

Atlantic States Marine Fisheries Commission

**ADDENDUM XXV TO THE SUMMER FLOUNDER, SCUP,
BLACK SEA BASS FISHERY MANAGEMENT PLAN**

Summer Flounder and Black Sea Bass Recreational Management in 2014



Vision: Sustainably Managing Atlantic Coastal Fisheries

Approved February 4, 2014

1.0 Introduction

Summer flounder, scup, and black sea bass fisheries are managed cooperatively by the states through the Atlantic States Marine Fisheries Commission (Commission) in state waters (0-3 miles), and through the Mid-Atlantic Fishery Management Council (Council) and the NOAA Fisheries in federal waters (3-200 miles). The management unit for summer flounder, scup, and black sea bass in US waters is the western Atlantic Ocean from Cape Hatteras, North Carolina northward to the US-Canadian border.

This Addendum is adopted under the adaptive management/framework procedures of Amendment 12 and Framework 2 that are a part of the Summer Flounder, Scup, and Black Sea Bass Fishery Management Plan (FMP).

This Addendum establishes regional management of the summer flounder and black sea bass recreational fisheries for the 2014 fishing year. The Commission's Summer Flounder, Scup, and Black Sea Bass Management Board (Board) initiated this addendum with the following motion on October 29, 2013:

- 1) *Move to initiate an addendum to the summer flounder, scup, and black sea bass fisheries management plan to consider and develop alternate approaches for management of the recreational summer flounder fishery for the 2014 fishing season;*
- 2) *Move to initiate an addendum using an ad hoc regional approach in the recreational black sea bass fishery.*

2.0 Overview

2.1 Statement of the Problem

2.1.1 Summer Flounder

It is important that Commission fishery management plans strive to provide recreational anglers with equitable access to shared fishery resources throughout the range of each managed species. While equitable access is difficult to characterize, it generally relates to the distribution, abundance, and size composition of the resource vis-à-vis the abundance and distribution of anglers along the coast.

There is a growing concern that the management measures set forth under the Summer Flounder FMP are not providing recreational fishermen along the coast with equitable access to the summer flounder fishery. Those measures, involving the use of conservation equivalency on a state-by-state basis, are increasingly being viewed as problematic due to several factors, including: reliance upon recreational harvest estimates for a single year (1998) as the basis for individual state allocations; a change in the abundance and distribution of the resource; and changes in the socio-economic characteristics of the fishery.

The dynamic stock characteristics of summer flounder, such as recruitment, spawning stock biomass and age class expansion, have challenged managers for the last 20 years.

These elements of the fishery have created a need for more dynamic and adaptive management that can handle potential inequities that may arise.

2.1.2 Black Sea Bass

During the past 15 years, the black sea bass recreational harvest target was exceeded six times, most recently in 2010, 2012, and 2013 when the harvest target was the lowest in the time series. The management plan for black sea bass does not provide an opportunity to craft recreational measures by regions or state; it only allows for a coastwide measure. Due to the wide geographic range of this species, the application of coastwide minimum size, possession limit, and season restrictions may not affect every area involved in the fishery the same way. States are concerned that the coastwide regulations have disproportionately impacted states within the management unit. To address these concerns, the Board approved Addendum XXIII to provide the necessary management flexibility to mitigate potential disproportionate impacts on states in 2013. Addendum XXIII established regional management for only the 2013 black sea bass recreational fishery. This Addendum XXV continues the regional approaches for black sea bass recreational fishery management in 2014.

2.2 Background

2.2.1 Summer flounder

Amendment 2, which introduced quota-based management to the summer flounder fishery, initially required each state (Massachusetts to North Carolina) to adopt the same minimum size and possession limit as established in federal waters, allowing only for different open seasons. The consistent measures were intended to achieve conservation equivalency in all state and federal waters throughout the range of the resource. However, states soon found that one set of measures applied coastwide did not achieve equivalent conservation due to the significant geographic differences in summer flounder abundance and size composition.

To address this disparity, the FMP was amended via Addendum IV (2001) and Addendum VIII (2003) to allow for the use of state conservation equivalency to manage recreational harvests. Since 2001, the FMP has allowed for, and the Commission and Council have utilized, a state-by-state allocation formula, based on estimates of state recreational landings in 1998, to establish individual state harvest targets. Individual states have the flexibility to tailor their regulations – namely, minimum size, possession, and season limits – to meet the needs and interests of their fishermen, provided that the targets are not exceeded. The individual state allocations, as a percentage of the total coastwide recreational harvest limit, are set forth in Table 1.

Re-assessing in the Face of Changing Conditions:

The interim solution of state-by-state conservation equivalency based on estimated state harvests in 1998 succeeded, initially, in mitigating the disparity in conservation burden among states, but the approach is increasingly being viewed as an inadequate long-term solution, given recent changes in resource status and fishery performance. Fifteen years have passed since 1998. Even if the allocations were perfectly equitable when adopted

over a decade ago, they are now likely out of synch given the substantial variation in stock dynamics that has occurred since then. Over the many years since Amendment 2 was first implemented, the summer flounder stock spawning stock biomass has increased approximately six-fold, and the number of age classes has increased from 2-3 to 7 or more. These changes have led to geographic shifts in the distribution of the resource (As the stock has rebuilt, its range has expanded). Climate change may also be contributing to shifts in migratory patterns, spatially and temporally. Taken together, these changing conditions have altered the dynamics regarding the challenge of maintaining balance in equivalent conservation burden across the range of the species.

Further, the 1998-based allocation formula set forth by the FMP does not reflect changes in socio-economic patterns over the past fifteen years, particularly with regard to the number and distribution of anglers along the coast. During this time, estimates of angler participation have increased 35% from 4.6 million in 1998 to 6.2 million in 2012 (Table 2). Landings by mode have also changed over the past 15 years, with decreases across all modes (Table 3). Additionally, the Summer Flounder Advisory Panel members for the Commission and Council have noted that the continuing rising cost of fuel, bait and other trip expenditures have impacted anglers financially.

Finally, any attempt to allocate harvest opportunities on the basis of estimated recreational harvests for a given year is necessarily fraught with uncertainty and error, given the general difficulty of measuring recreational catch and effort, and the particular difficulty of doing so on a state-by-state basis. Over the past 15 years, there have been strides made by NOAA Fisheries to more accurately estimate catch and effort data by reducing the potential for bias. This has been and will continue to be a process in improving precision in estimates for species such as summer flounder, due to factors including weighting survey intercepts, variety of fishing modes, and catch rates.

Alternative Approaches:

A more realistic and flexible gauge of equitable conservation may be needed to enable the summer flounder management program to adjust to past, current, and future changes in the resource and the fishery. The biological characteristics of the summer flounder stock have changed with the restoration of this stock that occurred in 2010. In particular, there has been a substantial expansion in the size and age composition, as more large summer flounder and greater overall abundance have resulted from management conservation measures over the course of a decade. Since 2011 there have been reductions in the recreational harvest limit (RHL) partly because the spawning stock biomass has been less than the $SSBMSY$ proxy = $SSB_{35\%}$ = 137.555 million pounds. In addition, recruitment has been below average since 2009, and these two stock conditions could lower future recreational harvest limits and this would present additional challenges to equitability in fishing and harvest opportunities among states.

2.2.2 Black Sea Bass

The black sea bass recreational fishery is managed on a “target quota” basis. Fifty-one percent of the total allowable landings are allocated as a recreational harvest target and forty-nine percent is allocated to the commercial sector. From 1996 to 2010, a uniform

coastwide size, season, and bag limits had been used by the Commission and Council to constrain the recreational fishery to the annual harvest limit (Table 4). States were concerned that the coastwide regulations disproportionately impacted states within the management unit; therefore, the Board approved several addenda which allowed for state-by-state and regional measures for 2011 through 2013 in state waters only. Each of the addenda expired at the end of one year. The Board passed Addendum XXIII in 2013 to provide the necessary management flexibility to mitigate potential disproportionate impacts through the use of regional ad hoc management. Table 5 shows the individual state regulations for the 2013 fishing year. In 2013, the projected coastwide harvest is estimated at 2.46 million pounds or, approximately 200,000 pounds over the harvest target (2.26 million pounds) (Tables 4 & 6). The management plan for black sea bass does not provide an opportunity to craft recreational measures by regions or state, it only allowed for a single coastwide measure. Due to the wide geographic range of this species, the application of coastwide minimum size, possession limit, and season restrictions may not affect every area involved in the fishery the same way. Additionally, black sea bass migrations may result in differences in availability to the recreational fishery in each state.

2.3 Description of the Fishery

2.3.1 Summer Flounder

In practice, the recreational fishery for summer flounder is managed on a “target quota” basis. A set portion of the total allowable landings is established as a RHL, and management measures are established by the states that can reasonably be expected to constrain the recreational fishery to this limit each year. It has historically been deemed impractical, because of the limitations of producing timely landing estimates, to try to manage these recreational fisheries based on a real-time quota.

With a catch of over 5.5 million fish and a harvest of over 500,000 fish in 2012, New York is second only to New Jersey (1 million fish harvested in 2012) in the size of its fluke fishery (Table 7). Virginia ranks third with 259,973 fish harvested. Catch and harvest levels diminish rapidly, thereafter, such that the smallest landing state (Maryland) landed 22,617 fish and the combined harvest of six states (MA, RI, CT, DE, MD, NC) totals 372,632 fish.

Minimum sizes adopted by states follow a general south to north pattern of increasing size. In 2013, they ranged from 15 inches in North Carolina (smallest) to 19 inches in New York (largest), and then drop again northward to Massachusetts (Table 8). Despite the wide range in minimum sizes, only two states: New York and New Jersey exceeded their targets in 2012 (Table 7). For many other states, harvest fell significantly below 2012 targets despite expectations that the adopted regulatory programs would produce landings near their targets. These states were allowed to adopt more liberal regulations in 2013 even with lower harvest targets, because their 2012 harvest was lower than the 2013 target.

In assessing the performance of the summer flounder recreational fishery in 2012, fishing opportunities and success vary across the range of the management unit (Table 9,

Appendix A assesses the performance of the 2010 and 2011 fishery). Using metrics including retention rate, fishing trips, possession limits, season length, and scoring each state in relation to each of other, the fishing opportunity differs on a state by state basis with little to no regional distinction; for example, retention rates are highest in the states of Virginia and Massachusetts, and the lowest in New York and Maryland (Table 9). Fishing seasons also vary significantly along the coast, with states such as North Carolina and Virginia open all year, while Massachusetts and New Jersey have the shortest seasons within the management unit (132 and 147 days respectively). Interest or avidity in relation to successful trips also varies widely as well; for example, trips targeting summer flounder are lowest in Maryland (3.4 % of all trips) and highest in New Jersey and New York, yet the highest success rates for targeted trips in relation to harvest is in Maryland (Table 9). Bag limits also vary across the states from the most restrictive in Maryland (3 fish possession limit) to least in Rhode Island (8 fish possession limit). Lastly, in comparing states to their nearest neighboring state regarding size limit, states differ significantly, with New York having the highest difference between its two neighbors (1.8 inch average difference compared to Connecticut and New Jersey) and smallest between Maryland and its neighboring states.

Recreational Survey Estimates

The Marine Recreational Information Program, or MRIP, is the new way NOAA Fisheries is counting and reporting marine recreational catch and effort. It is an angler-driven initiative that will not only produce better estimates, but will do so through a process grounded in the principles of transparency, accountability and engagement. MRIP replaces the Marine Recreational Fisheries Statistics Survey, or MRFSS, which has been in place since 1979. MRIP is designed to meet two critical needs: (1) provide the detailed, timely, scientifically sound estimates that fisheries managers, stock assessors and marine scientists need to ensure the sustainability of ocean resources and (2) address head-on stakeholder concerns about the reliability and credibility of recreational fishing catch and effort estimates.

The MRIP is an evolving program with ongoing improvements. Most recently, NOAA Fisheries scientists, in partnership with leading outside experts, have created an improved method for estimating recreational catch using data from existing shoreside angler survey data. The new method addresses a major concern raised by the National Research Council's evaluation of MRFSS –that the MRFSS catch estimation method was not correctly matched with the sampling design used gathering data, leading to potential bias in the estimates. Eliminating potential sources of bias is a fundamental change that lays the groundwork for future improvement and innovations, many of which are already being piloted. More detailed information on the improvement to the MRIP program can be found at <https://www.st.nmfs.noaa.gov/mrip/aboutus/timeline.html> .

2.3.2 Black Sea Bass

Black sea bass are generally considered structure oriented, preferring live-bottom and reef habitats. Within the stock area, distribution changes on a seasonal basis and the extent of the seasonal change varies by location. In the northern end of the range (Massachusetts to New York), sea bass move offshore crossing the continental shelf, then

south along the edge of the shelf . By late winter, northern fish may travel as far south as Virginia, however most return to the northern inshore areas by May. Black sea bass along the Mid-Atlantic (New Jersey to Maryland) head offshore to the shelf edge during late autumn, traveling in a southeasterly direction. They also return inshore in spring to the general area from which they originated, (Moser and Shepherd, 2009). Black sea bass in the southern end of the stock (Virginia and North Carolina) move offshore in late autumn/early winter. Because they are close to the continental shelf, they transit a relatively short distance, due east, to reach over-wintering areas (Moser and Shepherd, 2009). Fisheries also change seasonally with changes in distribution; recreational fisheries generally occur during the period that sea bass are inshore.

An examination of the previous 7 years of recreational harvest data shows there is no systematic pattern in state harvest. In the most recent years, the states of Delaware and Massachusetts have seen an increase in harvest (Figures 1 and 2); Maryland and Virginia have seen a decline in harvest (Figures 2); and Connecticut and Rhode Island have remained fairly stable (Figures 1 and 2). For the past 3 years, the states of Massachusetts, New York and New Jersey make up the majority of the coastwide harvest. An examination of average state-specific MRIP harvest estimates by ‘Area Harvested’ (State v. EEZ waters) for the last 3 years indicate that the majority of the black sea bass fishery occurs in state waters in Massachusetts, Rhode Island, Connecticut, and New York (60%). For the states of Delaware to North Carolina, the majority of fishery operates in the waters of the EEZ (NJ and VA 31% and DE, MD and NC 9%).

2.4 Status of the Stock

2.4.1 Summer Flounder

The most recent peer-reviewed benchmark assessment for summer flounder was conducted by the July 2013 Stock Assessment Workshop/Stock Assessment Review Committee. The assessment utilizes an age-structured assessment model called ASAP. Results of the benchmark assessment indicate that the summer flounder stock was not overfished and overfishing was not occurring in 2012 relative to the biological reference points. The fishing mortality rate has been below 1.0 since 1997 and was estimated to be 0.285 in 2012, below the threshold fishing mortality reference point $F_{MSY} = 0.309$. Spawning stock biomass (SSB) was estimated to be 113 million pounds (51,238 mt) in 2012, about 82% of $SSB_{MSY} = 137.555$ million pounds (62,394 mt). NOAA Fisheries declared the summer flounder stock rebuilt in 2010, based on the 2011 assessment update.

2.4.2 Black Sea Bass

The most recently approved benchmark assessment on black sea bass was peer-reviewed and accepted in December 2008 by the Data Poor Stock Work Group (DPSWG) Peer Review Panel. Based on the June 2012 update, the stock is not overfished and overfishing is not occurring, relative to the biological reference points. Fishing mortality in 2011 is $F = 0.21$, a decrease from 2010. This point estimate of F in 2011 is below the fishing mortality threshold of $F=0.44$. Estimates for 2011 total biomass remain above the biomass maximum sustainable yield. SSB in 2011 is 24.6 million pounds, which is 0.6 million pounds above the SSB_{MSY} target (24 million pounds) and a small decrease from

the 2010 SSB estimate. Recruitment at age 1 averaged 26.4 million fish during 1968-1999 and in 2000, peaking at 56 million fish. Recruitment estimated by the model was relatively constant through the time series with the exception of 1975, 1999, and 2001 year classes. The 2011 year class was 21.0 million fish.

3.0 Management Program

3.1 Summer Flounder Recreational Fisheries Management Adaptive Regional Management

Due to the wide geographic range of this species, the application of a single coastwide minimum size, possession limit, and season restrictions does not affect all jurisdictions involved in the fishery the same way; and the application of state-by-state conservation equivalency can result in disparate measures by neighboring states.

Dividing the coastal states into regions allows states the flexibility to mitigate potential disproportionate impacts resulting from coastwide measures and to pursue more equitable harvest opportunities, while providing consistent measures to states within the same region, in many cases sharing the same fishing grounds. **This option is not intended to implement new state allocations and is not intended to set a precedent for new state allocations. Under the adaptive regional approach, states would not give up their (1998-based) allocated portion of the Recreational Harvest Limit (RHL), would not be held accountable for anything other than their allocated portion of the RHL, and would retain the future opportunity (depending on what management approach is adopted for 2015) to continue managing their fisheries in accordance with their allocated portion of the RHL.**

Under adaptive regional management, the Technical Committee (TC) will develop measures for each region that, when combined with other regions, constrain the coastwide harvest to the RHL. The measures will be similar to the 2013 regulations for each state, but allow for some flexibility to achieve consistent harvest opportunities among the regions. States within each region would be required to implement the same bag limits, size limits, and number of open season days. The final measures are subject to Board review and approval.

Any number of size, possession, and season combinations can be evaluated when looking at regional management. **One example of possible measures is given for each region for use in this document (this example may change as additional MRIP data are released).** The projected harvests listed in each example are based on the management constraints of size limits, possession limits, and season length and compared to the projected 2013 harvest.

The coastwide recreational harvest limit will be divided into four regions: 1) Massachusetts-Rhode Island 2) Connecticut-New Jersey 3) Delaware-Virginia and 4) North Carolina.

Example of 2014 regional measures:

STATE	Size Limit	Possession Limit	# of Days Open	Projected 2014 Harvest	Projected 2014 Regional Harvest
MASSACHUSETTS	17	5	132	21,079	
RHODE ISLAND	17	5	132	162,448	183,528
CONNECTICUT	18	4	128	227,939	
NEW YORK	18	4	128	640,523	
NEW JERSEY	18	4	128	906,348	1,774,810
DELAWARE	16	4	365	76,161	
MARYLAND	16	4	365	48,521	
VIRGINIA	16	4	365	187,428	312,110
NORTH CAROLINA	15	6	365	45,936	45,936
TOTAL				2,316,384	

3.1.1 Timeframe for Summer Flounder Measures

The adaptive summer flounder regional management provision outlined in section 3.1 expires on December 31, 2014. After 2014, measures would revert back to the FMP status quo: The Board and Council specify coastwide measures to achieve a coastwide recreational harvest limit or permit conservation equivalent management measures using guidelines agreed upon by both management authorities in Framework 2 and Addenda XIV and XVII. Under conservation equivalency, states can implement state-by-state measures or adjacent/contiguous states can voluntarily enter into an agreement forming regions. Under either option, the combined measures of all the states or regions need to constrain recreational landings to the coastwide RHL.

3.2 Black Sea Bass

The federal FMP does not allow for conservation equivalency and would require an amendment to the plan to make the necessary changes consistent with those proposed in this document; therefore, a single coastwide measure is set in federal waters. Federal permit holders have to follow regulations set by the NOAA Fisheries regardless of where they are fishing. The Council recommended to NOAA Fisheries that the federal measures for the 2014 fishing year be: 12.5 inch TL minimum fish size, 15 fish possession limit, and open season of May 19-September 18 and Oct 18-December 31 so long as reductions the combined reduction in state waters and federal waters landings meet NOAA requirements. If action is not taken to meet the required reduction specified by NOAA, coastwide measures would include a 13 inch TL minimum fish size, a 5 fish possession limit, and a season from June 1-September 30. Under the ad hoc regional measures approach, regions will implement recreational black sea bass management programs that utilize minimum size limits, maximum possession limits, and seasonal closures that are

designed to achieve a specific harvest reduction/liberalization that, when combined with the other regions in the management unit, achieve the required coastwide reduction for 2014 of 7% in numbers of fish (based on preliminary wave 1-5 data with wave 6 projected using prior years data)

Reduction tables, provided by the TC, will be used to determine which suite of possession limits, size limits, and closed seasons would constrain recreational landings to the recreational harvest limit for the state/region. Tables will be adjusted for each region to account for past effectiveness of the regulations. Each region will propose a combination of size limit, possession limit, and closed season that would constrain landings to the appropriate level. These regulations will be reviewed by the Technical Committee and approved by the Board. States will not implement measures by mode or area unless the PSE of the mode or area for that region is less than 15%.

Note: The MRIP data used to set state-specific conservation equivalent measures produces more variable results when used on a state-by-state basis. As the coverage area increases, the variability of the data decreases; therefore, adopting regional or coastwide approaches will give more precision to the data.

The measures in section 3.2 of this addendum are not intended to implement state allocations and are not intended to set a precedent for state allocations. The Technical Committee (TC) recommends that monitoring of harvest and catch should be conducted for the duration that the fishery is open in a given year.

Ad Hoc Recreational Black Sea Bass Regional Measures for 2014

This addendum establishes a northern and the southern region. Each region will implement recreational black sea bass management programs that utilize minimum size limits, maximum possession limits, and seasonal closures that are designed to achieve a specific harvest reduction that, when combined with the other regions in the management unit, achieve the required coastwide limit for 2014. The northern region will contain the states of Massachusetts through New Jersey and the southern region will contain the states of Delaware through North Carolina (North of Cape Hatteras). All states will agree to the regulations implemented within the region. While not required, states will work together to develop consistent regulations to allow for as seamless as possible recreational management program within the region. The states of the northern region (Massachusetts through New Jersey) will reduce their regulations based on the region's performance in 2013. The states of the southern region [Delaware through North Carolina (North of Cape Hatteras)] will set their measures consistent with federal regulations (current recommend Federal measures are: 12.5 inch TL minimum fish size, 15 fish possession limit, and open season from May 19-September 18 and October 18-December 31). The regulations of the two regions combined would require a total harvest reduction of 7% in numbers of fish to achieve the 2014 recreational harvest limit (RHL) (2.26 million pounds or 1,189,474 fish).

3.2.1 Timeframe for Black Sea Bass Measures

The measures in section 3.2 are for state waters in 2014. The Board can take action to extend this the provisions in section 3.2 ad hoc regional black sea bass management for one year, with the regulations in state waters expiring at the end of 2015. After 2015, measures would revert back to the FMP single coastwide measures.

4.0 Compliance:

The measures contained in Section 3.0 of Addendum XXV are effective immediately upon its approval (February 4, 2014). The Technical Committee recommends that monitoring of harvest and catch should be conducted for the duration that the fishery is open in a given year.

Table 1. State summer flounder harvest in 1998 and the proportion of harvest conservation equivalency is based on

State	1998 estimated harvest (thousands)	Percent of the 1998 harvest
MA	383	5.5%
RI	395	5.7%
CT	261	3.7%
NY	1,230	17.6%
NJ	2,728	39.1%
DE	219	3.1%
MD	206	3.0%
VA	1,165	16.7%
NC	391	5.6%

Table 2. Angler Participation on the Atlantic Coast with percent change from 1998-2012

Angler Participation coastwide from 1998-2012				
Year	Coastal	Non-Coastal	Total	Percent Change from 1998
1998	4,137,554	447,172	4,584,726	
1999	3,797,901	480,630	4,278,531	-6.68%
2000	5,074,359	653,104	5,727,463	24.92%
2001	5,537,676	717,490	6,255,166	36.43%
2002	4,660,668	597,327	5,257,995	14.69%
2003	5,697,540	768,372	6,465,912	41.03%
2004	5,623,004	832,386	6,455,390	40.80%
2005	6,965,785	892,768	7,858,553	71.41%
2006	6,886,353	889,097	7,775,450	69.59%
2007	7,799,919	910,168	8,710,087	89.98%
2008	6,541,755	944,118	7,485,873	63.28%
2009	5,581,259	812,991	6,394,250	39.47%
2010	5,848,691	882,858	6,731,549	46.83%
2011	5,293,098	726,760	6,019,858	31.30%
2012	5,399,706	821,199	6,220,905	35.69%

Source: Personal Communication from National Marine Fisheries Service, Fisheries Statistics Division, 12/3/2013

Table 3. The number of summer flounder landed from Maine through North Carolina by mode, 1981-2012.

Year	Shore	Party/Charter	Private/Rental
1981	3,145,683	1,362,252	5,058,639
1982	1,120,521	5,936,006	8,416,173
1983	3,963,680	3,574,229	13,458,398
1984	1,355,595	2,495,733	13,623,843
1985	786,185	1,152,247	9,127,759
1986	1,237,033	1,608,907	8,774,921
1987	406,095	1,150,095	6,308,572
1988	945,864	1,134,353	7,879,442
1989	180,268	141,320	1,395,177
1990	261,898	413,240	3,118,447
1991	565,404	597,610	4,904,637
1992	275,474	375,245	4,351,387
1993	342,225	1,013,464	5,138,352
1994	447,184	836,362	5,419,145
1995	241,906	267,348	2,816,460
1996	206,927	659,876	6,130,182
1997	255,066	930,633	5,981,121
1998	316,314	360,777	6,302,004
1999	213,447	300,807	3,592,741
2000	569,612	648,755	6,582,707
2001	226,996	329,705	4,736,910
2002	154,958	261,554	2,845,647
2003	203,717	389,142	3,965,811
2004	200,368	463,776	3,652,354
2005	104,295	498,614	3,424,557
2006	154,414	315,935	3,479,934
2007	98,418	499,160	2,510,000
2008	79,339	171,951	2,098,583
2009	62,691	176,997	1,566,490
2010	59,812	160,109	1,281,546
2011	34,849	137,787	1,667,240
2012	106,342	96,386	1,996,407
% of Total, 1981-2012	9%	14%	77%
% of Total, 2008-2012	3%	8%	89%
Source: Summer Flounder AP Information Document. Mid-Atlantic Fishery Management Council. August 2013.			

Table 4. Black Sea Bass Specifications and Harvest estimates from 1998-2013

Year	1998	1999	2000	2001	2002	2003	2004	2005
Harvest Limit (mlbs)	3.15	3.15	3.15	3.15	3.43	3.43	4.01	4.13
Harvest (mlbs)	1.51	1.94	4.30	3.98	4.65	3.44	2.88	2.55
Size (inches)	10	10	10	11	11.5	12	12	12
Bag[^]	--	--	--	25	25	25	25	25
Open Season	1/1-7/30 and 8/16-12/31	All year	All year	1/1-2/28 and 5/10-12/31	All year	1/1-9/1 and 9/16-11/30	1/1-9/7 and 9/22-11/30	All year

Year	2006	2007	2008	2009	2010	2011	2012	2013
Harvest Limit (mlbs)	3.99	2.47	2.11	1.14	1.83	1.84	1.32	2.26
Harvest (mlbs)	2.31	2.64	2.40	2.78	3.72	1.54	3.57	2.46**
Size (inches)	12	12	12	12.5	12.5	Varied by region	Varied by region	Varied by region
Bag[^]	25	25	25	25	25	Varied by region	Varied by region	Varied by region
Open Season	All year	All year	All year	All year*	5/22-10/11 and 11/1-12/31	Varied by region	Varied by region	Varied by region

[^] The state of Massachusetts has a more conservative bag limit of 20 fish.

* In 2009 Federal waters were closed on October 5, 2009

** 2013 Projected harvest estimate using MRIP waves 1-5 preliminary data (projecting wave 6 data)

Table 5. 2013 Black Sea Bass recreational management measures

State	Minimum Size (inches)	Possession Limit	Open Season
Massachusetts (Private and For-hire)	14	4 fish	May 11- October 31
Massachusetts (For-hire with Letter of Authorization from MA DMF)	14	10 fish	May 11- June 14
		20 fish	July 1- August 11 September 1- October 10
Rhode Island	13	3 fish	June 15- August 31
		7 fish	September 1- December 31
Connecticut (Private and Shore)	13	3 fish	June 15- August 31
		8 fish	September 1- October 29
For-hire*		8 fish	June 15-November 30
New York	13	8 fish	July 10- December 31
New Jersey	12.5	15 fish	January 1-February 28;
		20 fish	May 19- August 8; September 27- October 14; November 1- December 31
Delaware	12.5	15 fish	January 1- February 28
		20 fish	May 19 - October 14 and November 1 - December 31
Maryland	12.5	15 fish	January 1 - February 28
		20 fish	May 19 - October 14 and November 1 - December 31
PRFC	12.5	15 fish	January 1 - February 28
		20 fish	May 19 - October 14 and November 1 - December 31
Virginia	12.5	15 fish	January 1 - February 28
		20 fish	May 19 - October 14 and November 1 - December 31
North Carolina (North of Cape Hatterass 35° 15'N Latitude)	12.5	15 fish	January 1 - February 28
		20 fish	May 19 - October 14 and November 1 - December 31

Table 6. Black Sea Bass MRIP Harvest Estimates (in numbers of fish)

State	Year			
	2010	2011	2012	2013*
NH	0	0	3,195	12,347
MA	702,138	194,753	519,910	304,013
RI	160,428	50,204	102,548	75,506
CT	15,682	8,377	110,858	106,149
NY	543,245	274,475	321,516	366,307
NJ	687,450	148,486	734,928	356,505
DE	21,029	42,962	40,141	26,316
MD	36,019	47,444	33,080	4,478
VA	29,717	18,964	4,075	21,219
NC**	34,741	23,751	3,664	9,149
Total	2,230,449	809,416	1,873,915	1,281,989
NH-NJ	2,108,943	676,295	1,792,955	1,220,827
DE-NC	121,506	133,121	80,960	61,162
*2013 estimates are preliminary (wave 6 is projected using prior year data)				
** post-stratified data unavailable, North of Hatteras landings estimated at 1/4 of total NC landings				

Table 7. Summer flounder recreational landings ('000 fish) by state, waves 1-6, 2003-2012.

State	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
ME	-	-	-	-	-	-	-	-	-	-
NH	<1	-	-	<1	-	<1	-	-	-	<1
MA	177	225	267	239	138	232	50	45	58	76
RI	205	249	165	264	176	204	72	118	161	103
CT	166	216	157	138	112	146	45	35	47	63
NY	1,539	1,025	1,163	752	866	609	299	334	376	482
NJ	1,784	1,617	1,300	1,556	1,067	762	825	552	737	1,130
DE	106	111	73	88	108	35	87	54	67	45
MD	41	42	117	37	104	58	65	25	15	23
VA	451	675	684	763	397	260	289	260	318	260
NC	88	157	101	112	139	44	75	77	60	63

Source: Pers. Comm. with the National Marine Fisheries Service, Fisheries Statistics Division, November 1, 2013. For 1981- 2003 data are based on MRFSS, 2004-2012 are MRIP.

Table 8. 2013 Summer Flounder recreational management measures

State	Minimum Size (inches)	Possession Limit	Open Season
Massachusetts	16	5 fish	May 22-September 30 (131 days)
Rhode Island	18	8 fish	May 1-December 31 (244 days)
Connecticut*	17.5	5 fish	May 15-October 31 (176 days)
*At 42 designated shore sites	16		
New York	19	4 fish	May 1-September 29 (151 days)
New Jersey	17.5	5 fish	May 18-September 24 (133 days)
Delaware	17	4 fish	All year (356 days)
Maryland	16	4 fish	March 28-December 31 (275 days)
PRFC	16	4 fish	All year (365 days)
Virginia	16	4 fish	All year (365 days)
North Carolina	15	6 fish	All Year (365 days)

Table 9. 2012 Summer Flounder Recreational Fishery Performance Matrix

STATE	MA	RI	CT	NY	NJ	DE	MD	VA	NC*
RETENTION RATE (%)	23.2	21.3	16.9	9.2	13.9	15.2	9.6	23.3	NA
SIZE LIMIT	16.5	18.5	18.0	19.5	17.5	18.0	17.0	16.5	15
% of ALL S/W TRIPS TARGETING SF	3.4	13.9	17.2	31.7	39.3	19.2	5.7	23.7	NA
TRIPS w/ HARVEST : TARGETED TRIPS	0.37	0.31	0.16	0.20	0.29	0.16	0.22	0.28	NA
INTERCEPTS HARVEST : CATCH	0.50	0.43	0.28	0.22	0.35	0.23	0.20	0.41	NA
BAG LIMIT	5	8	5	4	5	4	3	4	6
SEASON (DAYS)	132	245	170	153	147	296	248	365	365
NEAREST NEIGHBOR SIZE LIMIT	1.8	0.8	-0.3	-1.0	-1.3	0.5	1.3	-2.0	-1.5

*The North Carolina recreational flounder fishery regularly catches 3 species of flounder. Due to problems with angler identification, released flounder are included in MRIP categories for lefteye flounder genus or family. Trip targets are also generally reported as lefteye flounder although it is likely that some trips are more likely to catch a particular flounder species. Determining the number of releases and targeted trips for summer flounder based on available information would require assumptions that cannot be tested without further study. Therefore, any fishery metric that includes released or trips targeting summer flounder for North Carolina is too uncertain to be used for management decisions and is listed as NA.

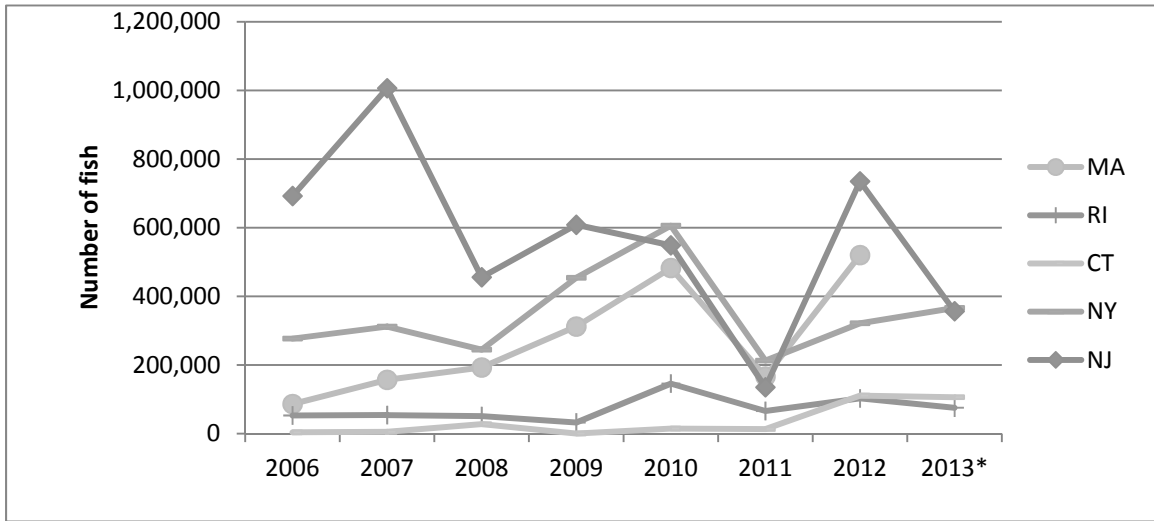


Figure 1. Recreational harvest estimates by state (MA-NJ) from 2006 to 2012. 2013 estimates are preliminary (waves 5 & 6 are projected using prior year data).

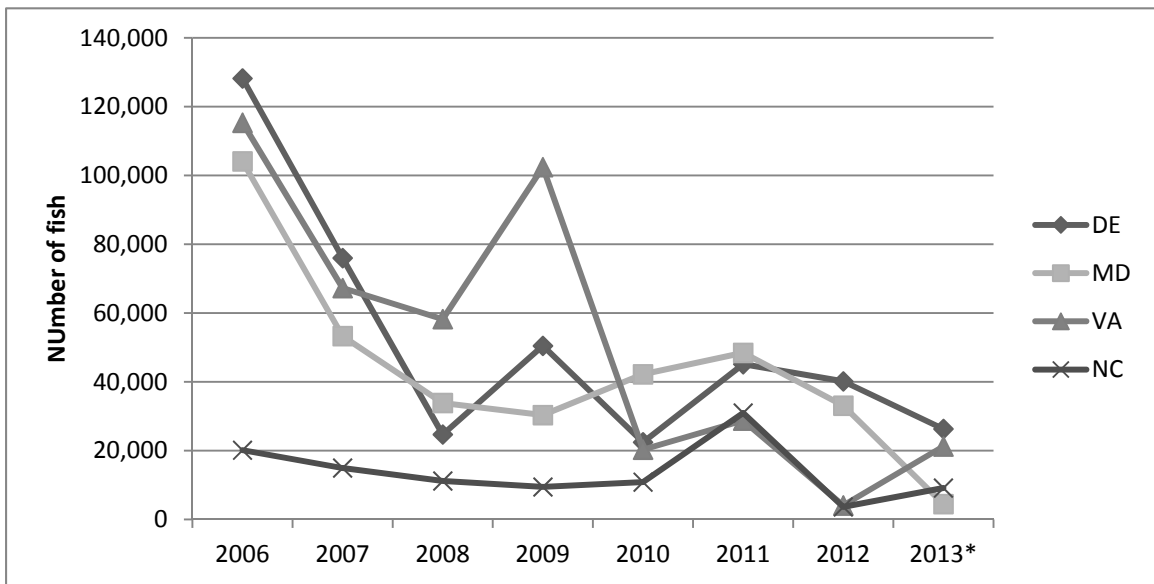


Figure 2. Recreational harvest estimates by state (DE-NC) from 2006 to 2012. 2013 estimates are preliminary (waves 5 & 6 are projected using prior year data).

Appendix A

2010 Summer Flounder Recreational Fishery Performance Matrix

STATE	MA	RI	CT	NY	NJ	DE	MD	VA	NC*
RETENTION RATE (%)	17.4	34.0	8.6	4.8	5.0	8.0	2.0	9.7	NA
SIZE LIMIT	18.5	19.5	19.5	21	18	18.5	19	18.5	15
% of ALL S/W TRIPS TARGETING SF	1.4	11.5	9.2	28.5	35.0	26.4	9.5	24.4	NA
TRIPS w/ HARVEST : TARGETED TRIPS	0.40	0.21	0.23	0.16	0.16	0.19	0.10	0.25	NA
INTERCEPTS HARVEST : CATCH	0.55	0.31	0.24	0.18	0.19	0.22	0.07	0.28	NA
BAG LIMIT	5	6	3	2	6	4	3	4	8
SEASON (DAYS)	108	245	103	115	101	285	219	365	365
NEAREST NEIGHBOR SIZE LIMIT	-1.0	0.5	-0.75	2.25	-1.75	0	0.5	1.5	-3.5

2011 Summer Flounder Recreational Fishery Performance Matrix

STATE	MA	RI	CT	NY	NJ	DE	MD	VA	NC*
RETENTION RATE (%)	24.2	18.2	12.0	4.9	8.3	9.8	3.1	13.8	NA
SIZE LIMIT	17.5	18.5	18.5	20.5	18	18	18	17.5	15
% of ALL S/W TRIPS TARGETING SF	2.6	18.6	9.3	33.5	36.4	25.8	5.5	22.4	NA
TRIPS w/ HARVEST : TARGETED TRIPS	0.31	0.37	0.23	0.16	0.20	0.17	0.11	0.21	NA
INTERCEPTS HARVEST : CATCH	0.40	0.43	0.24	0.18	0.26	0.20	0.08	0.29	NA
BAG LIMIT	5	7	3	3	8	4	3	4	6
SEASON (DAYS)	132	245	113	153	142	296	229	365	365
NEAREST NEIGHBOR SIZE LIMIT	-1.0	0.5	-1	2.25	-1.25	0	0.25	1	-2.5

*The North Carolina recreational flounder fishery regularly catches 3 species of flounder. Due to problems with angler identification, released flounder are included in MRIP categories for left eye flounder genus or family. Trip targets are also generally reported as left eye flounder although it is likely that some trips are more likely to catch a particular flounder species. Determining the number of releases and targeted trips for summer flounder based on available information would require assumptions that cannot be tested without further study. Therefore, any fishery metric that includes released or trips targeting summer flounder for North Carolina is too uncertain to be used for management decisions and is listed as NA.