two fisheries which in the 70's and 80's most people would have said will never falter, one has already failed and one very much on it's way to the same fate if remedial measures aren't adopted as recommended. I would imagine the MC also said the continued harvest of large female breeders offshore wasn't negatively impacting this fishery either yet the results would appear to prove otherwise. Catch cut substantially, the biomass and SSB decimated both in the absolute and I would assume from a gender perspective, recruitment levels destroyed in the process. Sound familiar to everyone? It should, I could change the titles on the charts to summer flounder as it directionally mirrors the same trends we're seeing in the summer flounder fishery and with status quo regulations there's no reason those trends will change meaning the fishery will continue on the 17-yr declining trend it's been on and more likely than not end up in the same situation the winter flounder fishery has. .

Food for thought before December's Joint Meeting.

Tom

Kiley Dancy

From: Jeffrey Eutsler <jeffeutsler@me.com>
Sent: Saturday, November 23, 2019 9:18 AM
To: Tom Smith
Cc: Fote, Tom; Lovgren, Jim; Gregory Wojcik; CRAIG.MINER@cga.ct.gov; MELISSA.ZIOBRON@cga.ct.gov; WILLIAM.A.HYATT@snet.net; Davis, Justin; CRABMAN31@aol.com; Saveikis, David; FISHMASTER70 @comcast.net; JOHN.CLARK@delaware.gov; WILLIAM.CARSON@delaware.gov; MJDIZE@verizon.net; MBRASSIL@house.state.md.us; Luisi, Michael; Langley, Phil; BILL.ANDERSON@maryland.gov; SARAHKPEAKE@gmail.com; RAY@capecodfishermen.org; Ruccio, Michael; Meserve, Nichola (FWE); White, Sherry; McKiernan, Dan; Capt. Adam; Cimino, Joseph; Snellbaker, Jason; SENANDRZEJCZAK@njleg.org; Davidson, Maureen; Gilmore, Jim; Hasbrouck Jr, Emerson C.; KAMINSKY@nysenate.gov; STEVE.MURPHEY@ncdenr.gov; MBLANTON9394@gmail.com; BOB.STEINBURG@ncleg.net; Batsavage, Chris; JMANNEN@yfmlaw.com; Ballou, Robert; Reid, Eric; Borden, David; SEN-SOSNOWSKI@rilin.state.ri.us; Rootes-Murdy, Kirby; DISTRICT01 @senate.virginia.gov; Bowman, Steven; BPLUMLEE@pbp-attorneys.com; MARTINGARY.PRFC@gmail.com; Starks, Caitlin; Leaning, Dustin Colson; PAT.GEER@mrc.virginia.gov; Wong, Richard; Muffley, Brandon; Kiley Dancy; Beaty, Julia; Coutre, Karson; STEVE.DOCTOR@maryland.gov; Terceiro, Mark; Gilbert, Emily; Truesdell, Samuel; Peter Clarke; Maniscalco, John; VanMiddlesworth, Todd; Jason McNamee; JKIPP@asmfc.org; ALEX.ASPINWALL@mrc.virginia.gov; JACK.D.CONWAY.JR@lmco.com; KYLE@jbtackle.com; Townsend, Wes; LUREFEST@gmail.com; PGFVIKING1@gmail.com; SELBYSUZI1121@aol.com; Jesien, Roman; BUNTING904@gmail.com; BUDDYSCRN@gmail.com; PKCARUSO@comcast.net; PATRIOTTOO@aol.com; JOSEPH@meganet.net; TIMEBANDIT100@hotmail.com; Gregory DiDomenico; CAPTBOB626@comcast.net; BUCKTAIL8@aol.com; D713K@aol.com; MKHOFFMAN@optonline.net; RBUSBY@optonline.net; MARCIALOM@msn.com; Ruhle, James; ARTSMITH@gotricounty.com; BJSEAFOOD@earthlink.net; Blount, Frank; MHALL@towndock.com; NBF05@verizon.net; TRAVISBARAO@gmail.com; DCRABBE@crabbescharterfishing.com; DRNEILL3 @hotmail.com; Hodges, Mark L.; CAPTSTV@yahoo.com; Amory, C. Meade; KEVIN.SMITH@suez.com; Elliott, G. Warren; Bolen, Ellen; Stewart.Michels@state.de.us; Shiels, Andrew L.; Pentony, Mike; Wilke, Kate; Lenox, Scott; Heins, Stephen; Gwin, Sonny; Hughes, Peter B.; Winslow, Sara; deFur, Peter; Nolan, Laurie; Hemilright Jr, Dewey; dave; Ec Newellman; Jim Hutchinson; Cicero, Nick; Gregory Hueth; John depersenaire; Mike Waine; tony@rocketcharters.com; Gutman, Jeffrey; Zemeckis, Douglas; Caputi, Gary; Gerry Zagorski; Rocky McGuigan; Patrick J. Sullivan
Subject: Re: December ASMFC Joint Mtg - Annapolis MD

Categories: SFSCBSB

For the sake of argument everyone makes good points but don't you think the Trawl surveys need to be handled differently if they're basing off the Bigelow's survey work, not a good idea ,I think we need a better mouse trap!!! lets put it in the fishermen's hands and not someone who is a retired fisherman!!!! there are reasons at he is retired!!! I've been actively fishing for 40 years and can honestly say that there are more fluke around today back in the 80's we actually counted fish per tow, now we leave tows what would have been big tows then, because we know there are more somewhere else.
I just want to say be very careful with who are doing the survey's!!!!!!!! We need Active professionals, not retirees 😀😁
Thanks
Jeff

Sent from my iPhone

Kiley Dancy

From: Tom Smith <smith.tom560@gmail.com>
Sent: Saturday, November 23, 2019 10:48 AM
To: Jeffrey Eutsler
Cc: Fote, Tom; Lovgren, Jim; Gregory Wojcik; CRAIG.MINER@cga.ct.gov; MELISSA.ZIOBRON@cga.ct.gov; WILLIAM.A.HYATT@snet.net; Davis, Justin; CRABMAN31@aol.com; Saveikis, David; FISHMASTER70 @comcast.net; JOHN.CLARK@delaware.gov; WILLIAM.CARSON@delaware.gov; MJDIZE@verizon.net; MBRASSIL@house.state.md.us; Luisi, Michael; Langley, Phil; BILL.ANDERSON@maryland.gov; SARAHKPEAKE@gmail.com; RAY@capecodfishermen.org; Ruccio, Michael; Meserve, Nichola (FWE); White, Sherry; McKiernan, Dan; Capt. Adam; Cimino, Joseph; Snellbaker, Jason; SENANDRZEJCZAK@njleg.org; Davidson, Maureen; Gilmore, Jim; Hasbrouck Jr, Emerson C.; KAMINSKY@nysenate.gov; STEVE.MURPHEY@ncdenr.gov; MBLANTON9394@gmail.com; BOB.STEINBURG@ncleg.net; Batsavage, Chris; JMANNEN@yfmlaw.com; Ballou, Robert; Reid, Eric; Borden, David; SEN-SOSNOWSKI@rilin.state.ri.us; Rootes-Murdy, Kirby; DISTRICT01 @senate.virginia.gov; Bowman, Steven; BPLUMLEE@pbp-attorneys.com; MARTINGARY.PRFC@gmail.com; Starks, Caitlin; Leaning, Dustin Colson; PAT.GEER@mrc.virginia.gov; Wong, Richard; Muffley, Brandon; Kiley Dancy; Beaty, Julia; Coutre, Karson; STEVE.DOCTOR@maryland.gov; Terceiro, Mark; Gilbert, Emily; Truesdell, Samuel; Peter Clarke; Maniscalco, John; VanMiddlesworth, Todd; Jason McNamee; JKIPP@asmfc.org; ALEX.ASPINWALL@mrc.virginia.gov; JACK.D.CONWAY.JR@lmco.com; KYLE@jbtackle.com; Townsend, Wes; LUREFEST@gmail.com; PGFVIKING1@gmail.com; SELBYSUZI1121@aol.com; Jesien, Roman; BUNTING904@gmail.com; BUDDYSCRN@gmail.com; PKCARUSO@comcast.net; PATRIOTTOO@aol.com; JOSEPH@meganet.net; TIMEBANDIT100@hotmail.com; Gregory DiDomenico; CAPTBOB626@comcast.net; BUCKTAIL8@aol.com; D713K@aol.com; MKHOFFMAN@optonline.net; RBUSBY@optonline.net; MARCIALOM@msn.com; Ruhle, James; ARTSMITH@gotricounty.com; BJSEAFOOD@earthlink.net; Blount, Frank; MHALL@towndock.com; NBF05@verizon.net; TRAVISBARAO@gmail.com; DCRABBE@crabbescharterfishing.com; DRNEILL3 @hotmail.com; Hodges, Mark L.; CAPTSTV@yahoo.com; Amory, C. Meade; KEVIN.SMITH@suez.com; Elliott, G. Warren; Bolen, Ellen; Stewart.Michels@state.de.us; Shiels, Andrew L.; Pentony, Mike; Wilke, Kate; Lenox, Scott; Heins, Stephen; Gwin, Sonny; Hughes, Peter B.; Winslow, Sara; deFur, Peter; Nolan, Laurie; Hemilright Jr, Dewey; dave; Ec Newellman; Jim Hutchinson; Cicero, Nick; Gregory Hueth; John depersenaire; Mike Waine; tony@rocketcharters.com; Gutman, Jeffrey; Zemeckis, Douglas; Caputi, Gary; Gerry Zagorski; Rocky McGuigan; Patrick J. Sullivan
Subject: Re: December ASMFC Joint Mtg - Annapolis MD

Categories: SFSCBSB

Jeffrey,

I absolutely agree if the data is wrong or there's reason to believe it's not representative of what's happening in the fishery, alternate means of collection need to be employed. **BUT** there hasn't been other than MRIP which everyone questions and as a result policy decisions are being made based on questionable data which is hurting commercial interests and in my opinion to a larger degree recreational interests. People are losing their livelihoods over these regulations, businesses are going under and instead of changing the process if the data is in fact uncertain or questionable, we simply make the same bad decisions every year on flawed data. If that's the consensus of the Commission and Council, it's an issue they need to address and resolve.

At the same time as mentioned, we need to be sure the appearance of a healthier biomass by commercial operators isn't the result of approximately 35 million more fish (based on my calculations) being removed from harvest potential recreationally because of the inequity different size limits created. Those fish in years past would have been harvested

by the recreational community, today they're being released. And in the process, recreational anglers are penalized 32% for discard mortality and at minimum commercial's proportionate share of the harvestable biomass (fish over 14") has increased exponentially. What your seeing might be a direct result of that shift again in catch composition as opposed to an indication of a growing fishery. 35 million more fish in the most highly concentrated biomass on record would certainly give that illusion.

In general I agree with the points you raise in your post, bad or questionable inputs result in bad or questionable outputs which typically leads to ineffective decision making. But as I said, that data is the data policy decisions are being based on and simply adjusting catch downward every year is not addressing that problem. This again is a trend in the making for 17 years minimum and more likely 22-years started in 1997. If we're concerned about how the data is being generated, I would think the largest most powerful institution in the world would have had ample time to address that issue and if it hasn't all we have to address is the data as it exists in the stock assessments which is precisely why I approached this inn the manner I have.

Thanks for your reply, well said and very practical.

Regards,

Tom

Name: Ryan Landolfi

Email: landolfi.rr@gmail.com

Topic(s): Tab 12: Summer Flounder 2020 Recreational Specifications

Comments: The quality of the fishing in the NY Bight for summer flounder has been steadily declining, with the only observable changes for recreational anglers like myself being the increasing size limits and decreasing bag limits. The philosophy that removing the larger spawning females from the population, with a relatively much lower percentage of large male fish, seems to have put this fishery into a tailspin. While I understand there are many factors at play, I believe the regulations are not functioning as intended (to protect the stock) and are having a deleterious effect on the overall health of the fishery. Several factors have contributed to the decline of this fishery including commercial discards, commercial harvest of spawning stock biomass during spawning months prior to dropping eggs, recreational discard mortality, etc. I ask that you please consider implementing a recreational slot limit to protect not only the future of the summer flounder fishery, but also the future of recreational fishing for the generations to follow. Many anglers like myself would be happy to take a photo with that fish of a lifetime and return her back to continue to spawn while keeping a couple smaller fish for the table; however, with the regulations as they are, we are forced to remove these large breeding females if we want to enjoy a fresh caught meal. It just doesn't make sense.

(Sent via *Mid-Atlantic Fishery Management Council*)

Name: Timothy Anfuso
Email: cnplanners@optonline.net
Topic(s): Tab 12: Summer Flounder 2020 Recreational Specifications

Comments: To Whom It May Concern;

Please accept the following when considering the 2020 Summer Flounder regulations.

1. In New Jersey the 18" minimum size limit primarily results in the harvesting of female fish.

2. To increase recruitment or young of the year we need to stop harvesting female fish and need to harvest a balance between male and female fish.

3. Implement a slot requirement which is designed to harvest male fish.

4. Finally and most importantly, stop all fishing during spawning periods. It make no sense to allow fishing when the fish are stacked up for a spawn and to remove these fish from the population immediately prior to breeding. Having a larger population which actually breeds will only result in more eggs being hatch and increase the young of the year. During spawning periods all fishing should be closed and remain closed until after the eggs are released.

Thank you for your time and consideration.

Tim Anfuso
50 Society Hill Way
Tinton Falls, NJ 07724

(Sent via *Mid-Atlantic Fishery Management Council*)

Comments for the Mid-Atlantic Fishery Management Council's December meeting regarding Conservational equivalency in the summer flounder and black sea bass fisheries.

My name is Michael Plaia and I am an advisor to both the Mid-Atlantic Fishery Management Council (MAFMC) and the Atlantic States Marine Fishery Commission (ASMFC) for summer flounder, scup and black sea bass. I am writing to you today to urge you to refuse to adopt conservational equivalency for both the 2020 summer flounder and black sea bass fisheries.

My comments today will mirror the comments I have previously submitted to the Greater Atlantic Fisheries Office in response to their general request for comments on including conservational equivalency as an option in the fishery management plan for black sea bass. I have attached those comments to this missive for your reading pleasure.

I do not believe that it is either legal or wise for the council to vote in favor of using conservational equivalency in either of those fisheries. The Magnesson-Stevens act requires that all actions taken by the council be based on the best available science. The best available science in this case being the Marine Recreational Information Program and its estimate of each states' recreational catch during 2019. I have also attached an excel worksheet which shows the MRIP state-by-state catch estimates through wave 4, along with the associated percent standard error (PSE) and calculates the weighted average PSE for waves 3 and 4 (including waves 1 and 2 would only increase the PSEs for these estimates).

If the council were to choose to use conservational equivalency in either of these fisheries the ASMFC would use these MRIP estimates to formulate their conservational equivalent regulations. The problem is that these estimates, by their own internal criteria, are not the best available science.

As you can see on the Excel worksheet, the harvest estimates (A + B1) for summer flounder during 2019 in at east three states, MA, RI and NC, carry PSEs of 40% or greater and the PSE for the state of MD is closely approaching 40%. If you subscribe to what I will, with all due respect, refer to as the John Boreman school of thought (since he was the first one to tell me about it) any MRIP estimate which carries a PSE of over 40% should not be relied on for management purposes. Therefore, if the council were to vote to use conservational equivalency it would be voting to use what the best available science says are unreliable figures to manage the 2020 fishery.

For black sea bass the case is even stronger. The 2019 harvest estimates (A + B1) for the states of MD and VA are well over 50%, which means that those estimates are more likely wrong than correct. Also, the estimates for the states of DE and NC have associated PSEs of over 40%, which should not be used for management purposes. Therefore, any vote to use conservational

equivalency for black sea bass would be a vote to use data to manage the fishery which the best available science says is bad data.

Normally I would be in favor of using conservational equivalency to account for local conditions which may vary from the coastwide norms. However, I do think we need good data to do that, and the best available science, e.g. the PSEs, tell us that the data we would have to use to implement conservational equivalency is at best, unusable for management purposes and, in the case of black sea bass, that data is more likely wrong, and thus directly against the Magnesson-Stevens directive to use the best available science.

From: Bruce corrnine <brewlugger@gmail.com>
Sent: Tuesday, November 26, 2019 8:04 AM
To: Moore, Christopher <cmoore@mafmc.org>
Subject: Summer Flounder

As a lifelong resident of New Jersey and a recreational saltwater angler for over 50 years. I am asking the council to take a proactive approach to protect the Summer Flounder spawning stock biomass. The information provided by Tom Smith clearly shows the current regulations will not bring recovery to this fishery and will continue the decline of our Summer Flounder fishery.

From: Hart, Larry <larry.hart@credit-suisse.com>
Sent: Tuesday, November 26, 2019 9:15 AM
To: Moore, Christopher <cmoore@mafmc.org>
Subject: Fluke 2020

Resending attached:

Please consider a "slot" regulation for Fluke this year so that recreational anglers are no longer forced to remove the larger female breeders from the stock. Also please consider a commercial ban on Fluke landings during their winter Spawn off-shore. . . Thanks, Larry Hart (New Jersey recreational fisherman)

Larry Hart
CREDIT SUISSE SECURITIES (USA) LLC
CS Sec USA LLC | EM OPS IT - Princeton, MIOM 87
Princeton Forrestal | Princeton NJ 08540-6689 | Americas
Phone +1 212 325 9992
larry.hart@credit-suisse.com | www.credit-suisse.com

Name: Tom Trageser
Email: ttrageser@oceanmhs.org
Topic(s): Tab 12: Summer Flounder 2020 Recreational Specifications, Tab 14: Black Sea Bass 2020 Recreational Specifications, Tab 16: Summer Flounder, Scup, and Black Sea Bass Commercial/ Recreational Allocation Amendment
Comments: Recreational anglers have been abiding by summer flounder regulations for over 30 years! During that time, harvest limits have been reduced and minimum size have increased. The increased regulations are having the opposite effect on our fisheries than what was intended by the Magnuson-Stevens act. Recent data has been presented to the councils and SSC showing undeniable proof the regulations are helping to decimate the SSB of summer flounder and other species as well (e.g. Black Sea bass). It is well past the time for a significant change in how we regulate the fisheries and the data used to measure fish stocks and the pressure we put upon them.
Tom Smith, has studied the available data that provides evidence the increased minimum size of summer flounder is having a detrimental impact on the SSB. As minimum size increases, recreational anglers are being forced to harvest the breeding stock. Peer reviewed data (paid by recreational anglers) provides information that 90% of the fluke over 18" are female. It makes no sense to force the recreational community to remove only the breeding class of fish. A slot fishery is what is needed to help this fishery survive and thrive.
I urge you to listen and take action on the analysis provided by Tom Smith on November 19, 2019 to Kiley Dancy and the AMFC. Failure to do so will result in another fluke fiasco by enraging the recreational community like you have never seen before.
(Sent via Mid-Atlantic Fishery Management Council)

Kiley Dancy

From: Dustin C. Leaning <DLeaning@asmfc.org>
Sent: Tuesday, November 26, 2019 3:29 PM
To: Kiley Dancy; Beaty, Julia; Coutre, Karson
Subject: FW: Reminder: AP webinar this Friday

From: Conway Jr, JACK D [mailto:jack.d.conway.jr@lmco.com]
Sent: Tuesday, November 26, 2019 2:59 PM
To: Dustin C. Leaning <DLeaning@asmfc.org>
Subject: [External] RE: Reminder: AP webinar this Friday

Greetings from CT,

I was on the conference call last Friday and did not provide any verbal comments since I wanted to absorb the entire meeting. Overall, having status quo regulations for all three species makes the most sense for CT Anglers fishing Long Island Sound waters for the 2020 Season.

Specific Comments:

Summer flounder: a slot limit does make a great deal of sense but I realize some of the Party Charter fleet (not based on CT) have specific fisheries for trophy summer flounder. From my perspective, the slot limit concept needs to be explored further and there may likely be a need for different regulations for different bodies of water (similar to Tautog management in Long Island Sound). Summer Flounder fishing in Long Island Sound has been going downhill in major fashion, in 2019 during the months of July and August my boat landed over 300 summer flounder. Out of the 300 we only landed 1 "keeper". I was fishing in water from 80-130 feet in Central Long Island Sound (often drifting into NY waters). We landed many 17-18 inch fish. Anything over 19 was impossible to come by. Reducing recreational landings by increasing dead discards was a bad management decision made a long time ago.

Sea Bass: Sea bass have become one of the most important fish for recreational anglers based out of CT. They are available somewhat all year (moving from Central LIS to Eastern LIS over the course of the summer). The allow anglers to harvest fish when nothing else is available. Per my above comments the summer flounder fishery for "keepers" is dismal and CT waters used to have great striped bass fishing that has also disappeared with the downturn in that fishery. Sea Bass offer great opportunities and the ability to big a great eating fish home. The bluefish population in LIS has also "crashed". The point being sea bass have somewhat filled the void left by other species in decline.

Scup: the other "go to" fish in LIS and are enjoying more popularity that ever before. Again, with the lack of striped bass and bluefish, this fishery is filling a void that needs to be filled.

MRIP Data: "Yikes" – this was a hot topic during the call and this really needs to be addressed. I was not aware of the crazy numbers associated with the shore based catch of scup in CT but something is really wrong with this data collection system.

The staff did a great job running the meeting.

Happy Thanksgiving

John (Jack) Conway

From: Alan <kingofbdock@aol.com>
Sent: Tuesday, November 26, 2019 8:23 PM
To: Moore, Christopher <cmoore@mafmc.org>
Subject: summer flounder

Please consider a "slot" regulation for Fluke this year so that recreational anglers are no longer forced to remove the larger female breeders from the stock. Also please consider a commercial ban on Fluke landings during their winter spawn off-shore. Both need to be implemented at the same time. I am not asking for a reduction in the commercial quota, just that they don't fish during the breeding season.

In addition, there has to be a better methodology of estimating the recreational summer flounder catch other than a mailing. It is probably flawed and filled with unreliable information. Is it the best science to determine what is being caught? And every time you come up wth a new way to estimate the total recreational take we get less and less. Over the past few years our allowable catch in New Jersey has dropped more than 60 percent.
It is obvious and interesting that you do not take into consideration the economic impact of your actions as you do for the commercials, I wonder why that is.

Alan Kenter (New Jersey recreational fisherman)

Name: paul geelan

Email: pggeelan@outlook.com

Topic(s): Tab 02: 2020-2024 Strategic Plan, Tab 07: EAFM Summer Flounder Conceptual Model, Tab 12: Summer Flounder 2020 Recreational Specifications, Tab 16: Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment

Comments: Please consider a slot fish smaller than 18inch.This would help taking less breeders out of the biomass and give all fisherman a chance to take home a fish for dinner

(Sent via *Mid-Atlantic Fishery Management Council*)

From: Squarespace <no-reply@squarespace.info>
Date: November 26, 2019 at 6:33:34 PM EST
To: Mary Clark Sabo <msabo@mafmc.org>
Subject: Form Submission - December 2019 Public Comments
Reply-To: dave@dneconsulting.com
Name: Dave daly

Email: dave@dneconsulting.com

Topic(s): Tab 12: Summer Flounder 2020 Recreational Specifications, Tab 14: Black Sea Bass 2020 Recreational Specifications

Comments: With all due respect the councils , SSC, MC and TC. We need to discuss alternative methods of fisheries management and process in more open minded detail and debate. Mr Tom Smiths analysis obviously requires more discussion and debate
No one has figured the proper management out yet so no blame on anyone or institution but time has run out to continue on the same path as recreational fishing business are forced to close yearly. That means economic impact if even considered is not working,

Gender and Slots need to be a focus with a new look at the highly over estimated catch, discards by the new MRIP , broken trawl surveys and misinformation on release mortality / dead discards.

(Sent via *Mid-Atlantic Fishery Management Council*)

From: Martin Smith <mvsusaf@yahoo.com>
Sent: Tuesday, November 26, 2019 8:29 PM
To: Moore, Christopher <cmoore@mafmc.org>
Subject: Fluke

Sir: Please consider a slot regulation for fluke this year so that only breeders are harvested. While at it please consider a commercial hiatus on water fluke landings to allow spawning.

Sincerely yours,

Martin V Smith, Major, USAF (Ret)
Recreational angler
Sea Bright, NJ

From: Roger Neset <roger@rogersdrivingschool.com> Sent:
Wednesday, November 27, 2019 8:38 PM
To: Moore, Christopher

Subject: Summer Flounder Management - Public Comment

To Whom it may concern,

As a recreational fisherman of mostly the northern NJ area, I am greatly concerned about the future of our summer founder fishery here. The biomass seems to be in decline. Please consider a slot limit to protect the larger female breeders and tighter restrictions on commercial netting, especially during the winter offshore spawning period.

Some of our previously prosperous fisheries (winter flounder, weakfish) have been reduced to a fraction of what they once were. It's time to be proactive and try a new approach to summer flounder management to protect them from a similar fate.

Thank you for your consideration.

Roger Neset
3 Condon Mt Road
Tomkins Cove, NY 10986

From: Bonnie Montevechi <bbmontevechi@gmail.com>
Sent: Wednesday, November 27, 2019 9:04 PM
To: Moore, Christopher <cmoore@mafmc.org>
Subject: Summer Flounder

I am a longtime resident from New Jersey and a recreational saltwater angler. I am urging the commission to please act on making regulations to protect our Summer Flounder spawning stock biomass.

Kiley Dancy

From: Tom Smith <smith.tom560@gmail.com>
Sent: Wednesday, November 27, 2019 9:10 PM
To: Gregory Wojcik; CRAIG.MINER@cga.ct.gov; MELISSA.ZIOBRON@cga.ct.gov; WILLIAM.A.HYATT@snet.net; Davis, Justin; CRABMAN31@aol.com; Saveikis, David; FISHMASTER70 @comcast.net; JOHN.CLARK@delaware.gov; WILLIAM.CARSON@delaware.gov; MJDIZE@verizon.net; MBRASSIL@house.state.md.us; Luisi, Michael; Langley, Phil; BILL.ANDERSON@maryland.gov; SARAHKPEAKE@gmail.com; RAY@capecodfishermen.org; Ruccio, Michael; Meserve, Nichola (FWE); White, Sherry; McKiernan, Dan; Capt. Adam; Cimino, Joseph; Fote, Tom; Snellbaker, Jason; SENANDRZEJCZAK@njleg.org; Davidson, Maureen; Gilmore, Jim; Hasbrouck Jr, Emerson C.; KAMINSKY@nysenate.gov; STEVE.MURPHEY@ncdenr.gov; MBLANTON9394@gmail.com; BOB.STEINBURG@ncleg.net; Batsavage, Chris; JMANNEN@yfmlaw.com; Ballou, Robert; Reid, Eric; Borden, David; SEN-SOSNOWSKI@rilin.state.ri.us; Rootes-Murdy, Kirby; DISTRICT01 @senate.virginia.gov; Bowman, Steven; BPLUMLEE@pbp-attorneys.com; MARTINGARY.PRFC@gmail.com; Starks, Caitlin; Leaning, Dustin Colson; PAT.GEER@mrc.virginia.gov; Wong, Richard; Muffley, Brandon; Kiley Dancy; Beaty, Julia; Coutre, Karson; STEVE.DOCTOR@maryland.gov; Terceiro, Mark; Gilbert, Emily; Truesdell, Samuel; Peter Clarke; Maniscalco, John; VanMiddlesworth, Todd; Jason McNamee; JKIPP@asmfc.org; ALEX.ASPINWALL@mrc.virginia.gov; JACK.D.CONWAY.JR@lmco.com; KYLE@jbtackle.com; Townsend, Wes; LUREFEST@gmail.com; PGFVIKING1@gmail.com; SELBYSUZI1121@aol.com; Jeffrey Eutsler; Jesien, Roman; BUNTING904@gmail.com; BUDDYSCRN@gmail.com; PKCARUSO@comcast.net; PATRIOTTOO@aol.com; JOSEPH@meganet.net; TIMEBANDIT100@hotmail.com; Lovgren, Jim; Gregory DiDomenico; CAPTBOB626@comcast.net; BUCKTAIL8@aol.com; D713K@aol.com; MKHOFFMAN@optonline.net; RBUSBY@optonline.net; MARCIALOM@msn.com; Ruhle, James; ARTSMITH@gotricounty.com; BJSEAFOOD@earthlink.net; Blount, Frank; MHALL@towndock.com; NBF05@verizon.net; TRAVISBARAO@gmail.com; DCRABBE@crabbescharterfishing.com; DRNEILL3 @hotmail.com; Hodges, Mark L.; CAPTSTV@yahoo.com; Amory, C. Meade; KEVIN.SMITH@suez.com; Elliott, G. Warren; Bolen, Ellen; Stewart.Michels@state.de.us; Shiels, Andrew L.; Pentony, Mike; Wilke, Kate; Lenox, Scott; Heins, Stephen; Gwin, Sonny; Hughes, Peter B.; Winslow, Sara; deFur, Peter; Nolan, Laurie; Hemilright Jr, Dewey; dave; Ec Newellman; Jim Hutchinson; Cicero, Nick; Gregory Hueth; John depersenaire; Mike Waine; tony@rocketcharters.com; Gutman, Jeffrey; Zemeckis, Douglas; Caputi, Gary; Gerry Zagorski; Rocky McGuigan; Patrick J. Sullivan
Subject: Re: December ASMFC Joint Mtg - Annapolis MD

Ladies and Gentlemen,,

Kiley, thanks again for all your work pulling a tremendous amount of information together for the upcoming December meeting. In particular, thank for the inclusion of various documents and analysis provided as well as the email exchanges with Commission, Council and other Members of various other Summer Flounder Committees. I believe it's important to get opposing thoughts on the table and discussed in order for this fishery to recover and have a sustainable future. If I get this email in by the 11:59 briefing materials deadline tonight, please include it if possible. I want to be completely clear in my last email to the governing bodies prior to the meeting addressing 2020 regulations. This fishery has experienced declines in every attribute for the last 17-yr. period, 2003 to 2019. Declines from 35% to 50% in the last 17 years in just about every aspect of the fishery including the overall biomass population, spawning stock biomass, catch levels, egg production, recruitment statistics, gender composition etc. The only components of the fishery increasing are size fish being harvested and as a result higher discard rates, the result of ineffective regulatory decisions over the last two decades. Decisions and a track record which is impossible to view in any other manner than causing damage to this fishery. Status quo, if that's indeed the decision made by the Commission and Council, is admittance by every Member that failure is an acceptable option and accountability of Sub-Committees is non-existent as regulations based on their data and recommendations have led to material declines across the board. 2020 and beyond will have

have but one option if status quo is elected which is the continuation of those declines in all future years until regulations needed to address the causes are acknowledged and implemented.

Excerpts from the November 27, 2019 Memorandum to the Board and Council:

> There are several ongoing changes currently being observed in the stock in terms of growth rates, sex ratios, and other dynamics. Growth rates for both sexes have slowed, and the sex ratio for larger fish has been shifting closer to 50/50. The biggest fish, over about 24 inches, are still mostly all females, but up to that point the sex ratio in the survey data is closer to 50/50. There have been several changes in stock dynamics over the last 10-15 years, including decreased mortality rates, slower growing fish, and male fish living to older ages.

"Sex ratio for larger fish has been shifting closer to 50/50". On the surface, that is being carefully worded to give the appearance of balance in the biomass, particularly in SSB. In actuality, moving closer to a 50 / 50 sex ratio is a strong decline as stated in the 66th SAW, page 61.

> In the fall survey, the proportion of females shows no trend for age 0 and the mean proportion was 0.3. For ages 1-3 the proportion has decreased from about 0.5-0.6 in the 1980s to 0.4-0.5 by 2012-2016. The proportions at ages 4 to 7 have strongly decreased from about 0.8 through the late 1990s to about 0.3-0.8 by 2012-2016; proportions at age 8 are highly variable (Figure A80).

The following data from the 66th SAW, page 319, from the spring index should provide all the evidence needed that the female proportion of SSB is being irreparably destroyed under current regulations and moving towards a 50 / 50 sex ratio of older age classes is a material decrease over the last two decades from historical levels outlined in the charts below.

Ages 1 to 2, somewhat stable. Age 3 surprisingly has increased. Ages 4 through 8+ the female proportion is down anywhere from 30% to 80% dependent on the age class. Those declines are beyond statistically significant and will only worsen under current regulations.

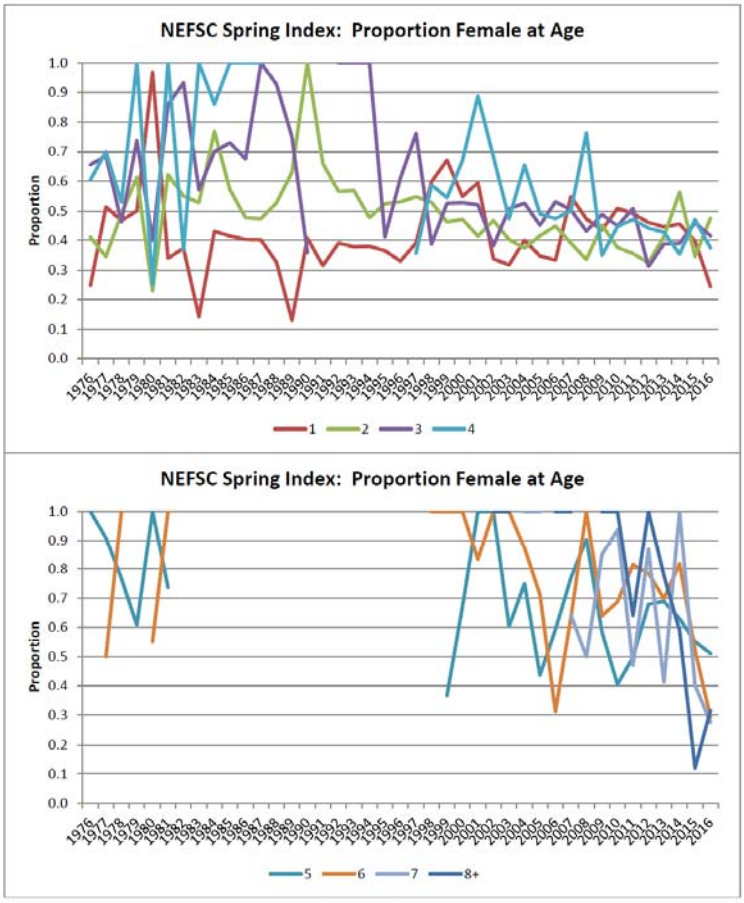

Figure A79. Northeast Fisheries Science Center (NEFSC) spring survey index proportion female by age.

Following is comparable information from the fall index and equally revealing and bleak.

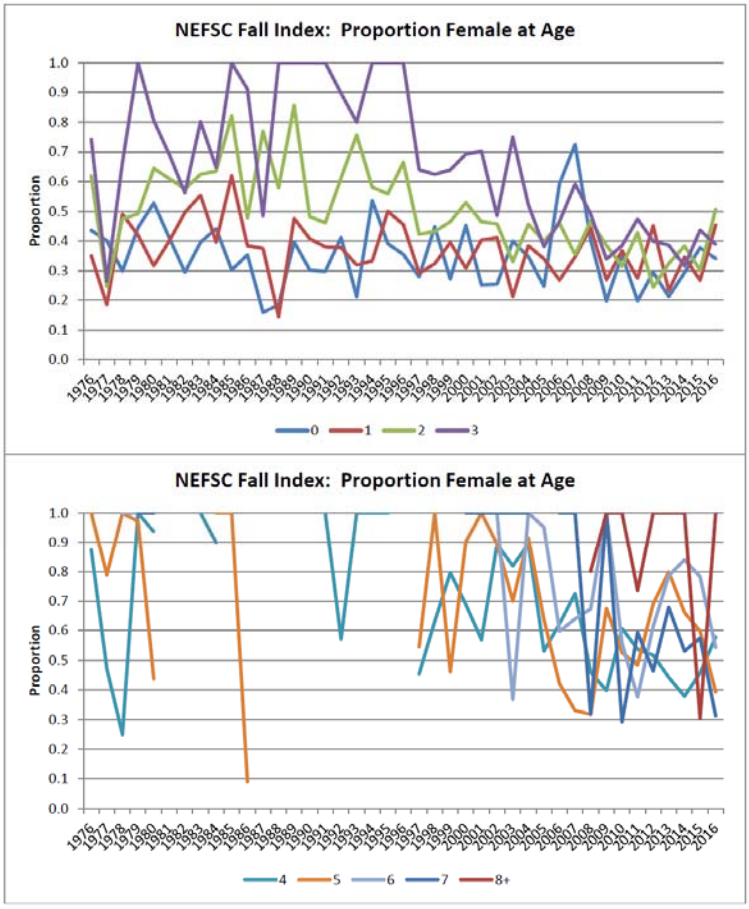

Figure A80. Northeast Fisheries Science Center (NEFSC) fall survey index proportion female by age.

Similar trend although in the fall index, while age classes 0 thru 2 are relatively unchanged, age 3 is down substantially as are ages 4 thru 8+. Take notice of the fact that the declines became significantly more pronounced again in the 1997 time frame when harvest composition transitioned to larger older age classes. The female population has been impaired yet the MC and AP state the female breeders are not being "wiped out". A declining SSB in the absolute (weight) combined with a significant decline in the female gender composition involving the percentage declines illustrated above constitutes the female composition of SSB being well on its way to being "wiped out".

Additional excerpt:

> Another important point about moving to a slot limit is that protecting larger fish in the recreational fishery does not reduce access to these fish in the commercial fishery, and in fact is likely to increase the availability of larger fish available for the offshore commercial trawl fishery.

As mentioned in my recommendations, the inclusion of a recreational slot can't be at the expense of an increase in larger fish commercially harvested resulting in even higher discard rates so I agree with the above statement. Both recreational and commercial size fish being harvested need to be reduced. Recreational is accomplished completely through size limit mandates. Reduce sizes and the gender composition of recreational harvest will take care of itself while materially lowering discard rates. Commercial since it was an elective decision to increase harvest of larger size older age class fish, needs to be an elective decision to revert back to the harvest of younger age classes representative of the 80's and 90's. If that selective decision isn't forthcoming, per the Original FMP of 1987, consider seasonal and or area closures now that the biomass is highly concentrated and technology is available today to support enforcement efforts.

> The benefits of slot limits for summer flounder would appear to be mostly related to angler satisfaction, including increased retention opportunity and potentially reduced discards. The MC also discussed the belief that many anglers are not likely to support slot limits given that they also eliminate the possibility of keeping the larger "trophy" fish. The group agreed that there is no system of constraining harvest with size limits that will make all angers happy, given that there are segments of the fishery focused on targeting the largest fish and others that are more concerned with the opportunity to retain fish to eat.

All recreational possession limits in 2020 being subject to a slot size would kill the recreational community and should never been given consideration as an option. The entire party boat and for hire fleet would be put out of business. What I recommended was "one fish " from the 2019 possession limits be converted to a slot size and the remaining fish remain at their 2019 size limit. So New York in other words would go from a 4 fish, 19" limit to one slot at a designated size (preferably lower then 17" - 19.99" so more males are harvested and the remaining three fish remain at 19" for 2020. So still a four possession bag limit, one slot (size to be determined) and three fish at 2019's size regulations. That would be the start or bridge to of transition back to lower size minimums (not slot limits) as was the case between 1989 and 2003 which promoted 900% growth in SSB. Making only one fish of the recreational possession limit subject to the slot should eliminate any concerns associated with the harvest of larger trophy fish. That said, that risk exists even more so today under the current regulations as a minimum size has been established but no maximum size for any fish. Same is true of the regulations in place between 1989 and 2003. The possibility of one less female fish being harvested per angler and the potential increase in egg production is absolutely enormous and appears to be completely ignored in the decision making process by the MC and AP.

To quantify the impact this would have, average recreational possession limit between NJ, NY, RI and Ct. is 4.3 per angler. Those four states make up close to 90% of the recreational harvest. One fish converted to a slot would represent about a 25% reduction potentially in the harvest of a female versus a male. Split the difference and take just half that percentage and assume 12.5% to be ultra-conservative. 5.7 million fish were landed recreationally in 2017. Convert 12.5% of those fish from females to males and that's 714,000 less females harvested. Since these are larger age groups due to regulations, assume the egg capacity of each female is conservatively 1,000,000 eggs. **THAT WOULD TRANSLATE 714 BILLION MORE EGGS PRODUCED, THINK ABOUT THE IMPLICATIONS ON RECRUITMENT AS LONG AS THE SPAWN IS PROTECTED FROM COMMERCIAL HARVEST DURING THE FISHERIES OFF-SHORE MIGRATION. IF AVERAGE EGG PRODUCTION IS 2,000,000 PER FISH, ADDITIONAL EGG PRODUCTION WOULD PROJECT OUT TO ALMOST 1.4 TRILLION ADDITIONAL EGGS ANNUALLY.** Someone please help me understand how that would not be a good start to address the existing recruitment and gender composition problem of SSB in reversing this fisheries 17-yr decline..

There's ample research available regarding the positive impacts slot limits have on fisheries. As I mentioned, regulatory decisions which do not address harvest composition, size limits and discard rates will prolong the decline in this fishery. **Status quo will continue the 17-yr decline and ultimately destroy this fishery for both commercial and recreational concerns.** It's unimaginable there's so much concern from the MC and AP regarding potential increase in catch relative to the adoption of one slot fish since 1989 thru 2003 and the historic 900% growth we experienced during that period for the majority of that time frame had size limits in place of 13" or 14" with catch levels and possession limits twice if not more than what we have today. Think about that statement and the state of affairs in today's process when we literally can't make a decision for one slot fish without fisheries management suggesting the sky is falling while we have history on our side that proves that wouldn't be the case. As a management team, we're in stasis. If we reduce catch through further recreational size increases, we harvest more females, create more disparity in access between recreational and commercial concerns, increase discard rates, further impair gender composition and reduce recruitment levels more than today. If we reduce size limits, MC and AP believe the fishery will be further harmed because all we do is focus on catch in the sense of weight and not catch composition and the associated impacts on gender make up and egg production not to mention discard rates.

Kiley, please do what you can to include this in the briefing materials. I want to be on record as stating the decision to stick with status quo is the absolute wrong decision if it's what's ultimately decided by the Commission and Council for

2020. Cutting catch levels as mentioned has not stemmed the declines so simply reducing catch in the absolute weigh wise is also not the answer. Decisions need to be made that change harvest composition, reduce the harvest of female breeders and older age classes in general, reduce discard rates in the process and protect the spawn as ell as the larger sexually mature fish during their wintering months offshore. Failure to address each of these will move this fishery one step closer to failure.

There's a lot more I could say, much which has already been said. My sole reason to get involved is to help this fishery rebound from 17-yrs of failure. For the fisheries fate to change and commercial and recreational interests be protected and preserved, tough short term decisions need to be made to secure the fishery for our long-term benefits. If status quo prevails, we put one more nail in the coffin of this extremely vital fishery.

It:s 9:10 by my clock, Kiley I believe I beat the 11:59 deadline so please again I'd appreciate this email being added to Tab 12 in the briefing materials.

Hope everyone has a Happy Thanksgiving!

Regards

Tom Smith

Kiley Dancy

From: Tom Smith <smith.tom560@gmail.com>
Sent: Wednesday, November 27, 2019 10:37 PM
To: Gregory Wojcik; CRAIG.MINER@cga.ct.gov; MELISSA.ZIOBRON@cga.ct.gov; WILLIAM.A.HYATT@snet.net; Davis, Justin; CRABMAN31@aol.com; Saveikis, David; FISHMASTER70 @comcast.net; JOHN.CLARK@delaware.gov; WILLIAM.CARSON@delaware.gov; MJDIZE@verizon.net; MBRASSIL@house.state.md.us; Luisi, Michael; Langley, Phil; BILL.ANDERSON@maryland.gov; SARAHKPEAKE@gmail.com; RAY@capecodfishermen.org; Ruccio, Michael; Meserve, Nichola (FWE); White, Sherry; McKiernan, Dan; Capt. Adam; Cimino, Joseph; Fote, Tom; Snellbaker, Jason; SENANDRZEJCZAK@njleg.org; Davidson, Maureen; Gilmore, Jim; Hasbrouck Jr, Emerson C.; KAMINSKY@nysenate.gov; STEVE.MURPHEY@ncdenr.gov; MBLANTON9394@gmail.com; BOB.STEINBURG@ncleg.net; Batsavage, Chris; JMANNEN@yfmlaw.com; Ballou, Robert; Reid, Eric; Borden, David; SEN-SOSNOWSKI@rilin.state.ri.us; Rootes-Murdy, Kirby; DISTRICT01 @senate.virginia.gov; Bowman, Steven; BPLUMLEE@pbp-attorneys.com; MARTINGARY.PRFC@gmail.com; Starks, Caitlin; Leaning, Dustin Colson; PAT.GEER@mrc.virginia.gov; Wong, Richard; Muffley, Brandon; Kiley Dancy; Beaty, Julia; Coutre, Karson; STEVE.DOCTOR@maryland.gov; Terceiro, Mark; Gilbert, Emily; Truesdell, Samuel; Peter Clarke; Maniscalco, John; VanMiddlesworth, Todd; Jason McNamee; JKIPP@asmfc.org; ALEX.ASPINWALL@mrc.virginia.gov; JACK.D.CONWAY.JR@lmco.com; KYLE@jbtackle.com; Townsend, Wes; LUREFEST@gmail.com; PGFVIKING1@gmail.com; SELBYSUZI1121@aol.com; Jeffrey Eutsler; Jesien, Roman; BUNTING904@gmail.com; BUDDYSCRN@gmail.com; PKCARUSO@comcast.net; PATRIOTTOO@aol.com; JOSEPH@meganet.net; TIMEBANDIT100@hotmail.com; Lovgren, Jim; Gregory DiDomenico; CAPTBOB626@comcast.net; BUCKTAIL8@aol.com; D713K@aol.com; MKHOFFMAN@optonline.net; RBUSBY@optonline.net; MARCIALOM@msn.com; Ruhle, James; ARTSMITH@gotricounty.com; BJSEAFOOD@earthlink.net; Blount, Frank; MHALL@towndock.com; NBF05@verizon.net; TRAVISBARAO@gmail.com; DCRABBE@crabbescharterfishing.com; DRNEILL3 @hotmail.com; Hodges, Mark L.; CAPTSTV@yahoo.com; Amory, C. Meade; KEVIN.SMITH@suez.com; Elliott, G. Warren; Bolen, Ellen; Stewart.Michels@state.de.us; Shiels, Andrew L.; Pentony, Mike; Wilke, Kate; Lenox, Scott; Heins, Stephen; Gwin, Sonny; Hughes, Peter B.; Winslow, Sara; deFur, Peter; Nolan, Laurie; Hemilright Jr, Dewey; dave; Ec Newellman; Jim Hutchinson; Cicero, Nick; Gregory Hueth; John depersenaire; Mike Waine; tony@rocketcharters.com; Gutman, Jeffrey; Zemeckis, Douglas; Caputi, Gary; Gerry Zagorski; Rocky McGuigan; Patrick J. Sullivan
Subject: Re: December ASMFC Joint Mtg - Annapolis MD
Attachments: Rutgers Sex and Length Study.pdf

Ladies and Gentlemen,

I'm adding a copy of Rutger's Sex and Length Study which also references Morson et al 2012 and Morson et al 2015) The following conversion of centimeters to inches chart is on page 7 of the Rutgers study which was conducted in 2016. The minimum landing size is 18". Rutgers study was conducted from 8 ports ranging in depths from 5 to 95 feet covering latitudinal ranges covering the coast of Delaware to the coast of Rhode Island. Samples were collected in each port every two weeks from the beginning of the fishing season to the end. The following chart reflects the relationship between female and male proportions based on the study between length in cm's. 18" equals 45.72 centimeters for reference purposes.

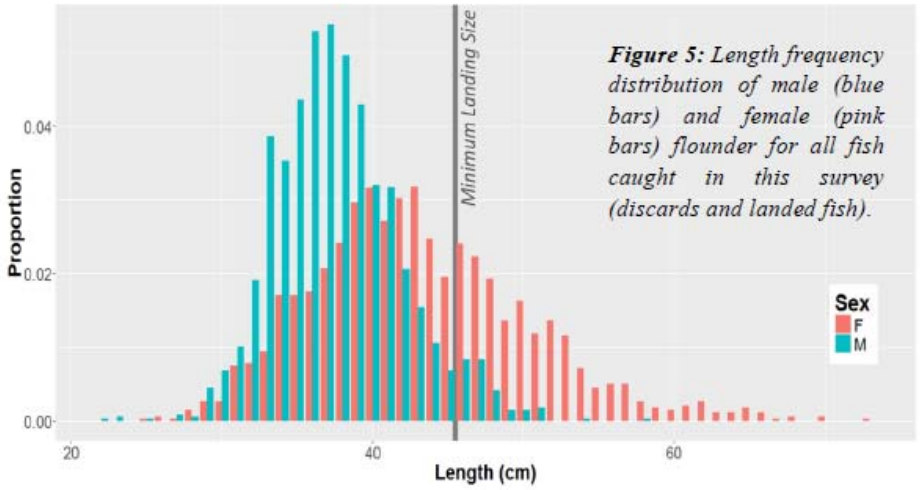

Figure 5: *Length frequency distribution of male (blue bars) and female (pink bars) flounder for all fish caught in this survey (discards and landed fish).*

There are several ongoing changes currently being observed in the stock in terms of growth rates, sex ratios, and other dynamics. Growth rates for both sexes have slowed, and the sex ratio for larger fish has been shifting closer to 50/50. The biggest fish, over about 24 inches, are still mostly all females, but up to that point the sex ratio in the survey data is closer to 50/50. There have been several changes in stock dynamics over the last 10-15 years, including decreased mortality rates, slower growing fish, and male fish living to older ages.

Much of the discussion about sex ratios and sex-specific mortality in the recreational fishery is based on the work of Morson et al. (2015)[1], the sampling for which was conducted in 2010 and 2011. This study compared recreational and commercial fishery sampling data to trawl survey data and found that the sex ratio and the sizes and ages in the commercial fishery closely matched that of the trawl surveys. In contrast, the length and age frequency and sex ratio in recreational fishery, especially in the southern region, didn't closely align with that of the trawl surveys or commercial fishery, and was more heavily weighted toward females. This study unfortunately represents a limited snapshot in time. During development of the last stock assessment, survey data was used to determine the sex of commercial and recreational fishery catch to test the application of sex-specific models. The result was that most catch in these fisheries are now male, due to the factors described above including changes in growth rates and sex ratios. However, this is based on using the trawl survey data to determine the sex of the recreational catch which makes an assumption about survey and fishery equivalency.

24" is almost 61 centimeters and based on the above Rutgers chart would represent almost entirely females. At 18", proportion is almost 3:1 females. At 19.5", female proportion is almost 10:1. The statement above to the Board and Council which states ***"The biggest fish, over about 24 inches, are still mostly all females, but up to that point the sex ratio in the survey data is closer to 50/50."*** is extremely disparate in their conclusions and of major significance to how this fishery is being managed. The below chart from the 55th SAW, page 413 would completely refutes the statement fish under 24 inches are almost 50 / 50 males to females.

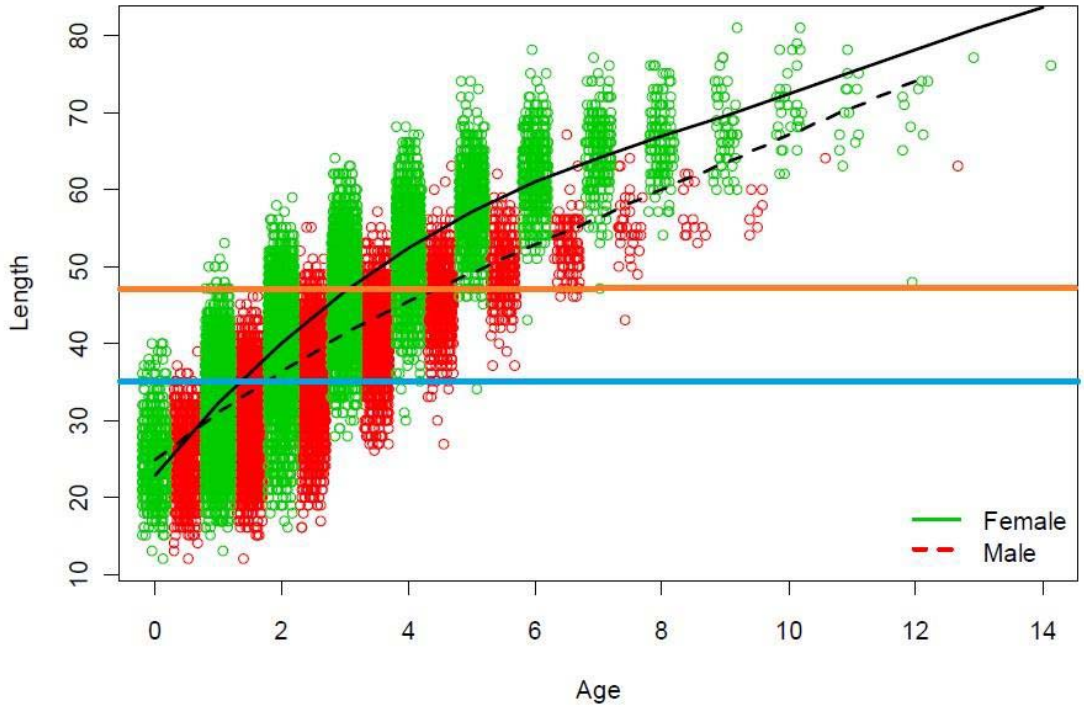

Figure A175. Model fit to sex stratification, i.e. female and male data. Female estimates: Linf = 83.6, k = 0.17, t0 = -1.9. Male estimates: Linf = 86.3, k = 0.10, t0 =-3.3

Remember 24" is almost 61 centimeters. You can see from marine fisheries own data in the 57th SAW the disproportionate ratio of females to males in older age classes and longer lengths based on the above chart. I would be amazed if that ratio changed that much per the above statement to the Board and Council that much in a matter of maybe five years compared to the 57th SAW and only 2 -3 years to the Rutgers study conducted in 2016.

Anecdotal evidence which I don't like using but will share for purposes of this discussion. I personally went on seven trips in 2019 including party boats, two for-hire with one of the best for-hire captains in New Jersey and private boats. **In total for 7 trips only slightly over 90 fish were harvested.** Don't even want to comment on the amount of discards as it was and continues to be obscene due to the regulations. In total there were about 120 anglers covered under all trips which means each angler harvested on average less than one fish per trip which is also obscene. I personally witnessed every fish being filleted and of the 90 plus harvested, three were males. So at least in my experience, I don't believe for a second based on Rutgers study, the 57th SAW report and personal experience that larger fish over 18" are remotely close to a 50 / 50 ratio. A way of finding out would be to have for hire and party boats start reporting males and females in their catch and maybe for commercial start requiring fish processing houses to do the same. Most of the trips I personally went on this year, not one male was harvested on the trip and I'd imagine the same was true with most northern states as well as a majority of the commercial harvest.

This speaks to the heart of the problem and if the information being given to the Board and Council to base decisions on is wrong in this respect as well as MRIP, there's absolutely no chance decisions being made to manage this fishery are in the best interest of the fishery. There's also zero chance of the fishery every recovering.

Kiley, since this is also within the 11:59 cutoff, I'd ask for this email as well please be included in the briefing materials.

Thanks in advance,

Tom