FISHERY MANAGEMENT PLAN UPDATE
BLACK SEA BASS NORTH OF CAPE HATTERAS
AUGUST 2023

STATUS OF THE FISHERY MANAGEMENT PLAN

Fishery Management Plan History

Original FMP Adoption: Incorporated into the Summer Flounder FMP through Amendment 9 in 1996

Amendments:

Amendment 9	1996
Amendment 10	1997
Amendment 11	1998
Amendment 12	1999
Framework 1	2001
Addendum IV	2001
Addendum VI	2002
Amendment 13	2003
Framework 5	2004
Addendum XII	2004
Addendum XIII	2004
Addendum XVI	2005
Amendment 16	2007
Framework 7	2007
Addendum XIX	2007
Addendum XX	2009
Amendment 15	2011
Addendum XXI	2011
Addendum XXII	2012
Amendment 19	2013
Addendum XXIII	2013
Addendum XXV	2014
Amendment 17	2015
Framework 8	2015
Amendment 18	2015
Addendum XXVII	2016
Amendment 20	2017
Framework 10	2017
Addendum XXX	2018
Framework 11	2018
Framework 13	2018
Addendum XXXI	2018
Addendum XXXII	2018
Framework 14	2019
Framework 15	2020

Framework 16	2020
Addendum XXXIII	2021
Amendment 22	2022
Framework 17 & Addendum XXXIV	2022/2023

Comprehensive Review: 2023

Because of their presence in, and movement between, state waters (0-3 miles) and federal waters (3-200 miles), the Mid-Atlantic Fishery Management Council (MAFMC) manages black sea bass (*Centropristis striata*) north of Cape Hatteras cooperatively with the Atlantic States Marine Fisheries Commission (ASMFC). The two management entities work in conjunction with the National Marine Fisheries Service (NMFS) as the federal implementation and enforcement entity. Black sea bass went through preliminary FMP development from 1978-1993 by the MAFMC. In 1996 NMFS requested that black sea bass regulations be incorporated into another FMP to reduce the number of separate fisheries regulations. As a result, the black sea bass FMP was incorporated into the summer flounder FMP as Amendment 9.

Specific details for each Amendment include:

Amendment 9 incorporated black sea bass into the Summer Flounder FMP; established black sea bass management measures including commercial quotas, recreational harvest limits, size limits, gear restrictions, permits, and reporting requirements.

Amendment 10 modified commercial minimum mesh requirements; continued commercial vessel moratorium permit; prohibited transfer of summer flounder at sea; established a special permit for the summer flounder party/charter sector.

Amendment 11 modified certain provisions related to vessel replacement and upgrading, permit history transfer, splitting, and permit renewal regulations.

Amendment 12 revised the Summer Flounder, Scup, and Black Sea Bass FMP to comply with the Sustainable Fisheries Act and established a framework adjustment process; established quota set-aside for research for summer flounder, scup and black sea bass; established state-specific conservation equivalency measures; allowed the rollover of the winter scup quota; revised the start date for the scup summer quota period; established a system to transfer scup at sea.

Framework 1 established quota set-aside for research for summer flounder, scup and black sea bass.

Addendum IV provided that upon the recommendation of the relevant monitoring committee and joint consideration with the Mid-Atlantic Fishery Management Council, the ASMFC's Summer Flounder, Scup, and Black Sea Bass Management Board will decide the state regulations rather than forward a recommendation to the National Marine Fisheries Science Center; made states responsible for implementing the ASMFC's Summer Flounder, Scup, and Black Sea Bass Management Boards decisions on regulations.

Addendum VI provided 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 revised black sea bass commercial quota system; addressed other black sea bass management measures; established multi-year specification setting of quota for summer flounder, scup and black sea bass; established region-specific conservation equivalency measures for summer flounder; built flexibility into process to define and update status determination criteria for each plan species. Amendment 13 also removed the necessity for fishermen who have both a Northeast Region (NER) black sea bass permit and a Southeast Region (SER) snapper/grouper permit to relinquish their permits for a six-month period prior to fishing south of Cape Hatteras during the northern closure.

Framework 5 established multi-year specification setting of quota for summer flounder, scup, and black sea bass.

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

Addendum XIII modified the Summer Flounder, Scup, and Black Sea Bass FMP so that Total Allowable Landings for summer flounder, scup, and/or black sea bass can be specified for up to three years.

Addendum XVI established guidelines for delayed implementation of management strategies.

Amendment 16 standardized bycatch reporting methodology.

Framework 7 built flexibility into process to define and update status determination criteria for each plan species.

Addendum XIX continued the state-by-state black sea bass commercial management measures, without a sunset clause; broadened the descriptions of stock status determination criteria contained within the Summer Flounder, Scup, and Black Sea Bass FMP to allow greater flexibility in those definitions, while maintaining objective and measurable status determination criteria for identifying when stocks or stock complexes covered by the fishery management plan are overfished.

Addendum XX set policies to reconcile commercial quota overages to address minor inadvertent quota overages; 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; allowed for commercial quota transfers to reconcile quota overages after a year's end.

Amendment 15 established annual catch limits and accountability measures.

Addendum XXI allowed more flexibility in setting recreational measures for the 2011 fishing year and proposed state-by-state or regional management measures for the 2011 black sea bass fishery.

Addendum XXII divided the recreational black sea bass coastwide allocations into state-by-state management for 2012 only.

Amendment 19 modified the accountability measures for the MAFMC recreational fisheries.

Addendum XXIII established regional management for the 2013 recreational black sea bass fishery.

Addendum XXV established regional management for the 2014 recreational black sea bass and summer flounder fishery.

Amendment 17 implemented standardized bycatch reporting methodology.

Framework 8 allowed the black sea bass recreational fishery to begin on May 15 of each year, instead of May 19, to provide additional fishing opportunities.

Amendment 18 eliminated the requirement for vessel owners to submit "did not fish" reports for the months or weeks when their vessel was not fishing; removed some of the restrictions for upgrading vessels listed on federal fishing permits.

Addendum XXVII continued regional management of the recreational summer flounder fishery extended ad hoc regional management of the black sea bass recreational fishery for the 2016 and 2017 fishing year and addressed the discrepancies in recreational summer flounder management measures within Delaware Bay.

Amendment 20 implemented management measures to prevent the development of new, and the expansion of existing, commercial fisheries on certain forage species in the Mid-Atlantic.

Framework 10 implemented a requirement for vessels that hold party/charter permits for Council-managed species to submit vessel trip reports electronically (eVTRs) while on a trip carrying passengers for hire.

Addendum XXX established 2018 recreational black sea bass management with options for regional allocations that require uniform regulations and other alternatives to the current North/South regional delineation (MA-NJ/DE-NC).

Framework 11 established a process for setting constant multi-year Acceptable Biological Catch (ABC) limits for Council-managed fisheries, clarified that the Atlantic Bluefish, Tilefish, and Atlantic Mackerel, Squid, and Butterfish FMPs will now automatically incorporate the best available scientific information in calculating ABCs (as all other Mid-Atlantic Council management plans do) rather than requiring a separate management action to adopt them, clarified the process for setting ABCs for each of the four types of ABC control rules.

Framework 13 modified the accountability measures required for overages not caused by directed landings (i.e., discards) in the summer flounder, scup, and black sea bass fisheries.

Addendum XXXI established conservation equivalency for black sea bass and transit provisions in federal waters around Block Island, Rhode Island for recreational and commercial fishermen which allows permitted fishermen to pass through federal waters legally.

Addendum XXXII established a specifications process instead of an addendum process to implement recreational management measures more quickly for summer flounder and black sea bass.

Framework 14 gives the Council the option to waive the federal recreational black sea bass measures in favor of state measures through conservation equivalency; implements a transit zone for commercial and recreational summer flounder, scup, and black sea bass fisheries in Block Island Sound; and allows for the use of a maximum size limit in the recreational summer flounder and black sea bass fisheries.

Framework 15 established a requirement for commercial vessels with federal permits for all species managed by the Mid-Atlantic and New England Councils to submit vessel trip reports electronically within 48 hours after entering port at the conclusion of a trip.

Framework 16 modified MAFMC's ABC control rule and risk policy. The revised risk policy is intended to reduce the probability of overfishing as stock size falls below the target biomass while allowing for increased risk and greater economic benefit under stock biomass conditions. This action also removed the typical/atypical species distinction currently included in the risk policy.

Addendum XXXIII modifies the allocation of the coastwide black sea bass commercial quota among the states, which were originally implemented in 2003 through Amendment 13 and extended indefinitely through Addendum XIX. The revised allocation addresses the significant change in the distribution of black sea bass that have occurred since the original allocations were implemented in 2003.

Amendment 22 revised the commercial and recreational sector allocations for all three species.

Framework 17/Addendum XXXIV Recreational Harvest Control Rule established a new process for setting recreational bag, size, and season limits (i.e., recreational measures) for summer flounder, scup, black sea bass, and bluefish. This action also modified the recreational accountability measures for these species.

Specific details for each amendment and addendum under development include:

Summer Flounder, Scup, and Black Sea Bass Commercial/Recreational Allocation Amendment was jointly approved in December 2021 and selected preferred alternatives for each species. In 2022 the amendment was sent for submission to NMFS. For black sea bass, this amendment allocates 45% of the acceptable biological catch (ABC) to the commercial annual catch limit and 55% to the recreational annual catch limit.

The Recreational Harvest Control Rule Framework/Addenda has been submitted to NOAA for review, approval, and implementation. The Addenda proposed different approaches for setting recreational measures. These differences have implications for how often measures would change and the magnitude of those changes. This Addenda will not implement any specific bag, size, or

season limits but will modify the specification process for setting specific measures. The Council and Policy Board approved a range of alternatives, the selected management option is referred to as the "Percent Change Approach". This management option will be in place with an agreement to continue development of several other options for possible implementation by 2026. Under this selected approach, it will be determined whether recreational measures should be restricted, liberalized, or remain unchanged for the next two years. For further information on the Harvest Control Rule, refer to asmfc.org.

To ensure compliance with interstate requirements, North Carolina also manages this species under the North Carolina Fishery Management Plan for Interjurisdictional Fisheries (IJ FMP). The goal of the IJ FMP is to adopt fishery management plans, consistent with N.C. law, approved by the MAFMC, South Atlantic Fishery Management Council, or the ASMFC by reference and implement corresponding fishery regulations in North Carolina to provide compliance or compatibility with approved fishery management plans and amendments, now and in the future. These plans were established under the Magnuson-Stevens Fishery Conservation and Management Act (federal council plans) and the Atlantic Coastal Fisheries Cooperative Management Act (ASMFC plans) with the goal, like the Fisheries Reform Act of 1997, to "ensure long-term viability" of these fisheries (NCDMF 2022).

Management Unit

U.S. waters in the western Atlantic Ocean from Cape Hatteras northward to the U.S.-Canadian border.

Goal and Objectives

The objectives for the Black Sea Bass FMP are to:

- Reduce fishing mortality in the black sea bass fisheries to assure that overfishing does not occur.
- Reduce fishing mortality on immature black sea bass to increase spawning stock biomass.
- Improve the yield from these fisheries.
- Promote compatible management regulations between state and federal jurisdictions.
- Promote uniform and effective enforcement of regulations.
- Minimize regulations to achieve the management objectives stated above.

The 2011 Omnibus Amendment contains Amendment 15 to the Summer Flounder, Scup and Black Sea Bass FMP. The amendment is intended to formalize the process of addressing scientific and management uncertainty when setting catch limits for the upcoming fishing year(s) and to establish a comprehensive system of accountability for catch (including both landings and discards) relative to those limits, for each of the managed resources subject to this requirement. Specifically: (1) Establish allowable biological catch control rules, (2) Establish a MAFMC risk policy, which is one variable needed for the allowable biological catch control rules, (3) Establish annual catch limits, (4) Establish a system of comprehensive accountability, which addresses all components of the catch, (5) Describe the process by which the performance of the annual catch limit and

comprehensive accountability system will be reviewed, (6) Describe the process to modify the above objectives (1-5) in the future.

DESCRIPTION OF THE STOCK

Biological Profile

Black sea bass are split into two stocks but together are found along the Atlantic coast from the Gulf of Maine to the Florida Keys. The northern stock is located from the Gulf of Maine to Cape Hatteras, North Carolina while the southern stock is located from Cape Hatteras, North Carolina to the Florida Keys. Black sea bass have a unique life history in that they are protogynous hermaphrodites which means they begin life as female and then change to male once they reach age 2 to 5 or when they reach 9 to 13 inches in total length. During the spawning season, dominant males develop a large nuchal (nape of the neck) hump, whereas subordinate males do not and are typically smaller in size. Spawning for the northern stock typically occurs offshore on the inner continental shelf during the months from May to July. Juveniles and adults move nearshore during the summer. Seasonal migration is common for black sea bass (north of Cape Hatteras). Black sea bass have a maximum age of 12 years. They are likely to stay near rock pilings, wrecks and jetties and prey on fish, crabs, mussels, and razor clams (Steimle 1999).

Stock Status

An operational assessment that incorporated new recreational harvest estimates was peer reviewed in 2021. The assessment found that the black sea bass stock status has not changed and was not overfished and overfishing was not occurring in 2019 relative to revised reference points.

Stock Assessment

A black sea bass management track stock assessment was peer reviewed and accepted in June 2021. This assessment retained the model structure of the 2016 benchmark stock assessment and incorporated fishery data and fishery-independent survey data through 2019. Data from 2020 were not incorporated due to significant gaps in some data sets due to the COVID-19 pandemic and the time required to consider how to best address those gaps. Based on the assessment spawning stock biomass was estimated at two times the target level and fishing mortality was 15% below the threshold level. Comparisons between assessments indicated that the trends in spawning stock biomass, recruitment and fishing mortality have been consistent between the 2016 benchmark assessment and 2021 update. Stock assessment reports can be found on the black sea bass page on the ASMFC website for further information.

DESCRIPTION OF THE FISHERY

Current Regulations

Commercial: 11-inch total length minimum size limit in Atlantic Ocean and internal coastal waters north of Cape Hatteras. Harvest periods are set by proclamation with variable harvest limits by

gear and time-period to prevent landings from exceeding North Carolina's commercial quota [see most recent North Carolina Division of Marine Fisheries (DMF) proclamation].

Recreational: 13-inch total length minimum size limit and a 15-fish creel limit in Atlantic Ocean and internal coastal waters north of Cape Hatteras. The season for the recreational fishery was May 15 to December 11. Beginning in 2023 the minimum size will remain at 13-inches, 15-fish creel limit, and two harvest periods that are May 15 – September 30 and October 10 – December 31.

Commercial Fishery

All black sea bass landings are reported through the North Carolina Trip Ticket Program. In 2022 the majority of black sea bass landings from north of Cape Hatteras were from fish pots and flynets. Flounder trawls usually land the majority of black sea bass but caught much smaller numbers in 2022 (Figure 1). Landings generally declined from 1994 through 2012 but have increased notably since 2013, with the exception of 2022 being another low year (Table 1; Figure 2). The low landings in 2012 and 2013 were partly due to shoaling at Oregon Inlet making passage by large vessels (such as trawlers) unsafe and the consequent transfer of large portions of North Carolina's black sea bass quota allocation to Virginia and other states. During 2014 through 2022, more ocean trawl vessels returned to North Carolina (mainly Beaufort and Washington areas) to land catches rather than transferring quota to Virginia and other states.

Recreational Fishery

Recreational estimates across all years have been updated and are now based on the new National Ocean and Atmospheric Administration (NOAA) Marine Recreational Information Program (MRIP) Fishing Effort Survey-based calibrated estimates. For more information on MRIP, see https://www.fisheries.noaa.gov/topic/recreational-fishing-data. All black sea bass harvest is reported through the NOAA Marine Recreational Information Program. Recreational harvest of black sea bass from north of Cape Hatteras was variable from 1994 through 2019, above average harvest occurred in 2020 and 2022 (Table 1; Figure 2).

MONITORING PROGRAM DATA

Fishery-Dependent Monitoring

Two DMF sampling programs collect biological data on commercial and recreational fisheries that catch black sea bass north of Cape Hatteras. Program 433 (Ocean Trawl Fishery) is the primary program that collects harvest length data. Additionally, Program 438 (Offshore Live Bottom Fishery) collects some harvest length data but is not as active as Program 433. Other commercial sampling programs focusing on fisheries that do not target black sea bass rarely collect biological data. DMF sampling of the recreational fishery occurs through the NOAA Marine Recreational Information Program which collects harvest and length data.

There were no clear trends in commercial length data from 1994 through 2022. Annual mean lengths were fairly consistent for the time-series. The number of measurements collected totaled 1,529 in 2022 (Table 2). Otoliths have been collected from commercial fisheries since 2013 and

are currently in the process of being aged, although these data are not currently used in the coastwide stock assessments.

Length data in the recreational fishery was variable and sample size was low from 1994 through 2022. Mean lengths have gradually increased over the time-series but tend to be variable given low sample size (Table 3). Age data were not collected for black sea bass north of Cape Hatteras from recreational fisheries.

Fishery-Independent Monitoring

DMF independent sampling programs rarely encounter black sea bass north of Cape Hatteras and the few fish that are encountered are mostly from Program 120 (Estuarine Trawl Survey) and from Program 195 (Pamlico Sound Survey), which collect samples of black sea bass juveniles from inshore estuarine waters. However, it is not clear that samples collected inshore north of Cape Hatteras are from the northern or southern stock of black sea bass; this combined with the small sample numbers means that these data cannot be used in an abundance index. DMF currently does not have independent sampling programs in Atlantic Ocean waters north of Cape Hatteras.

RESEARCH NEEDS

- Expand on previous genetic studies with smaller spatial increments in sampling. — Progress unknown at this time
- Consider the impact of climate change on black sea bass, particularly in the Gulf of Maine. — Progress unknown at this time
- Evaluate population sex change and sex ratio, particularly comparing dynamics among communities. — Progress unknown at this time
- Study black sea bass catchability in a variety of survey gear types. — Progress unknown at this time
- Investigate and document social and spawning dynamics of black sea bass. — Progress unknown at this time
- Increase work to understand habitat use in sea bass and seasonal changes. — Progress unknown at this time
- Evaluate use of samples collected by industry study fleets. — Progress unknown at this time
- The panel recommended multiple age-structured models be evaluated for use in future models. Examples include a simple separable model with smoothing on F among years, a more complex, spatially structured model with 6-month time step within independent stock areas in spring and mixing in winter with natal homing, and tag return data in an age-structured assessment model. — Some progress has been made
- Continue and expand the tagging program to provide increased age information and increased resolution on mixing rates among putative populations. — Some progress has been made
- Continue and expand genetic studies to evaluate the potential of population structure north of Cape Hatteras. — Some progress has been made

- Continue research on rate, timing, and occurrence of sex-change in this species. Recent research findings discussed at the stock assessment review committee lead to the hypothesis that protogyny is not obligate in this species – some individuals may never have been female before maturing as a male. — Research is ongoing
- The validity of the age data used in the assessment requires further evaluation, in particular the reliability of scale-based ageing needs to be determined. A scale-otolith intercalibration exercise might be of utility. — Some progress has been made

MANAGEMENT STRATEGY

Management of black sea bass (north of Cape Hatteras) has been based on results from NMFS Northeast Fisheries Science Center (NEFSC) stock assessments. Results from the 2021 operational stock assessment are being used to guide management. The Summer Flounder, Scup and Black Sea Bass Fishery Management Plan (FMP) and amendments use output controls (catch and landings limits) as the primary management tool, with landings divided between the commercial (49 percent) and recreational (51 percent) fisheries. Beginning in 2023, revised allocations will be implemented and transitioning to catch-based allocations with 45 percent being commercial and 55 percent being recreational. The FMP also includes minimum fish sizes, bag limits, seasons, gear restrictions, permit requirements, and other provisions to prevent overfishing and ensure sustainability of the fisheries. Recreational bag and size limits and seasons are determined on a state and regional basis in state waters and coastwide basis in federal waters. The commercial quota is divided into state-by-state quotas. Projections based on stock assessments are used to set the coastwide quota level each year. Amendments to the FMP are undertaken as issues arise that require action.

LITERATURE CITED

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TABLES

Table 1. Recreational harvest (number of fish landed and weight in pounds) and releases (number of fish) and commercial harvest (weight in pounds) of black sea bass north of Cape Hatteras from North Carolina for the period 1994 – 2022.

	Recreational			Commercial	
Year	Numbers Landed	Numbers Released	Weight Landed (lb)	Weight Landed (lb)	Total Weight (lb)
1994	13,464	127,309	14,746	244,767	259,513
1995	52,181	279,414	25,298	142,508	167,806
1996	17,373	53,235	14,948	287,347	302,295
1997	17,249	102,069	22,482	247,603	270,085
1998	19,229	315,269	25,353	218,655	244,008
1999	44,785	386,011	48,213	121,199	169,412
2000	11,875	179,458	13,828	152,668	166,496
2001	5,706	201,487	8,872	167,171	176,043
2002	11,638	267,317	18,862	159,507	178,369
2003	27,468	51,566	20,195	373,807	394,002
2004	2,521	124,332	2,531	374,880	377,411
2005	1,710	220,159	5,203	368,400	373,603
2006	23,781	388,422	26,459	334,080	360,539
2007	18,147	329,655	55,565	195,460	251,025
2008	12,636	407,420	14,948	208,726	223,674
2009	3,984	543,285	8,283	176,748	185,031
2010	17,183	211,057	24,471	107,996	132,467
2011	73,207	266,289	111,538	98,505	210,043
2012	3,625	413,879	8,231	61,187	69,418
2013	16,119	136,016	21,617	88,242	109,859
2014	768	111,327	1,269	212,488	213,757
2015	2,955	149,347	6,224	241,538	247,762
2016	1,188	117,664	1,591	225,405	226,996
2017	23,720	152,491	33,421	388,865	422,286
2018	6,762	96,604	9,494	315,983	325,477
2019	6,268	159,129	11,638	279,008	290,646
2020	44,475	104,177	74,149	218,756	292,905
2021	4,171	252,992	6,564	200,565	207,129
2022	32,117	1,158,816	57,252	108,991	166,243
Mean	17,804	251,938	23,905	217,967	241,872

Table 2. Black sea bass (north of Cape Hatteras) length (total length, inches) data from commercial fish house ocean trawl samples in North Carolina, 1994-2022.

Year	Mean Length	Minimum Length	Maximum Length	Total Number Measured
1994	11	8	22	3,018
1995	12	8	20	2,070
1996	13	8	23	1,213
1997	12	8	19	727
1998	13	8	24	593
1999	14	10	21	27
2000	14	8	28	1,414
2001	13	9	22	826
2002	14	8	23	2,169
2003	15	9	24	7,416
2004	15	8	24	6,810
2005	16	9	26	6,899
2006	15	9	24	5,323
2007	15	9	26	3,213
2008	15	9	26	6,378
2009	15	9	26	3,936
2010	15	9	25	5,254
2011	15	9	25	2,946
2012	15	11	21	725
2013	15	9	24	1,452
2014	15	8	24	3,740
2015	15	9	24	7,192
2016	16	9	28	6,526
2017	16	10	24	5,372
2018	16	10	29	6,247
2019	15	9	24	4,124
2020	15	9	23	3,244
2021	16	10	24	3,542
2022	15	11	23	1,529

Table 3. Black sea bass (north of Cape Hatteras) length, (total length, inches) data from NOAA Marine Recreational Information Program recreational samples in North Carolina, 1994-2022.

Year	Mean Length	Minimum Length	Maximum Length	Total Number Measured
1994	11	5	28	74
1995	9	6	21	80
1996	12	7	20	80
1997	13	8	20	61
1998	13	7	19	75
1999	13	8	19	126
2000	13	9	23	59
2001	14	10	17	34
2002	14	11	23	128
2003	11	9	21	110
2004	14	11	19	7
2005	20	11	24	42
2006	13	8	23	64
2007	18	13	22	26
2008	14	11	20	48
2009	15	12	24	48
2010	14	12	21	29
2011	14	11	22	36
2012	17	13	20	14
2013	14	9	20	14
2014	14	13	18	4
2015	17	13	17	5
2016	14	12	21	16
2017	13	12	17	11
2018	14	13	21	23
2019	17	12	21	32
2020	15	9	21	52
2021	16	13	20	22
2022	15	12	20	35

FIGURES

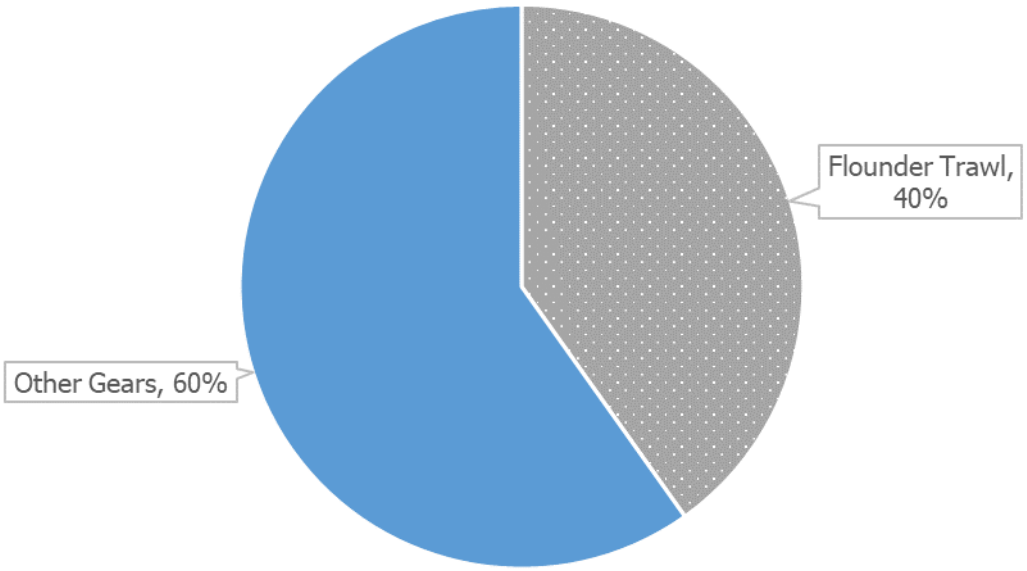

Figure 1. Commercial harvest of black sea bass (north of Cape Hatteras) in North Carolina by gear type in 2022. Note: data for Other Gears are confidential data.

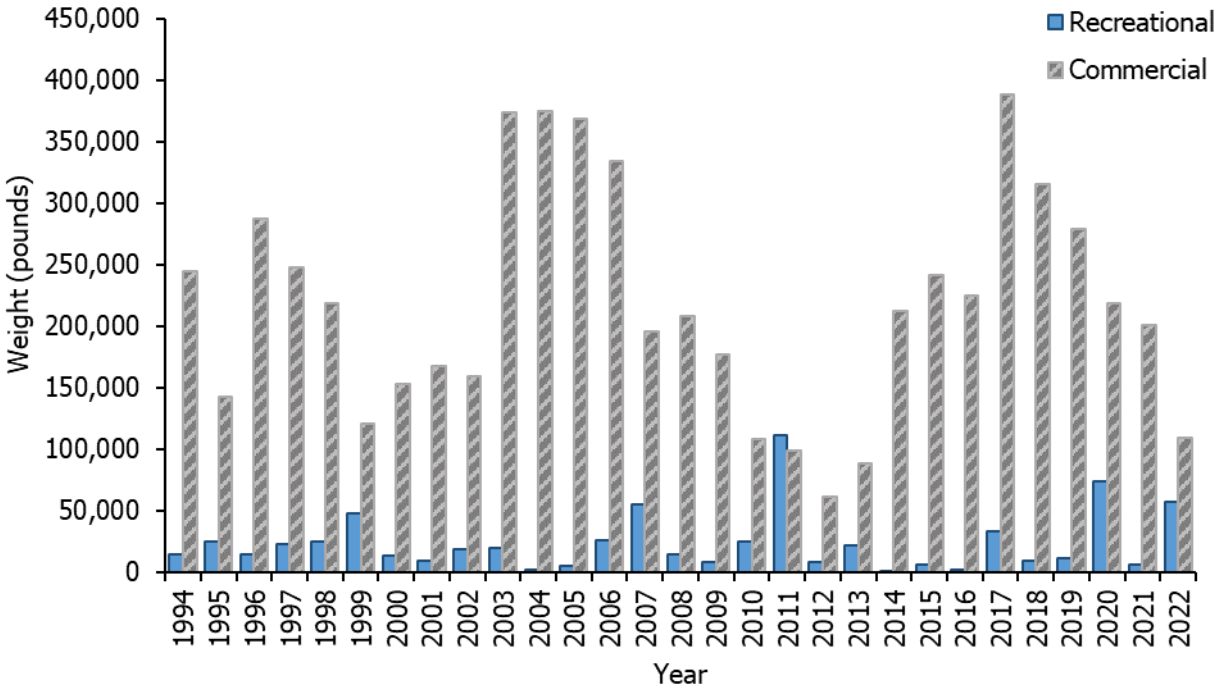

Figure 2. Annual commercial and recreational landings in pounds for black sea bass (north of Cape Hatteras) in North Carolina from 1994-2022.