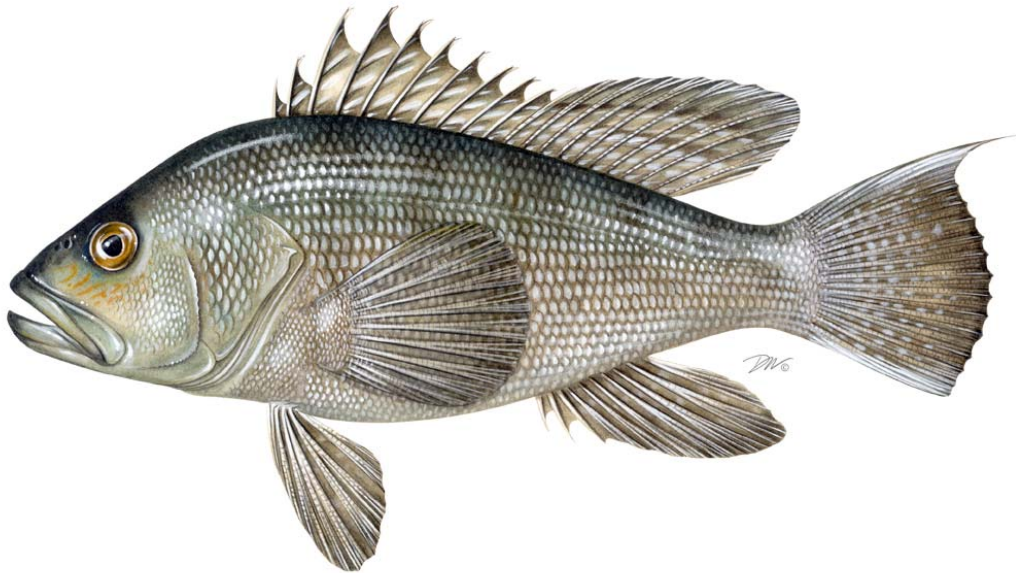


2016 REVIEW OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
FISHERY MANAGEMENT PLAN FOR the 2015 BLACK SEA BASS FISHERY
Black Sea Bass (*Centropristis striata*)



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2016 Review of the Atlantic States Marine Fisheries Commission Fishery Management Plan for Black Sea Bass

I. Status of the Fishery Management Plan

ASMFC 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. The Commission's Summer Flounder, Scup, and Black Sea Bass Management Board and the MAFMC Demersal Species Committee guide development of the FMP. Technical issues are addressed through the Summer Flounder, Scup, and Black Sea Bass Technical Committee and the Black Sea Bass Monitoring Committee. The Black Sea Bass Plan Review Team conducts annual reviews and monitors compliance and the Scup and Black Sea Bass Advisory Panel provide industry input and advice.

The objectives of the FMP are to reduce fishing mortality to assure 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 to minimize regulations necessary to achieve the stated objectives. The initial black sea bass FMP was designated to reduce fishing mortality by a coastwide commercial quota allocated by state, 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 in October 1998 and established revised overfishing definitions, identification and description of essential fish habitat, and defined the framework adjustment process.

Addendum IV, approved on January 29, 2001, provides that upon the recommendation of the relevant monitoring committee and joint consideration with the Council, the Board will decide the 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 Management 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 in May 2002, implemented a federal, coastwide annual commercial quota that is managed by ASMFC using a state-by-state allocation system. The Amendment was implemented in 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) 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 a state-by-state allocation system, managed by the ASMFC on an annual coastwide commercial quota.

Addendum XIII 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.

The Board approved Addendum XVI In May of 2005. Addendum XVI established a guidelines for delayed implementation of management strategies. Specifically for Issue 1 (Delayed implementation Commercial Regulations) for each day that a state does not implement commercial measures under scenarios A,B,C (see Addendum for more information) an equal number of days during the same or equivalent time period will be closed in the following fishing season. For scenario D (a failure to close the black sea bass commercial fishery after the state quota has been reached), the state will compensate pound for pound for up to 25% of the original state quota. Any overages beyond 25% of the state quota are compensated for at 1.5 times. For Issue 2 (Delay Implementation of Recreational Regulations) under scenarios A,B,C,and D (see Addendum for more information) for each day that the state does not implement the appropriate recreational measures, an equal number of days during the same time period will be closed. For Issue 3 (Maximum Implementation Period) outlines the timeframe for Commission staff to notify states of changes in management and the maximum number of days to implement required changes. Issue 4 lays out the required notification period for state to notify the Commission of management changes.

Addendum XIX continued the state-by-state black sea bass commercial management measures, without a sunset clause. This addendum 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 establishes 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 November 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 year's end.

Addendum XXV continued the use of ad-hoc regional recreational management measure options to alleviate the differences between state by state measures among the states along the coast. It was approved in February 2014 and was in place for 2014 and 2015. The addendum allowed northern states (MA-NJ) to adjust management measures annually to best meet the needs of their state while constraining harvest to the overall coastwide recreational harvest limit (RHL). In years of overages, the northern states- which harvest the largest percentage- adjust their management measures to account for harvest reductions in subsequent years. The southern states have also had their management measures adjusted in recent year.

II. Status of the Stock

The assessment model for black sea bass changed in 2008 from a simple index-based model to a complex statistical catch at length model incorporating a broad range of fishery and survey data. The fishery catch is modeled as a single fleet with indices of stock abundance from Northeast Fisheries Science Center (NEFSC) winter, spring, and autumn surveys. A model averaging approach was adopted using the average of results from ten candidate models.

Black sea bass (i.e. black sea bass north of Cape Hatteras, North Carolina) was designated as overfished in 2000, and was under a stock rebuilding strategy from 2000-2009. In 2009, that the stock was declared rebuilt after the 2008 stock assessment indicated that the stock was not overfished and overfishing was not occurring in 2007.

The last stock assessment update for black sea bass was completed in July 2012. The biological reference points were updated as part of this update, as the result of several changes made to the information incorporated into the model. The fishing mortality threshold for black sea bass

is $F_{MSY} = F_{40\%}$ (as F_{MSY} proxy) = 0.44, and SSB_{MSY} is 24.00 million lb (10,880 mt). The minimum stock size threshold, one-half SSB_{MSY} is estimated to be 12.00 million lb (5,440 mt). The 2012 update indicated that the black sea bass stock was not overfished and overfishing was not occurring in 2011, relative to the biological reference points. Fishing mortality (F_{MULT}) in 2011 was estimated at $F=0.21$, below the fishing mortality threshold of $F=0.44$. Total stock biomass in 2011 was estimated at 28.0 million lb (12,700 mt), above B_{MSY} . Spawning stock biomass (SSB) in 2011 was estimated at 24.57 million lb (11,145 mt), and was at 102% of SSB_{MSY} .

In the absence of a peer-review stock assessment in recent years, the Mid-Atlantic Council's Science and Statistical Committee has not found the Biological Reference Points from any recent assessment suitable for management and have utilized methods such as Constant Catch and an analysis based upon the Data Limited Toolkit to set catch limits. The next benchmark stock assessment is currently in development and is scheduled for peer review in late 2016.

III. Status of the Fishery

The commercial fishery is allocated 49% of the total allowable landings (TAL) for black sea bass. The principle gears used in the fishery are pots, otter trawls and handline. After peaking at 21.8 million pounds in 1952, commercial landings markedly decreased in the '60s and have since ranged from 1.17 to 3.6 million pounds since 1981. In 1998 a commercial quota system was incorporated into management and state-by-state shares were introduced in 2003. From 2005-2014 commercial landings have remained stable, with a range from 2.87 million lbs in 2005 to 1.17 million lb in 2009 (Table 2 and 3). In 2014, commercial landings exceeded the coastwide commercial quota by approximately 8,896 lbs. In 2015 commercial landings were approximately 2.35 million lb, exceeding the coastwide quota of 2.17 million lbs by approximately 6% (Tables 2 and 3). Once final landings are available the reduction to the 2017 quota will be applied. Commercial discards are generally less than 441,000 pounds per year.

The recreational fishery is allocated 51% of the TAL for black sea bass. After peaking in 1985 at 12.35 million pounds, recreational harvest averaged 3.75 million pounds annually from 1988 to 1997. Recreational harvest limits were put in place in 1998 and harvest ranged from 1.1 to 3.88 million pounds from 1998 to 2014 (Table 4). From 2012-2014, the recreational harvest limit has been exceeded annually- by 142%, 9%, and 59%, respectively. In 2015 the recreational harvest was 3.88 million pounds (inclusive of south of Cape Hatteras), exceeding the harvest limit by 67%. Recreational discards are significantly higher than commercial, ranging from 3 to 10 million fish per year(1.2 million to 12.4 million lb, respectively) .

IV. 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 sea sampling program are used to estimate discards. 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 2008, with

the Marine Recreational Information Program (MRIP) replacing it for all data collected from 2008 to present.

Fishery-independent surveys are conducted in Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Maryland, Virginia, and North Carolina. The Virginia Game Fish Tagging Program has targeted black sea bass since 1997. Data from the tagging program will be used to develop an analytical, age-based model. Recruitment and stock abundance data are provided by the NEFSC spring, autumn, and winter trawl surveys.

V. Status of Assessment Advice

The next benchmark stock assessment is scheduled for 2016.

VI. Status of Management Measures and Developing Issues

In December 2015, the Board and Council initiated the development of an Amendment to the Black Sea Bass FMP. There has been no work completed on this to date.

VII. Black Sea Bass Compliance Criteria

2015 Commercial Fishery Requirements

Minimum size of possession: 11"

Minimum mesh: larger nets are required to 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; smaller nets must have 4.5" mesh or larger throughout

Mesh Threshold: 500 lbs for January-March and 100 lbs for April-December

Maximum roller rig trawl roller diameter: 18"

Pot and trap escape vents: 2 ½" for circular, 2" for square, and 1-3/8 x 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 would be required to be at least 3" x 6".

Commercial quota: 2.21million pounds

Pot and trap definition: 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.

2015 Recreational Fishery Requirements

See Table 6.

Recreational harvest limit: 2.33 million pounds

Other Measures

Reporting: 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.

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. Also please note that the management measures may change annually.

VII. Compliance

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. All states implemented regulations in compliance with the requirements approved by the Board.

All states appear in compliance with the FMP provisions for fishing year 2015.

Black Sea Bass FMP Compliance Schedule

| <u>Commercial</u> | |
|--|--------|
| 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 |
| 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 |
|--------------------------|---------------|

Table 1. State by state allocation for annual quota.

| 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 2. Black Sea Bass Commercial Landings by State (2005-2015) in pounds.

Source: State Compliance Reports (October 2016) & ACCSP. 2014-2015. Commercial Landings Summaries (Dealer Reports)- Confidential; generated by K.Rootes-Murdy; using ACCSP Data Warehouse, Arlington, VA.

| State | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015** |
|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| ME | | | | | | | | | | | | |
| MA | 382,389 | 510,162 | 596,480 | 442,136 | 316,722 | 148,470 | 260,181 | 287,666 | 248,463 | 329,223 | 277,276 | 347,964 |
| RI | 435,733 | 293,976 | 273,161 | 356,542 | 226,925 | 128,053 | 241,892 | 185,709 | 187,806 | 237,951 | 245,268 | 238,522 |
| CT | 24,867 | 17,522 | 10,445 | 10,123 | 15,554 | 17,854 | 21,422 | 20,485 | 17,677 | 22,735 | 27,036 | 24,699 |
| NY | 240,517 | 244,074 | 295,078 | 265,940 | 201,222 | 123,287 | 200,463 | 177,997 | 153,347 | 180,947 | 188,436 | 150,479 |
| NJ | 697,085 | 543,733 | 494,352 | 480,112 | 424,667 | 204,213 | 305,294 | 293,609 | 310,427 | 494,075 | 486,073 | 471,008 |
| DE | 83,728 | 72,931 | 87,381 | 63,431 | 60,700 | 50,259 | 76,913 | 82,436 | 82,351 | 104,937 | 102,279 | 111,508 |
| MD | 283,605 | 336,662 | 350,385 | 170,909 | 159,453 | 125,643 | 203,088 | 182,711 | 140,861 | 219,321 | 235,689 | 349,271 |
| VA | 393,269 | 443,644 | 305,871 | 189,875 | 211,500 | 164,524 | 263,563 | 274,446 | 391,384 | 493,153 | 410,162 | 421,150 |
| NC* | 881,261 | 690,043 | 777,659 | 472,931 | 484,507 | 614,734 | 400,879 | 272,189 | 61,187 | 88,242 | 210,989 | 241,538 |
| Coastwide | 3,422,790 | 3,152,747 | 3,190,812 | 2,451,999 | 2,101,250 | 1,577,037 | 1,973,695 | 1,777,248 | 1,593,503 | 2,170,584 | 2,183,208 | 2,356,139 |

* Landings are from both north and south of Hatteras from 2004-2011

**2015 Landings are still preliminary

Table 3. 2014 Landings and 2015 Black Sea Bass Commercial State by State Quotas (pounds)

| State | % Allocation | Final 2014 Landings | 2015 ASMFC Initial Quota |
|-----------------------------|---------------------|----------------------------|---------------------------------|
| Maine | 0.005 | 0 | 11,065 |
| New Hampshire | 0.005 | 0 | 11,065 |
| Massachusetts | 0.13 | 277,276 | 287,680 |
| Rhode Island | 0.11 | 245,268 | 243,422 |
| Connecticut | 0.01 | 27,036 | 22,129 |
| New York | 0.07 | 188,436 | 154,905 |
| New Jersey | 0.2 | 486,073 | 442,585 |
| Delaware | 0.05 | 102,279 | 110,646 |
| Maryland | 0.11 | 235,689 | 243,422 |
| Virginia | 0.2 | 410,162 | 442,585 |
| North Carolina | 0.11 | 210,989 | 243,422 |
| Coastwide Total | 100% | 2,183,208 | 2,212,923 |
| 2014 Coastwide Quota | | 2,174,312 | |
| Overage | | 8,896 | |

Table 5. Black Sea Bass Recreational Landings by State (2005-2015) in pounds.

Source: "Personal Communication with National Marine Fisheries Division October 2016"

| State | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| NH | | | | | | | | 4,587 | 19,227 | | |
| MA | 365,186 | 149,993 | 153,869 | 365,108 | 626,082 | 999,914 | 318,379 | 1,049,251 | 660,797 | 1,087,847 | 718,101 |
| RI | 164,960 | 67,076 | 59,566 | 82,072 | 50,290 | 238,039 | 85,912 | 226,130 | 144,722 | 370,531 | 444,337 |
| CT | 119 | 4,684 | 41,941 | 99,848 | 1,025 | 23,029 | 13,758 | 261,163 | 262,392 | 586,113 | 495,675 |
| NY | 230,832 | 455,213 | 563,199 | 528,613 | 844,746 | 965,767 | 399,030 | 542,688 | 734,729 | 847,181 | 1,531,493 |
| NJ | 80,214 | 140,931 | 136,564 | 26,378 | 36,190 | 28,357 | 46,609 | 993,093 | 515,176 | 631,457 | 428,319 |
| DE | 904,999 | 690,651 | 1,086,652 | 827,511 | 763,593 | 779,105 | 181,695 | 49,967 | 44,365 | 30,962 | 26,893 |
| MD | 93,475 | 136,064 | 49,002 | 32,603 | 40,681 | 41,386 | 51,714 | 42,173 | 39,170 | 87,086 | 78,052 |
| VA | 49,312 | 105,134 | 64,954 | 51,974 | 112,339 | 28,987 | 26,753 | 2,599 | 33,660 | 24,433 | 63,694 |
| NC* | 229,893 | 151,075 | 196,134 | 90,977 | 145,208 | 138,961 | 95,004 | 7,082 | 17,970 | 132,351 | 100,146 |
| Coastwide | 2,118,990 | 1,900,821 | 2,351,881 | 2,105,084 | 2,620,154 | 3,243,545 | 1,218,854 | 3,178,733 | 2,338,461 | 3,797,961 | 3,886,710 |

* Landings are from both north and south of Hatteras

Table 6. 2015 recreational management measures for black sea bass 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 | 14 | 8 fish | May 23-August 27 |
| Rhode Island | 14 | 1 fish | July 2- August 31 |
| | | 7 fish | September 1-December 31 |
| Connecticut (Private & Shore) | 14 | 3 fish | June 1-August 31 |
| | | 5 fish | September 1-December 31 |
| Connecticut (Authorized party/charter monitoring program vessels) | 14 | 8 fish | June 21-December 31 |
| New York | 14 | 8 fish | July 15-October 31 |
| | | 10 fish | November 1- December 31 |
| New Jersey | 12.5 | 2 fish | July 1-July 31 |
| | | 15 fish | May 27-June 30; October 22-December 31 |
| Delaware | 12.5 | 15 fish | May 15-September 21; October 22-December 31 |
| Maryland | 12.5 | 15 fish | May 15-September 21; October 22-December 31 |
| Virginia | 12.5 | 15 fish | May 15-September 21; October 22-December 31 |
| North Carolina, North of Cape Hatteras (N of 35° 15'N) | 12.5 | 15 fish | May 15-September 21; October 22-December 31 |

Table 6. 2016 recreational management measures for black sea bass 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 21-August 31 |
| Rhode Island | 15 | 3 fish | June 24- August 31 |
| | | 7 fish | September 1-December 31 |
| Connecticut (Private & Shore) | 15 | 5 fish | May 1-December 31 |
| CT (Authorized party/charter monitoring program vessels) | | 8 fish | |
| New York | 15 | 3 fish | June 27-August 31 |
| | | 8 fish | September 1-October 31 |
| | | 10 fish | November 1-December 31 |
| New Jersey | 12.5 | 10 fish | May 23-June 19 |
| | 13 | 2 fish | July 1-August 31 |
| | 13 | 15 fish | October 22-December 31 |
| Delaware | 12.5 | 15 fish | May 15-September 21; October 22-December 31 |
| Maryland | 12.5 | 15 fish | May 15-September 21; October 22-December 31 |
| Virginia | 12.5 | 15 fish | May 15-September 21; October 22-December 31 |
| North Carolina, North of Cape Hatteras (N of 35° 15'N) | 12.5 | 15 fish | May 15-September 21; October 22-December 31 |