

Atlantic States Marine Fisheries Commission

Summer Flounder, Scup, and Black Sea Bass Management Board Conference Call

March 20, 2018
9:00 – 11:00 a.m.

Webinar: <https://attendee.gotowebinar.com/register/6931931919817605123>

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Phone: 866.214.0726, followed by passcode: 993961

Draft Agenda

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary. The Board Chair may allow limited opportunity for comment and has the discretion to limit the number of speakers and/or the length of each comment.

1. Welcome/Call to Order (*R. Ballou*) 9:00 a.m.
2. Board Consent 9:00 a.m.
 - Approval of Agenda
3. Public Comment 9:05 a.m.
4. Consider 2018 Recreational Black Sea Bass Regional Proposals for Final Approval **Final Action** 9:10 a.m.
 - Review Regional Proposals (*C. Starks*)
 - Northern Region Proposal
 - New Jersey Proposal
 - Southern Region Proposal
 - Technical Committee Recommendations (*G. Wojcik*)
 - Consider Final Approval of Regional Proposals

The Board will consider the methodology, regulatory standard measures, and resulting harvest proposed by each region, along with the Technical Committee recommendations. States are afforded the flexibility to make adjustments to their proposed measures following the approved methodology.
5. Other Business/Adjourn 11:00 a.m.

Regional Management for the 2018 Recreational Black Sea Bass Fishery

Proposal for the Northern Region

Prepared by:

Tiffany Cunningham (MA DMF)

Jason McNamee (RI DEM)

Greg Wojcik (CT DEEP)

John Maniscalco (NY DEC)

Overview

At the February 8, 2018 Black Sea Bass Management Board meeting, Addendum XXX was approved with provisions for a three-region alignment for the management of the recreational black sea bass fishery. The Board decided that the northern regional allocation would be based on a hybrid time frame option, relative to options B1 and B2 in the draft addendum. Both options, B1 and B2, were based on a combination of exploitable biomass and historical harvest, with the former option associated with a 10-year time frame from 2006-2015, and the latter a 5-year time frame from 2011-2015. The Board decided to average the regional allocations associated with the two options. The result was a 61.35% allocation of the 2018 recreational harvest limit (RHL) to the northern states. The 2018 RHL is 3.66 million pounds; thus, the northern allocation is 2,245,410 lbs. The following serves to describe the data and calculations used to come up with example measures for the northern region. Each state is allowed the flexibility of conservation equivalency, to deviate from the base measures.

State	Season	Bag	Size	Mode	Days open
MA	May 20 - Aug 29	5	15"		102
RI	May 25 - Aug 31	3	15"		98
RI	Sep 1 – Sep 21	7	15"		21
RI	Oct 22 - Dec 31	7	15"		72
CT	May 1 - Dec 31	5	15"	Private	245
CT	May 1 - Dec 31	8	15"	Auth. Party/Charter	245
NY	Jun 27 - Aug 31	3	15"		66
NY	Sep 1 - Oct 31	8	15"		61
NY	Nov 1 - Dec 31	10	15"		61

Table 1. Summary of recreational regulation in place in 2017 for the states that comprise the northern region, as specified in Addendum XXX.

Daily Rates

Daily rates for each state and wave were calculated to allow for the generation of regional regulations and to allow for limited conservation equivalency. These rates were based upon the state specific, averaged, percent per day per wave of black sea bass harvest in 2016 and 2017. Regulations were relatively consistent in each state over these two years with the exception of RI shifting days between Wave 3 and Wave 5. Size limits and bag limits did not change over these two years. The New York 2016 Wave 6 black sea bass harvest estimate was identified as an outlier using Thompson's Tau and modified using a ratio of Wave 5:Wave 6 harvest from prior years. Other than the 2016 NY Wave 6 estimate, data used was final MRIP estimates for 2016 and preliminary estimates for 2017, including wave 6.

Each wave estimate was divided by the number of days the season was open in that state for each year. This daily rate was then divided by the annual total for that state to generate a percent harvest per day per wave for each year. These wave specific daily percentages were then averaged for the 2016 and 2017. This approach treats the two years as equal, rather than weighting them by total harvest. The goal was to account for some level of inter-annual variability in wave level harvest. The wave specific daily percentages for each state were then modified so that the daily percentages, multiplied by the number of days open in each wave in 2017, totaled 1. These modified state and wave specific daily percentages were then multiplied by the 2017 state annual total to generate base daily harvest rates. Each base daily harvest rate could then be modified by the percent harvest change estimates resulting from different bag sizes, as described below.

Bag change analysis

The data used to evaluate changes to the bag size were the raw MRIP trip and catch data from 2016 and 2017, combined. Using two years of data was expected to smooth through some of the variability in MRIP, and provide a better estimate of harvest changes associated with bag size modifications. Harvest is taken as the combined A + B1 harvest. Because B1 harvest can represent group catches, we split the group catches among contributors to yield a harvest for each individual angler. The code takes the grouped harvest and the number of anglers that contributed to that harvest and splits the catch among the anglers, in whole fish, until the group harvest is accounted for. These fish were then combined with any type A harvest to yield a total harvest per angler. The catch data were then merged with the recreational harvest measures including 2017 bag size, minimum fish size and open season dates. Each intercept was evaluated against the regulations to determine whether the harvest was compliant or not. Only compliant trips were used to evaluate percent harvest change under different proposed bag sizes. Each intercept was then weighted by *wp_catch*, yielding a distribution of expanded bag sizes, as estimated by MRIP. One limitation with the MRIP catch data is that zeros are unaccounted for. We were interested in using a probability distribution to estimate harvest, and therefore, wanted to include zero observations. To do so, we pulled MRIP trip data that targeted black sea bass, as either the primary or secondary target, but didn't harvest any. These trips were expanded in a similar manner to the catch data by using *wp_int*, and were then appended to the catch data as intercepts with zero harvest.

To evaluate the estimated harvest changes associated with a change to the bag limit, in each state and wave combination, we used one method to estimate harvest when the bag size was reduced and another to estimate harvest associated with bag increases, relative to the 2017 measures. If the proposed bag size represented a reduction, we adjusted all intercepts that exceeded the proposed bag limit down to that limit, and calculated the savings associated. This was a direct calculation. To estimate the harvest increase associated with a liberalization of the bag size, we used the Poisson method. This method assumes that the distribution of intercepts at the different bag sizes come from a Poisson distribution. We fit a Poisson distribution to the observed intercept data to estimate λ , the mean of the distribution, using the R function *fitdistr* from the *MASS* package. We then estimated the probability of observing different bag sizes based on the fitted distribution. In an attempt to reduce bias in this estimation, we averaged the λ value from 1) the raw estimated value, and 2) a λ value that was rounded up to the next integer value using the *ceiling* function. This approach was deemed most appropriate as the intercepts do not always conform to a Poisson distribution; averaging these approaches appeared to provide the most reasonable results.

Using this estimate of the mean of the distribution, λ , we estimated the probabilities of observing different bag sizes (i.e., 0 – proposed bag size), and from those values, estimated the expected harvest. Harvest is estimated as the number of observed MRIP intercepts (n), multiplied by the probability of that intercept representing a given bag size, and then multiplied by the number of fish in that respective bag to yield harvest in numbers of fish. The estimated harvest was then compared to the observed harvest (as described above, using angler catches from compliant trips expanded out using *wp_catch*) to yield a percent harvest change associated with different bag sizes. This percent harvest change, by state and wave, was then applied to the fish-per-day estimate under status quo regulations to derive an estimate of fish-per-day under different proposed bag sizes. This results in a common currency with which to evaluate regional measures.

Calculation of measures

The daily rate and bag change analyses described above were used to generate state and wave specific fish per day estimates at a number of different bag sizes, from 3 to 6 fish. The allocation in pounds for the northern region under Addendum XXX was equal to 2,246,562 pounds. The average black sea bass harvested by the states of MA-NY in 2017 weighed 2.27 pounds, resulting in an allocation of 989,134 fish. A single set of regional measures could be established using these fish per day estimates that constrain regional harvest to this allocation and set up state specific harvest targets for the purposes of generating conservationally equivalent proposals. Allocating fish within the northern region has been difficult, therefore the Northern Region TC members used the various fish per day estimates to distribute fish on an ad-hoc basis to create a set of measures that met the parameters of Addendum XXX, namely to set neighboring states regulations in as consistent a manner as was practicable.

Proposed Measures

Using the methods describe above, the Northern Region proposed a regulatory standard of a 4 fish possession limit, 15 inch minimum size limit, and a season including 16 days in wave 3, 62 days in wave

2, and 41 days in wave 5; these measures are projected to achieve a regional harvest of 985,857 fish or 99.7% of the regional allocation of the RHL (see Table 2).

Table 2. Projected harvest in number of fish by wave and state under regulatory standard measures

15" 4 FISH	Wave 3	Wave 4	Wave 5	Wave 6	Yearly Total	% of regional harvest
BASE DAYS	16	62	41	0	119	
MA	47,992	85,775	89,991	0	223,758	23%
RI	17,906	82,830	59,839	0	160,575	16%
CT	15,168	198,500	56,178	0	269,846	27%
NY	51,219	198,475	81,985	0	331,679	34%
Total	132,285	565,580	287,993	0	985,858	100%

Next, in an ad-hoc approach, the four states in the region developed an alternative set of measures for each state. These measures redistribute the *de facto* state harvest shares within the region and are expected to produce a regional harvest of 1,000,377 fish (101.1% of the regional allocation of the RHL); the state measures are provided in Table 3. It is expected that the slight overage of the RHL in the Northern Region will be offset by the unused quota in the Southern Region.

Table 3. Distribution of Regional Quota provided by the TC and adopted by the Region. Harvest provided in numbers of fish.

		WAVE 3	WAVE 4	WAVE 5	WAVE 6	TOTAL DAYS	2017 HARVEST	PROJECTED HARVEST	REDUCTION
MA	Days	43	62	8	0	113	222,079	232,311	3.6%
	Creel	4	4	4	4				
RI	Days	0	60	61	61	182	182,392	178,614	-3.0%
CT		0	60	61	61	182	374,434	267,724	-28.5%
NY		0	60	61	61	182	341,469	321,728	-7.4%
	Creel	3	3	5	5			1,000,377	101.1%



NEW JERSEY DIVISION OF
Fish and Wildlife
P.O. Box 400
Trenton, NJ 08625-0400
Larry Herrighty, Director

Memorandum

TO: Caitlin Starks, FMP Coordinator
Atlantic States Marine Fisheries Commission

FROM: Peter Clarke, Senior Biologist
New Jersey Bureau of Marine Fisheries

DATE: March 15, 2018

SUBJECT: REVISED-New Jersey Black Sea Bass Recreational Fishery Management
Proposal for 2018

Attached are New Jersey's options to manage its 2018 recreational black sea bass fishery. Options may contain adjustments to season length, possession limits, and size limits. All options presented satisfy the requirements of regional management under the Atlantic States Marine Fisheries Commission (ASMFC) Addendum XXX. A spreadsheet is included with calculations used to develop changes in all three variables of season length, size, and possession limits. These calculations have been provided to the ASMFC summer flounder, scup, black sea bass technical committee for review.

Background:

At the ASMFC winter meeting in February 2018, the ASMFC Summer Flounder, Scup and Black Sea Bass Management Board (Board) approved Addendum XXX. This addendum specifies an RHL for 2018 using a combination of exploitable biomass and historical harvest for three regional management areas; Massachusetts through New York, New Jersey, and Delaware through North Carolina. Each region is therefore responsible for constraining harvest to the RHL for that region. The RHL defined for New Jersey has been set at 1,107,352 pounds.

Methodology:

2017 MRIP Estimates. The state of NJ was tasked with providing the ASMFC technical committee with example state measures during December 2017. NJ submitted options using 2017 MRIP estimates for waves 3,4, and 5 with a projected wave 6 estimate. Since that time, New Jersey staff identified a 2017 wave 3 estimate as an outlier with a value of 460,334 fish. Data from 2010 to 2017 wave 3 were examined. Prior to 2010, New Jersey was open 365 days a

year with a 12 or 12.5 inch size limit and a possession limit of 25 fish. Between 2010 and 2017, regulations were much closer in proximity with a season length including only waves 3,4,5, and 6 and a size limit of 12.5 inches with a varying possession limit decreasing from 25 to 15 fish. With a time series mean of 172,598, a minimum of 70,010 and a maximum of 460,334 fish, a Thompson Tau Analysis for outliers was performed coupled with a 95 percentile Winsorization. This analysis resulted in a smoothed value of 164,043 fish instead of the original wave 3 MRIP value of 460,334 fish bringing the smoothed 2017 New Jersey MRIP estimate to 503,179 fish. There are several approaches to Winsorizing data, this value was derived using the most conservative approach to constrain future harvest but still omitting the 2017 wave 3 outlier value.

RHL. New Jersey is considered its own region for 2018, therefore, a conversion from pounds to numbers of fish for a regional RHL target was calculated. Again, a time series of MRIP estimates from 2010 to 2017 was used to encompass the largest size range of fish encountered. New Jersey ultimately used the highest value in the time-series (1.5 lb. average per fish) to represent the conversion resulting in a target of 738,323 fish for 2018.

Regional Examples. State measures can be liberalized using three variables; change to season, size limit, or possession limit or a combination of the three. New Jersey has put forward examples for 2018 which will constrain harvest to the regional RHL using either a single change in a variable or a combination of the three.

Size. To calculate changes in size, a MRIP length frequency distribution was used to describe size frequency by wave over half inch increments from the current 12.5 inches to 13.5 inches. Below is a table describing those changes both in terms of numbers of fish harvested per wave at each size bin and percent harvest per wave at each size bin.

HARVEST AT SIZE

Total Length (Inches)	Wave 3 Total Harvest	Wave 4 Total Harvest	Wave 5 Total Harvest	Wave 6 Total Harvest	Total Harvest
12.5"	164,043	142,131	115,909	81,096	503,179
13.0"	113,988	127,979	106,640	53,055	401,661
13.5"	97,448	117,731	99,176	42,171	356,526

REDUCTION AT SIZE

Total Length (Inches)	Wave 3 Total Harvest	Wave 4 Total Harvest	Wave 5 Total Harvest	Wave 6 Total Harvest
12.5"	0.0%	0.0%	0.0%	0.0%
13.0"	-30.5%	-10.0%	-8.0%	-34.6%
13.5"	-40.6%	-17.2%	-14.4%	-48.0%

Season. Changes to season length were determined using smoothed 2017 MRIP estimates and calculated harvest per day by wave. The 2017 harvest by wave was divided by the number of days open in each wave to determine the average daily harvest rate. That rate was

then multiplied by a new number of open days per wave to determine the estimated new harvest. The below table describes examples.

		Wave 3	Wave 4	Wave 5	Wave 6	
	2017 season	24	62	10	61	
	2017 Daily Harv	6,835	2,292	11,591	1,329	
	Bag	8	2	10	10	2018 Example Results
2018 Ex Measures	Size	12.5	12.5	12.5	12.5	737,924
	Days	30	62	31	61	2018 Target is 738,323
NJ 2018 Harvest		186,719	142,131	334,949	74,126	

Possession Limits. In order to create example measures with decreased possession limits, NJ used an aggregated approach incorporating MRIP catch data from 2016 and 2017. All trips that harvested black sea bass were used by accounting for each trip by wave. A series of bag reduction tables were developed for each specific wave where the possession limits differed within the previous years. This resulted in three bag reduction tables, one for wave 3 where the possession limit was 10 fish both years, another for wave 4 where the possession limit was 2 for both years, and the final for wave 5 and 6 combined where the possession limit was 15 fish during both years. An example of these tables can be found below.

Percent Harvest with current 10 fish Possession limit in Waves 3		
Bag	W 3	Revised
10	1.00	1
9	0.96	0.9563
8	0.92	0.9106
7	0.88	0.8643
6	0.82	0.8011
5	0.74	0.7249
4	0.55	0.6382
3	0.46	0.5157
2	0.42	0.3729
1	0.25	0.2081

Percent Harvest with current 2 fish Possession limit Wave 4		
Bag	W4	Revised
2	1.00	1
1	0.70	0.7375

Perc Harvest current 15 fish Poss limit Waves 5 & 6		
Bag	W 5 and 6	Revised
15	1.00	1
14	0.99	0.9914
13	0.98	0.9767
12	0.97	0.957
11	0.95	0.9374
10	0.93	0.9141
9	0.90	0.8807
8	0.86	0.8461
7	0.82	0.8066
6	0.77	0.7595
5	0.70	0.7124

The below are New Jersey's 2018 example black sea bass measures. These are examples only and will likely differ after the New Jersey Marine Fisheries Council meets to determine final measures.

		Wave 3	Wave 4	Wave 5	Wave 6		
2017 Regs	2017 measures	Bag	10	2	15	15	2017
		Size	12.5	12.5	12.5	12.5	Harvest
		Days	24	62	10	61	503,179

2018 Example using revised methods

1	2018 Ex Measures	Bag	10	2	15	15	2018 Example Results
		Size	12.5	12.5	12.5	12.5	732,915
		Days	22	62	31	61	2018 Target is 738,323

2	2018 Ex Measures	Bag	10	2	10	10	2018 Example Results
		Size	12.5	12.5	12.5	12.5	735,750
		Days	27	62	31	61	2018 Target is 738,323

3	2018 Ex Measures	Bag	8	2	8	8	2018 Example Results
		Size	13	13	13	13	737,440
		Days	35	62	45	61	2018 Target is 738,323



Larry Hogan, Governor
Boyd Rutherford, Lt. Governor
Mark Belton, Secretary
Joanne Throwe, Deputy Secretary

To: Summer Flounder, Black Sea Bass, and Scup Technical Committee, ASMFC
From; Steve Doctor
Date: February 26, 2018
Subject: Maryland, Delaware, Virginia, and North Carolina proposal for Black Sea Bass recreational fisheries management for 2018

Black sea bass management for 2018

For 2018 the southern region proposes matching the federal regulations for black sea bass recreational harvest. They include 15 fish at 12.5 inches with an open season from May 15 until December 31.

Calculations are included in the attached spread sheet. For the 2018 projected harvest (what is actually being calculated in the bag-season table – that calculates the average harvest per day per wave) the average of 2016-2017 information is used to project what harvest may be in 2018. This was a better approach to help smooth the harvest info over a couple of years since the regulations were the same in both years. The regional allocation under addendum XXX is 307,964 pounds. The estimated harvest under the proposed regulations for the region is 282,802 pounds.

The states of Virginia and North Carolina also indicate that their additional harvest in February is less than the difference in allowed for harvest under the regional allocation and they would like to use this forgone harvest as their payback for the February fishery.

Memorandum

TO: Summer Flounder, Scup, and Black Sea Bass Technical Committee

FROM: Gregory Wojcik

DATE: March 9, 2018

2018 NORTHERN REGION PROPOSED BLACK SEA BASS RECREATIONAL MEASURES

INTRODUCTION

Connecticut is facing a 28.5% reduction in harvest from 2017 to 2018 due to reallocation of quota on both a coast-wide and regional basis, and is required to develop management measures that restrict harvest to the “Balanced” state quota of 267,724 fish. Since availability differs seasonally between the west and eastern portion of the state, 2 conservation equivalent (CE) options were developed with expanded season length to accommodate anglers across the full span of the shoreline. Addendum XXX allows for states to adopt regulations that are conservation equivalent to their state quota (within 1 inch and 3 fish) provided they meet the required harvest limit.

Connecticut is proposing two options using conservation equivalency (CE), both of which restrict the projected 2018 harvest to the CT proportion of the regional quota of 267,724 fish (Table 1). Option 1 maintains the minimum length consistent with the rest of the region at 15” and Option 2 increases the minimum length by 0.5 inches.

METHODS FOR OPTION 1

The calculations used to develop option 1 (Table 2) of this memorandum use the same northern regional ‘TC Balanced’ Spreadsheet developed and proposed by the northern regional TC members. Please reference the regional proposal for method details. The CE Option 1 provided here by CT only transfers open season days from wave 4 to wave 3 using the same methodology and harvest per day rates. Since the summer wave has a high harvest rate of 3,410 fish per day with a 5 fish creel limit, having a mid-season closure allows for an expansion of the season in the spring. The harvest per day rate in the spring is only 867 fish per day with a 3 fish creel limit, which is only 25% of the wave 4 harvest rate. Introducing a three-week mid-season closure during the peak wave in CT allows for the season length to be expanded from 182 days as presented in the northern regional proposal to 207 days

METHODS FOR OPTION 2

The 2017 CT MRIP harvest by length data was used to calculate the reduction associated with increasing the minimum length from 15” to 15.5” as proposed in option 2 (Table 2). CT MRIP field staff measured a total of 628 black sea bass in 2017 providing a very robust dataset of recent

lengths. The harvest per day per wave data (Figure 1) in half inch increments were examined to determine the proportion of fish that would not be harvested with a half inch minimum size increase for each wave. Since there was a non-compliance rate between 2.5% and 7.6% of the minimum size in 2017, the calculations assume this rate each wave will continue. Additionally the same non-compliant rates were applied to the additional released fish associated with the increase in minimum size. Once the proportion of additional released fish were determined based on the increase on minimum size, the catch per day rate tables provided by the RI-NY regional proposal were adjusted based on the half inch increase in minimum size.

Both Connecticut Options 1 and 2 restrict the projected 2018 harvest to the CT proportion of the regional quota of 267,724 fish (Table 3).

Table 1. Distribution of Regional Quota provided by the TC and adopted by the Region

		WAVE 3	WAVE 4	WAVE 5	WAVE 6	TOTAL DAYS	2017 HARVEST	PROJECTED HARVEST	REDUCTION
MA	Days	43	62	8	0	113	222,079	232,311	3.6%
	Creel	4	4	4	4				
RI	Days	0	60	61	61	182	182,392	178,614	-3.0%
CT		0	60	61	61	182	374,434	267,724	-28.5%
NY		0	60	61	61	182	341,469	321,728	-7.4%
	Creel	3	3	5	5			1,000,377	101.1%

Table 2. CT Conservation Equivalency Option Calculations for Option 1 and 2

Option 1 (15")	Wave 3	July	August	Wave 5	Wave 6	Total Harvest	Reduction
Creel	3	3	5	5	5		
Days	43	17	25	61	61		
Rate	867	2,888	3,410	1,540	8		
Harvest	37,281	49,096	85,250	93,940	508	266,055	-0.289
Option 2 (15.5")						Total Harvest	Reduction
Creel	3	3	5	5	5		
Days	47	14	31	61	61		
Rate	819	2,746	3,243	1,464	8		
Harvest	37,281	49,096	85,250	93,940	508	266,055	-0.289

Table 3. Connecticut Proposed Options

OPTION	MINIMUM SIZE	SEASON 1	BAG 1	SEASON 2*	BAG 2	PROJECTED HARVEST
OPTION 1	15"	5/19 – 7/17	3	8/7 – 12/31	5	266,055
OPTION 2	15.5"	5/19 – 7/14	3	8/1 – 12/31	5	267,296

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Marine Resources

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TO: ASMFC Summer Flounder, Scup, and Black Sea Bass Management Board
FROM: John Maniscalco, NYSDEC Marine Resources
DATE: March 14, 2018
SUBJECT: New York 2018 Recreational Black Sea Bass Proposal

Addendum XXX to the Summer Flounder, Scup, and Black Sea Bass Management Board establishes management of the recreational black sea bass fishery for 2018. Its goals included allocating the RHL and addressing the lack of equity and accountability in state specific recreational management measures. The regional allocation for the northern states (MA-NY) specified in the Addendum was 2,246,562 pounds or 989,134 fish, requiring a regional harvest reduction of 11.7%.

The northern states developed a regional regulatory standard that constrained regional harvest to the northern allocation. These measures included a 15-inch minimum size, a 4 fish possession limit and an open season from June 15 – October 11. The addendum also allows for limited state-specific modifications of this regional regulatory standard (± 1 inch to the size limit, ± 3 fish to the possession limit), using conservation equivalency, as long as the combined state proposals constrain coast-wide landings to the RHL.

Given the already disparate and highly restrictive nature of recreational measures in the states of NY- MA, it was difficult to allocate fish within the region using a systematic approach for the development of 2018 regulations. The 4 states opted to manipulate state-specific measures on an ad-hoc basis while striving for equitable access for all.

	STATE(S)	REGULATIONS	2018 PROJ. HARVEST
REGIONAL REG. STANDARD	MA-NY	15", 4 fish, Jun. 15-Oct. 11	985,857
BASE STATE REGS.	MA	15", 4 fish, May 19-Sep. 8	232,311
	RI	15"	178,614
	CT	3 fish, July 3-Aug. 31	267,724
	NY	5 fish, Sep. 1-Dec. 31	321,728

It should be noted that the combined projected 2018 harvest for the “base state regs.” in the table above total 10,810 fish (24,553 pounds) above the northern regional allocation. Projected under-harvest of the southern recreational black sea bass allocation is expected to cover this difference.

The 2018 projected harvest under the “base state regs.” serves as de-facto state harvest targets for the purpose of developing further conservationally equivalent sets of regulations. New York may explore trading off days and possession limits (from 2 to 7 fish) to fine tune measures to suit its fishery using the methodology provided to the Technical Committee in the northern region’s spreadsheet. The state will reach out to its saltwater angling public and its Marine Resource Advisory Council before finalizing recreational black sea bass regulations for 2018.



Atlantic States Marine Fisheries Commission

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MEMORANDUM

March 15, 2018

To: Summer Flounder, Scup, Black Sea Bass Management Board
From: Summer Flounder, Scup, Black Sea Bass Technical Committee
RE: Technical Committee Review of 2018 Recreational Black Sea Bass Regional Proposals

Technical Committee Members: Greg Wojcik (Chair, CT), Tiffany Cunningham (Vice Chair, MA), Jason McNamee (RI), John Maniscalco (NY), Jeff Brust* (NJ), Joe Cimino (VA), Richard Wong (DE), T.D. VanMiddlesworth

*Attended in place of Peter Clarke as New Jersey's representative

Staff: Caitlin Starks (ASMFC), Emily Gilbert (NOAA), Brandon Muffley (MAFMC), Julia Beaty (MAFMC)

The Summer Flounder, Scup, Black Sea Bass Technical Committee (TC) met via conference call on Monday, March 12, 2018 to review the regional measures proposals required by Addendum XXX for the 2018 recreational black sea bass fishery. The Addendum requires each region to implement regulations that will collectively achieve but not exceed the regional allocation of the recreational harvest limit. Each region's proposal was presented by a representative of that region, followed by a discussion of the methods and results by the full TC. Overall, the TC found no technical issues with the methodology or data used in the Northern or Southern Region proposals, but did identify some issues with the New Jersey calculations and methods; New Jersey has since revised their proposal. Please note that Connecticut submitted an additional conservation equivalency proposal. Below is a summary of each regional proposal, including TC feedback and recommendations.

Southern Region

The Southern Region (Delaware through North Carolina north of Cape Hatteras) proposes matching the federal regulations for black sea bass recreational harvest, with measures including a 15 fish bag limit, 12.5 inch minimum size limit, and an open season from May 15 until December 31. This removes the one month fall closure that was in place for 2017. The projected regional harvest for 2018 under the proposed regulations is 282,802 pounds, which is 25,162 pounds below the regional allocation of the recreational harvest limit of 307,964 pounds. The proposed regulations result in an 11.9 % increase from the 2017 harvest.

The states of Virginia and North Carolina indicate their additional harvest from the February fishery is less than the difference (25,162 pounds) in harvest allowed under the regional allocation. The states have requested to use this forgone harvest to account for the February fishery in lieu of more restrictive measures during waves 3-6. The projected combined February harvest for Virginia and North Carolina is under 6,000 pounds.

For each state, the 2018 projected harvest was calculated by determining the average harvest per day by wave based on data in 2016 and 2017. This approach was used to help smooth variability in the harvest information over a couple of years as the regulations were the same in both years.

Technical Committee Review:

The TC had no concerns with the technical merits of the Southern region proposal and recommended Board approval.

New Jersey

New Jersey proposed several sets of measures including changes to minimum size limit, possession limit and season to satisfy the requirements of Addendum XXX. The New Jersey regional allocation for 2018 is 1,107,352 pounds, which was calculated to equal a 738,323 fish harvest target using a conservative conversion rate of 1.5 pounds per fish based on the highest New Jersey average weight in the 2010-2017 MRIP time series.

The 2018 target is a liberalization for New Jersey from 2017 (46% from the smoothed 2017 harvest), therefore the proposal was developed using conservative methods to ensure the 2018 allocation is not exceeded. First, a Thompson's Tau analysis was used to identify outliers in the MRIP harvest estimates from 2010-2017, by wave and mode. The wave 3 harvest estimate for the private/rental mode in 2017 was identified as an outlier. This outlier was smoothed using a 95 percentile Winsorization, resulting in a replacement value for wave 3 of 147,772 fish instead of the original wave 3 MRIP value of 460,334 fish.

To calculate changes in size, an MRIP length frequency distribution was used to describe size frequency by wave over half inch increments from the current 12.5 inches to 13.5 inches. However, it is unlikely New Jersey will implement a size limit increase in 2018. To create example measures with decreased possession limits, NJ used an aggregated approach incorporating MRIP length data from 2016 and 2017. Only trips with black sea bass as the primary or secondary target were used by accounting for each trip by wave. Changes to season length were determined using smoothed 2017 MRIP estimates and calculated harvest per day by wave. The 2017 harvest by wave was divided by the number of days open in each wave to determine the average daily harvest rate.

Technical Committee Review:

The TC encountered several technical issues and requested they be resolved before making a recommendation on the New Jersey proposal. First, the replacement value for the wave 3 private/rental harvest was applied to the entire wave, when it should have only been applied to the private rental mode. All calculations need to be updated with the correct values. Second, several TC members expressed concern that the methods used to calculate changes in harvest from reducing bag limits differed from the standard approach used by all other regions. The TC requested a new bag analysis including all trips harvested black sea bass, not just trips that targeted black sea bass.

One member suggested formatting the proposal to show how changes to minimum size, bag limit, or season individually impact the projected harvest.

Following the call, New Jersey made the requested changes and the TC reevaluated their proposal via email. New Jersey's revised proposal used a smoothed wave 3 estimate of 164,043 fish and a 2017 total harvest estimate of 503,179 fish, and included harvest projections based on the updated bag analysis.

The TC found no issues with the technical merits of the revised proposal, and recommended Board approval.

Northern Region

The Northern Region developed proposed measures to achieve the regional allocation of 2,245,410 pounds, or 989,134 fish. This is approximately a ~12% reduction in harvest for the region from 2017. The

daily harvest rate was calculated using 2016 and 2017 MRIP data to determine the percent harvest per day by wave in each state. New York’s wave 6 harvest estimate for 2017 was identified as an outlier using the Modified Thompson’s Tau analysis, and was modified using a ratio of wave 5 to wave 6 to determine the replacement value. The bag change analysis included 2016 and 2017 data combined, and harvest in fish per day was calculated at different bag limits using the Poisson method. The northern region’s 2017 average fish weight of 2.27 pounds was used for conversions from weight to number.

Using the above methods, the Northern Region proposed a regulatory standard of a 4 fish possession limit, 15 inch minimum size limit, and a season including 16 days in wave 3, 62 days in wave 2, and 41 days in wave 5; these measures are projected to achieve a regional harvest of 985,857 fish or 99.7% of the regional allocation of the RHL (see Table 1).

Table 1. Projected harvest in number of fish by wave and state under regulatory standard measures

15" 4 FISH	Wave 3	Wave 4	Wave 5	Wave 6	Yearly Total	% of regional harvest
BASE DAYS	16	62	41	0	119	
MA	47,992	85,775	89,991	0	223,758	23%
RI	17,906	82,830	59,839	0	160,575	16%
CT	15,168	198,500	56,178	0	269,846	27%
NY	51,219	198,475	81,985	0	331,679	34%
Total	132,285	565,580	287,993	0	985,858	100%

Next, in an ad-hoc approach aimed at increasing equity between states in harvest reductions, the four states in the region developed an alternative set of measures for each state. These measures redistribute the *de facto* state harvest shares within the region and are expected to produce a regional harvest of 1,000,377 fish (101.1% of the regional allocation of the RHL); the state measures are provided in Table 2. One TC member noted that the redistribution of harvest reductions from the regulatory standard may not have resulted in increased equity between states in the region.

Table 2. Distribution of Regional Quota provided by the TC and adopted by the Region. Harvest provided in numbers of fish.

		WAVE 3	WAVE 4	WAVE 5	WAVE 6	TOTAL DAYS	2017 HARVEST	PROJECTED HARVEST	REDUCTION
MA	Days	43	62	8	0	113	222,079	232,311	3.6%
	Creel	4	4	4	4				
RI	Days	0	60	61	61	182	182,392	178,614	-3.0%
CT		0	60	61	61	182	374,434	267,724	-28.5%
NY		0	60	61	61	182	341,469	321,728	-7.4%
	Creel	3	3	5	5			1,000,377	101.1%

Technical Committee Review:

The TC had no concerns with the technical merits of this proposal and recommended Board approval. The TC agreed the slight overage of the Northern Region’s allocation is not a concern due to the available unused portion of the Southern Region’s allocation, and the harvest can still be evaluated to the RHL for the coast.

Connecticut Conservation Equivalency Proposal

Connecticut developed two additional options for state measures using conservation equivalency from the Northern Region's proposal. The options would still restrict CT's harvest to their portion of the regional allocation, which is 267,724 fish (see Table 2). Option 1 modifies the season dates from the original proposal to May 19-July 17, and August 7-December 31, leaving the bag and size limits unchanged. Methods for this option followed the same procedure as the Northern Region proposal.

Option 2 includes an increase in minimum size to 15.5 inches, and a season from May 19-July 14, and August 1-December 31. The 2017 CT MRIP harvest by length data was used to calculate the reduction associated with increasing the minimum length from 15" to 15.5".

The TC had no concerns with the technical method and calculations of this proposal, but three members expressed concerns with the option proposing an increase to the minimum size limit. These concerns included:

- The unique morphology of the black sea bass tail may reduce the effectiveness of a 0.5 inch size increase in constraining harvest.
- Increasing the minimum size limit would target more males in the population, and there is uncertainty surrounding the effects that would have on the spawning stock.
- The minimum length increase would result in an increase of black sea bass discards.
- Having a single state with a higher minimum length within a region which state waters are commonly shared may increase non-compliance and law enforcement difficulties.

One member did not share the same concerns mentioned above, and noted that there has been no evidence of male shortages in the population and new studies realize the adaptability and resiliency of the stock given its unique protogynous strategy. Therefore, the TC could not come to consensus on whether to recommend board approval of a size limit increase.

General Comments

The TC discussed the need to further develop and standardize the methodology for smoothing harvest estimates from MRIP, and that having some general guidelines to follow for various harvest analyses would be helpful (e.g. how many years of data to use, which methods for bag limit analyses, etc.). When state members use alternative methods, they should provide a rationale.

Another TC member noted that while guidelines would be helpful, it has been great to see evolving methods within the group as new members have brought in new ideas, and any standardized guidelines developed should allow for improvements and flexibility.