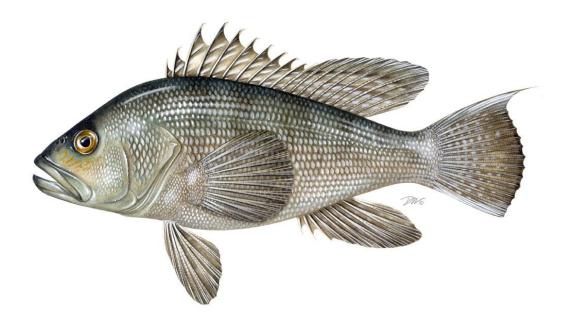
ATLANTIC STATES MARINE FISHERIES COMMISSION

REVIEW OF THE INTERSTATE FISHERY MANAGEMENT PLAN

FOR BLACK SEA BASS (Centropristis striata)

2019 FISHING YEAR



Prepared by the Plan Review Team

Approved October 2020



Sustainable and Cooperative Management of Atlantic Coastal Fisheries

2019 Review of the ASMFC Fishery Management Plan for Black Sea Bass

I. Status of the Fishery Management Plan

Atlantic States Marine Fisheries Commission (ASMFC or Commission) management of black sea bass was initiated as one component of a multi-species fishery management plan (FMP) addressing summer flounder, scup, and black sea bass. In 1990, summer flounder was singled out for immediate action under a joint ASMFC and Mid-Atlantic Fishery Management Council (MAFMC or Council) plan. Further action on the scup and black sea bass plan was delayed until 1992 to expedite the summer flounder FMP and subsequent amendments. The joint Black Sea Bass FMP was completed and approved in 1996. The MAFMC approved regulations for black sea bass as Amendment 9 to the Summer Flounder FMP in May 1996.

The management unit of the Black Sea Bass FMP includes all black sea bass in U.S. waters in the western Atlantic Ocean from Cape Hatteras, North Carolina north to the Canadian border. Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia, and North Carolina have declared an interest in black sea bass; Maine and New Hampshire declared interest in 2014, then declined interest in the fishery in 2017 and 2018, respectively. The Commission's Summer Flounder, Scup, and Black Sea Bass Management Board (or Board) and the MAFMC guide development of the FMP. Technical issues are addressed through the Summer Flounder, Scup, and Black Sea Bass Technical and Monitoring Committees. The Black Sea Bass Plan Review Team conducts annual reviews and monitors compliance, and the Summer Flounder, Scup and Black Sea Bass Advisory Panel provides industry input and advice.

The objectives of the FMP are to reduce fishing mortality to ensure overfishing does not occur, reduce fishing mortality on immature black sea bass to increase spawning stock biomass, improve yield from the fishery, promote compatible regulations among states and between federal and state jurisdictions, promote uniform and effective enforcement, and minimize regulations necessary to achieve the stated objectives. The initial black sea bass FMP (1996) aimed to reduce fishing mortality using a coastwide commercial quota allocated into quarterly periods beginning in 1998, and a recreational harvest limit constrained through the use of minimum size, possession limit, and seasonal closures.

Amendment 12 to the Summer Flounder, Scup, and Black Sea Bass FMP was approved by the Commission and MAFMC in October 1998. The Amendment revised overfishing definitions, identified and described essential fish habitat, and defined the framework adjustment process.

Addendum IV, approved in 2001, provides that upon the recommendation of the relevant monitoring committee and joint consideration with the Council, the Board will decide state regulations rather than forward a recommendation to NMFS. Addendum IV also made the states responsible for implementing the Board's decisions on regulations.

Starting in 1998, the fishery was subject to lengthy closures and had some significant quota overages in the commercial sector. Fishery closures occurring as a result of exceeded quotas resulted in increased discards of legal sized black sea bass in mixed fisheries for the remainder of the closed period. A significant financial hardship for the fishing industry resulted from a decrease in market demand caused by a fluctuating supply. To address these issues, the Board enacted a series of Emergency Rules in 2001 that established initial possession limits, triggers, and adjusted possession limits. These measures helped reduce the length of fishery closures, but the rapidly changing regulations confused fishermen and added significant administrative burden to the states. To simplify the process for all parties, the Board approved Addendum VI to provide a mechanism for initial possession limits, triggers, and adjusted possession limits to be set during the annual specification setting process without the need for further Emergency Rules.

Amendment 13, approved by ASMFC and MAFMC in 2002, implemented a federal, annual coastwide commercial quota that is managed in state waters by ASMFC using a state-by-state allocation system. The Amendment was implemented for 2003 and 2004. State-specific commercial shares are listed in Table 1. Amendment 13 also removed the necessity for fishermen who have both a Northeast Region (NER, now referred to as the Greater Atlantic Region) Black Sea Bass permit and a Southeast Region (SER) Snapper Grouper (S/G) permit to relinquish their permits for a six-month period prior to fishing south of Cape Hatteras during a northern closure.

Addendum XII, approved in 2004, continued the use of an annual coastwide commercial quota managed by the ASMFC through a state-by-state allocation system.

Addendum XIII and the MAFMC's complementary Framework 5, approved in 2004, modified the FMP so that Total Allowable Landings (TALs) for the summer flounder, scup, and/or black sea bass can be specified for up to three years.

Addendum XIX, approved in 2007, continued the state-by-state black sea bass commercial management measures, without a sunset clause. This addendum, and the MAFMC's complementary Framework 7, also broadened the descriptions of stock status determination criteria contained within the Summer Flounder, Scup, and Black Sea Bass FMP to allow for greater flexibility in those definitions, while maintaining objective and measurable status determination criteria for identifying when stocks or stock complexes covered by the FMP are overfished. It established acceptable categories of peer-review for stock status determination criteria. When these specific peer-review metrics are met and new or updated information is available, the new or revised stock status determination criteria may be incorporated by the Commission directly into the annual management measures for each species, rather than requiring a modification to the FMP.

Addendum XX, approved in 2009, set policies to reconcile commercial quota overages to address minor inadvertent quota overages. It streamlined the quota transfers process and established clear policies and administrative protocols to guide the allocation of transfers from

states with underages to states with overages. It also allowed for commercial quota transfers to reconcile quota overages after the year's end.

Beginning in 2011 due to concerns about equitable access to the resource, a series of addenda replaced the use of uniform coastwide measures to manage the recreational fishery. Addendum XXI established state shares of the recreational harvest limit (RHL) for 2011. Addenda XXII, XXIII, XXV, and XXVII implemented an ad hoc regional management approach for 2012-2017, whereby the northern region states of Massachusetts through New Jersey individually crafted state measures aimed at liberalizing or reducing harvest by the same percent to achieve the RHL, while the southern region states of Delaware through North Carolina largely set regulations consistent with the measures set for federal waters.

For 2018, Addendum XXX established a regional allocation of the coastwide RHL to address state concerns regarding equity and accountability in recreational black sea bass management. Based on a combination of exploitable biomass information from the latest stock assessment and historical harvest, the RHL was allocated to three regions: 1) Massachusetts through New York, 2) New Jersey as a state-specific region, and 3) Delaware through North Carolina. The 2018 state recreational measures were then revised in May 2018 following an appeal of the Addendum to the ISFMP Policy Board by Massachusetts, Rhode Island, Connecticut and New York.

In December 2018, the Board approved Addendum XXXI (and the Council approved corresponding Framework 14), which modified the FMP to allow federal conservation equivalency for the recreational black sea bass fishery beginning in 2020, and implemented transit provisions for Block Island Sound for recreational and commercial fisheries for summer flounder, scup, and black sea bass in the same area as the existing striped bass transit zone. The Council's framework action also modified the Council's FMP to allow a maximum size limit to be used in the recreational fisheries for summer flounder and black sea bass.

Addendum XXXII, approved in December 2018, established a new process for developing recreational management measures for black sea bass and summer flounder whereby measures will be set annually through a specifications process, rather than addenda. The Board will approve measures in early spring each year, based on Technical Committee analysis of stock status, resource availability, and harvest estimates. To further aid in setting specifications, the Addendum established standards and guiding principles intended to structure the development of recreational measures on a regional basis. Public input on specifications will be gathered by states through their individual public comment processes.

In October 2019, the Board initiated Draft Addendum XXXIII to consider changes to black sea bass commercial state allocations. This action will consider the current distribution and abundance of black sea bass as one of several adjustment factors to achieve more balanced access to the resource. In December 2019, the Council initiated a complementary amendment which will consider including the state specific commercial allocations in the Council FMP. A draft document was approved for public comment in August 2020. In January 2020, the Commission and Council released the scoping document of the Summer Flounder, Scup and Black Sea Bass Commercial/Recreational Allocation Amendment to consider potential modifications to the allocations of catch or landings between the commercial and recreational sectors for the three species. The current commercial and recreational allocation percentages for all three species do not reflect the current understanding of the recent and historic proportions of catch and landings from the two sectors. This amendment will consider whether changes to these allocations are warranted.

II. Status of the Stock

The most recent benchmark stock assessment for black sea bass was peer reviewed in December 2016 (SAW-62). The assessment found black sea bass was not overfished nor experiencing overfishing in 2015, the terminal year of the assessment. The assessment used an age-structured assessment model (ASAP) that partitioned the resource into two spatial subunits separated at approximately Hudson Canyon. This approach was accepted as the best scientific information available for determining stock status for black sea bass; however, it should be noted that the two sub-units were not considered separate stocks by the stock assessment working group, peer review panel, nor the MAFMC Scientific and Statistical Committee.

An operational assessment that incorporated fishery-dependent and -independent data through 2018, including revised recreational estimates from MRIP, was peer reviewed in August 2019¹. Based on the prepublication version of the August 2019 Operational Assessment Report, the black sea bass stock north of Cape Hatteras, North Carolina was not overfished and overfishing was not occurring in 2018 relative to the revised reference points. Spawning stock biomass (SSB) in 2018 was 73.65 million pounds (adjusted for retrospective bias), 2.4 times the updated biomass reference point (i.e., $SSB_{MSY proxy} = SSB_{40\%} = 31.07$ million pounds). To account for the fact that black sea bass are protogynous hermaphrodites, changing sex from female to male, the assessment defines SSB as the combined male and female mature biomass. The average fishing mortality on fully selected ages 6-7 fish in 2018 was 0.42 (adjusted for retrospective bias), 91% of the updated fishing mortality threshold reference point (i.e., F_{MSY} p_{roxy} = F_{40%} = 0.46). Recruitment (R) of the 2017 year class as age 1 in 2018 was estimated at 16.0 million, well below the time series average. The 2011 year class was estimated to be the largest in the time series at 144.7 million fish and the 2015 year class was the second largest at 79.4 million fish. The 2018 estimates of SSB, F, and R were adjusted for internal model retrospective error.

¹ The prepublication report for the August 2019 Operational Assessment can be found here: <u>https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5d6fdae24fd5d20001d0e08b/1567611629485/3</u> <u>OpAssessments Aug2019-Prepublication-9-4-2019-f.pdf</u>

III. Status of the Fishery

The commercial fishery is allocated 49% of the total allowable landings (TAL) for black sea bass. The principal gears used in the fishery are otter trawls, fish pots (or traps), and handlines. After peaking at 21.8 million pounds in 1952, commercial landings markedly decreased in the 1960s and have ranged from 1.14 to 3.9 million pounds since 1981. In 1998, a commercial quota system was incorporated into management and state-by-state shares were introduced in 2003. From 2006-2016 commercial landings ranged between 1.14 million pounds in 2009 to 2.53 million pounds in 2016 (Tables 2 and 3). In 2017 and 2018, higher quotas resulted in commercial landings of approximately 3.9 million pounds, and 3.33 million pounds, respectively. The 2019 landings were over the coastwide quota of 3.52 million pounds by approximately 7.8% (Tables 2 and 3)¹. According to the 2019 operational assessment (prepublication report), commercial dead discards in 2018 were 1.59 million pounds and total removals (landings plus dead discards); therefore, the 2018 commercial annual catch limit (ACL) of 4.35 million pounds was exceeded by approximately 13%². Commercial dead discard estimates for 2019 are not yet available.

The recreational fishery is allocated 51% of the TAL for black sea bass, loosely based on the proportion of recreational to commercial landings from 1983-1992. In 2018, recreational harvest estimates from the Marine Recreational Information Program (MRIP) were recalibrated based on the new Fishing Effort Survey (FES). In general the recalibration resulted in higher harvest estimates throughout the time series, with more divergence in recent years. After a drastic peak in 1986 at 11.19 million pounds, recreational harvest averaged 5.02 million pounds annually from 1987 to 1997³. Recreational harvest limits were put in place in 1998 and harvest generally increased from 1.92 million pounds in 1998 to 9.06 million pounds in 2015 (Table 4). In 2016 and 2017 harvest jumped up to 12.05 and 11.48 million pounds, respectively. In 2019, recreational harvest was estimated at 8.61 million pounds, an 8% increase from 2018. Recreational live discards as a proportion of total catch have generally increased over the time series, averaging 46% in the 1980s, and 84% over the last decade. According to MRIP, total live recreational discards from Maine to Virginia were 27.79 million fish in 2019. Assuming 15% hook and release mortality, estimated recreational discard losses were projected to be 4.17 million fish, equal to 49% of the total recreational removals (harvest plus dead discards) in 2019. According to the 2019 operational assessment (prepublication report), recreational dead discards totaled 2.30 million pounds in 2018. An estimate of recreational dead discards in pounds for 2019 is not available, but dead discards in numbers of fish in 2019 were estimated to be approximately 4.2 million fish based on MRIP data.

¹ Commercial landings for 2019 are preliminary and are derived from state compliance reports.

² Prior to the start of the 2020 fishing year, NOAA Fisheries' Greater Atlantic Regional Fisheries Office (GARFO) compiled and reviewed final 2018 catch estimates and determined that an ACL overage occurred due to discards. Since November 2018, pound-for-pound payback accountability measures (AMs) to account for non-landings (i.e., discard) overages to the ACL are no longer required when the stock is above the target biomass, as black sea bass is currently.

³ Recreational data included in this report are derived from recalibrated MRIP data based on the new Fishing Effort Survey (FES). These new MRIP estimates were incorporated into the 2019 Operational Assessment.

The Board and Council opened a recreational fishery season for black sea bass from February 1-28, 2019. Up to 100,000 pounds of black sea bass were allocated to the fishery, to be accounted for by the participating states according to their historic recreational harvest in February. Only Virginia and North Carolina participated in 2019. Estimated February 2019 harvest was 10,082 pounds for Virginia and 0 pounds for North Carolina. As part of the 2019 conservation equivalency (CE) proposal, Virginia forfeited 21 days from wave-3 (May/June) to account for the 10,082 pounds of recreational landings that occurred in February of that year.

IV. Status of Assessment Advice

An operational stock assessment was peer reviewed in August 2019 and was accepted for management use in October 2019. According to the assessment, the black sea bass stock north of Cape Hatteras, North Carolina was not overfished and overfishing was not occurring in 2018 compared to the revised reference points. The next management track¹ stock assessment is scheduled for 2021.

V. Status of Research and Monitoring

Commercial landings information is collected by the Vessel Trip Reporting system and dealer reports. States are also required to collect and report landings data. Sea sampling data from the NEFSC observer sampling program are used to estimate discards for the trawl and gill net fisheries, and VTR data is used to estimate discards from pots and hand lines if observer data are insufficient. The NEFSC weigh-out program provides commercial age and length information. Recreational landings and discards were estimated through the Marine Recreational Fisheries Statistics Survey (MRFSS) until it was replaced by MRIP, which has provided recreational landings and discards from 2008 to present. In 2018, MRIP released recalibrated harvest estimates derived from a new mail-based fishing effort survey (FES), rather than the Coastal Household Telephone Survey. Recreational discards in weight are estimated by the NEFSC. New York conducts fishery-dependent surveys of the recreational and commercial fishery, and dockside commercial sampling is conducted by North Carolina.

Fishery-independent surveys are conducted by Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, and Virginia. The Virginia Game Fish Tagging Program has targeted black sea bass since 1997. Recruitment and stock abundance data are also provided by the NEFSC spring, autumn, and winter trawl surveys.

VI. Status of Management Measures and Developing Issues

To address broad management issues for the recreational fishery, the Board and Council formed a joint work group in March 2019. To date this group has focused on identifying strategies to increase management stability and flexibility, while reducing the administrative burden of the annual evaluation and setting of recreational measures. Work on this issue is ongoing, though a management action has not been initiated.

¹ A description of the revised stock assessment process for the New England and Mid-Atlantic Region can be found at: <u>https://s3.amazonaws.com/nefmc.org/Stock-assessment-process-june.pdf</u>

VII. Black Sea Bass Compliance Criteria

2019 Commercial Fishery Requirements

Minimum size of possession: 11"

<u>Minimum mesh</u>: Nets must possess a minimum of 75 meshes of 4.5" diamond mesh in the codend, or the entire net must have a minimum mesh size of 4.5" throughout; for codends with fewer than 75 meshes, the entire net must have 4.5" diamond mesh or larger throughout <u>Threshold to trigger minimum mesh requirements</u>: 500 lbs for January-March and 100 lbs for April-December

Maximum roller rig trawl roller diameter: 18"

<u>Pot and trap escape vents</u>: $2 \frac{1}{2}$ " for circular, 2" for square, and $1-3/8 \times 5-3/4$ " for rectangular. Must be 2 vents in the parlor portion of the trap.

Pot and trap degradable fastener provisions: a) untreated hemp, jute, or cotton string 3/16" (4.8 mm) or smaller; b) magnesium alloy timed float releases or fasteners; c) ungalvanized, uncoated iron wire of 0.094" (2.4mm) or smaller. The opening covered by a panel affixed with degradable fasteners is required to be at least 3" x 6".

Commercial quota: 3.52 million lbs

<u>Pot and trap definition</u>: A black sea bass pot or trap is defined as any pot or trap used by a fisherman to catch and retain black sea bass.

2019 Recreational Fishery Requirements

Recreational harvest limit: 3.66 million lbs

2019 recreational measures were held status quo from 2018, with the exception of minor conservation equivalency changes. See Table 5 for 2019 state recreational measures.

Other Measures

<u>Reporting</u>: States are required to submit an annual compliance report to the Chair of the Black Sea Bass Plan Review Team by June 1st. The report must detail the state's management program for the current year and establish proof of compliance with all mandatory management measures. It should include landings information from the previous year, and the results of any monitoring or research programs.

Commercial			
11" Size Limit	1/1/02		
4.5" diamond minimum mesh throughout codend and threshold provisions	1/1/02		
Pot and trap escape vents and degradable fasteners	1/1/97		
Maximum 18" roller diameter restriction	1/1/97		
States must report to NMFS all landings from state waters	1/1/98		
Recreational			
Size Limit	1/1/97		
Harvest Limit	1/1/98		
Ability to implement possession limits and seasonal closures	1/1/98		
General			
Annual compliance report	Annually, 6/1		

Black Sea Bass FMP Compliance Schedule*

*This summary of compliance criteria is intended to serve as a quick reference guide. It in no way alters or supersedes compliance criteria as contained in the Black Sea Bass FMP and any Amendments thereto. Management measures may change annually.

VIII. Status of Implementation of FMP Requirements

For 2019, states and jurisdictions required to comply with the provisions of the Black Sea Bass FMP are: Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Potomac River Fisheries Commission, Virginia, and North Carolina.

Most states appear in compliance with the FMP provisions for fishing year 2019; however, the following issues were noted:

- Massachusetts regulations do not specify that the opening covered by the panel affixed with biodegradable fasteners must be at least 3" x 6". This has been identified for rule-making and is likely to be adopted prior to the start of the 2021 pot fishery season.
- Rhode Island regulation does not specifically state that the opening covered by the panel affixed with biodegradable fasteners must be at least 3" x 6". However, it is specified that the escape openings must be attached with biodegradable fasteners; the total area covered by escape vent panels in all possible configurations would cover an area of at least 3" x 6".
- In 2019, Maryland did not implement the size requirement for ghost panels to be at least 3"x 6", and their regulations were unclear with regard to the requirement for two escape vents in the trap parlor. These regulations were fully implemented in 2020.

These states have indicated they will resolve the above outstanding issues as soon as possible. Therefore, the PRT determined that all states have made a good faith effort to implement regulations in compliance with the requirements approved by the Board.

In addition, the PRT made the following recommendations to improve compliance reports:

- State compliance reports should explicitly list all required regulations and whether they are in compliance with the FMP.
- State compliance reports should either include a web link to current regulations, or a copy of the regulations in effect for the relevant fishing year to facilitate the review process. Not all states provided their regulations.
- Pots/traps should be separated from other types of gear in the commercial harvest by gear tables included in compliance reports.
- Virginia should note in their compliance report that trawling is prohibited in state waters to make it clear their regulations are in compliance with the FMP.

IX. References

NEFSC (Northeast Fisheries Science Center). 2017. 62nd Northeast Regional Stock Assessment Workshop (62nd SAW) Assessment Report. US Dept Commer, Northeast Fish Sci Cent Ref Doc.

17-03; 822 p. Available from: National Marine Fisheries Service, 166 Water Street, Woods Hole, MA 02543-1026, or online at <u>http://nefsc.noaa.gov/publications/</u>.

NEFSC. 2019. Prepublication copy of the August 2019 operational stock assessment report prepared for the Council and the SSC. Available at: <u>https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/5d6fdae24fd5d20001d0</u> <u>e08b/1567611629485/3 OpAssessments Aug2019-Prepublication-9-4-2019-f.pdf</u>

State	% Allocation
Maine	0.50%
New Hampshire	0.50%
Massachusetts	13%
Rhode Island	11%
Connecticut	1%
New York	7%
New Jersey	20%
Delaware	5%
Maryland	11%
Virginia	20%
North Carolina	11%

Table 1. State by state allocation of annual commercial quota.

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Year	ME	NH	MA	RI	СТ	NY	NJ	DE	MD	VA	NC*	TOTAL
2009			148,470	128,084	16,138	124,026	204,213	50,285	125,643	164,564	176,748	1,138,171
2010	3		260,178	241,886	21,497	201,708	305,331	79,791	203,088	263,563	107,996	1,685,042
2011		49	287,662	211,597	20,496	183,420	293,609	85,564	182,223	274,699	98,505	1,637,823
2012			292,010	204,360	18,158	153,338	310,842	82,351	144,174	392,332	61,187	1,658,752
2013			328,393	265,691	23,066	180,694	421,310	108,545	234,074	495,938	88,242	2,145,954
2014			307,046	267,703	26,957	223,677	493,775	102,279	251,724	387,518	212,488	2,273,167
2015			347,820	238,647	24,591	151,409	468,248	111,508	236,183	422,333	241,538	2,242,277
2016			354,031	294,343	29,236	184,529	525,647	96,794	271,512	553,491	225,405	2,534,987
2017			541,932	458,153	43,798	301,774	898,665	117,452	409,594	745,087	388,858	3,905,313
2018			481,068	371,948	39,408	270,680	698,665	169,078	373,898	606,240	317,565	3,328,550
2019**			530,770	399,075	78,023	297,472	718,360	186,888	394,445	590,526	279,008	3,795,619

Table 2. Black Sea Bass Commercial Landings by State (2009-2019) in pounds.Source: State Compliance Reports & ACCSP (June 2020).Commercial Landings Summaries (Dealer Reports)-Non-Confidential; generated by C. Starks; using ACCSP Data Warehouse, Arlington, VA.

* Landings from NC are from north of Cape Hatteras

**2019 landings are preliminary from state compliance reports

State	% Allocation	2018 Landings	2019 ASMFC Initial Quota	2019 Quota After Transfers	
Maine	0.005	0	17,600	1	
New Hampshire	0.005	0	17,600	200	
Massachusetts	0.13	481,119	457,600	532,600	
Rhode Island	0.11	374,740	387,200	404,494	
Connecticut	0.01	37,925	35,200	59,999	
New York	0.07	274,028	246,400	261,400	
New Jersey	0.2	700,132	704,000	715,870	
Delaware	0.05	169,202	176,000	176,000	
Maryland	0.11	427,434	387,200	385,330	
Virginia	0.2	606,371	704,000	696,750	
North Carolina	0.11	307,634	387,200	287,356	
Coastwide Total	100%	3,378,585	3,520,000	3,520,000	
	2018 Coastwide Quota	3,520,000			
	2018 Overage	None (Under by 141,415; -4%)			

Table 3. 2018 Commercial Landings and 2019 Black Sea Bass State by State Quotas (pounds).Personal communication with NOAA Fisheries, December 19, 2019.

* Landings from North Carolina are from North of Cape Hatteras

State	ME	NH	MA	RI	СТ	NY	NJ	DE	MD	VA	NC*	Coastwide
2009			1,144,810	128,218	8,146	1,959,703	2,025,902	154,452	40,832	228,281	8,283	5,698,627
2010			2,945,488	643,348	46,242	1,956,546	2,191,362	137,222	48,012	81,377	24,471	8,074,067
2011			1,251,169	236,607	41,727	855,115	423,606	131,177	171,402	48,340	111,538	3,270,681
2012		19,130	2,839,821	645,039	429,493	936,640	1,778,079	173,628	198,815	11,278	8,231	7,040,154
2013		64,478	1,228,732	313,316	413,558	2,106,973	1,389,868	56,384	35,802	58,919	21,617	5,689,647
2014			2,148,079	659,562	1,063,682	2,224,755	892,307	62,504	79,659	109,054	1,269	7,240,871
2015			1,629,169	807,840	1,011,926	4,722,098	596,811	59,710	118,061	104,944	6,224	9,056,782
2016			1,765,705	1,124,414	1,364,242	6,547,541	693,808	127,182	274,441	148,818	1,591	12,047,742
2017			1,444,180	749,965	1,102,722	5,515,386	2,088,631	150,530	239,715	156,810	33,421	11,481,361
2018			1,818,682	1,628,875	873,055	1,726,555	1,440,761	109,365	189,711	123,937	9,494	7,920,435
2019			1,361,110	1,225,058	1,180,400	3126,473	1,117,658	61,974	156,986	371,523**	11,639**	8,612,821

Table 4. Black Sea Bass Recreational Harvest Estimates by State (2009-2019) in pounds.Source: MRIP, 2020. NC estimates for North of Cape Hatteras were provided by NC DENR.

*Harvest is from north of Hatteras.

**Virginia and North Carolina participated in the February 2019 black sea bass recreational fishery. Virginia estimated 10,082 pounds of harvest in February 2019, and North Carolina estimated zero harvest. The Virginia February harvest estimate is not included in the state total for 2019.

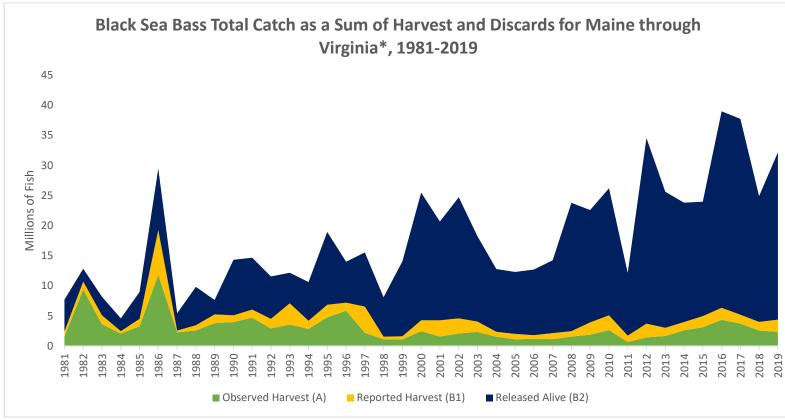


Figure 1. Black Sea Bass Total Catch as a Sum of Harvest and Discards. Source: MRIP, July 2020.

^{*}Discard estimates for NC north of Cape Hatteras are not yet available.

State	Minimum Size (inches)	Possession Limit	Open Season
Maine	13	10 fish	May 19-September 21; October 18- December 31
New Hampshire	13	10 fish	January 1-December 31
Massachusetts	15	5 fish	May 18-September 8
Rhode Island	15	3 fish	June 24- August 31
Rilode Island	12	7 fish	September 1-December 31
Connecticut (Private & Shore)	15	5 fish	May 19-December 31
CT (Authorized party/charter	15	5 fish	May 19-August 31
monitoring program vessels)	12	7 fish	September 1-December 31
New York	15	3 fish	June 23-August 31
New fork	12	7 fish	September 1-December 31
	12.5	10 fish	May 15-June 22
New Jersey		2 fish	July 1-August 31
New Jersey		10 fish	October 8-October 31
	13	15 fish	November 1-December 31
Delaware	12.5	15 fish	May 15-December 31
Maryland	12.5	15 fish	May 15-December 31
	12.5	15 fish	February 1-28
Virginia	12.5	15 fish	May 15-May 31; June 22-December 31
North Carolina, North of	12.5	15 fish	February 1-28
Cape Hatteras (N of 35° 15'N)	12.5	15 fish	May 17-December 31
Minimum Federal Measures	12.5	15 fish	February 1-28 May 15-December 31

 Table 5. 2019 Black Sea Bass Recreational Management Measures by State

State	Minimum Size (inches)	Possession Limit	Open Season
Maine	13	10 fish	May 19-September 21; October 18-December 31
New Hampshire	13	10 fish	January 1-December 31
Massachusetts	15	5 fish	May 18-September 8 (private & shore); May 25-October 9 (for-hire only)
Rhode Island	15	3 fish	June 24-August 31
Rhode Island	15	7 fish	September 1-December 31
Connecticut (Private & Shore)	15	5 fish	May 19-December 31
CT (Authorized		5 fish	May 19-August 31
party/charter monitoring program vessels)	15	7 fish	September 1-December 31
New York	15	3 fish	June 23-August 31
New fork	15	7 fish	September 1-December 31
		10 fish	May 15-June 22
New Jersey	12.5	2 fish	July 1-August 31
New Jeisey		10 fish	October 8-October 31
	13	15 fish	November 1-December 31
Delaware	12.5	15 fish	May 15-December 31
Maryland	12.5	15 fish	May 15-December 31
Virginia	12.5	15 fish	February 1-28
Virginia	12.5	15 fish	May 29-December 31
North Carolina, North of	12.5	15 fish	February 1-28
Cape Hatteras (N of 35° 15'N)	12.5	15 fish	May 17-December 31*
Minimum Federal Measures	12.5	15 fish	February 1-28 May 15-December 31

Table 6. 2020 Black Sea Bass Recreational Management Measures by State

*North Carolina's 2020 recreational season will be adjusted later in the year to account for harvest in the February 2020 recreational black sea bass fishery.